



User Manual

Version 2.1.0.1-1

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General

About this manual

This manual is the result of volunteer work. We urge you to receive it in the same spirit.

This manual is *not* part of xplorer² Professional package: The Professional version carries its own help file (**Help|Quick Start** menu). On the other hand, this manual is freely available as a separate download from the xplorer² website. It is designed for both Lite and Professional versions.

A free help file for a shareware? How's that?

Well, it actually started out when xplorer² was originally envisaged as a single freeware product. I have created this manual as a tribute to Nikos' generosity in offering excellent products such as *2xExplorer* and *xplorer² Lite* as freeware.

Although made for the free (Lite) version, the manual covers all the features provided in the Professional version, because it is envisaged that many of these features will eventually find their way in the Lite version.

Disclaimer

Although utmost care is taken to make the information contained in this manual as accurate as possible, the author(s) would not be responsible for any errors/inaccuracies; as well as for any direct or indirect losses arising out of use, abuse or misuse of the information provided in this manual.

The user must explicitly understand that all file managers (including Windows Explorer) are inherently capable of deleting files and folders, and mistakes/careless use may result in irrecoverable loss of data.

Although xplorer² is used globally, this user manual is available only in English. Non-English users are especially advised to exercise caution while interpreting the manual. If in doubt, please check at the **User Forum!**

Contributing in making of this manual

If you would like to contribute in the next revisions of this manual, you may volunteer (see the copyrights clause below). Simply post a message at the **User Forum**.

Copyrights

All copyrights for the manual rest with Nikos Bozinis, the author of xplorer² Professional and xplorer² Lite. As this manual is prepared entirely as volunteer effort, the author(s) of this manual have no commercial stake in the xplorer² products. It is understood that any volunteers preparing (or revising or translating) this manual will have no claims of proprietorship on the manual or parts of it.

We have taken due care to use original material while making this manual. In case you notice any copyright infringement in this manual, please post a message at the xplorer² website, and we will take necessary steps immediately.

The copyrights for these products themselves are described in the installer of the products. Please read them carefully before installing.

This manual mentions several other freeware and commercial products, including Microsoft Windows, Microsoft Office, OpenOffice, GIMP, etc. (especially, see **Chapter 8**). The copyrights of these applications belong to their respective developers. For further details, please refer to the documentation and/or websites of the concerned products.

Version information

How do you know whether you are using the latest version of xplorer² and manual? Here is the trick:

- The version of xplorer² Professional is shown in the xx.xx.xx.xx format.
- The version number of this manual is derived from that xx.xx.xx.xx number. The last y digit describes an incremental version number of the manual for a given version of xplorer².

For a given xx.xx.xx.xx number, the y-number always begins with “1” (called “the original issue”), and gets incremented whenever the manual is changed. For example, 2.1.0.1-**3** would mean the *third* revision of the manual for the xplorer² version 2.1.0.1.

See page Error: Reference source not found to know how to check the version numbers.

What is new in this version of User Manual

To see what has changed vis-à-vis the last version, see **Appendix 9U**. If you had already read the older version of the manual, you need to read only these changed parts.

(Note: Hyperlinks appear in brown text, not the usual blue underlined text!)

License Agreement

This is only a summary of your license with ZabKat. For full details please refer to *licence.txt* in the installation folder.

xplorer² is licensed, not sold. You only acquire the right to use the software.

The professional version is licensed on a per-user or on a per-machine (PC) basis. One user for many machines is ok, as well as many users on the same computer. However many users on many machines require multiple licenses (one per PC)

The Lite version is free, but strictly for private and academic use (non-profit).

Updates policy

Note: This is only the *policy* statement. The actual procedure for updating is given **here**.

In general there aren't going to be many updates; or at any rate, they will be infrequent. xplorer² is a near-complete package as it is.

From time to time, there will be "service packs" whenever serious bugs are discovered.

Upgrades policy

The **Lite** version is generally unsupported.

If you obtain a license for the professional version, you are entitled to free bug fixes whenever they become available.

If you have an old xplorer² license key, it won't work but you may be entitled to a free or discounted upgrade. To find out your upgrading options, use the PURCHASE button in the **Help | About** box. If you bought xplorer² more than 2 years ago you'll need a new purchase.

For featured (major) updates, the policy is as follows:

- If there is a new release within a year of your purchase, you can upgrade by paying just the price difference, if any.
- For releases beyond the first year, you will be entitled to discounts, according to the price you originally paid and the elapsed time.

1. Using this manual

This chapter explains how users with different levels of skills can use this manual. Later sections in this chapter show what help is available apart from this manual.

How this manual is organized

The lesson-plan is just like how we learn to drive a car: First we see how the dashboard looks like and what are the different parts for. Then we learn to use the brake and release the clutch. Then we take the car on the road and learn elementary driving skills. Then we learn car-racing tricks, meant for the adventurous. Finally we read about how to maintain the car and how to get the best out of it.

In the same way, the manual starts with basic familiarization and proceeds to more complex tasks.

- This (first) chapter explains how to get the maximum benefit out of this manual.
- The **second chapter** introduces you to x^2 . All features of x^2 are listed here. This chapter also specifies minimum system requirements for running x^2 .
- The **third chapter** explains different parts of x^2 's windows, and what are their basic functions. The **fourth chapter** explains how to use these parts.
- The **fifth** chapter describes the bulk of x^2 's functionality, and the **sixth** chapter describes the advanced features.

Starting from operations with files, we will proceed to operations with folders, and then more advanced operations such as synchronizing directories.

- The **seventh** chapter shows how to customize x^2 to suit your own tastes and needs.
- The final (**eighth**) chapter is rather special: It focuses on *you*. It shows how you can be more productive in your professional and personal lives. (In other words, this chapter is more on life-management, rather than on file-management!)
- The **appendices** provide additional information about commands, look up charts and other useful reference data such as EXIF tags.

How to use this manual

Depending on how familiar you are with x^2 , you can choose from the following options:

- All users should read the first four chapters. Then decide what to read next:
 - New users will benefit the most by reading all chapters in the given sequence.
 - Experienced users can refer to the **Table of Contents** (or use the Bookmarks tab) and directly go to the topic of their interest. After that, you may read the chapters in any random order: Hyperlinks (appearing in brown text) are provided throughout the manual. Use them to look up unfamiliar terms (backward reference), or to see more details (forward reference).
- Do read the productivity tips provided in **chapter 8** (preferably, after reading the earlier chapters, so you can understand the tips better).
- Click on the bookmarks panel (on the left) to see all topics in a hierarchical tree. Click on any bookmark to jump there. The bookmarks panel is also useful to locate your current position in the manual (so that you don't get "lost"!).
- The footer of each page carries the name of the current chapter (in **gray letters**). Click on it to jump to the beginning of the current chapter.

Try the link on this page! (You can use the Acrobat Reader's Back button to come back to this page.)

- You can search the manual for any keyword (Press **CTRL+F** to search).



Tip: If you search for the gerund ("-ing") form of verbs, you are more likely to find what you want. For example, rather than searching for "move", search for "moving".

- Some people feel more comfortable with an application if they can understand its menus and Tool Bars. If you prefer this approach, read the first four chapters, and then go to **Appendix 9D**, which is a lookup chart for all menus, commands, their keyboard shortcuts and Tool Bar buttons.
 - You don't have to visually locate a Tool Bar button in the table: Just check its tooltip in x^2 (hold your mouse pointer on the button for a couple of seconds to see its tooltip). Now search for that text in the table.



To scrap (Ctrl+S)

For example, to locate the Tool Bar button shown on left, look at the text in its tooltip; which is To scrap (**CTRL+S**). Use the **CTRL+F** command in **Appendix 9D** to search for either To scrap or **CTRL+S**.

- You can take a print of the lookup chart (**Appendix 9D**) and use it as a ready reference till you can remember all the commands you usually

need.

- You can print this entire manual and use it. (Please save paper: Use both sides of paper while taking print!) To look up any topic, first refer to the **Table of Contents**. (Keep in mind, though, that the printed version will lose the benefit of hyperlinks provided in this manual!)

Tips for non-English users

We hope this manual is not too difficult for you.

If you are not familiar with English words and phrases, download a free dictionary called **WordWeb**. Once installed, this utility stays in the System Tray. To understand any word used in this manual, just double-click on it to highlight it and then press **CTRL+ALT+W** (the global keyboard shortcut for WordWeb).

Apart from English, the main problem you will face is that your menus and tooltips will not match the screenshots provided in this manual. Further, in some cases, the translation may not be verbatim.

Using **Help| English Translation** command, toggle the language of the menus between English and your language. Now you will know what the menu is called in English. Now search for that word in this manual.

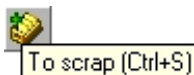
Getting help

x² provides help at your fingertips, as explained below.

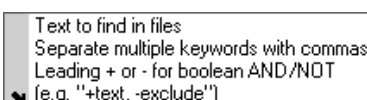
The multi-level help available with x²

For your convenience, help in x² is divided in eight different levels: The basic help is available right at the point of your work, so that you don't have drop what you are doing in order to get help. More advanced help is available in separate documents.

All levels of help are described below:




1. When you hover the mouse over any Tool Bar button or menu item, the Message Bar (at the bottom of the screen) explains their function. If the basic function can be modified by pressing another key (such as **ALT**, **CTRL** or **SHIFT**) simultaneously, the message Bar gives you that tip.
2. Hover the mouse pointer on any Tool Bar button to see tooltip that explains its function, and its equivalent keyboard shortcut (if any).
3. In dialog boxes, some options are explained with expanded tooltips.



- To see these tooltips, just hold your mouse for a couple of seconds over a radio button , check box  or input box.

4. Context-sensitive help is available in all dialog boxes of x²: The title


Bar of each dialog box contains a  button. Click on this button first, and then click on any part of the box. You will be taken to the relevant part of the HTML help file.

5. Use the **Help | Quick start** menu option to see a brief overview of x^2
6. The **Help | Command finder...** menu option helps you find the correct command that will do what you want.
7. The **Help | How do I...** menu option shows video demos for many operations.
8. Use **Help | Tip of the day...** menu option to see many tips on using x^2 . This dialog box pops up automatically whenever you start x^2 .
 - If you like to read the tips in a plain list form, read the *x2tips.doc* file located in x^2 's installation folder.
9. The installation folder of x^2 contains a small text file that describes changes that have taken place in various versions of x^2 .
10. Press **F1** to read this manual, which is the ultimate reference for x^2 .

Most of the information you will ever need is already packed with x^2 . However, should you need answers to specific questions, help is also available from the following sources:

[x² home site](#)

Visit **www.zabkat.com** for updates and news. For the customer care center, you can go directly to **[http://www.zabkat.com/support_x².htm](http://www.zabkat.com/support_x2.htm)**

The website also contains a visual tour of x^2 (short demo videos about various operations), starting with the **www.zabkat.com/tour1.htm** page. (Click on the  button at the top right corner of each page).

There is a **blog section**, which covers a wide variety of topics related to file management.

[User forum](#)

The **User Forum** is a website that supports you in many ways:

- Exchange ideas with other users
- Suggest new features
- Register a complaint about a bug
- Learn some new tricks from experienced users
- Get clarifications for any hard-to-understand operation.

Joining the forum is free. You do not have to provide personal information to join.

The x² user forums are very active, and usually all your queries are answered on the same day. So once you put a query, be sure to visit often!

Keep in mind that the user forum is a shared resource: Always be mindful of the other users.

Before posting your question there, be sure to search this manual (use the **CTRL+F** command). If you do not find the answer, try synonyms and equivalents of your original keyword. If your query is still not found, try the forum. Here also, first search for your query, using synonyms. If it is not found, only then put a question.

We have found that most of your queries are already answered in this manual or in one of the forums.

Remember: If the same question is paraphrased and repeated in multiple threads, the forum bloats in size. Locating your answers in such a bloated forum becomes much more difficult.

Some tips to get the best out of the User Forums:

- While describing x²'s GUI, use the exact **terms** used in this manual. Especially if you are a **non-English user**, please do not try to translate a term from your mother tongue; otherwise the English-speaking users will not be able to recognize it!
- While posting your question, provide as much detail as possible
 - Exact sequence of steps followed when the problem appeared
 - Pattern in the problem: When it occurs consistently and when it does not occur at all. (A repeatable problem is easier to solve. A “one-off” or randomly occurring problem is difficult to trap.)
 - PC hardware (e.g. Pentium 4 with HT, running at 3 GHz)
 - Windows version, including service pack (e.g. Windows 7 with SP-1)
- If you had posted a problem at a forum, always provide a feedback about the steps you took and the results you got.
 - If the proposed solution works, others will learn from it.
 - If it does not work (or creates some other problem), let other users give you further advice. At least, your timely feedback will alert the others, so that they can avoid the problem!



Also, observe netiquette rules:

- Be polite: Never post rude messages or swearwords.
- We were all newbies once. So, always be tolerant of naïve-sounding questions from others, and try to help. (Keep in mind that the user may be a top-notch expert in some other field!)

- Some users have a genuine problem in articulating their problem. (In some cases, that is because English is not their native language.) Accommodate them by guessing their problem. Rephrase the question and post it with your answer, so that everyone can understand it better. (In some cases, the user may reply that he meant something else!)
- If some users try to goad you, avoid the urge to get even: It only makes things ugly. Let the moderator handle the situation.
- Sometimes, you may get a deliberately oversimplified answer. We do this to satisfy a lot of queries in one shot. (In other words, this answer is aimed at other users also, who might have a related, but slightly different problem.) Do not take it as an insult to your intellect!
- Concentrate on the issue at hand; never try to deride others for their attitude, beliefs, handle or standpoint.

Troubleshooting program crashes

x² is an extremely stable program. In the rare event of a crash, it creates a minidump file called x²minidump<version>.mdmp (supported in Windows 2000 and later). If the crash is consistently repeatable and persists after a reboot, please email this file (and other details about the crash) for analysis to support@zabkat.com.

To locate this file, use x²'s **Help | Crash information** menu option. x² opens the relevant folder and highlights (selects) the file.


For further information, please visit the x² [website](#).

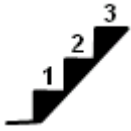

Terms and symbols used in this manual

Throughout the manual, the following symbols and terms are used:

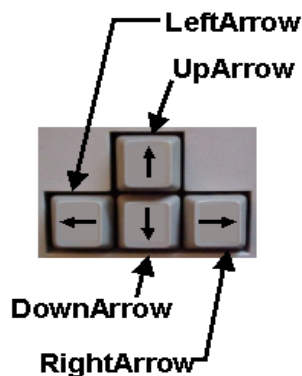
Symbols used

Several symbols are used in the left margin of this manual, so that you can quickly locate the relevant section.


Symbol	Meaning
	<p>Warning/caution that you must (or, in some cases, must not) do certain things.</p> <p>If you ignore these warnings, you may lose some files, folders or data.</p> <p>Therefore, even if you skip the rest of this manual, you must at least read all warnings/cautions!</p> <p>The accompanying text is shown in red, bold, italic font.</p>

	<p>Step-by-step method (to achieve a certain objective).</p> <p>x^2 is so intuitive to use that you can use it logically, without reading this manual. But in case you are facing any problems, you can always jump to the relevant chapter and then look for this symbol to do a quick crosscheck.</p>
	<p>Tip: An idea on how to exploit a feature of x^2.</p> <p>Some tips show you how to use a few features of x^2 together to achieve a far better result.</p>

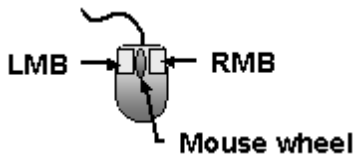
General terms




Term	Meaning
Any key	<p>Any key on (main part of) the keyboard.</p> <ul style="list-style-type: none"> ➤ Do not look for a key that is marked “ANY”! ➤ Do not use the Special Function buttons located at the top of the keyboard (marked F1...F12) ➤ Some keyboards have extra buttons (usually at the top) for Internet access, email, CD/DVD player, volume control, mute, power on/off, sleep/hibernation, etc. Do NOT use those keys!
Gray+ Gray- Gray*	<p>These keys are located in the NumPad (=Number Pad, the group of keys on the extreme right of your keyboard). The “Gray” in their names refers to old practice of having gray-colored keys for these functions.</p> <p>You will also see the -, + and * characters on the keys located at the top of your main key group. But these other keys cannot be used in place of Gray+, Gray- and Gray*.</p>
GUI	<p>Short for Graphic User Interface. All screens, windows and their parts (such as menus, buttons, panes, etc) collectively form the GUI.</p>
LeftArrow RightArrow UpArrow DownArrow	<p>This group of keys is located between your main keys group and the NumPad. Note that some keys in NumPad also provide the same function when the NumLock key is not active. Do not use NumPad for the arrow keys.</p>

Term	Meaning
Menu navigation	<p>When navigating a menu system, all the steps are described in “shorthand” by just separating the keywords with a “ ” symbol. For example, File Edit means first click on the File menu, and then from the list that pops up, select the Edit option.</p> <ul style="list-style-type: none"> ○ A special case: The PC taskBar has a  Start button (usually in left-bottom corner of your screen). We will use the same notation format to describe the menus launched from this button. (e.g., Start Control Panel Mouse)
NN	Network Neighborhood.
+ (as in ALT+C)	<p>Press the keys together (as opposed to pressing them one by one). (Example: ALT+C means press the ALT and C keys together.)</p> <p>By “together”, we do not mean “simultaneously”! Don’t worry if you can’t press these keys at the same moment: It is not possible anyway! Just make sure that the modifier key (SHIFT or CTRL or ALT) is pressed first, and the letter key is pressed afterward.</p> <p>Note that in such key combinations, the letter (in this example, C) is capitalized only for better readability. In practice, lowercase works equally well. Therefore, please do not try to capitalize a letter by pressing the SHIFT key (or pressing the Caps Lock key).</p>
Item	A general term, which means “file” and/or “folder”. (This term is used while describing commands that work on both files and folders.)
Scrolling	Move upwards/downwards through text or graphics in a pane, to display parts that do not fit on the screen. Usually, the mouse wheel or arrow keys are used for this purpose.
WinKey	The key that has Windows logo on it. It is located between the ALT and CTRL keys, near the left-hand bottom corner of the keyboard.





Term	Meaning
LMB	L eft M ouse B utton
RMB	R ight M ouse B utton
MMB	M iddle M ouse B utton (Mouse Wheel also acts as MMB). Tip: In some two-button mouse models, MMB is simulated by clicking LMB and RMB together.
Click	Press your LMB once and release it.
Hover	Hold the mouse pointer over an item for a couple of seconds, without clicking.
Check	Click in a blank check box so that a tick mark appears. <input type="checkbox"/> → <input checked="" type="checkbox"/>
Uncheck	Click in a ticked check box so that the tick mark disappears. <input checked="" type="checkbox"/> → <input type="checkbox"/>
D-click 	Double-click (Click the LMB twice, in quick succession) Tip: If you are not quick enough, x ² will interpret the action as two single clicks. You can alter the PC's response time with this menu option: Start Control Panel Mouse
R-click	Right-click (Press the RMB once and release it).
Drag-n-drop ("D&D")	Place your mouse pointer on the selection, and then press the LMB . Without releasing LMB, move the mouse till the pointer reaches the destination. Then release the LMB.
R-drag-n-drop	Right-drag-n-drop: Similar to drag-n-drop, but done with the RMB.
Context menu	The menu that pops up when you r-click on any part of x ² 's GUI. It gives you options that are suited to the context (=current situation).



Term	Meaning
Throw a lasso	<p>This is a technique to select multiple items simultaneously.</p> <p>A “lasso” is a loop of rope that is thrown around the neck of an animal to capture it. In a similar way, you click the LMB and then “draw” a rectangle around some items to “capture” (select) them.</p> <p>While you are dragging the mouse, a dotted line rectangle appears on the screen. Items coming under this rectangle get highlighted (selected). When you release the LMB, the dotted rectangle vanishes, and you get a selection of items.</p>

Note: Your PC has a setting to swap the functions of the left and right mouse buttons (available through the menu **Start | Control Panel | Mouse**). This is useful for left-handed people, or if you have pain in the hand or fingers, then you can relieve the pain by using other hand/fingers for the job. If such a reverse-setting is in effect, then whenever you see **LMB** in the text, remember to use the **RMB**, and vice versa.

2. Introduction

x² at a glance

xplorer² (x² in short) is a powerful, tabbed dual-pane file manager, yet extremely simple to use. To see x²'s powerful functions at a glance, open the Bookmarks pane (on the left) and look at the topics listed under chapters 5 and 6.

x² features

x² provides a lot of powerful features: See **Appendix 9A** to see the extra features you get as compared to your Windows Explorer.

Appendix 9A also compares the Lite and the Professional versions. While the Professional version is fully loaded with features, certain advanced commands are disabled in the Lite version.

What's new in this version of x²?

New features in the current version of x² are listed in *changes.txt* file located in the folder in which you have installed x².

To read this file, use the menu option **Help | What's new?** in x².

This file also contains the history of changes in all past versions of x². This is useful if you want to find out when a certain behavior of x² changed.

System requirements

x² will run on all win32 platforms (95/98/ME/NT4/2000/XP). However, a subset of its features depends on windows services that may or may not be available on all PCs. In most cases you can get full functionality by installing a recent version of **Internet Explorer**.

Feature	Requirements
Tool Bars	Windows 95 with Internet Explorer v.3 or better
Thumbnails	Windows 98 or NT4 with Active Desktop update
File comments	Windows NT4 (NTFS formatted partitions)
FTP	Internet Explorer v.3

Feature	Requirements
Zip folders	Windows ME or Windows XP (for windows 2000 please see FAQ #B4)
Audio/Video preview	Windows Media Player v.6
Column handlers	Windows 2000 for extended file information
Text filters	Windows 2000 or later. For PDF see FAQ D3
Arrange in Groups	Windows XP

Editor2

The installer also installs a simple but powerful text-editor called editor², which is fully integrated with x². See **Appendix 9Q** for help on editor2.

Note: editor² requires richedit control version 2 (riched20.dll version 5.30.xxx or later), which may not be present on systems other than Windows 2000 and XP. However, this is not an issue, because **you can associate any external editor** with x².

Installation and uninstallation of x²

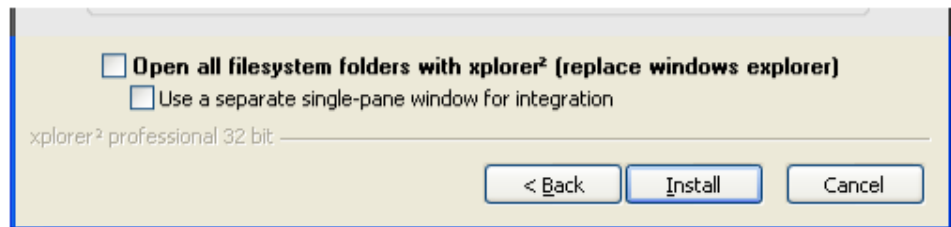
This section covers the process to be followed for installing, updating and uninstalling different versions of x².

Installing x²

Just double-click on the installer.

- To create a shortcut on Task Bar (and/or desktop), keep **ALT+CTRL** pressed and drag-n-drop the executable to the Task Bar/Desktop.
- You can install both 32-bit and 64-bit versions of x² on the same PC. x² registration information is automatically shared between these versions; so you can run both versions on the same PC without bothering to enter the key again.
- During the installation, the installer asks you whether to open all file system folders with x² (in other words, whether to associate folders with x² instead of Windows Explorer).

If you select this option, x² asks whether you want a single window to show the contents of such folder (instead of the usual dual-pane view of x²).



If you select this option, then whenever you insert a new CD, DVD or USB stick, the Windows *Autorun* utility will use x² as a default application for browsing those folders.

You can disable this option any time later using Program options.

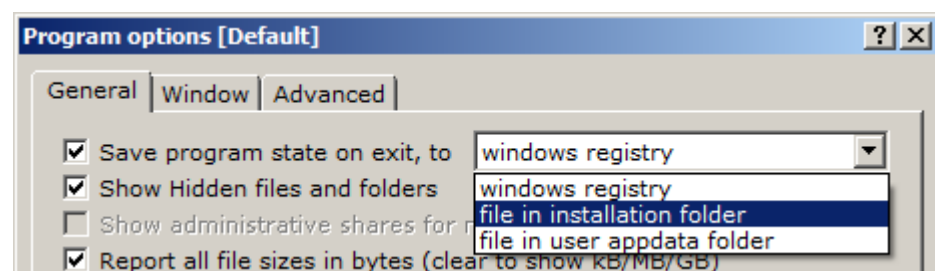
Note that only the file system folders can be associated with x², not virtual folders (such as My Documents, Recycle Bin, Desktop, etc.).



Tip: x² has a **single window** control, which lets you decide how to display the new folder: In the current tab, new tab, or a new x² window. (You can set it using the *x2SettingsEditor.exe* utility located in the installation folder of x².)

Installing the x² Pro portable version

If you are using x² on the move, you cannot save the program settings in the Windows Registry. The solution is to use the **x² Ultimate**, and use the **Tools | Options** menu to store its settings in a file instead of the Registry.



If you keep your **Ultimate** version on a USB stick, select the **file in installation folder** menu option, which will save the settings in a file called *X2SETTINGS.INI* in the same folder as the x² executable program.

If you installed the **Ultimate** version on your hard disk, and still don't want to use the Registry, select the **file in user appdata folder** option (usually *C:\Users\<YourUserName>\AppData\Roaming\zabkat*), as the installation folder inside *C:\Program Files* will most likely be protected and inaccessible.

Here are the step-by-step instructions to place x² **Ultimate** in a USB stick environment. For example, assuming we want to set up the portable version within the *F:\x2portable* folder:

1. Install x² ultimate on your home computer (on your *C:* hard disk) and use your unlock key to activate it.
2. Setup the program options to taste.
3. Use the menu command **Actions | Export settings** to write the

settings to the file `F:\x2portable\x2settings.INI`

4. Copy all the files in the installation folder (typically `C:\program files\zabkat\xplorer2`) including the license file *X2.LIC* to the USB stick (`F:\x2portable`)
5. (optional) If you are using the mini-scrap pane (**View | Mini scrap** command), make sure you place the CIDA contents file on your USB stick too, by right-clicking on the mini-scrap pane and choosing the **Save as** command – but note that all contents listed in the mini-scrap pane must be on the USB stick.

If you have problems setting this up, watch [this](#) demo video.

Note: Not all your favorite settings may be reusable in different computers. For example, some of your bookmarks may point to non-existent folders. Using environmental variables in path definitions may alleviate this problem.

- If you have more than one Layouts (**Window** menu), please open one window from each layout when you export your settings from registry to the INI file.

`x²` defines the environmental variable `X2DIR` as the full path to the folder where `x²` is running from, e.g. `F:\tools\` (The path includes the trailing backslash). You can take advantage of this when you define external commands (**Customize | User commands** menu). For example, if you have another tool on your USB, place it in the same folder as `x²` and call it using `%X2DIR%myTool.exe` - which will be equivalent to `F:\tools\myTool.exe` but this will not depend on the drive letter assigned by Windows to your USB drive.

After you properly set up your portable edition in a removable medium like a USB stick, then you have these advantages:

- No installation is required to be used in any computer: You can use `x²` even if you don't have administrative privileges on the computer.
- When you run `x²` on a computer, it does not modify its Registry. As a result, no traces of your work are left in the host computer.

To ease the way you access `x²` from your removable media, you can create an `AUTORUN.INF` file in your root USB drive folder, and set it to open `x²`, editing it as follows:

```
[autorun]
open=x2portable\xplorer2_UC.exe [optional
arguments]
```

Tip: The **Ultimate** edition comes in separate 32 and 64 bit versions. The 32-bit version will run on all computers, but the 64-bit version will run only on 64-bit Windows. Choose your version with care!

Running `x²`

To run `x²`, just open the installation folder and d-click on the executable. Or

click on its shortcut on the Task Bar or Desktop.

Note: The first time you run the PRO version on a PC, you must log on as an administrator. However, for subsequent updating, you need not have administrator rights.

Registering (“Activating”) the Professional version

If you are running x², first quit all its windows including **scrap containers**. Then start the program again and paste the registration key in the opening screen.

At any time, you can use the **Help | Activate** with key menu to activate x². This menu is disabled if you have already registered the product.

Installing the User Manual (this pdf file)

This User Manual is not included in the installer. During installation, the Installer asks you if you want to download the manual. First, ensure that you are connected to Internet and then select **Yes**. The manual will be automatically downloaded and integrated with x².

- To manually integrate this manual with x², simply place it in the installation directory (i.e., the folder in which all x² files are placed). (Usually, this folder is c:\program files\zabkat\explorer2. But you may have changed the path during installation.)

Now the manual will be launched when you press **F1** or select the **Help | Contents** menu option. If the manual is not there in x²'s installation directory, x² will ask you if you want to download it from the website.

Updating x²



Although x² is already amongst the most powerful file managers, it is still getting even more powerful features. To enjoy its latest features, download the latest update.

The registered users of x² PRO get an email whenever the application or manual are updated. x² also reminds you after every three months to check for an update.

The other users have to check whether a later version has appeared, and download what they need. This is explained below:

Checking your current version numbers

Checking your current **version numbers** is very easy:

- To check the version number of x², use the **Help | About explorer2** menu (or click on the  button in the Tool Bar.)
- To check the version number of the manual, look at the footer of each page (look in the  corner of this page).

If these numbers don't match, you could be using outdated versions of x² or manual. Time to check the website!

Even if the numbers match, you could still be using outdated versions of both x^2 and the manual! The best way is to check the website periodically.

Checking for the latest versions at website

It is equally easy to check the website to check what's the latest:

- In x^2 , select the **Help | Check for updates** menu option.
- Alternatively, click on the version number in the footer of any page of the User Manual.

Both actions will launch your web browser if needed, and take you directly to the download page.

The download page mentions version numbers for the executable and User Manual. Check if you have the latest versions for both.

Sometimes a new version of x^2 is released with only a few bug fixes, but without any new features. In such cases, the manual may not be updated. Therefore, so long as your versions match the website, don't worry!

The Zabkat website also provides an **RSS feed** to inform you whenever updates are available. To use this feed, simply add the link **<http://zabkat.com/x2news.xml>** to your subscription list.

Installing the latest version

To update the user manual, simply download the latest version and place it into x^2 's installation folder.

To install a new version of x^2 , follow these steps:

1. To update the installer, download it and place it anywhere you like. (After installing x^2 , you can delete it, or keep for later use.)
2. Make sure that you have closed all copies of the old version of x^2 .
3. Click on the installer to install x^2 (Since x^2 is closed at this point, you will have to use Windows Explorer for this purpose, or use Windows' **Start | Run...** menu.)

A wizard guides you what to do. Follow its instructions.

- There is no need to uninstall the previous version: It is usual to install the new copy in the same folder (the new version files will replace the older files). The latest version will automatically import your existing preferences and license code, without causing any conflicts.
- However, if you want to retain the old version for any reason, then you can install the new version in a different folder. The only condition is that you can run only one version (either old or new) at a time. Both versions will automatically share all your settings.

Since you have two installation folders now, you will need to place the User Manual (*x2docs.pdf*) in both installation folders. (If you don't, the User Manual will not pop up when you press **F1** in the latest version of x²).

A word of caution: Having two versions is like riding two horses at a time; and often you will end up using the old version by accident. When you are “somehow” unable to use a latest feature, check the version of the currently running x², using its **Help | About xplorer2...** menu option.

Uninstalling x²

You can simply delete the installation folder without any side-effects. However, this leaves some harmless entries in the registry.

If you want to clean up the registry as well, uninstall x² from your Control Panel, by following these steps:.

1. From the Start menu of your PC, select **Control Panel**.
2. Click on the **Add or Remove Programs** option.
3. Click on the xplorer2 entry
4. Click on the **Remove** button.

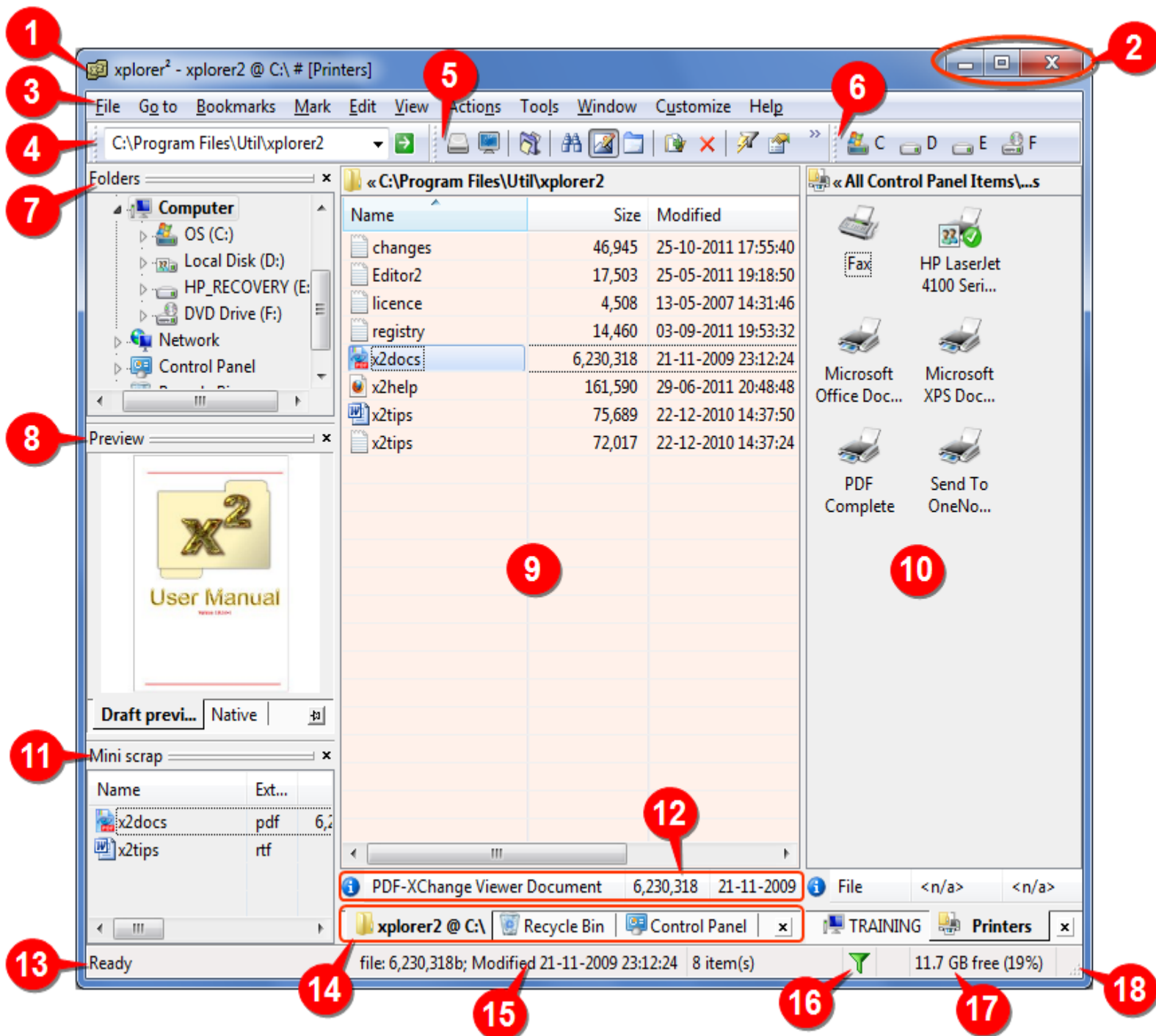


You can also navigate to the installation folder of x² and double-click on the *Uninstall.exe*. This action will also clean up the Registry.

3. A look around x²

In this chapter, we familiarize ourselves with x²'s screens. In the next chapter, we will learn how to use these screens. In the subsequent chapters, we will see how to use x² in day-to-day operations.

This is just like looking at the user's manual of a car to understand how the different parts look and how they work.



Main screen

The main screen of the application is shown above.

Actually the screen can be configured in numerous different ways: This figure merely shows one of the possible configurations. We will see later how to change these configurations.

(A reminder: Hyperlinks in this manual appear in brown text!)

How different parts of the screen work

The **figure** shows the main screen of x^2 . Major elements of the screen are numbered (in left-to-right and top-to-bottom order); and explained in brief in the table below.

Even if you don't get the whole idea, don't worry; because this is only an introduction: We will see detailed descriptions and uses of these elements in the next chapter. Experienced users can take a peek ahead by clicking on the hyperlinks provided in this table.

Note: When posting any queries (or asking for help) at the **User Forums**, please use these terms exactly as given in this table: If you use your own "home-grown" terms, others will have a hard time guessing your problem! Just imagine how you would feel if you spent a lot of time suggesting remedies for a cough to someone, only to realize much later that all the time he was talking about *kopf* ("head" in German).

No.	Name	Remarks
1	Window Bar	Shows the addresses of both folder panes (9 and 10), separated by a # symbol. The address of the inactive pane (10) is enclosed in square brackets []. Click on its left corner to see the system menu.
2	Window buttons	To minimize, maximize and close the window.
3	Menus	All functions of x^2 are logically grouped in these pull-down menus.
4	Address Bar	Serves multiple functions: Shows the path of the item in the active folder pane (9). Enter a path here to load that folder in the active folder pane. You can apply filter conditions (e.g. *.pdf) here to hide certain items from view. You can also run DOS commands (e.g. dir, cd, rd, del) and Windows commands (e.g. net send, run) from here.

No.	Name	Remarks
5	Tool Bar	Contains buttons for commonly used commands. You can add or remove Tool Bars here. You can also add or remove buttons in the individual Tool Bars to suit your needs.
6	Drive Bar	This is a special Tool Bar that contains shortcuts to all drives on the PC. All virtual drives and mapped drives are automatically added here. You can also drag-n-drop items in different drives using the drive Bar.
7	Tree pane	The tree pane shows the directory in a hierarchical fashion. It is shared between the two folder panes. It can be auto-synchronized with the active folder pane (9), so that it always highlights the folder loaded in the active folder pane.
8	QuickViewer	Shows a thumbnail of the focused item in the active folder pane (9) or the mini-scrap pane (11). It can also preview audio/video and generic text/RTF files.
9	Left Folder Pane	<p>A “folder pane” is called so because it is mainly used to display the contents of a folder (including subfolders if any). Despite its name, it can also show the contents of drives, computers, NN, control panel, recycle bin, archives, etc.</p> <p>You can also set the panes vertically, in which case they are called Top folder pane and Bottom folder pane, respectively.</p> <p>Any one of these two panes can be made active; which means that all commands act here. All user inputs are directed to it and all other user interface elements (Tool Bars, Status Bar, etc.) show information relevant to the active pane only.</p>
10	Right Folder Pane	<p>The opposite pane is called inactive pane. In some commands, the inactive pane plays a supportive role. The inactive pane is always grayed out to distinguish it from the active pane.</p> <p>In fact, each folder pane contains one or more Folder sheets, arranged in a stack (like worksheets in Excel). What you see in the Folder pane is actually the top folder sheet in this stack. Unless otherwise stated, all operations in folder pane are carried out in this top folder sheet only.</p>

No.	Name	Remarks
11	Mini scrap pane	This is a “catch-all” storage area where you can store files and folders temporarily (it contains only “images” of the items; not the items themselves). You can collect items from different folders into this pane.
12	Info Bar	Each folder pane has an independent Info Bar, which shows additional information about the item that is under focus (or items that are selected) in the folder pane. You can choose what information to display here.
13	Status Bar	Serves three major functions: <ol style="list-style-type: none"> 1. It shows the current progress status of any command that is being executed. 2. If there are any errors, they are shown here for approximately 5 seconds. 3. It explains the function of the highlighted menu option. (Before selecting any menu option, check what it can do.)
14	Tab Bar	Contains the tabs for all folder sheets (which are displayed in the folder panes, 9 and 10). <ul style="list-style-type: none"> ➤ Each folder sheet has a tab that appears in the Tab Bar. A click on a tab brings its folder sheet to the top of the stack. ➤ Each folder pane has an independent Tab Bar. ➤ If the folder pane has a single folder sheet, x² hides the Tab Bar.
15	Status Bar	Depending upon the program option settings, displays various information: <ul style="list-style-type: none"> • Size and modified date of the file under focus. • The index number (position number, counted from top of the pane) of the focused item • Number of selected/total items in the active folder pane, and their cumulative size.

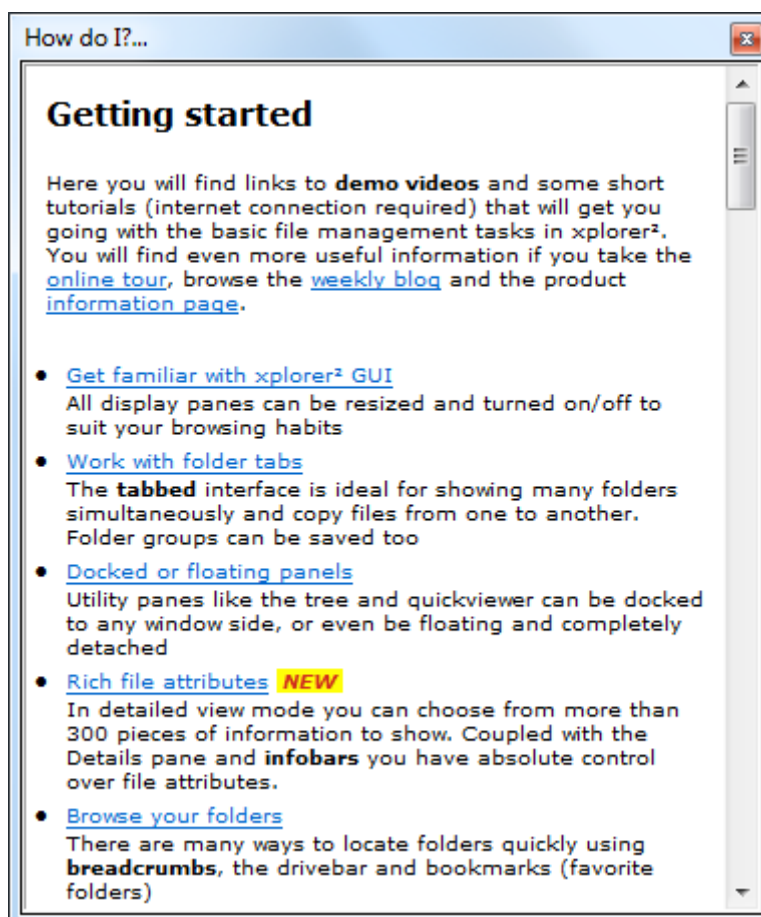


No.	Name	Remarks
16	Filter indicator	Whenever a filter is on in the active pane, a green funnel symbol appears here. This is the indication that some items may be hidden.
17	Free disk space	Shows the free disk space available in the disk for the active pane. This display also shows the free space as percentage of the total disk space.
18	Window resize handle	Appears only when the x ² window is not maximized. Drag this corner to resize the window. (For that matter, you can drag any edge or corner of the window to resize it!)

Other panes

In addition to the parts shown in the **screenshot**, x² also has two special panes that are used less frequently:

1. A **Help Pane** that appears on the right side of x² screen when you select the **Help |How do I?** menu option.



It displays a list of videos tutorials on many file management tasks. When you click on any video title, x² launches the browser (if not already running) and takes you to the zabkat website; and the selected video is played.

2. A **Details Pane** that appears when you select the **View |Details Pane** menu option.

This pane shows more details about the item under **focus**. The fields shown here are type-specific. For example, it shows dimensions for pictures, and author for documents, etc

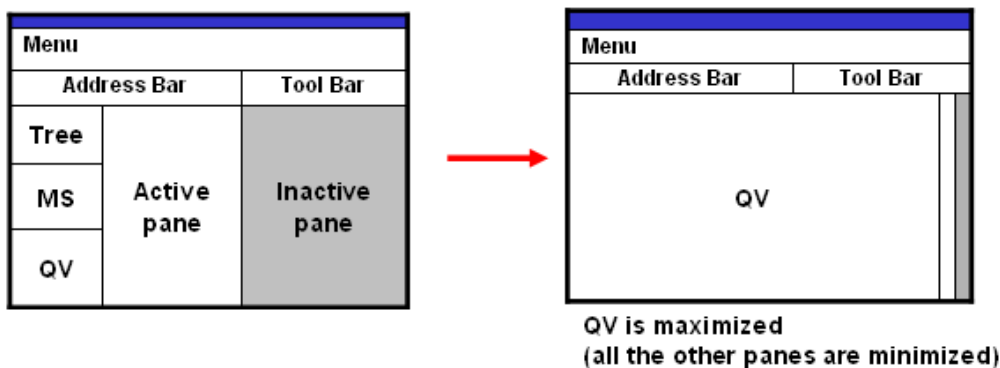


The example above shows the details of *this* pdf file (User Manual).

Click on the hyperlinks to change some of the properties (name, dates etc).

Re-sizing the panes

Note that the **screenshot** shows dimensions that are typically used in actual practice. But you can resize any of the panes by dragging its border. For example, you can make the QuickViewer large enough to occupy almost the entire screen (say, for viewing a folder that contains multiple images).



Although the screen is technically the same, its appearance changes dramatically.

Configurations of x² screen

The **main screen** screenshot shows just one of the popular configurations: The x² window can be configured in many other ways, to suit individual taste and needs. To show these alternative configurations, we will use schematic diagrams rather than screenshots.

Schematic diagrams are easy to understand: Compare the main screen figure with the first diagram in the figure below; which is its schematic equivalent.

Menu		
Address Bar		Tool Bar
Tree	Active pane	Inactive pane
MS		
QV		

Active pane at left

Menu		
Address Bar		Tool Bar
Tree	Inactive pane	Active pane
MS		
QV		

Active pane at right

Dual pane mode-
Vertical panes

Menu		
Address Bar		Tool Bar
Tree	Active pane	
MS		
QV	Inactive pane	

Active pane at top

Menu		
Address Bar		Tool Bar
Tree	Inactive pane	
MS		
QV	Active pane	

Active pane at bottom

Dual pane mode-
Horizontal panes

Menu		
Address Bar		Tool Bar
Tree	Active pane only	
MS		
QV		

Single pane mode

Note that in single folder pane mode, x^2 resembles Windows Explorer. (But don't be fooled by appearances: Even in this mode, x^2 has far more power than Explorer!)

The Tree and QV are usually stacked vertically. However, x^2 allows you to put them side-by-side. This arrangement provides more height to both (and also to the mini scraps pane). This is explained further in the **customization** section.

x^2 also allows you to place the QV on the extreme right of the screen. (Many people prefer to view photos, images and videos with this configuration.)

Further, any of the three panes on the left (Tree pane, Mini Scraps pane and QuickViewer pane) can be turned off. Use the View menu to turn different parts on/off.

- Some users prefer to turn off the Tool Bar (which also turns off the Address Bar), Tree Pane and/or the Quick Viewer, to get the maximum possible space in folder panes.
- Even the Status Bar can be turned off, but since it displays vital information, we don't recommend it!

An important point to note is that each folder pane can be referred to in two different context:

1. Its position (left/right or top/bottom)
2. Its "activeness" (active/inactive).

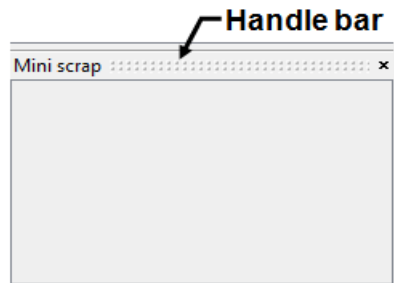
Remember this, because while explaining different commands, we will make use of these terms.

Note that any pane can be made active by focusing on it. (Either click in it or use TAB if your focus is elsewhere on the screen). In other words, you don't have to use x²'s program settings to make a pane active. Because of that, we don't consider different positions of the active pane as different modes.

Docking and undocking the viewers

All the viewers in x² (Quick Viewer, Mini Scrap pane, Tree Pane, and Help pane) can be freely repositioned and even detached from the main window to make them floating. (A free-floating pane can be enlarged to any size you want, without making other parts of the x² interface too small.)

By default, each viewer pane is attached to some part of x² window. To move a pane, drag its title bar with mouse.



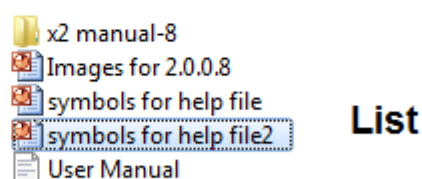
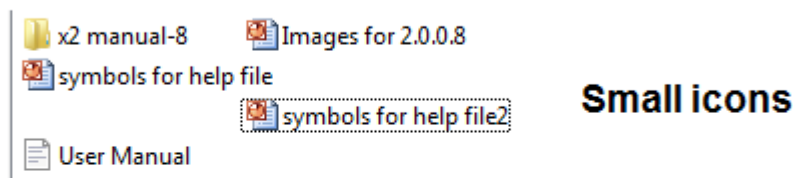
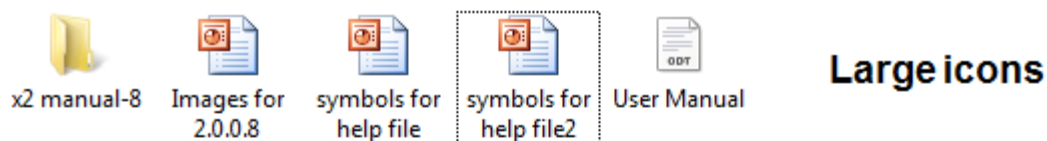
As you drag a pane around, it becomes free-floating. x² shows a gray rectangle to indicate the size and position of the pane if you release the LMB at any moment.

However, if you drag a pane too close to any one side of x²'s main window, the gray rectangle gets pulled to the window, and get attached to it. If you release the LMB, then the pane will get attached ("docked") to that side of the window. (Instead of releasing LMB, you can continue dragging the pane.)

x² remembers these new positions in the next session (you don't have to rearrange the GUI each time).

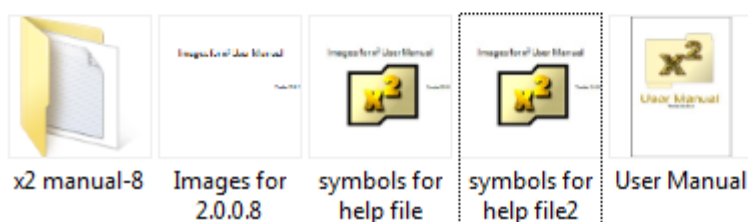
Display styles of folder panes

The folder panes (items 9 and 10 in the **screenshot**) have five distinct display styles, as shown below:



Name	Size	Modified
x2 manual-8	<folder>	11-06-2012 11:00:10
Images for 2.0.0.8	2,784,256	16-02-2012 15:04:58
symbols for help file	2,950,656	26-02-2012 00:18:24
symbols for help file2	2,887,168	28-06-2012 12:25:42
User Manual	4,838,128	17-07-2012 15:12:24

Details



The *Details* style display can be further changed in the following manner:

- If you don't like to see the grid lines, you can turn them off.
- Depending upon your Windows flavor, x² can display up to thirty different columns (in fact, with Windows 2000 and XP, it can display even more columns if you install some column handler utilities, described in **chapter 8**). You can select which columns to show and which to hide. You can also decide the order in which these columns appear. For more details, see **Chapter 7**.

- You can change the date format (DDMMYY, MMDDYY, etc) of date-related fields (created date, last modified date, last accessed date) to your liking by changing the system-wide setting (the changes would be applicable to all applications, not just x²): Use the Regional settings option of the Control Panel. In the window that pops up, open the “Date” tab, and set the format.
- x² has a **program option** to display the date columns (*Created*, *Modified*, or *Accessed*) in a “user-friendly” format, as explained below:

Date	How defined-
Last hour	In the past 60 minutes
Today	Counted from midnight today
Yesterday	
This week	This week, but excluding “yesterday”
Last week	
This month	This month, but excluding “last week”
Last month	
This year	This year, but excluding “last month”
Last year	
Long ago	Before last year

Note the following:

- In this mode, x² shows up to ten different “dates”, rather than showing a unique date and time for each item. Most of the items would have *This year*, *Last year* and *Long ago* dates (because they are very large periods)!
- The week, month and year are based on calendar; not count of days. For example, a week is not “past 7 days”: It starts from Sunday.
- When we talk of “*This week*”, we understand that “*Today*” and “*Yesterday*” are integral part of it. But Windows handles them as mutually exclusive groups. So, what is in *Today* and *Yesterday* will not be counted in *This week*.

Similarly, items counted in *This week* and *Last week* groups will not be included in *This month*. Similarly, *This year* group does not include items already counted in *This month* and *Last month* groups.

This has some peculiar results: If *today* is Sunday or Monday, you will not find the *This week* group in the display. You can see the *This Month* group

only if today does not belong to the first two weeks of the month. Similarly, you will not see the *This year* group in January and February.

- Windows does not continually reshuffle items based on their age. For example, after 60 minutes of modifying an item, the item should be shifted from the “*Last hour*” group to the “*Today*” group. Yet x^2 will not shift it to the “*Today*” group on its own. The items will be shifted to the appropriate groups only when you refresh the display.

The thumbnails are available in two sizes: “standard” and “mini”. The size of both thumbnails can be changed. (While the “standard” thumbnail size can be changed using the **Program options** menu option, the size of the “mini” thumbnails can be changed by tweaking the registry.)

In *Thumbnail* view mode, the link icon overlays are displayed, but not other overlays, such as those generated by **SubVersion**, etc.

You can set a different display style for each folder sheet.

Now which style is best? Simply try different styles and decide for yourself!

We can provide these tips, though:

- The details style is useful to see all details of the items. The example below shows only 3 columns, but you can choose from about 30 columns! Another advantage is you can sort on any column.
- The thumbnails style is useful to browse through images and HTML files. A large thumbnail shows you each image in greater detail. On the other hand, with mini thumbnails, you can view many more images at a time. (Of course, the mini thumbnail has a lower resolution).



Tip: You can even combine the benefits of both styles: Load the same folder in both panes, and then set one pane to *details* style, and set the other pane to *thumbnails* style. Turn on the **Mirror scroll** mode (In this mode, when you focus on any item in the active pane, x^2 automatically scrolls to a matching item in the inactive pane.) Now you can see all details of the selected item in one pane, and the item’s thumbnail in the opposite pane.

Viewing the items in groups

The items shown in the figure above are plain lists. In Windows XP, you can view the items in groups. Entries are easier to find in such grouped displays.

The figure below compares the simple display (left) with its equivalent grouped display (right). In this case, the items are grouped in “*Last year*” and “*Long ago*” groups.

D:\Temp			D:\Temp		
Name	Size	Modified	Name	Size	Modified
Manual	16,995	6/7/2005 6:21:28 PM	Modified: Last year		
trial	1,091,081	7/22/2004 11:42:26 ...	Manual	16,995	6/7/2005 6:21:28 PM
How x2 searches	27,648	4/21/2004 8:57:40 PM	Modified: Long ago		
symbols for help file	371,712	3/20/2004 4:36:12 PM	Building	1,508,475	12/23/2003 2:11:08 ...
Building	1,508,475	12/23/2003 2:11:08 ...	How to use x2	113,931	7/6/2002 9:17:40 PM
How to use x2	113,931	7/6/2002 9:17:40 PM	How x2 searches	27,648	4/21/2004 8:57:40 PM
			symbols for help file	371,712	3/20/2004 4:36:12 PM
			trial	1,091,081	7/22/2004 11:42:26 ...

The groups are automatically created, based on the column on which the pane is **sorted**. (In other words, x² does not offer an independent control to create groups.) For example, in the figure above, the pane is sorted on the Modified date (notice the triangle on the *Modified* column). Therefore, groups are also created based on the same column.

Note the following:

- Although the groups themselves are sorted based on the sorting column (here, Modified date), the sorting does not extend to the items inside the groups: Within each group, the items are sorted alphanumerically by default (but you can sort them using a secondary sorting column, as described **later**).
- All **styles** except the list style support grouping.

In general, a separate group is formed for each unique value found in the primary sorting column. However, there are two exceptions to this rule:

- Some items may have unspecified values in the sorting column. Such items are shown in a special group named “*Unspecified*”.
- In case of size and date (*Created*, *Modified*, or *Accessed*) columns, the groups are not based on unique values. Instead, special groups are used, as explained below:

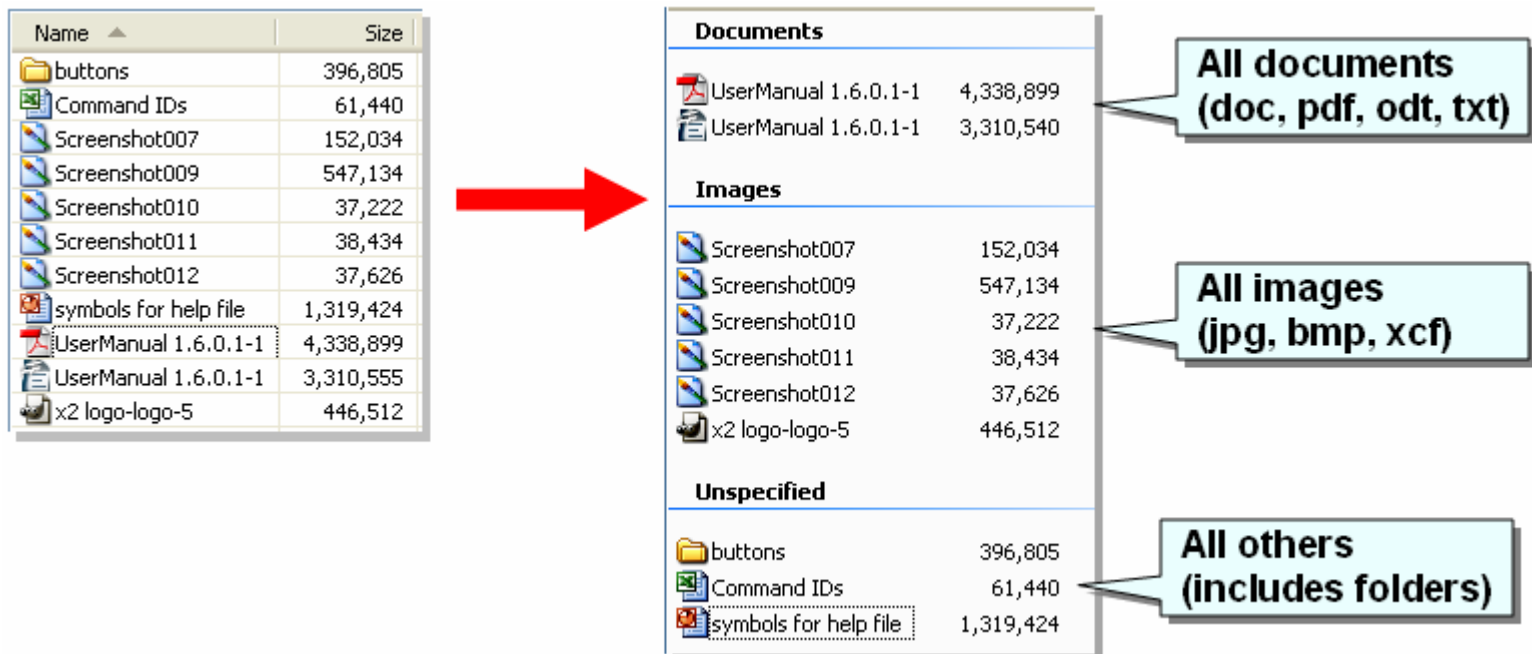
Column	Groups	How defined-
Size	Tiny	≤ 25 kB
	Small	> 25 kB, ≤ 250 kB
	Medium	> 250 kB, ≤ 1 MB
	Large	> 1 MB, ≤ 10 MB
	Huge	> 10 MB
Date	Grouped based on user-friendly dates ; not on unique date values.	

- The **next chapter** describes how to turn the groups on/off.

Viewing the items in customized categories

x² allows you to display items in your own arbitrarily defined categories.

For example, in the figure below, we have used a custom group, which comprises of three customized categories, called Documents (pdf, doc, odt, rtf, txt, etc), Images (jpg, gif, png, xcf, bmp, etc.), and Audio (mp3, ac3, wav, ogg, wma, etc).



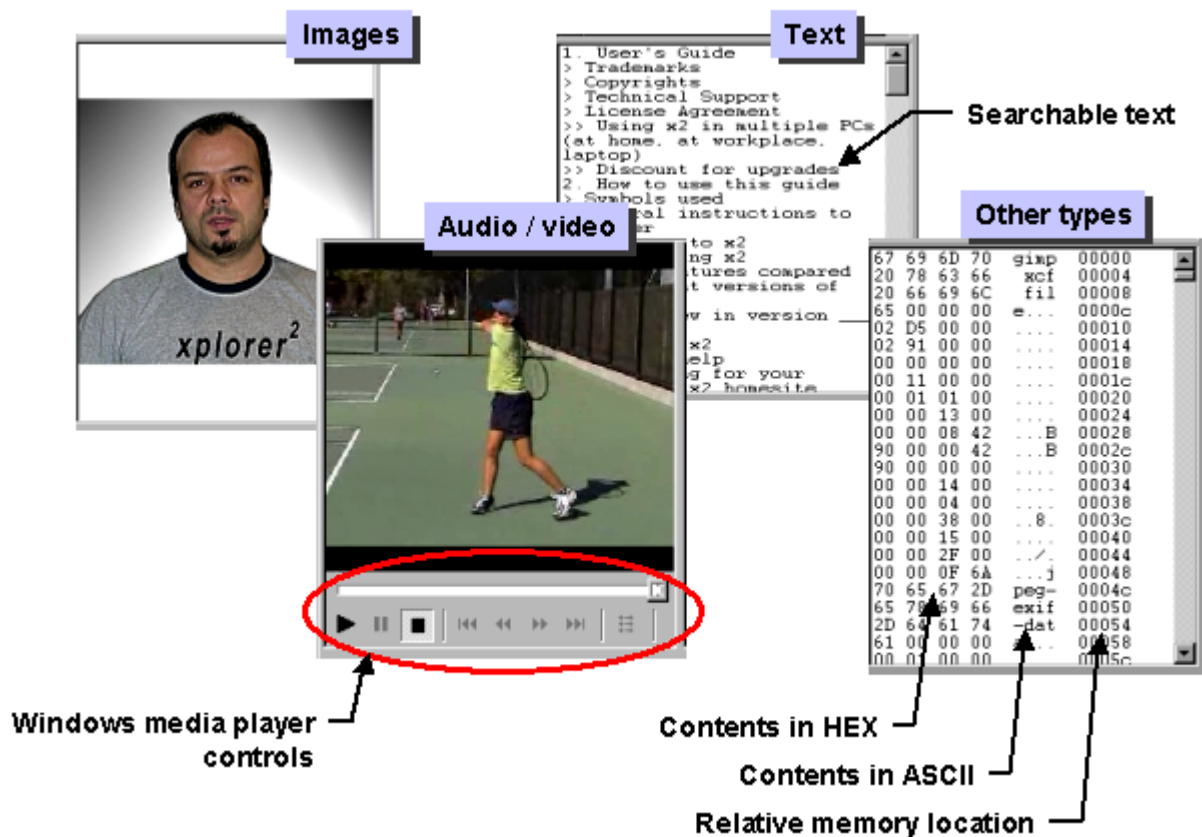
Note the following:

1. The *Audio* category, though defined, is not shown, because the pane did not have any audio files. x² automatically hides empty categories.
2. We can give any name to each category. For example, we could have named the Images category as *Graphics*. These names are for your own interpretation, and do not mean anything special to x².
3. All the items that do not fit in the our defined categories are shown in a special category called *Unspecified*. This category is automatically added by x², but it is not part of the group's definition.

We will see more about this in the **next chapter**.

Display styles of QuickViewer

Like the folder panes, QuickViewer (item 9 in the **screenshot**) also has different styles to display different types of files. However, QuickViewer automatically sets its own style depending upon the file under focus. In other words, the display style of QuickViewer is not user-settable.



However, for certain file types, the display can be changed (slightly), using the QuickViewer's context menu. Further, if you have installed some filter applications, the display changes for certain file types. For more details, see the "**Using QuickViewer**" section.

The pane background

Look at the **display styles figure** again; especially the Thumbnail style shown at the bottom. Note the "blank space" surrounding each thumbnail. We will call this area "background". This area provides some very important functions through **context menus** (see **Appendix 9F** for details). You can also click the middle button of the mouse (or mouse-wheel) on this area to open a new folder sheet in the pane.

Depending upon the display style, the "background" takes different forms:

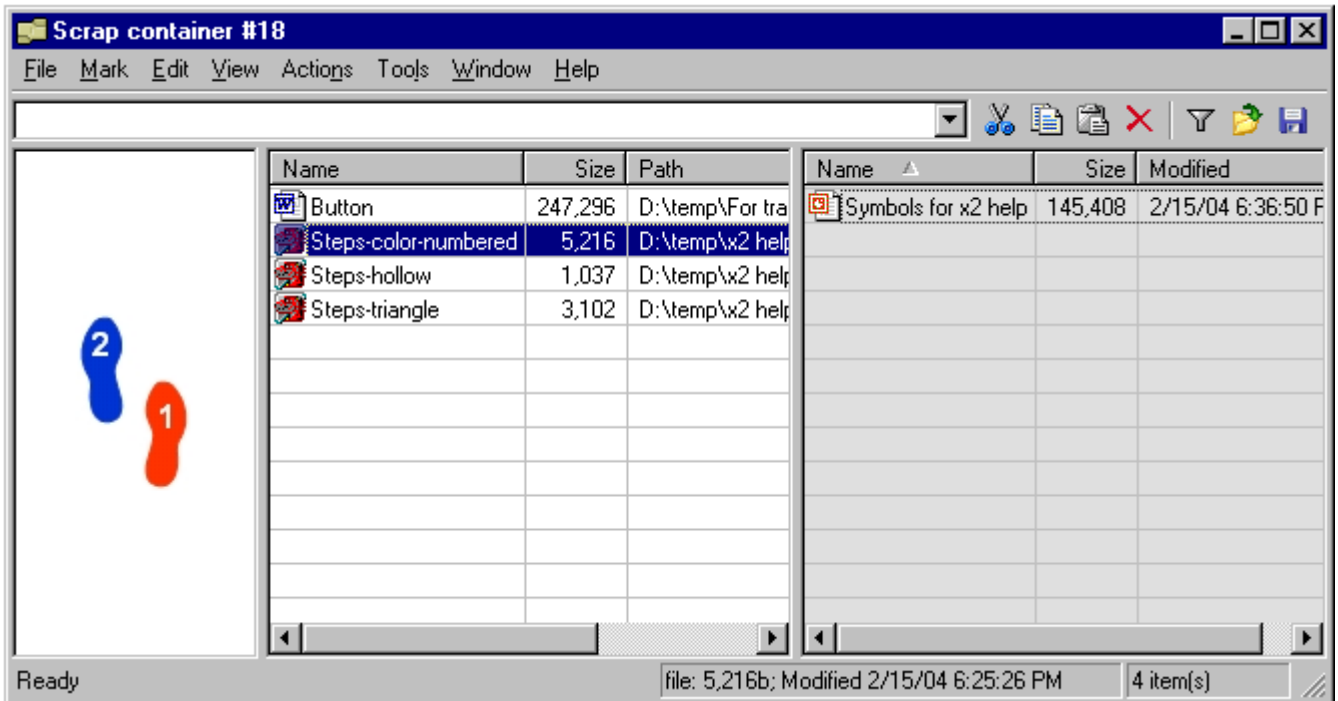
- Empty space below the items' list (in all styles)
- Empty space to the right of the items' list (in all styles)
- Empty space surrounding each item (in all styles except Details style)

Scrap Panes and Scrap Containers

A scrap pane is a "catch-all" storage area where you can store files and folders temporarily.

x² uses scrap panes in two different forms:

1. A mini-scrap pane that is part of the **main x² window**.
2. A scrap container, which is a separate window having two scrap panes and other elements (see the figure below).



Structurally, the scrap container screen is exactly like the **main screen** of x², except the following:

1. The Tool Bar is slightly different (see **Appendix 9D** for details)
2. The **Tree Pane** is not provided here.
3. It does not have a **TAB Bar** (the panes don't have tabbed sheets)
4. Instead of the folder panes of x², we have scrap panes here. The difference is that the scrap panes do not contain items from only one single folder, as in case of the folder panes. Therefore, the scrap panes do not need a **pane header** (because they neither have a "history" nor a folder path to be displayed)
5. The Status Bar does not show free disk space. (That is because a scrap pane can contain items from several different disks, and even from different PCs; so it is not associated with a single disk.)

Subject to these differences, a scrap container's screen can be configured in exactly the same way as the main screen of x². So, except for the figure above, we will not repeat the other figures.

Note: The name scrap container is inspired by scraps book, which is used to store randomly collected scraps of information. Do not confuse it with a garbage can!

A scrap pane has several powerful uses:

- **Collect items** from various places (including **NN** PCs) and optionally

save these lists.

- **Flatten** a complex folder system (contents of the folder and all its subfolders are recursively shown in a single, flat list)
- Hold results of **search** operations. Save the results if necessary.
- Search **within previous search results**.
- **Re-organize** your collection (copy/move your files and folders to new locations)
- Check for **duplicates** (and optionally delete the duplicates)

In addition, the pair of scrap panes in a scrap container can be used to **compare** two separate collections, and if required, synchronize them (i.e., bring them to the same status).

You can launch a scrap container manually, using **Window | Scrap container** menu option. As we shall see later, some commands of x^2 also make use of scrap containers. x^2 automatically launches scrap containers when needed.

Scrap container is a virtual container—when you put any item in it, it does not actually create a separate copy of the original item, but only shows you an “image” of that item. When you rename, move or delete that image, x^2 renames, moves or deletes the original item.

Because a scrap container contains only images (and not full replicas of the real items), it occupies only a fraction of the disk space as compared to the original items it points at.

x^2 allows you to open unlimited number of scrap containers simultaneously.

We will learn about this extremely powerful feature in the next chapter.

- In the later chapters, we will be talking about moving selections between folder panes (part of a x^2 screen) and scrap panes (part of a scrap container). Keep in mind that several copies of x^2 and scrap containers may be running at any time. You must ensure that the selection lands in the correct pane of the correct scrap container.

Other windows

x^2 also has many other windows and wizards that pop up when you execute different commands. We will learn about them in the subsequent chapters.

4. Basic operations with x²

In this chapter, you will learn how to set x² **GUI** in different configurations, and then how to use its various parts.

These commands are not for managing files and folders, but still essential for you.

This is like basic skills required in car-driving: Before you can take your car on the road, you must first learn how to release the clutch smoothly and apply the brakes safely!

Adjusting the x² layout for working comfortably

In our car analogy, even before you tackle the brake and clutch, you must first make yourself comfortable: Adjust your seat, tilt the mirrors to suit your height, fasten your seat belt, and so on.

Similarly, before starting work with x², it is important to be comfortable with its GUI. Therefore, we will first see how to alter x²'s layout. (These are basic, quick adjustments. For in-depth changes in the x²'s layout, see **chapter-7**).

Have a look at the layout figures (**main screen**, and display **styles** for the folder panes) in the last chapter again, and decide if you liked a certain layout better than the others; and then use the commands described below to set x² in that layout.

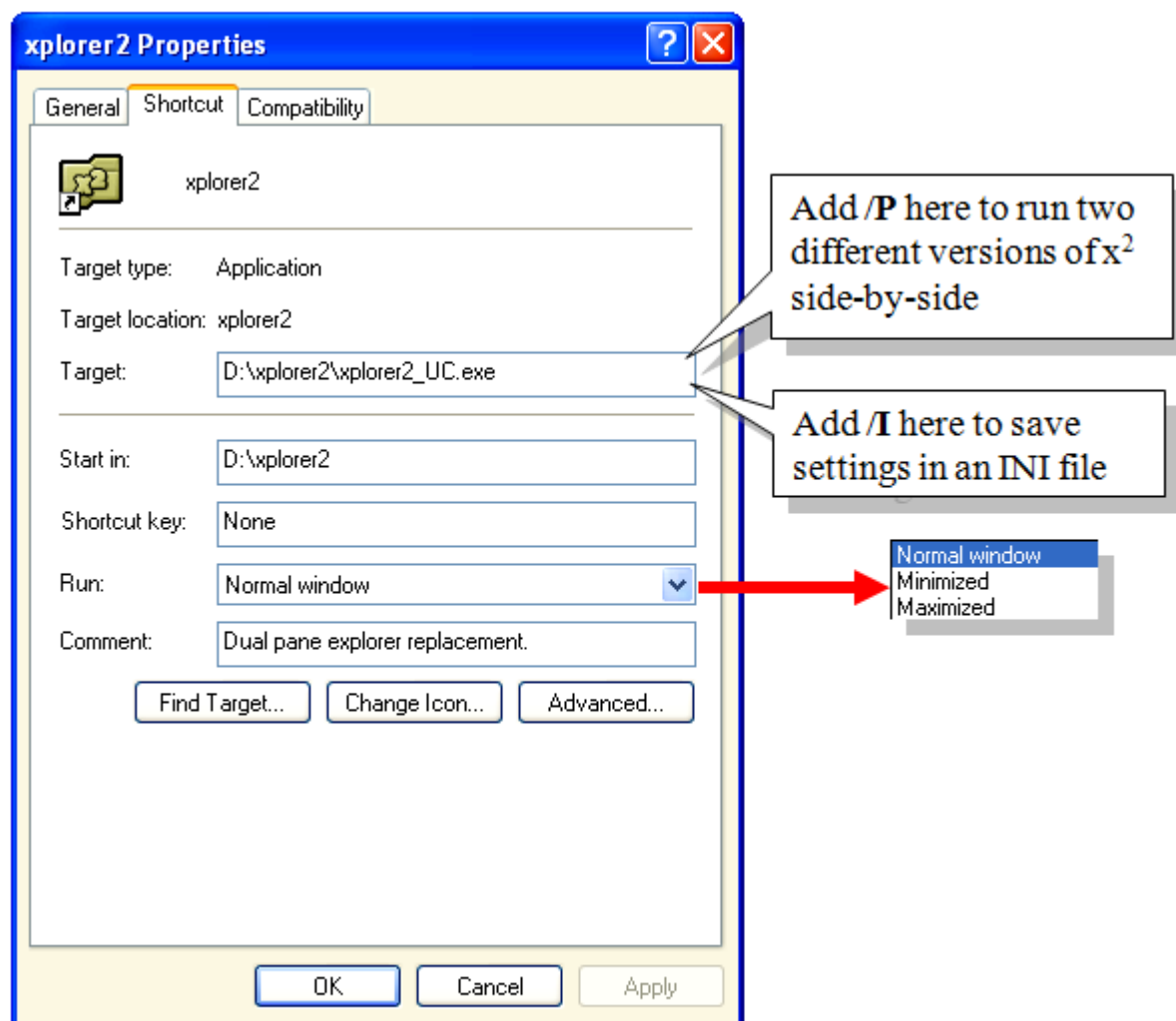
- The changes take effect immediately: You do not have to restart x² (or the PC)
- Once set, x² will remember the new layout: You do not have to set the layout the next time you launch x² or restart the PC.
- If you have multiple copies of x² running on your PC, changing any options will affect only the current copy and also any copy launched thereafter. However, other copies that are already running will not be affected.
- Layouts of x² and scrap containers have to be set separately.
- Each layout can be further modified by dragging the borders between different elements of the screen. You can resize the Address Bar, folder panes, tree pane, and the Quickviewer this way.
 - If you d-click on a border, it jumps to the mid-point of the available height/width. For example, if you want to make

both folder panes of equal width (when they are tiled vertically), then d-click on the border between them.

Setting the default window size when x² starts

You can control the size of the default window whenever x² starts. There are three options:

Option	How x ² window appears when you start it
Maximized	The x ² window occupies the whole monitor screen.
Minimized	As soon as x ² is started, its window is minimized. You have to click on the x ² 's button on the taskBar (at the bottom of the screen) to see the x ² window
Normal window	In this option, you can precisely control the window's size and position on the screen when x ² starts. In fact, they are carried over from one session to the next: When you close x ² , the windows size and position are remembered and re-used in the next session.



To set the starting mode, r-click on the x²'s shortcut (in the Quick Launch

Bar or the Desktop). From the context menu that appears, select **Properties** option. A window pops up as shown below. As shown in the figure, click on the **Run** drop-down list and select your option. Press **OK**.

Note that this method is not unique to x²: It is applicable to all applications running on Microsoft Windows.



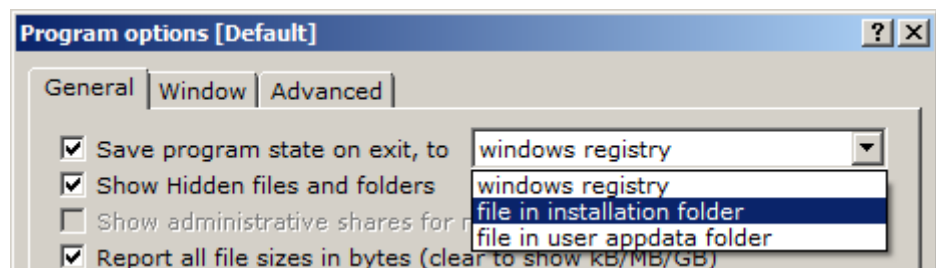
Tip for non-English users: If you want to run the English version of x² side by side with your own Language version, add /P in its Target field as shown above.

Saving settings in INI file instead of Registry

This feature is available only in the Ultimate version of x². Decide whether you want x² to save its settings in the Registry or in an INI file.

If you decide to use an INI file, run x² with a switch /I (see the figure above). Now x² will create a file called x²settings.INI and place it in the installation folder (next to x² executable). It will save all settings in this file.

The Portable version of x² has a Program Option to save your settings in an INI file, so that the settings go with you. (Otherwise you will have to set up x² in each PC. Moreover, changes made in one PC will not carry over to another PC).



Tip: A major advantage of using an INI file is that you can easily copy this file to another PC to copy all your settings to that PC.

Setting Tool Bars

When you start x² for the first time, the Tool Bar contains text labels to identify what each button does. After having a good look, you can turn the labels off.

By default, x² shows small Tool Bar buttons (16x16 pixels). But you can use up to 48x48 icons by using the context menu in the Tool Bar.

You can also add and remove buttons in the Tool Bar. However, this is best done after you have used x² and become familiar with its operations.

For details, see **customizing Tool Bars**.

Setting the orientation of folder panes

The **View | Tile horizontally** menu option toggles the Folder Panes.

- When this option is selected, the Folder Panes are displayed side-by-side.
- When the option is unselected, the Folder Panes are stacked vertically.

Turning off different parts of the x² window

Here are the commands to turn off different parts of the interface:

Desired Effect	Command	Equivalent Menu
Toggle the Tree Pane	CTRL+T	View Show tree
Toggle the QuickViewer on/off	CTRL+Q	View QuickViewer
Toggle Address Bar on/off		View Tool Bars Address Bar
Toggle Tool Bar on/off		View Tool Bars Tool Bar
Toggle Status Bar on/off Not recommended!**		View Tool Bars Status Bar
Toggle all Tool Bars on/off (This control does not override the settings of individual element)		View Tool Bars All Tool Bars

** Note: Rather than turning off the entire Status Bar, turn off its different parts, using the **Tools | Options | Advanced menu option**.

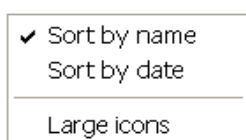
Arranging the viewers

After turning off the unwanted parts of the GUI, the next step is to re-arrange the remaining parts. Drag the viewer panes to the positions you want, and re-size them.

After setting them, you can use the **View | Tool Bars | Lock dock sites** menu option to lock the panes so that they cannot be moved. x² also hides the title bars of all panes, so that you cannot change the positions.

To re-adjust the panes, first unlock the panes, by using the same menu option. Now drag the panes around. After adjusting the panes, lock them again.

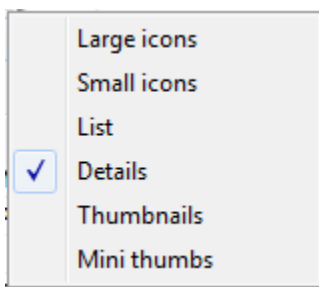
Using Large Icons in the Folder Tree




By default, x² uses small icons (16x16 pixel) for the nodes of its Folder Tree. However, if you are not comfortable with small icons, you can select larger icons.

To change the icon size, right-click on the background area and from the context menu that appears, select the Large icons option.

Changing display styles in folder sheets



Press the  button on the Tool Bar, or press the **ALT+CTRL+V** keyboard shortcut (or use the **View | Pane style** menu option) .

A small list of **styles** pops up, as shown on the left. In this list, a tick is shown against the currently applied style. Select the new desired style, which will be applied to the folder sheet immediately.

- Display style for each folder sheet is set independently: The other folder sheets in the folder pane are not affected.
- When you turn off a pane (with **CTRL+O** command), its layout settings are unaffected: When you turn it on again, it retains its style.

Setting up context menu in folder pane

x² allows you to customize the context menu options in the folder pane. (See p. Error: Reference source not found).

Use this facility to add most-often used commands, such as invoking an external application (which will act on the selected items).

Deciding which columns to display (in Details style)

As discussed in the last chapter, the folder panes have a Details **display style**, where you can view the properties of items in **columns**.

In this mode, you can adjust the display in the following ways:

- Add columns to the display
- Remove columns from the display
- Change the order in which these columns appear.

To organize the displayed columns, press **ALT+K** (or use the **View | Select columns** menu option). A column organizer window pops up, as shown in **Appendix 9R**.

Note that each folder sheet has independent display settings; therefore, you can choose a different set of columns for each folder sheet.

Note: You can organize the columns in a **Scrap Pane** in a similar way, but you can do so only after you have loaded some items in it: A blank scrap pane does not display columns, so you can't organize them!

Setting the window on top

In Windows, the active application's window comes to the top. But sometimes, you want to keep the x² window on top, even when you have switched to other application. To do this, click on the left top corner of the x²'s **GUI** (or r-click anywhere on the window's top Bar). A context menu

appears. Select the **Topmost** option.

To turn off the *topmost* mode, repeat the process. (The **Topmost** menu option actually toggles the *topmost* mode on/off.)

This facility is also available in **Scrap Pane**



Caution: *Do not use “Topmost” feature when the window is maximized; otherwise you will not be able to see any other window, including the other applications or even dialog boxes launched by x² itself!*

Special display settings for particular folders

Generally, a folder/scrap pane's settings (pane style, columns and sorting order) are set only once. x² remembers these settings, and applies it to all folders loaded in the pane.

However, you can customize and save these settings for specific folder(s). (You can save settings for an unlimited number of folders.) When you load such a folder, x² automatically displays it using its saved settings.

Let us see a typical example: You generally prefer to view all your folders in the *Details* **style**, but you have stored photos in a particular folder, and therefore you want to always view this particular folder in *Thumbnail* style.

Following are the commands to be used for this purpose:

Menu	Result
Actions Folder settings Save	<p>Save all settings for the current folder in the active pane.</p> <ul style="list-style-type: none">Optionally, you can set the same settings for all subfolders of the current folder. <p>Now onwards, whenever you view this folder, its settings will override the default settings for the pane. (But all other folders will still be displayed with the default settings of the pane.)</p>
Actions Folder settings Clear	<p>Clear (reset) all settings for the folder displayed in the active pane.</p> <ul style="list-style-type: none">Optionally, you can clear the settings for all subfolders of the current folder. <p>From now on, this folder will be displayed with the default settings of the active pane.</p>

Menu	Result
Actions Folder settings Suspend	<p>Do not reset the settings of this folder; but for the time being, display it using the default settings of the active pane.</p> <p>Select this menu option again to terminate the suspension. (After that, the folder's special display settings are applied again.)</p>
Actions Folder settings Default	<p>Show all folders like the current folder.</p> <p>Select the same menu option again to untick the option (x^2 reverts to the classic <i>'last setting used is the default'</i> mode.)</p> <p>When the <i>default</i> mode is active, if you make any changes in some folder (e.g. switch to the <i>Thumbnails</i> style), these will turn back to default once you browse some other folder.</p>

Note: If you have applied a **custom groups** to the folder, x^2 remembers it, but only if this definition is saved.

Using Menus

All functions of x^2 are organized in its pull-down menus. Menus are accessible through both mouse and keyboard (or a combination of these). Refer to **Appendix 9D** for a complete list of menu commands.

Navigating through menus with mouse



1. Click on the menu header (File, Go To, etc)
2. In the pull-down list that appears, locate your option and click on it.

Tip: You can reach any menu command with a single click: After clicking on the menu header, slide the mouse around without releasing the **LMB**. When the mouse moves over the header of any menu, that menu is pulled down. This way, you can open up all menus (one by one) with just a single click. Reach the desired menu, go down to the desired option, and release the **LMB**.

Navigating through menus with keyboard

1. Each menu header contains an underlined letter. Press **ALT** with the key for that letter (Example: In the **Actions** menu, the letter “n” is underlined. So, to open this menu, press **ALT+N**).
2. In the drop-down list that appears, select your desired option using any of these methods:

- Use **UpArrow** and **DownArrow** keys to highlight the desired option, and press **Enter**
 - Press the hotkey combination indicated opposite that option.
 - Press the underlined letter key (but do not press the ALT key this time).
3. Instead of selecting an option in the drop-down list, you also have the following options:
- If you feel that you are in the wrong menu, you can always press **LeftArrow** or **RightArrow** key to switch to a neighboring menu. These keys cycle through all the menus (when you reach the end of the menus, the focus jumps to the menu at other end).
 - Press **Esc** to abort. The pull-down menus will disappear.

Using Address Bar

The **Address Bar** is common between the two folder panes (all **tabs**).

Functions of Address Bar

The Address Bar has five major functions:

1. Display the address of the folder loaded in the current tab
2. Display a list of recently visited folders (“history”)
3. Accept an address (or a **bookmark** name) to load it in the current pane
4. Accept an FTP address and password to load the remote folder in the Active pane
5. Run a DOS or Windows command.
6. Apply a visual filter to the current pane.

Let us see these functions in detail:

Displaying the address of the current pane

The Address Bar always shows the folder currently open in the active folder pane.

- When you switch tabs, the Address Bar will follow you and show the address of the current tab.
- When you switch between panes, the Address Bar will follow you and show the current tab in the Active pane.


Displaying the list of recently visited folders

The drop-down button of the Address Bar lists all the folders that you visited in the current session of x². This list (called “history”) is common for both folder panes (all tabs). To go to any of the listed address, just select it and then press **Enter**.

- If you use the history list frequently, you may want to avoid pressing **Enter** each time. If you change a **registry setting**, the selected folder launches automatically.

You can use this list to rapidly switch backwards and forwards between folders.

Jumping to any folder

To go to any folder (including any folder on a remote drive or an FTP server), just enter its address (path) in the Address Bar, and press **Enter** (or click on the  (“Go”) button next to the Address Bar).

The folder will be loaded in the active pane.

Tips:

1	x ² accepts both absolute and relative paths, including any combinations of the parent (“..”) and root (“\”) folder specifiers.
2	If you include the file name in the path, x ² not only loads the folder in the active folder pane, but also selects the specified file at the same time.

Viewing an FTP site in the folder pane

To access an FTP site, enter the URL and all your details directly in the Address Bar using the following format:

ftp://username:password@ftpsite.com

Note: Characters in red are literals (enter them exactly as shown). Substitute the rest with your own details.

The Modified date, Accessed date and Created date for the contents of the remote FTP server are displayed in terms of your local time (not in terms of the local time of the FTP server). The time/date stamp is adjusted for DST (Daylight Saving Time) and time zone difference.



Warning: *This method is suitable only for lightweight FTP use, because your passwords will be stored unencrypted in the registry.*

Running a DOS/Windows command

You can execute DOS and 32-bit Windows commands by typing them in the Address Bar and pressing **Enter**. (There is no need to launch the “DOS” or

“RUN...” windows from the Windows’ START menu.)

All you have to do is to start the command with a special character:

- Begin a DOS command with the '\$' character. For example-
\$dir
- Begin a Windows command with the '>' character. For example-
>ASSOCIATE <ext> <file name>

The \$ and > characters set the commands apart from local addresses, which begin with the drive letter (such as C:\); and **NN** addresses, which begin with a “\\” symbol followed by the PC name (called the “**UNC** name”).

You can compose the arguments of the DOS commands using **tokens**.



Tips:

1	Compiling of argument lists is simple: You can copy the file names from the active pane directly into the address Bar, by selecting multiple files and then pressing CTRL+Enter to transfer the names in to the Address Bar.
2	Environmental variables like %WINDIR% can be used as part of the commands — these are automatically expanded by x ² .
3	DOS commands are not supported for UNC paths in the form //computer/share. If you want to execute a \$-prompted command on a remote computer, you must first map the network drive onto a local drive letter like F:\.

Applying a visual filter to the current pane

You can apply visual filters directly from the address Bar. Just click in the Address Bar and add the filter condition at the end of the path.

For example, if you are in folder D:\aaa\bbb and you want to see only pdf files.

1. Click in the Address Bar and complete the filter condition:

D:\aaa\bbb*.pdf (do not forget to add the “\” after bbb)

2. Press **Enter**. (The filter takes effect only after you press **Enter**.)

To turn off this filter (i.e., to see all files again), press **CTRL+J** or type a single * in the Address Bar.

x² also has other ways to apply **visual filters**.

Autocompletion

The Address Bar —indeed, all fields in x² dialogs meant for paths— support

path autocompletion.

In short, the *autocompletion* feature works like this: You have to enter only a part of the path and press a key. x^2 will find all possible matching paths. You can cycle through these choices. When you find the path you want, press **Enter** to load the path in the **active folder pane**.

In fact, x^2 offers you three different autocompletion mechanisms:

Explorer-style Autocompletion

In this mode, as soon as you type part of a path, x^2 pops up a list of all items that match this partial path. The list includes subfolders and files. Use **UpArrow** and **DownArrow** to browse the list. Press **Enter** to load the folder in the **active folder pane**.

- To go one level down in the folder, you will have to add a backslash (\) to the path and repeat the entire process.
- If any folder is hidden, it will not be listed even if you type part of its name: You will have to type its entire path in the Address Bar.
- You can resize the list window by dragging its right-hand bottom corner. This is useful to prevent it from covering up x^2 's interface.

To enable this mode, select the menu option **Tools | Options**. In the **window** that pops up, select **Advanced** tab. Put a tick in the Explorer-style path autocompletion in Address Bar check box.

You will have to close and restart x^2 for this setting to take effect.

The main problem with this mode is that the list keeps popping up constantly, and covers part of the main x^2 interface. If you do not want that, you can opt for the alternative mode described below, which shows all matching entries one by one, within the Address Bar. (But the flip side is that you have to press **F1** to see each matching entry.)

Using the F1 key

The folder you are browsing may have a lot of subfolders, making it difficult to navigate to a particular subfolder. You can use the **F1** key in Address Bar to limit the number of subfolders.

Enter the path for any folder and press **F1**. Optionally, enter a few beginning letters from the subfolder's name. x^2 takes the entered string and look for matching subfolders within the current path. It will display the first match in the Address Bar. If you press **F1** again, you will get the second match. If you keep pressing the **F1** key, x^2 recycles through the list of matching paths indefinitely.

For example, assume that your D: drive has a lot of folders, but you are interested in a testing-related folder. Assume that you have the following folders on this subject:

D:\Test plans

D:\Test strategy

D:\Tutorials on testing

Now if you enter *D:\tes* in the Address Bar and press **F1**, x^2 will load the first match (D:\Test plans) in the Address Bar. Press **F1** again to get the next match (D:\test strategy) in the Address Bar. Since only these two folders match the entered string, if you press **F1** now, the list will repeat.

Note that the folder Tutorials on testing will not be listed, because it does not match your string. To use the **F1** key unerringly, you have to be pretty familiar with your folders.

When you find the desired folder, you have two choices:

- Press **Enter**. This loads that folder in the active folder pane, and switches the focus to folder pane. Further navigation is left to you.
- You can continue searching the remaining segments of the path (i.e., for lower-level folders in that branch of the tree): Add a backslash (\) and repeat the entire process.

Note: In case of **NN** paths, you will have to enter the PC name and the shared folder name. Use \\PCName\SharedFolderName\ format. The **F1** command cannot auto-complete PC names or shared folders: Only folders below this level are found.

Tip: Unlike the **Explorer-style Autocompletion**, this option includes the hidden folders in the list.



Using the UpArrow key

This trick allows you to rapidly go to a location that you have already visited in the past. You have to remember at least some part of that path.

Enter that string in the Address Bar and press **UpArrow**. x^2 shows paths that contain the desired string. (If there is no response, it means there are no matching paths.)

- If there are more than one matches, you can see the other matching entries by pressing **UpArrow** and **DownArrow**.
- Unlike the **F1** trick, x^2 does not cycle through the list endlessly: It will stop at the top and bottom of the list.

When you find the desired path, press **Enter** to load that path in the Address Bar (and active folder pane)

Comparison of the autocompletion methods

The three mechanisms are compared below:

	Method of autocompletion		
	Explorer-style	Using the F1 key	Using the UpArrow key
Searches for matches within-	All subfolders of the given folder	All subfolders of the given folder	Only items listed in history (i.e., entries found in the pull-down list)
Past visit to the target folder necessary?	No	No	Yes
Requires you to enter-	Starting part of the path	Starting part of the path	Any part of the path (even from the middle)
Partial entries accepted?	Yes (but only the tail-end of the path can be omitted)	Yes (but only the tail-end of the path can be omitted)	Yes
Returns the complete path?	Yes (pops up a list of all matching items)	No: It only reveals a single (lower) level of the path.	Yes
Hidden folders displayed?	No (unless you type the entire path)	Yes	Yes (if you have visited it in the current session)

Using Tool Bars

Some often-used commands are available as buttons in the Tool Bars. Click on these buttons to execute these commands. **Appendix 9D** describes all commands available through the Tool Bars.



Tip: When you start x² for the first time, you will see only the most-often used buttons in the Tool Bar. You can select more buttons and change their position in the Tool Bar by **customizing the Tool Bar**.

Some buttons can execute an additional command when you press a specified key such as **SHIFT** or **CTRL** (called “*modifier key*”) on the keyboard while you click on the button.



Tip: When you hover your mouse over any button, its name is shown in a small tooltip. At the same time, the Status Bar (at the bottom of the screen) displays its function in more detail. If the button can execute any additional function with a modifier key, this additional function and the modifier key are also identified there.

The Drive Bar

This is a special Tool Bar, which shows all drives available on your PC.

The Drive Bar serves three-fold purposes:

1. Click on any drive to load it in the active folder pane.
2. You can **select multiple files** in folder pane or scrap pane and copy/move the selection on any of the drive icons. The collection would be dropped in the root (i.e., the top-level folder) of that drive.
3. As you add new drives or remove them (e.g. mounting an image, connecting a pen drive in the USB port, etc), the latest status is automatically reflected in the drive bar.

All virtual drives (e.g. the drives created by Alcohol 120%) and mapped drives from the **NN** are automatically added to this Tool Bar.



Note the difference in symbols for floppy drive, fixed disks and network (mapped) drives and the virtual drives.

All the context menus of the drive available from its button. These menus are different based on the type of the drive.

Note: Unlike the other Tool Bar buttons, the Drive Bar buttons do not show tooltips. However, you can see the description of each drive in the **Status Bar**.

Using Tree pane

The main use of the tree pane are:

1. Quick survey of the folder hierarchy and navigation
 - View the folder hierarchy, including folders on **NN** PCs
 - In the active folder pane, select an item and press **ALT+T** to see its location in the entire folder hierarchy
 - Click on any desired node to load it in the active folder pane
 - **ALT+Click** on any node to load it in the inactive folder pane
 - Open up a particular branch and see its layout.
2. Special operations through context menu (r-click on the desired node)
 - Ejecting a CD
 - Formatting a hard-drive or a floppy
 - Scanning for virus
3. Creating a new folder under the current node (press F8).



Tip: The tree has many different types of nodes (folder, drive, computer, printer, control panel, recycle bin, registry, etc). You will see a different context menu for each type of node. Further, many software

you install change the options available in these context menus.



Tip: When you are watching a folder located in your **NN**, the tree will show all the PCs in the entire NN. This can take a long time; especially on slow networks. You can make this considerably faster by asking x^2 to show only the relevant PC in the tree. There is a registry **setting** for this.

Note that the Tree Pane has a limitation: It does not auto-refresh the sharing status of any nodes: It will reflect the new status only when you collapse and then expand a higher-order node. For example, if you have removed (or added) the sharing from a disk or a folder, the new sharing status will not be reflected in the tree until you pick any parent node, collapse it (click on the [-] symbol on its left) and then expand it again (click on the [+] symbol on its left).

Navigating in tree pane

Navigating the tree with mouse is very simple:

- Click on any [+] sign to the left of any node to expand it (i.e., to display its next-level nodes). The [+] sign immediately changes to [-].
- Click on [-] to collapse the node (i.e., hide all its next-level nodes). The [-] sign immediately changes to [+].

To navigate the tree with the keyboard, use the following keys.

Key	Function
UpArrow	Go to the next node displayed above the current node. <ul style="list-style-type: none">➤ It does not affect any collapsed nodes.
DownArrow	Go to the next node displayed below the current node. <ul style="list-style-type: none">➤ It does not affect any collapsed nodes.
LeftArrow	<ul style="list-style-type: none">➤ If the current node is expanded or exploded, LeftArrow collapses it. The focus remains on the same node.➤ If the current node is already collapsed (or does not have any subnodes), then the focus jumps to current node's parent node.
RightArrow	<ul style="list-style-type: none">➤ If the current node is collapsed, the RightArrow expands it by one level. The focus remains on the same node.➤ If the current node is expanded or exploded, RightArrow goes one level down in the first branch.

Key	Function
PageUp	Jumps upwards by a screenful
PageDown	Jumps downwards by a screenful
Home	Jumps to the top of the tree (usually the Desktop node)
End	Jumps to the last node of the tree (usually the Recycle Bin node)



Tip: If you want to “explode” any node (i.e., see all the subordinate nodes in that particular branch) select it first and then press **ALT+RightArrow**. Exploding a node saves a lot of time, because you don’t have to open individual sub-nodes.

Using Folder pane

Most operations on files and folders are done in the folder panes. Some operations (such as deleting a file) can be carried out in a single pane, while others (such as copying a file) require both panes.

Folder panes have three major parts: Pane headers, column headers and pane area. Each part serves several functions, as described below:

Pane Headers

You can do the following with Pane Headers:

1. See the **full path of the folder** loaded in the pane.
2. **Jump one level up** (to the parent folder)
3. **Jump to any of the parent folders** in the path
4. Load a sibling of any of the parent folders (“**breadcrumbs**”)
5. Browse any of the **recently visited folders**
6. Use some commonly used functions **through a context menu**

Let us see each function in detail:

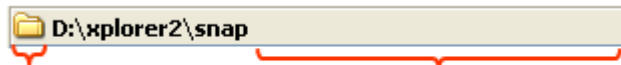
Path display

Generally, the pane header shows the entire path of the folder loaded in the folder pane.

- If the path is too long, it will not fit in the folder pane header. x² solves this problem by removing a part in the middle to accommodate it within the available width (x² shows “...” in place of the missing part).

Jumping one level up (to the parent folder)

The icon on the left and the blank area on the right are special: If you double-click in these areas, the pane header will take you one level up (to the parent folder), as shown below:



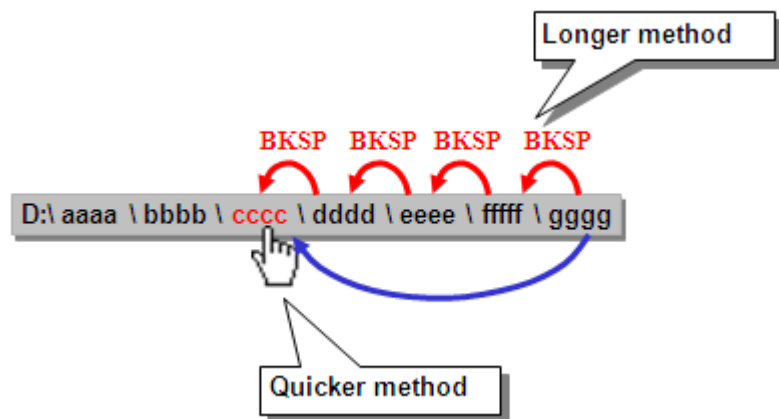
A double-click in these areas will take you one level up

In fact, the icon behaves exactly like the “**background**” area of the folder pane. This is quite useful when the pane is full of items: Rather than searching for its “background” area, using this icon is much easier.

Jumping multiple levels up (to any parent folder in the path)

Simply l-click on any part of the path to directly jump to any of the parent folders. In Windows 2000 and later, the mouse pointer changes to a “pointing hand” and the subpath under the pointer changes color as shown below.

In the following example, folder gggg is currently loaded in the folder pane. To go four levels up (to folder cccc), click on the cccc subpath on the header. (You don’t have to press BKSP four times to reach there.)



If you press **ALT** while clicking, the folder will open in the opposite pane.

Jumping to any parent folder- Long paths

Sometimes, your directory is very deep, or the folder names are long. As a result, the whole path is too long for the pane header to display fully. In such cases, x² truncates the path and inserts “...” as shown below:

D:\...mpliant processes\Process Management\Organizational Process Definition

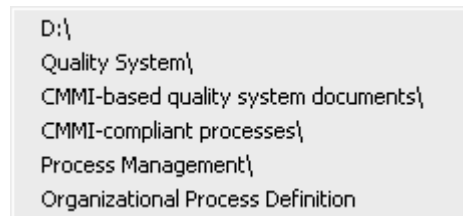
Although the truncation accommodates the path in the available length, it also presents two problems:

1. More than one parent folders could be replaced by the “...” symbol. It is not possible to jump to a folder within this span by clicking there.
2. The name of the first folder after the “...” is truncated, and is

difficult to read.

To solve these issues, x² provides another mechanism: SHFT + r-click on the header. A window pops up, showing all the parents of the current folder up to the root of the current directory. You can jump directly to any of the listed folders by clicking on it.

In our example, a SHFT + r-click on the folder pane header produced this list:



Compare this list with the truncated display in the previous figure:

- Two of the parent folders (Quality system and CMMI-based quality system documents) were missing in the header display. Now they are accessible.
- The name of a third folder (CMMI-compliant processes) was partially hidden. Now it is displayed fully.



Tip: If you want to save a click, after r-clicking on the list, without releasing the **RMB** slide the mouse pointer to the desired row and then release the **RMB**.

Jumping to any part of the directory

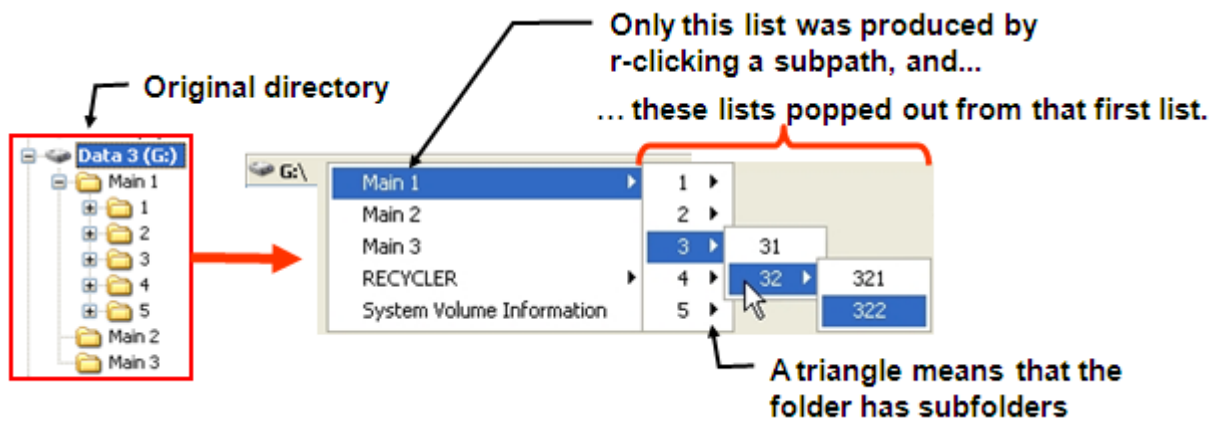
The pane header has a mechanism that allows you to rapidly jump to any other part of the folder tree: R-click on any of the segments of the path for a list of its subfolders. Click on any of the subfolders to load it in the folder pane.

By default, x² displays only one list at a time (showing subfolders of the path-segment where you r-clicked). However, you can alter a registry setting so that the lists are now cascaded just like x²'s menus. You can navigate through the entire directory from the selected subpath downwards by moving your mouse over the lists. This is useful to reach any corner of the directory rapidly.



Tip: When cascading is turned on, this feature is equivalent to Breadcrumbs feature of Windows Vista.

The following figure shows an example. The original directory tree is shown at left. The first list is produced with a r-click on the path segment G:. If the cascading lists option is enabled in the Registry, the other lists pop up when the mouse is hovered on entries with a ► symbol.

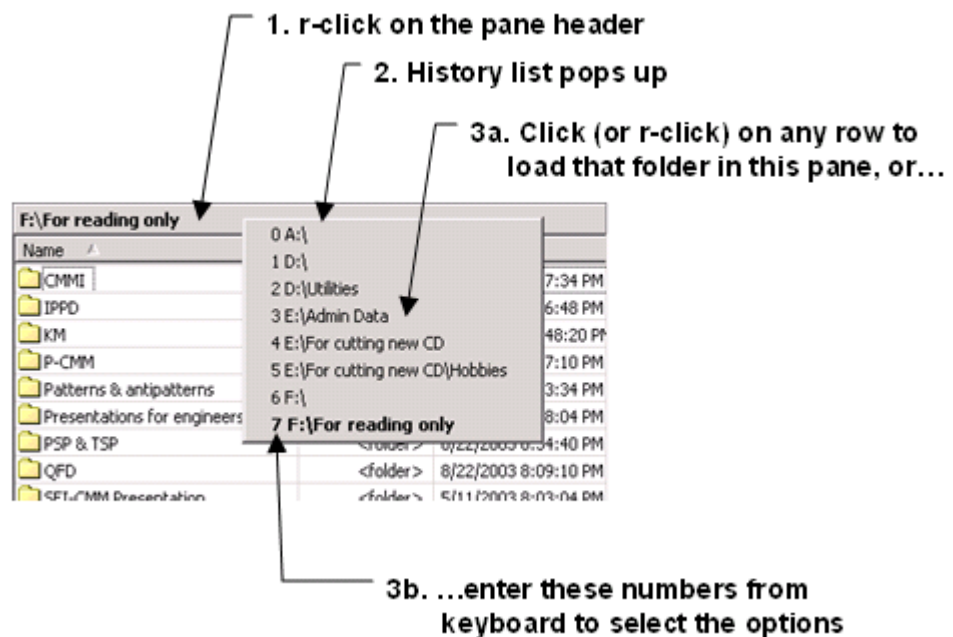


Tip: The pane header has a « symbol between the image and the path (see the screenshot on left.) Right-click on this symbol to see breadcrumbs for the My Computer node. It lists all drives (including the virtual drives and mapped drives), and shows their contents.

It helps to think of the « symbol as a directional arrow that points in continuation of the path. As we go from right to left, the path shows higher folders. Therefore, the symbol represents something that is even higher than the drive (i.e., My Computer).

Browsing recently visited folders (History Navigation Chain)

If you r-click on the headers, a list of recently visited folders (called “History Navigation Chain”, or simply “history” in short) pops up, as shown below. To jump to any of these folders, either click on it, or press the number shown to the left of each folder (0 to 9).



Tip: If you want to save a click, after r-clicking on the list, without releasing the **RMB** slide the mouse pointer to the desired row and then release the **RMB**.

x² uses a sophisticated algorithm to maintain the history chain. Compared to Windows Explorer, x²'s history chain has three major advantages:

- If the target folder is not found (because it was renamed or deleted), then the link is removed automatically from the list. So, when you use the history next time, you will not see a dead link.
- Even if you visit the same folder multiple times, the History chain will keep only the latest record: Duplicate instances are automatically eliminated. This simplifies the history chain.
- In Windows Explorer, when you jump to a new location from the middle of the history chain, all the locations in the “Back” direction are lost, and only locations in the “Forward” directions are retained. If you had jumped from a forward location, almost the entire history chain is lost! In x², there is no such amnesia: All locations in the history chain are retained.

Refer to **Appendix 9G** to understand how history navigation chain works.

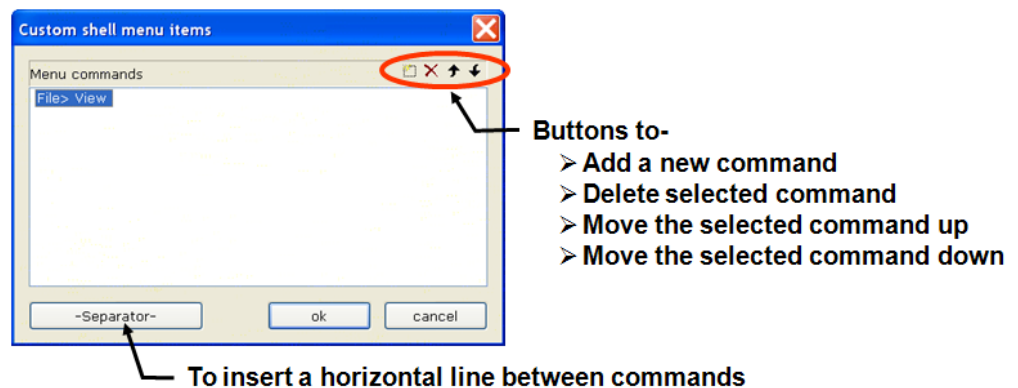
Providing commonly used functions through a context menu

The pane header has an icon in its left corner. R-click on it to get a context menu that contains commonly used functions.


Initially this list contains only one item, as shown below:

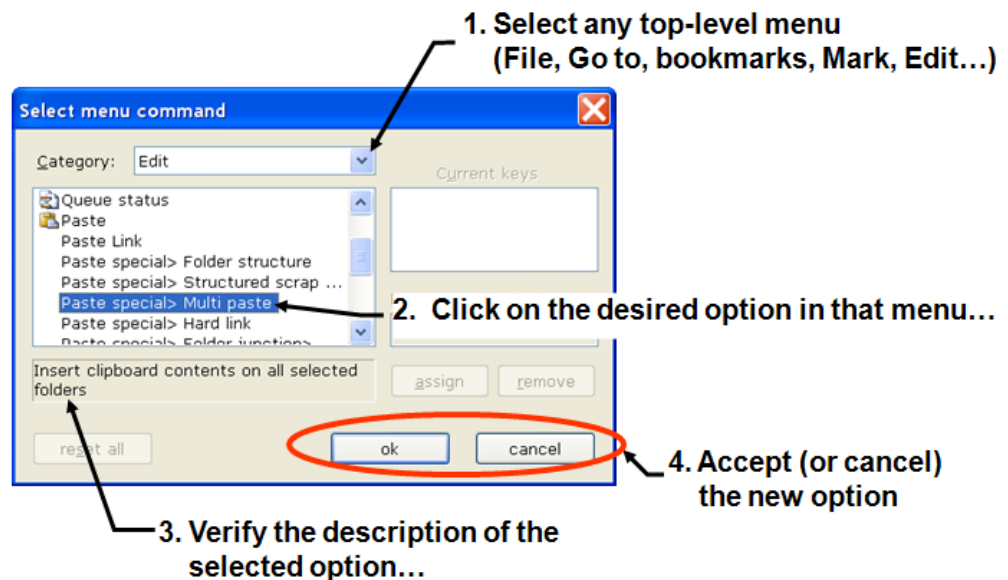


However, the **xplorer2 |Organize** context menu allows you to add new menu options. When you select this option, a new window pops up:



Use this window to add new menu options and separator lines between them.

To add a new menu option (command), click on the  button. This pops up another window, which allows you to add the menu option:



Column headers

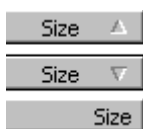
In all Windows flavors earlier than Vista, the column headers appear only when the pane is in the Details **style**. (In other words, they are not displayed when the folder panes are in large icons, small icons, list and thumbnail styles.) In Windows Vista and later, you can use a **program option** to turn them on in all styles.

The column headers have four functions:

1. **Sort the items** in ascending or descending order
2. **Multi-way sorting (nested sorting)** of items
3. Set the **width of columns**
4. **Change the order** in which the columns appear

These functions are explained below:

Sorting items



Click on a column header to toggle sorting direction. There are three possible sorting states: “ascending”, “descending” and “unsorted”. When a column is sorted, a triangle in its column header indicates the sorting direction: It points upwards for “ascending” order and downwards for “descending” order. (Absence of a triangle means that the pane is sorted on some other column.)

- The default direction is “descending” for date fields and “ascending” for all other columns.
- If you want to rename multiple items in a folder pane, an automatic sorting may create a problem, because as soon as you rename an item, it finds its new sorting position and jumps away. Keeping the column in “unsorted” order is useful in such cases. Alternatively, sort on any column other than “Name” (e.g. the size column) to prevent a

renamed file from jumping away.

- The default sorting order is lexicographic (file1, file10, file2, file20, file3...); but you can set it to numerical (e.g. file1, file2, file3,,file10, file11,...,file20) (Windows XP-style) by changing the **program option**.
- Note that you can sort the items even without the column headers (i.e., when the pane is not using the Details **style**), using two other sorting mechanisms accessible from the **pane area**.
- When the items are **grouped**, the display behaves in a different way:
 - The primary column creates the groups, which appear in a fixed sequence (the order cannot be changed in ascending or descending)

Multi-way sorting (nested sorting, sort-within-sort)

Sometimes, you may want to carry out nested sorting (also known as “sort-within-sort”). To do this,

1. Decide the sequence of your sorting (e.g. First Path, then Name, then Modified date).
2. Click on the first column header (in this case, Path) to set the sorting as desired. (This column is called the “primary sorting column”; and the other sorting columns are called the “secondary sorting columns”).

When the items are **grouped**, the primary column creates the groups, which appear in a fixed sequence (the groups' order cannot be changed in ascending or descending).

3. Next, press SHFT and click on the second column header that is in the order (In this case, Name). If you want, click to toggle between ascending and descending orders. (Keep SHFT pressed while doing this.)

When the items are **grouped**, items within all groups can be sorted by the secondary sorting column: You can also apply ascending or descending order by the secondary column.



Tip: You can use the same column as the primary sorting column and secondary sorting column. After clicking on its header (for the primary sorting), **SHIFT+Click** on its header (to sort items within the groups on the same column)!

4. Repeat step 3 with all the other column headers.

All the sorted column headers will display the sorting order with triangles.

To cancel the sorting, click on any column header without holding **SHIFT**.

This sorting is semi-permanent: If you close the tab, folder pane or x², the

secondary sorting will be lost, and the sorting order reverts to the first column that was selected in the sequence (in this case, Path.)

Changing column width



To change the width of columns, follow one of the following tricks:

- Drag the right-side border of any column header to set its width
- D-click the right-side border of any column header to set the width of that column to the longest entry in the column.



Tip: Rather than adjusting the width of each column separately, you can adjust the width of all columns in one stroke: While the focus is in the folder pane, press **CTRL+Gray+** (or use the **View | Autosize columns** menu option). The width of all columns will be automatically adjusted to the longest entry in each column. On the other hand, if you want to fit all columns to the text in headers, press **SHIFT+CTRL+Gray+**.

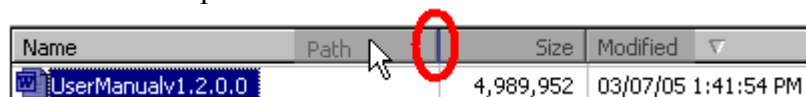
Changing the display order of columns

You may want to change the order of the column for two reasons:

1. The **incremental search** (described later) works only on the left-most column.
2. Before copying the column data for **taking a print**, customize the order of columns suitably.

To shift a column to a new position, drag-n-drop its header laterally to desired position.

- In the example below, the *Path* column is being dragged (note that a faint shadowy image of the *Path* column moves with the mouse pointer). Also note that the edge between the column headers of the *Name* and *Size* columns (encircled in red) is darkened, which indicates that if you release the **LMB**, the *Path* column will be inserted at that place.



Pane area

The pane area displays the contents of a folder (including its subfolders) in different **styles**. The results of all x² operations are seen here.

In this section, we will see how to navigate in this area, followed by how to hide some items from view so that the pane looks uncluttered.

Keep in mind that if you r-click in the “**background**” area, you get a context menu that offers multiple options. See **Appendix 9F** for details.

Sorting items using keyboard shortcuts and context menu

We saw that when the pane area is in Details **style**, you can sort the items

by clicking on the **column headers**. However, when the pane is displayed in other styles, column headers are not visible. Even then, sorting is possible by using keyboard shortcuts and context menu.

The following keyboard shortcuts are available for sorting:

Shortcut	Sorts on-
CTRL+ALT+N	Name of items.
CTRL+ALT+S	Size of items. Note: When the CTRL+D command is active, all folders are also sorted like files.
CTRL+ALT+D	Modified date
CTRL+ALT+T	Type
CTRL+ALT+U	The Unsorted order: x ² reads the items from the disk and displays them in their natural order.
CTRL+ALT+A	Toggles the sorting order between ascending and descending.

Note that sorting shortcuts are provided for four most popular columns. If you want to sort on other columns, you will have switch to *Details* style first, add the desired column using the **column organizer**, click on that column's header to sort all items on this column.

- After sorting, you may remove the column on which you have sorted; or even switch to any other style. This will NOT affect the sorting order.

To sort the items using the context menu, r-click in the pane area. From the context menu that appears, select the **Arrange by** ► option. A submenu appears with the same six options that were explained in the table above. Click on any desired option.

Overriding the sorting order temporarily

You can override the sorting order on a temporary basis by **focusing** on it and using the following shortcuts:


Moving an item up	CTRL+SHIFT+UpArrow
Moving an item down	CTRL+SHIFT+DownArrow

The original sorting order of the pane is restored when you **refresh** the display or restart x².

This command is typically used to manipulate the selected items in the active pane in certain order. After this step, the **script wizard**, which uses. If

the order is important (e.g. when using numbering token, such as \$01) and you cannot achieve it via regular sorting, you can manually rearrange items using the shortcuts described above.

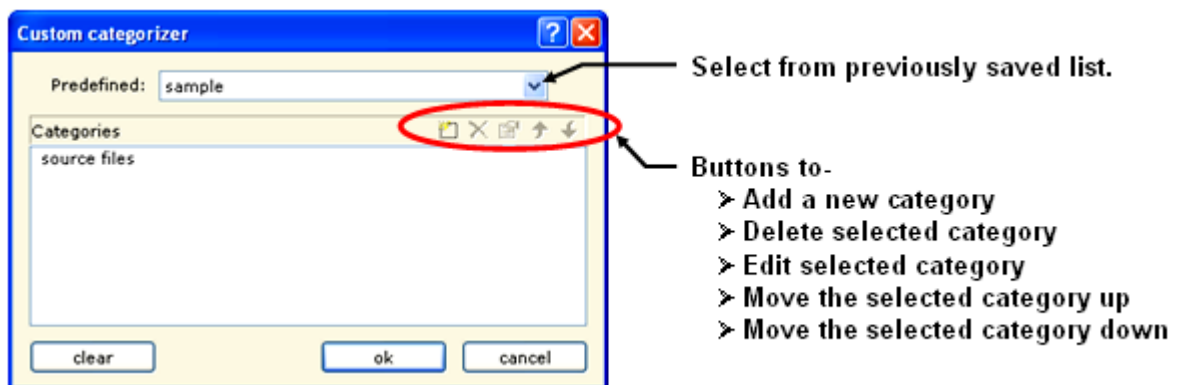
Displaying the items in Groups

In **chapter-3**, grouping was mentioned. To toggle the group display on/off, use the menu option **View | Arrange by | Show in Groups**, or press the  button.

Displaying the items in customized categories

In **chapter-3** there was a brief mention about displaying the items using your own custom-defined categories. Here we will see it in more details.

Press **CTRL+ALT+G** (or use the menu option **View | Arrange by | Custom Groups...**). A Custom categorizer window pops up, as shown below. You can define and edit the categories for this group in this window.

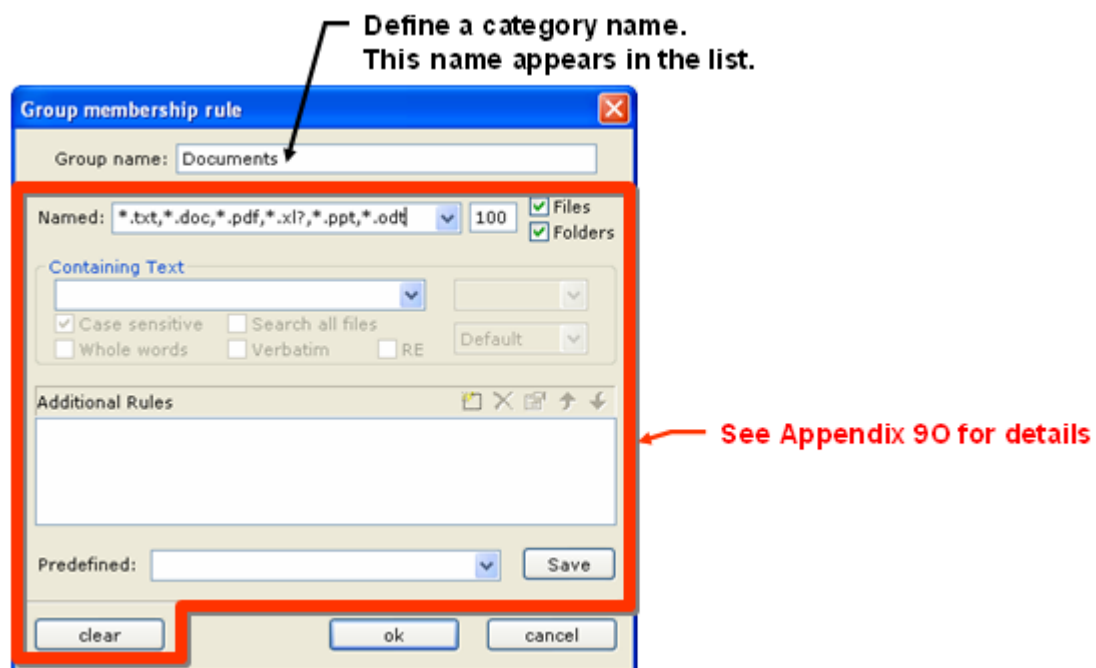


Obviously, the window is meant for selecting a predefined category from a list. But when you use this feature for the first time, you will not have any such list of predefined categories. So let us first see how to define a new set of categories.

New categories are defined and edited with the buttons shown below. The buttons have the following equivalent shortcuts and mouse actions:

Button	Equivalent shortcut (or mouse action)
Add (new)	Space (or d-click in the empty space of the window)
Delete	Del
Edit	Enter (or d-click on a category)
Move up	CTRL+UpArrow
Move down	CTRL+DownArrow

When you add a new category (or edit an existing category), the following window pops up:



The screenshot shows a category called “Documents”, which will display files with pdf, doc, rtf and odt extensions. In this example, we have left the “Additional rules” section blank, but you can define your own rules.

When you press **OK**, the window closes and you are taken back to the Custom categorizer window shown above.

Finally, when you press **OK** button in the Custom categorizer window, the categories are applied to the current pane.

To complete the scenario, you could create additional categories such as the following:

- “Images” (files with extensions like bmp, jpg, gif, xcf, etc.)
- “Audio” (files with extensions like mp3, wma, wav, etc.)
- “Archives” (files with extensions like zip, rar, tar, etc.)


When you apply these custom groups to a pane, all the files will be shown in the respective groups.

In case you make a mistake in defining the groups, x² handles them as follows:

Groups overlap	x ² takes each file and tries to find a matching group for it. For this, it evaluates each group in “top-to-bottom” order. So if your file matches the conditions specified for more than one groups, it will be placed in the first matching group. For example, if you have (mistakenly) added the extension “wma” in the “Images” category also, all the wma files will be shown in “Images” group, because this group is listed above the “Audio” group.
----------------	---

Groups do not cover all items in the pane	Files that do not belong to any of the categories will be shown in a special group called “Unspecified”.
---	--

To turn off the customized groups, use the **view | Arrange by... | Show in Groups** command.

A much simpler method is to click on the “Group” button  on the x²'s Tool Bar.



Caution: *The newly defined group definitions are not automatically saved. When you turn off a newly defined group, or close x², they are forgotten.*

A new set is always treated as a discardable set. If you intend to reuse it, you will have to save it, using the **Customize | Custom Groups| Add current** command.

If the currently applied set is in the saved list, then if the x² is closed and restarted, it will be reapplied to the pane automatically.

Navigating in pane area

You can navigate in the folder pane areas with keyboard and mouse.

The keyboard-based navigation is described below:

Key	Result
UpArrow	Move (scroll) up by one line at a time
DownArrow	Move (scroll) down by one line at a time
PageUp	Jump to the top/bottom of currently displayed list of items on the screen (the pane may have a long list that spans several screens)
PageDown	Jump to the top/bottom of currently displayed list of items on the screen (the pane may have a long list that spans several screens)
Home	Jump to the top of the pane
End	Jump to the bottom of the pane
CTRL+ALT+UpArrow	Jump to the previous group
CTRL+ALT+DownArrow	Jump to the next group

Key	Result
Enter any string	Jump to the first item whose name begins with the string (see incremental search)
BKSP	Go to the parent folder
ALT+RightArrow	Go forwards in “recently visited folders” list (history navigation chain)
ALT+LeftArrow	Go backwards in “recently visited folders” list (history navigation chain)

The mouse-based navigation is described below:

- Click with the mouse on a random row to go there.
- Turn the mouse **wheel** to scroll up/down.
- D-click in the “**background**” area to go up one level (to the parent folder).

Autorefreshing the display

x² senses changes occurring in any part of the file system (in most cases) and will automatically refresh all affected folder views.

However, sometimes this behavior can be a nuisance. For example, when you browse a folder while files are being downloaded into it, the display will keep flickering. To avoid that, you can temporarily suspend the autorefresh behavior using the **View | Hold autorefresh** menu option (every time you select it, it toggles on/off).

When the refresh is off, you will lose sight of what is the latest situation in the folder. For example, some files of interest may have landed in the folder. To update the status, press **CTRL+R** (or use the **View | Refresh** menu option) periodically.

Later, don't forget to turn on the autorefresh mode!

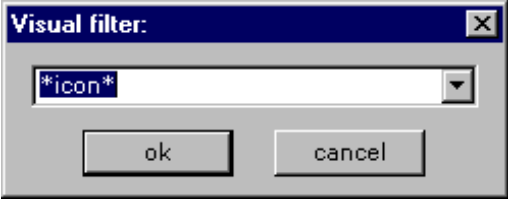
Visual filtering

While viewing the items in the folder panes, you can set Visual filters: items that match filter conditions will be visible and the rest will be hidden from view. This allows you to focus on certain items and ignore the rest.

Note that visual filters are just a visual trick: They do not actually delete the items from the disk.

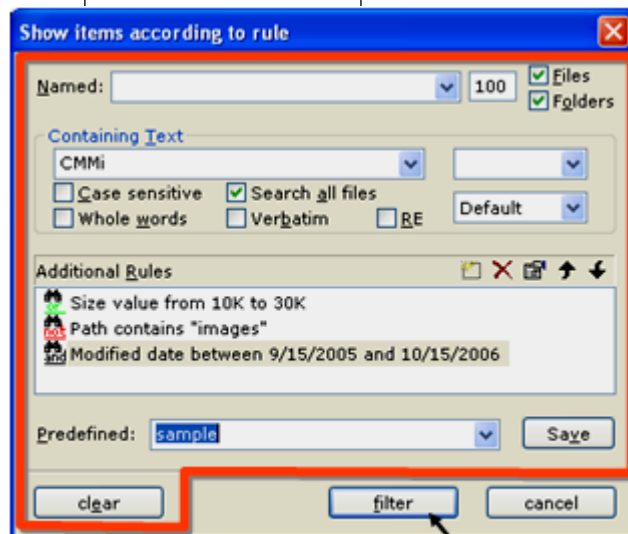
Several visual filters are available for this purpose, as described below:

Show what-	Filtering method
Items matching a	Press CTRL+H (or select View Visual filters Menu)

wildcard pattern	<p> Wildcard menu option).</p> <p>A window pops up.</p>  <p>Specify any string here. x² automatically pads the string (on both sides) with wildcards (*). All files that have matching names will be displayed in the folder pane, and the rest will be hidden from view. Note that folders in the pane are not hidden.</p> <p>➤ To toggle this filter on/off, press CTRL+J (or use View Visual filters On/off menu option).</p>
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Items that match a complex rule

Press **ALT+H** (or use **View| Visual filters | Rule based...** menu option). The following window pops up:



See Appendix 90 for details

Press to select items that match the rules

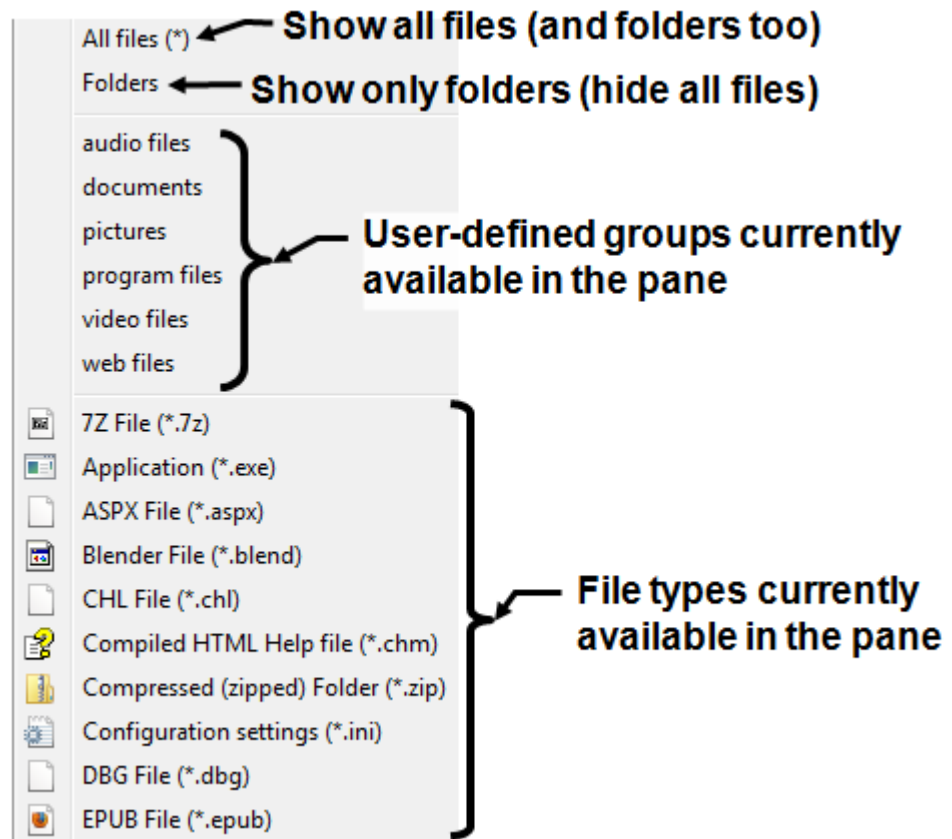
The part of GUI that is enclosed in red is called *Hyperfilters*, which allows you to set complex conditions involving multiple attributes of the items. (see **Appendix 90** for details).

You can set a complex “rule” (a set of conditions involving multiple properties of an item: name, path, size, dates, containing text, etc.). Any item that matches this set of rules is displayed; the rest are hidden.

- To toggle this filter on/off, press **CTRL+J** (or use **View| Visual filters | On/off** menu option).

View only selected file type(s) or arbitrarily defined groups of file types

Select **View** | **Visual filters** | **Auto-filter** menu option. x² pops up a list of all file types present in the current pane.



Now you have the following alternatives:


1. Show all files (and folders too)
2. Show only folders (but hide all files)
3. The top list shows **user-defined groups** that are currently available in the pane. Each group consists of some related file-types. (e.g. the *Audio* group consists of *mp3*, *wav*, *wma*, *cda*, *snd*, *aif* and *ogg* file types.) Select any group.
4. The bottom list shows individual file types that are currently available in the pane. Select any one type from this list.

To toggle this filter on/off, follow any one of the following methods:


1. Press **CTRL+J**
2. Use **View** | **Visual filters** | **On/off** menu


	<p>option</p> <p>3. Use the Auto-filter again, and select the All files (*) option from the list.</p>
Hide all folders	<p>Press ALT+J (or use View Visual filters Hide folders menu option) to hide all folders. Only files will be visible in the folder pane.</p> <p>➤ To toggle this filter on/off, repeat the command</p>
Show selected items only	<p>Press CTRL+ALT+J (or use View Visual filters Selected only menu option). Only the selected items will be displayed; all others will be hidden from view.</p> <p>➤ To turn this filter off, use the Show all items command described below.</p>
Turn off all filters (Show all items)	<p>To turn off all visual filters simultaneously, use View Show all menu option. All the items are displayed normally.</p>

Notes:

1. Although the items are hidden from view, they are not deleted.
2. The filters are applied separately to each folder pane. If you have applied it to one pane, it won't be applied automatically to the other.
3. The visual filters are applied to a folder pane; not to a folder. In other words, once a filter is applied to a pane, it stays ON in that pane, even when you open other folders in that pane.
4. When a visual filter is applied to the active pane, a green funnel symbol  appears in the status line, to caution you that some items may be hidden.



Tip: If you feel the  symbol is too inconspicuous and you might miss noticing that the contents are filtered, then apply a **registry setting** to change the background color of the pane whenever a visual filter is active.

5. The  symbol (or the change in the background color) is only a general indication: You cannot tell **which** of the filters is active in which pane. More than one filters might be active in any one (or even both) panes.

The *Visual filters* menu contains five filters in all: *Wildcard*, *Rule-based*, *Auto-Filter*, *Hide folders* and *Show selected only*. Out of these, you can toggle the first three filters (Wildcard, Rule-based and Auto-Filter) using the **CTRL+J** command (or the **View| Visual filters | On/off** menu option).



Warning: *The CTRL+J command does not turn off two filters (Hide folders and show selected only). Consequently, if you use CTRL+J to turn off the filters, some items may still remain hidden. If you delete such a folder, x² will delete the folder without warning you about the hidden items.*

On the other hand, use the **View | Show all** menu option to turn off all five filters together.



Tips:

1. If you use visual filters, always use **View | Show all menu** option before you start deleting items.
2. Never keep the visual filters on for too long: After a while, you might forget that some items are hidden and start deleting the folders!

Applying the visual filter to the opposite pane

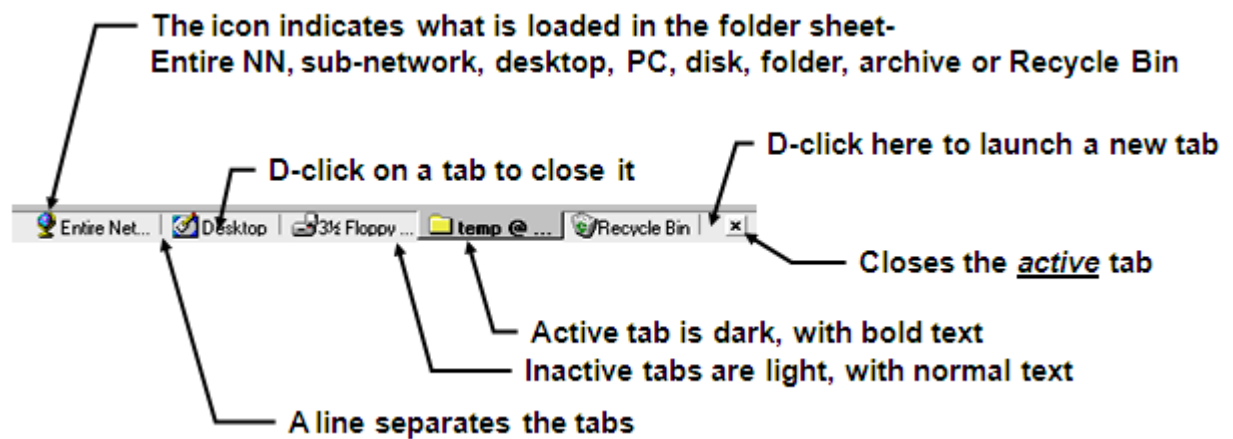
To apply the same filter to the opposite pane also, press **CTRL+ALT+M** (or use the **View | Visual filter | Same filter** menu option).

Note: This command works only for the *Wildcard*, *Rule-based* and *Auto-Filter* filters. The *Hide folders* and *Selected only* filters are not applied with this command.

Tab Bar

Using the **tab Bar**, you can do the following:

1. **Launch a new Folder Sheet** (“tab”)
2. Launch **multiple tabs simultaneously**
3. **Change the order** of the Folder Sheets
4. **Move the tab across to the opposite pane.**
5. **Lock a tab** (against inadvertent closing or moving)
6. **Select a Folder Sheet** (bring it to the top of the stack)
7. Provide a recognizable **name to the tab**
8. **Close one or more tabs** (Folder Sheets).
9. Drag-n-drop a selection of items into a folder (More on this **later**)
10. Copy the paths of all tabs in a list.




We will see each of these functions in detail.



Tip: Note that the term tab is often used to mean a folder sheet. That is because the tab is the most visible part of folder sheets, which themselves are not so conspicuous. So, instead of saying, “launch a new folder sheet”, we usually say “launch a new tab”.

Launching a new tab

To launch a new tab (i.e., folder sheet), do any of the following:

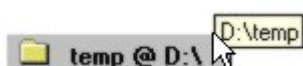
1. Press **CTRL+Ins**
CTRL+ALT+Ins launches a new folder sheet in the inactive pane
2. Use the **File | New Tab** menu option
3. In the tab Bar, d-click on the empty space on the left of the  button.

This triggers two things simultaneously: (a) A new folder sheet is launched in the active folder pane; and (b) its tab is added to the Tab Bar.

- If the focus is on a folder, that folder is loaded in the new folder sheet.
- If the focus is on a file, then the new folder sheet will be a clone of the current folder sheet.

When there is only a single tab in a folder pane, x² hides the Tab Bar to maximize the working space on screen. When you launch another tab, x² opens the Tab Bar and shows both tabs in it (it reveals the first tab, which was hidden so far).

A newly launched tab is always added at the end of the existing tabs' queue.



Tip: When there are multiple tabs in the Tab Bar, x² shrinks each tab's width to accommodate them all in the available width. As a result, it may not be able to show the name of the folders properly. To see the name of the folder (with path), hold the mouse pointer over the tab. A tooltip pops up to show the complete path, as shown on left.



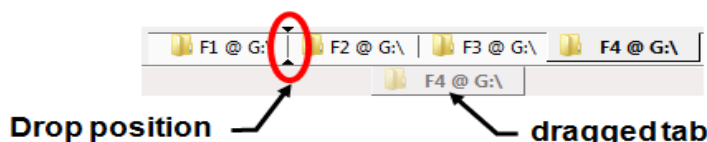
Tip: If the currently displayed folder is empty, x² does not allow you to launch a new tab. Even if you try to launch a new tab, the command will not do anything. The logic is simple: Why waste this current tab for watching an empty folder? Just load the desired folder in it!

Launching multiple tabs simultaneously

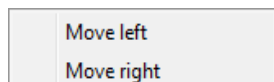
If multiple items are selected, a separate tab is launched for each. This is very useful if you want to inspect multiple subfolders within a folder.

Changing the order of the tabs

To move a tab to a new position, simply drag-n-drop it to the new position. x² places a floating image of the tab at the mouse pointer to remind you what is being dragged. As you drag the tab across the tab bar, you will see a place-indicator jump between two tabs. This is your drop target: If you release your **LMB** now, the tab will get inserted at that position.

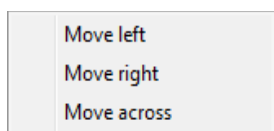


In the example above, we are dragging Tab F4.



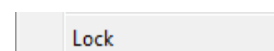
You can also r-click on the tab. A context menu pops up, offering you two options: Move left and Move right. Click on the option you want. These options move the tab by one position at a time. Repeat this step till the tab is relocated to the right place.

Move the tab across to the opposite pane.



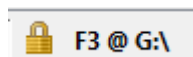
Sometimes you need to move a tab across to the opposite pane. To do this, right-click on the tab. From the context menu that appears, click on the Move across option.

Locking a tab



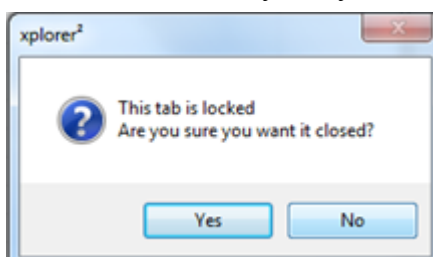
Sometimes you want to protect a tab against inadvertent closing or loading other folders in it. This is done by locking the tab.

If you try to load another folder in a locked tab, x² loads that folder in a new tab.



To lock a tab, r-click on it and select the Lock option. Now a lock appears in the tab.

A locked tab cannot be closed: If you try to close it, x² will first warn you.



Now you can choose to close this tab if you want.

A locked tab cannot be moved across to the opposite pane. (But you can move it within the pane.)

Providing a temporary name to a tab

The third option in the context menu allows you to temporarily rename a tab. This is useful in multiple cases:

- To give an alternative name to the tab when you cannot rename the folder itself, for example when browsing a folder on a remote PC.
- To provide a shorter name for better handling.
- To provide a functional name that reflects what you are doing with each tab. For example, you may rename the tab as “Source files”, “Destination”, etc.

Note that the temporary names is forgotten when you close the tab or close x². To remember the tab names, save the entire set of tabs as a **folder group**.

Selecting a tab (Folder Sheet)

To select a tab, simply click on it. Its Folder Sheet is brought to the top in the Folder Pane.


You can also navigate amongst the tabs using the following shortcuts:

Key	Remarks
CTRL+ALT+RightArrow	Switch to the neighboring tab on the right. When you reach the last (right-most) tab, you are taken to the first (left-most) tab again. The cycle continues endlessly.
CTRL+ALT+LeftArrow	Switch to the neighboring tab on the left. When you reach the first (left-most) tab, you are taken to the last (right-most) tab again. The cycle continues endlessly.

Note: Sometimes these shortcuts are reserved for Windows. If x² does not work as expected, use the WinKey in these shortcuts additionally.

Closing one or more tabs

x² provides the following commands for closing the tabs:

- To close any tab (whether active or not) d-click on it, or click the middle button (or the mouse-wheel) of the mouse on it.
- To close the current (active) tab, press **CTRL+F4** (or use the **Window | Close Tab** menu option). You can also press the  button.
 - You cannot close the last surviving tab: At least one tab has to remain active in each folder pane.

- To close all tabs (except the active tab), press **CTRL+SHIFT+F4** (or use the **Window | Close all tabs** menu option).

When the **Save program state on exit** option (available through the **Tools | Options** menu) is enabled, then all the tabs (i.e., folder sheets) are also saved when you close x^2 . When you restart x^2 , all tabs are loaded.

- If the folder represented by a tab is renamed, moved or its path is renamed, then the tab shows the Desktop. However, it continues to point to the original folder. This is very useful: If the folder had become only temporarily unavailable (for example, because of a broken network connection), x^2 does not lose its reference.

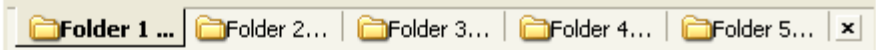
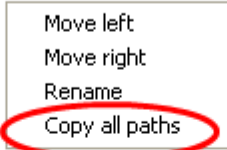
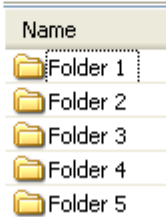
Exporting the tab set (through clipboard)

After you have opened various folders of your interest as tabs, you may want to save the set's definition. x^2 can **save the current tab set** as a **folder group**. But you can also export the set's definition (not the folder themselves!) out of x^2 and use it in other applications; which can be used in various other ways.

R-click on any of the tabs, and select the **Copy all paths** option. The paths of all the tabs are copied into clipboard as a comma-separated list.

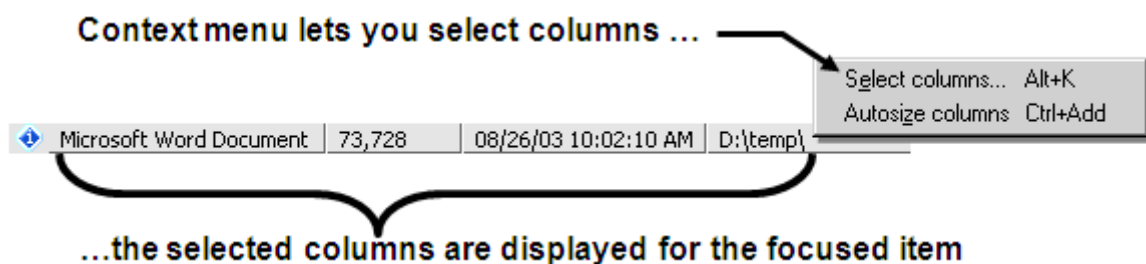
You can use this list in the following ways:

1. Paste the comma-separated list in a text file
2. Paste the list in a scrap pane. All the folders appear in the scrap pane as a list. (see the example below). After this, you can do various things with the list, as explained **here**.
3. Paste the list in a spreadsheet.
 - The spreadsheet can parse the list and put each folder path in a different column.
4. Paste the list in a PIM (personal Information manager). The PIM saves the paths as URIs (you can click on them to open the folders directly).

Folders in tabs	
Use context menu (same on <u>all</u> tabs)	
Paths copied to the clipboard...	D:\Trial\Folder 1,D:\Trial\Folder 2,D:\Trial\Folder 3,D:\Trial\Folder 4,D:\Trial\Folder 5
When pasted into a scrap pane...	

Info Bar

You can think of Info Bar as a tiny folder pane that is permanently set in Details **style**, and which can show only one item at a time.



There are two major uses of Info Bar:

1. If you have set your folder pane to *Thumbnails*, *icons* or *list style*, you will not be able to see the information available in the *Details* style. Info Bar shows you the required information.
2. Even if you have set your folder pane in *Details* style, you can't see more than 3-4 columns at a time because of width constraints. In such case, you can set up Info Bar to see additional columns.
3. The *Selection Information* column is very useful: It shows the number of items selected in the Folder pane, and their total size.

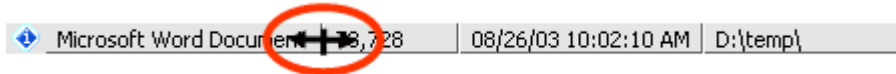
To view/hide Info Bar, use the **View | Tool Bars | Info Bars** menu option.

Following controls are available to change the appearance of Info Bars:

- To change the columns displayed in the Info Bar, r-click on it. The Column Organizer dialog (see **Appendix 9R**) pops up and lets you

select which columns to display here.

- To change the width of any column, hold the mouse pointer on its right-side edge. The pointer changes its shape, as shown below.



Now click the **LMB** and drag sideways to adjust the column width. When you get the desired width, release the **LMB**.

You can also automatically resize all columns of the Info Bar in one shot: r-click over the Info Bar. A context menu pops up. Select the Autosize columns option. Each of the columns will get adjusted to the length of entry in it.

Note: The context menu from **Folder Panes** is reused in Info Bar. Because of this, it shows keyboard shortcuts (**ALT+K** and **CTRL+Add+**) that actually do not work in InfoBars.



Tip: Instead of using multiple columns, you can simply use the **InfoTip** column. This column always provides the relevant information in a neatly organized way.



Using Folder panes in pairs

Although you can use x^2 in single pane mode, its tremendous power can be reaped only when you use x^2 in dual pane mode.

So let us see how to use the panes efficiently in pairs.

First, let us see how to adjust the sizes of these panes in different ways:

Make the panes of equal size	This is the most usual mode of working. Press CTRL+E to make panes of equal size. The divider line between the two folder panes will jump to midpoint. You may have to readjust all columns in both folder panes.
Adjust panes to desired size	Often you will need to resize the pane (for example, to see all the columns, or to see more items). Click on the divider line between the panes and drag it to the desired position.
Turn off the inactive pane	<p>The command CTRL+O (or menu option View Dual Pane) toggles the display between single-pane and dual-pane modes. It toggles the inactive pane off/on.</p> <p>In the single-pane mode, the commands that work on two opposite panes are disabled.</p> <p>Caution: <i>The CTRL+O command discards all tabs and selection information for the closed pane. When you turn the inactive pane</i></p>

 	<p><i>off, and turn it on again, only the current tab survives.</i></p> <p>So, if you are going to use the same set of tabs again, it is a good idea to save the tab-set. When you restore the second pane, you will have to reload the set.</p> <p>Tip: The CTRL+O command can be exploited to turn off all tabs in a pane at once (Otherwise it would take multiple clicks to turn off the tabs one by one.) To use this trick, switch over to the opposite pane and press CTRL+O twice. The first CTRL+O will turn off the opposite pane (and close all its tabs). The second CTRL+O will reopen the opposite pane, but with only the current tab open.</p>
<p>Maximize the active pane (but stay in dual-pane mode)</p>	<p>You may want to maximize the active pane without using the single-pane mode. (A typical use is when the active pane has many tabs, and you want to see all tabs fully. Another typical use is to set the pane in <i>Details style</i> and add multiple columns. In this case, you will need to widen the pane to see all columns.)</p> <p>Press CTRL+E twice. The active pane will now occupy nearly the whole screen, and only a little part of the inactive pane remains visible. (This is to remind you that you are still using the dual-pane mode; and so all dual-pane commands are fully available.)</p>

The ALT key is very useful in directing most actions to the inactive pane

(The key to remember this is to think ALT = Alternative (=inactive) pane).

- Press **ALT+Enter** on any subfolder displayed in the active folder pane (or **ALT+d-click** on it). That folder will open in the opposite pane. This is a quick method to check all subfolders of the folder you are browsing.
- Press ALT and click on any node in the tree. The node will open in the inactive pane (not in the active pane).
- After entering an address in the Address Bar, press **ALT+Enter**. The path you entered will be opened in the inactive pane (not in the active pane).
- The ALT key works in pane headers also: If you press ALT while clicking on any item in the pane header, it will be opened in the opposite pane.

Other useful commands are:

- **CTRL+I** (menu option **Go to | Same folder**) loads the current folder of the active pane in the inactive pane.

- **ALT+CTRL+I** is the reverse of the above: It loads the current folder of the inactive pane in the active pane.
- **CTRL+U** (menu option **Go To | Swap panes**) swaps the panes' contents. This is useful if you are used to copying/moving items only in a certain direction (e.g. from-left-to-right).

Using QuickViewer

While you browse through the folders in the folder pane or mini-scrap pane, you can have a quick glimpse of the files with the QuickViewer. It displays (or plays) the file under focus. You can quickly identify files of your interest without having to open each and every file.

The QuickViewer can be toggled on/off with **CTRL+Q**.

The QuickViewer has two tabs (use **ALT+Q** to switch between them):




Tab Name	How it behaves
Draft preview	Depending upon the file type, this tab displays it in a different way. (See the table on the following page for details). As soon as you focus on a file, this tab shows it instantly.
Native	<p>Uses ActiveX plug-ins of Acrobat, Microsoft Office, etc. to display those files with their default applications. It also shows an improved display of text, HTML and graphics.</p> <p>In Windows vista/7, x² PRO uses the preview handlers for MS Office/PDF/etc. (You can download preview handler extensions from here.)</p> <p>x² PRO automatically resizes images and text in this tab.</p>



Tip: The Native tab takes a longer time to load the focused file, during which you cannot shift the focus in the folder pane to another file. Therefore, for normal use, make use of the Draft Preview tab, and use the Native tab only to view the file in detail.

Using the Draft Preview Tab of QuickViewer

File type	Typical extensions	QuickViewer Display (Draft Preview Tab)
Text	txt, rtf, ini, cpp, ...	Plain text content. Supports plain ANSI, OEM, Unicode and UTF-8
HTML	htm, html, xml	Formatted page (hides the HTML tags) <ul style="list-style-type: none"> ➤ If you want to see raw HTML, pick the "Text only" option from

		<p>the QuickViewer's context menu.</p> <ul style="list-style-type: none"> ➤ Highlights the URLs. If you click on a URL, it is launched in your default browser.
Microsoft Office	<p>ppt, doc, xls</p>  	<p>First page only.</p> <ul style="list-style-type: none"> ➤ The file is displayed in QV only if the “save picture preview” check box is ticked in document's Properties dialog box <p>Tip: To change this property, use File Properties menu of the concerned application.</p> <p>But keep in mind that this option results in increased file size!</p> <p>Tip: If you have installed IFilters, you can see the unformatted text of these files in QuickViewer. (Windows 2000/XP/2003 only)</p>
Portable document format	<p>pdf</p> 	<p>Text interspersed with control characters</p> <p>Tip: If you have installed IFilters, you can see the unformatted text of pdf files in QuickViewer. (Windows 2000/XP/2003 only)</p>
Image	<p>png, gif, jpeg, tiff, ...</p>	<p>Displays the image</p> <ul style="list-style-type: none"> ➤ The display is suppressed if the file size exceeds the limit set in thumbnail field of Tools Options menu option, General tab) ➤ Some image types (e.g. xcf) are treated as “other types” (see below), and not as Images.
Audio/ Video	<p>Mp3, avi,</p>	<ul style="list-style-type: none"> ➤ Windows Media Player's controls (play/pause/stop etc) ➤ Starts to play the file automatically.
Others	<p>exe, zip, etc</p>	<p>Hexadecimal preview of content</p>

Apart from these file types, QV can also handle other exotic file types that you **add in the Registry**.

Since the purpose of QuickViewer is to provide you with a quick glimpse of the file, it will not display the entire file: It will show only the beginning part. You can change how many bytes it should show, by setting the **program options**.


R-click on the QuickViewer to set it in different modes. (See **Appendix 9F** for details).



Tip: The QuickViewer has a very powerful feature: It is fully synchronized with the folder pane. So, when you use a command to find text (**CTRL+G**, **ALT+G**, **CTRL+F** or **ALT+H**), files that have the target text string will be loaded in the QuickViewer so that the appropriate portion of the file is visible; the matching string is shown in bold, as in Google search. To see the next match, press **F3** in QuickViewer.

Locking the QuickViewer on a particular file

Normally, the QuickViewer shows you the file that is **under focus** in the **active pane** (or the mini-scrap pane). As you navigate in the pane, the QuickViewer will follow you and keep showing the file under focus.

However, sometimes you may want to stop the QuickViewer from following you. To do this, select the **View | Lock viewer** menu option, or click on the  button located at the bottom of the QuickViewer. This will freeze the QuickViewer on the item it is currently showing.

Select the same menu again to free the QuickViewer. Now it will again start following the item **under focus**.

Selecting items (and focusing on them)

Selecting items (or focusing on them) is an important step in x^2 , because-

- Most of x^2 's commands act on the selected items en masse.
- Some of the x^2 commands work only on focused items. Besides, the QuickViewer and **Editor²** show the contents of the item that is under focus.

Therefore, before learning any commands, we should perfect the art of selecting (or focusing on-) the desired items. x^2 provides many techniques to select and focus on different items.

Before checking them out, let us first thoroughly understand these terms.

Understanding selection and focus

These terms can be explained with an example:

Imagine you are shopping for a pen. You can select multiple pens, but you

can focus on (=look at) only one pen at a time. Further, if the store has different shelves for displaying pens, you may simultaneously select pens from different shelves.






















The concepts of selection and focus are treated very similarly in x²:

- You can select multiple items at a time, but you can focus on only one item.
- If you have opened multiple folder tabs, you can make a selection in each tab independently. But you may focus on only one item in each tab.
- The selection/focus status is the property of each folder pane/**scrap pane**; not of the folder. So, for example, you can open the same folder in multiple panes/tabs and yet select/focus on different items in each pane/tab.

How to recognize the selection or focus status of an item

Look at a folder pane or a scraps pane.

Depending upon the **display style** of the pane, you may see different markings around the items' names, as shown below:

Display style	Indication of <i>selection</i> and <i>focus</i>	
	File-02 is focused <i>and</i> selected	File-02 is selected File-03 is focused
Icons	 File-01  File-02	 File-01  File-02  File-03
List	 File-01  File-02  File-03  File-04	 File-01  File-02  File-03  File-04
Details	 File-01  File-02  File-03  File-04	 File-01  File-02  File-03  File-04

These markings actually show the selection and focus status of each item.

Each item can have one of these four states as shown below:

State	How to recognize?	Example (See in figure)
Selected	Highlight on the file's name	File-02 (in both columns)
Focused	A dotted line around the file's	File-03

State	How to recognize?	Example (See in figure)
	name	(in both columns)
Selected and focused	Highlight on the file's name, and a dotted line around the file's name	File-02 (in the first column only)
Neither selected nor focused	No highlight or dotted line around the file's name	File-01 (in both columns)

Overview of selection methods

x² has a wealth of alternative commands for making selections. Some of the selection methods are manual; while others are mass-selection tools that use filters and search conditions.

x² also has **multiple methods for focusing** multiple methods for focusing on desired items.

Let us see what methods are available to select/unselect items:

1. Using **incremental search** (type the beginning letters to find a match)
2. All the usual **mouse gestures**, including **CTRL+Click**, **SHIFT+click**, lasso selection, hovering the mouse on the items, etc
3. Press `Space Bar` or `Insert` to **toggle the selection status** of the item under focus
4. Select file names that **match a wildcard**, or multiple comma-separated wildcards
5. **Selecting an exact number of items** (range) below the focus
6. Select **files that contain specified text** in them.
7. Select files that have the specified text in their **contents or their text-type columns**
8. Reuse a previously “saved” selection (see **Mark | Selection** submenu)
9. Select **folders only** (including items that are deemed folders)
10. Using complex Rules (**hyper filters**) to match items by size/date or any other piece of information that appears in item **columns**.
11. Select **all items in the pane** in one stroke
12. Unselect **all the currently selected** items
13. Select (or unselect) **items of same base name as the focused item**

14. Select (or unselect) **items of same type as the focused item**
15. **Inverting a selection status** of all items in the pane (all selected items become unselected and vice versa)
16. Select (or unselect) entire **groups** of items

By combining these commands, you can build complex collections of items!

Notes:

1. The elementary selection mechanisms are additive: Whatever you select is added on top of any existing selection. To start a fresh selection, unselect everything first by pressing **ALT+A**.
2. As you move around, the focused item is changed and that usually cancels all previous selections. To move the focus without affecting the existing selection hold down **CTRL** or turn **Mark | Sticky selection** on. This will help you to handpick items scattered in the folder listing.
3. Selection can be assisted by intelligent use of **sorting**. For example, the easiest way to select all files modified within the last day is to sort by date, click on the first (topmost) item and **SHIFT+click** on the last file whose date is within the last 24-hour range.

The following sections explain all selection methods listed above.

Using incremental search

This feature allows you to select a single item that has a name (or extension) that begins with the letters or digits you type. (Well, actually it changes the focus, but if you are not using the **sticky selection** mode, then changing the focus to a new item automatically selects that item. So, we will consider this as a mechanism that both selects and focuses. In fact, since it takes us to a certain part of the pane, we can consider this a **navigation mechanism** also!)

To use this feature, simply start typing in the folder/scrap pane. The focus moves to the first matching file name; e.g. typing *sa* will take you to the first file whose name matches this substring (e.g. sample.txt). If you continue typing more letters, *x²* will go on finding the first file that matches the string. This feature is called incremental search.

- *x²* always searches the pane in the top-to-bottom direction to find a match. Therefore, depending upon the **sorting** order, the “first match” could be a different item.
- If the pane does not contain a matching item, then the focus remains on the current item.
 - If the entered string partly matches an item in the pane, the focus will first jump to that partly matching item. But if the subsequently entered characters of the entered

string fail to find a matching item, the focus will remain on the partly matching item.

- You must enter the entire string at once, without pausing.
 - If you enter the string slowly, x² will treat each keystroke as a separate incremental search, and try to match each letter separately.

For example, instead of locating an item beginning with *sa*, it will first respond to your first keystroke (*s*) and try to find an item that begins with *s*. Then if you don't type the next keystroke (*a*) within a predefined time, x² will drop *s* and start afresh search for an item that begins with *a*.

- If you pause while entering the string, the incremental search will try to match items with this partially entered string. Once you pause, you cannot continue by entering the remaining part of the string: You have to enter the entire string once again.
- To select the next match, type the same string again. (This could be tedious if you are trying to match a long string, In that case, it is better to use the **select filters** described later.)
- Incremental search works with file extensions also: Hold **SHIFT** while typing the string. For example, hold **SHIFT** and type *tx* to find the first file name that has a matching extension (e.g. *readme.txt*). This is useful when you have already sorted the items by type.
- Incremental search is not limited to file names: Just drag-n-drop any column in the leftmost (first) position and its contents will be used to match the partial strings you type.

Selecting all, unselecting all

This pair of commands is extremely useful: It allows you to select all the items in the active pane, or unselect all the selected items.

- To select all the items in the active pane, press **CTRL+A** (or use the menu option **Mark | Select all**).
- To unselect any previously selected items in the active pane, press **ALT+A** (or use the menu option **Mark | Unselect all**).

Selecting and unselecting items manually

You can manually select (or unselect) items using the following controls:

To select-	Do this
A single item	<ul style="list-style-type: none"> ➤ Click on the item. ➤ Move the cursor to the item with the arrow keys ➤ Press the Space Bar or Ins (the selection toggles on/off) ➤ Click the MMB (the selection toggles on/off) ➤ Hover the mouse over the item*
Multiple adjacent items	<ul style="list-style-type: none"> ➤ SHFT+select items with lasso ➤ SHFT+Click ➤ SHFT+hover the mouse over items*
Multiple nonadjacent items	<ul style="list-style-type: none"> ➤ CTRL+select items with lasso ➤ CTRL+Click ➤ CTRL+hover the mouse over items*

* For this command to work, select the single-click activation and hover selection modes from the **Tools | Options | Window** menu. By combining these modes, you can do the same work with half the number of clicks: Select an item by hovering the mouse over it (no clicks required), and launch the item with a single click.

Selecting an exact number of items (Range) below the focus

Select **Mark |Select Range...** menu option.

A window pops up as shown on left. The current item's own "line number" is displayed in its window Bar.

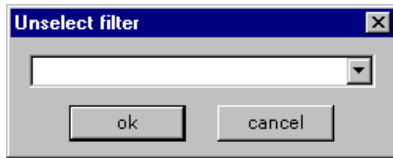
Enter a number in this window and press **OK**. **x²** selects the specified number of items below the focus item, including the focus item.

The Select and Unselect filters

x² has a set of two mass-selection filters:

Filter function	Shortcut	Equivalent menu option
Select all items whose names contain the specified string	Gray+	Mark Select group...
Reuse the last string for selecting (without a dialog)	ALT+Gray+	No equivalent in menu

Once you have selected some items, you may need to unselect some of them. x² has a set of two mass-unselection filters:



Filter function	Shortcut	Equivalent menu option
Unselect all items whose names contain the specified string	Gray-	Mark Select group...
Reuse the last string for unselecting (without a dialog)	ALT+Gray-	No equivalent in menu

Note that these filters will find your search string even if there are other strings on either side of it (In other words, they automatically add * on both sides of the search string before acting). You can also use the wildcard ? to represent a single character inside your search string. For example, if you enter wom?n, the command will act on all files that contain either women or woman (or both) in their names.

Note that these commands searches both file names and extensions. For example, to select all PowerPoint files, enter ppt in the box. (Note that you do not have to enter *.ppt.)

Selecting or unselecting same base name as the focused item

Often, we need to find files with the same base name. For example, when we have a source file, we want to locate its object file, which has the same base name, but different extension.

The command **SHIFT+ALT+Gray+** adds to the selection all files that have the same base name as the currently focused item.

Its complementary command **SHIFT+ALT+Gray-** removes from the selection all files that have the same base name as the currently focused item.

Both these commands work for items without extension, and also on folders.

Note: Both commands are available only through shortcuts: There is no equivalent command in the menu system.

Note that if you are working in a scrap pane, you may have files that have the same base name and extension (this is possible because they belong to different folders). These commands will work on such “duplicate by name” files also.

Selecting or unselecting items of same type as the focused item

The command **CTRL+ALT+Gray+** adds to the selection all files that have the same extension as the currently focused item.

Its complementary command **CTRL+ALT+Gray-** removes from the selection all files that have the same extension as the currently focused item.

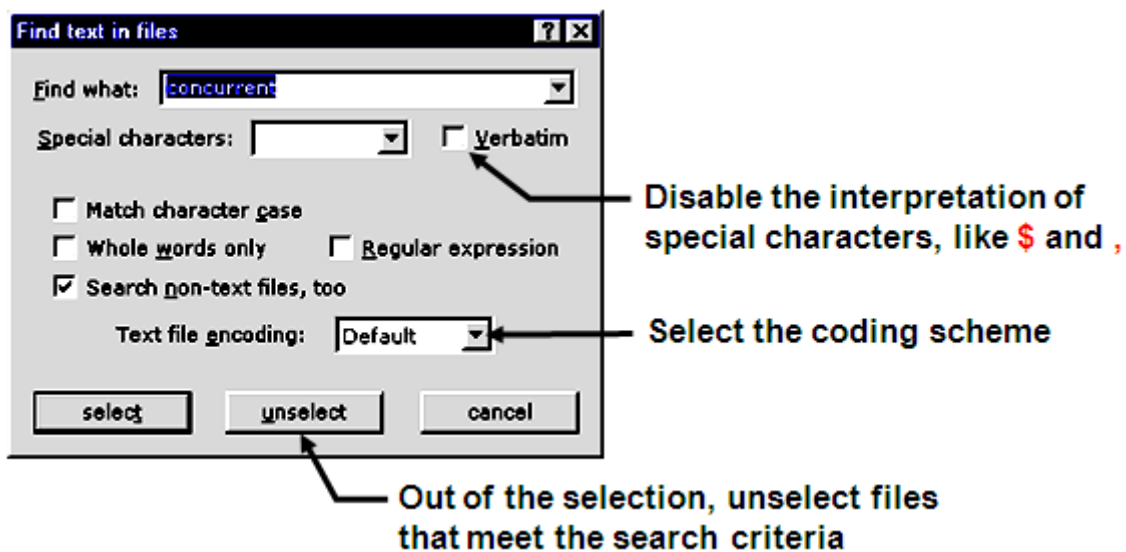
Both these commands work for items without extension, and also on folders.

Note: Both commands are available only through shortcuts: There is no equivalent command in the menu system.

Selecting or unselecting files that contain specified text

You can search all files in the active folder pane for specified text, and either select or unselect all files that contain this text. Typically, you will search for a condition, and then you will unselect a few items using some other criteria.

To launch this mass-selection tool, press **CTRL+G** (or select the **Mark | Containing text...** menu option). A window pops up as shown below:



This command is mainly for “pure text” files in various encodings (ANSI, Unicode, UTF8 and OEM). The default encoding is “Windows” text but you can override this using the Text File Encoding combo box.

- x² automatically detects Unicode and UTF8 files even without a BOM.
- If there is a valid BOM, then x² reads them appropriately disregarding the forced encoding setting.

You can also search for text in non-text files like word documents, if you check the appropriate box in the **CTRL+G** dialog.

You can even search for multiple keywords in one go, separating them with commas. See **Appendix 9L** for the required syntax.



Tip: The QuickViewer automatically synchronizes itself with the matching text and centers its focus around the text you searched for.

Searching for non-printable characters

You can search for non-printable characters also. (These characters do not get printed on paper: They are used to control a printer, such as page feed, line feed, etc. Because of their function, they are also called “control characters”).

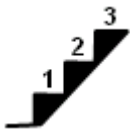
To search for these characters, enter `$xx`, where `xx` is the hexadecimal value of the character. For example, to search for the newline character, enter `$0A`.

For your convenience, some frequently used non-printable characters are provided in the **Special characters** drop-down list.

Quick search in file contents and columns

You can select all files that have the specified text either in their contents or in any of their **columns**.

The step-by-step procedure is as follows:



1. Select menu option **Mark | Quick search...** Immediately, the focus will shift to the **Address Bar**, where you will see the following instruction:

: type your phrase and press <Return> to search

2. The highlighted text is actually an instruction for you. Just type your search string, which will replace this instruction.

Instead of entering a literal string, you can enter a **Hyperfilter** name. For example, assume that you have defined a hyperfilter named “*Jumbo*” to match any item that is larger than 1 GB. You can enter {Jumbo} in the Address Bar. (Note that you have to enclose the Hyperfilter's name in curly braces { }).

3. Press Enter to complete the command. All items that contain the specified string will be selected.

If you press **SHIFT+Enter** (instead of pressing **Enter**), all the non-matching items will hide from view (but not deleted from the disk). Actually this is a **visual filter**, which can be turned off by pressing **CTRL+J**.

You can also launch this command directly in the Address Bar: Just click in the Address Bar, and enter your string in the following format:

: <search string> **Enter**

(The colon : is a literal. Enter it as shown.)

`x2` will select (mark) all files that contain the search string. It will also select a file if any of its **columns** contains the search string.

Note that this command searches in only columns that are activated in the pane. (It will work even if the column is hidden because of lack of pane-width.) For example, suppose you have selected the following columns using **ALT+K** command: *Name [S]*, *Size [S]* and *Modified [S]*. In that case, the Quick Search command will search only in these three columns. It will not search in the other columns, such as *Path [S]*, *Created [S]*, etc..

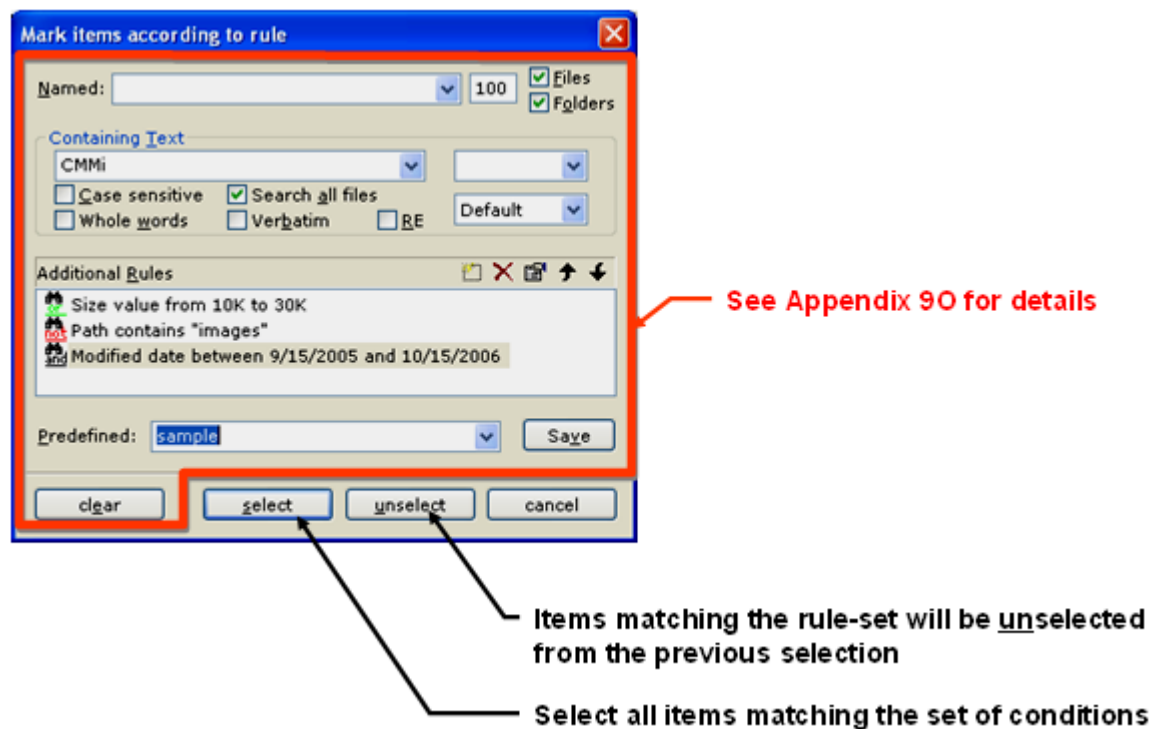
When you leave the pane (e.g. by selecting another tab/pane), the Quick Search string you entered in the Address Bar is cleared automatically.

Selecting (marking) all items that match a rule

The command **ALT+G** is also a mass-selection tool, but is much more powerful: It can check all the properties of the items against a specified complex set of conditions (“rules”).

This command is also available through **Mark | Matching a rule** menu (located there because it marks the items).

When you use this command, a dialog box pops up as shown below:



You can set different conditions in this window. When you press the Filter button, it will select (mark) all items that meet these requirements.

The part of GUI that is enclosed in red is called Hyperfilters, which allows you to set complex conditions involving multiple attributes of the items. (see **Appendix 90** for details).

You can name the set of rules and then save the set for using it later.

Selecting folders only

To select only the folders from a pane, press **CTRL+ALT+Q** (or use the menu option **Mark | All folders**). All folders are selected.

This is useful if you want to move all folders to a scrap pane, for example.

Tips: x² treats all drives and control panel as “folders” and selects them.



Note that you can use this command to hide all files: After selecting all folders, activate the **show selected items only** filter. Note also that x² has another visual filter called **Hide all folders** to complement this.

Selecting (and unselecting) groups

You can select and unselect an entire **group** of items. Just click anywhere in

a group and then use the following pair of commands:

To do this...	Press...
Select group	CTRL+ALT+SHIFT+Gray+
Unselect group	CTRL+ALT+SHIFT+Gray-

Note: This feature does not work well if you have enabled the **hover select** feature, because you typically let the mouse-pointer rest somewhere in the pane (rather than carefully moving it aside), and then it will select any items under it automatically.

Inverting a selection

Suppose you want to select 96 items in a pane that has 100 items.

What would you do? Select all 96 items laboriously?

Of course not! It is much faster to select the 4 items you *don't* want and then just invert the selection, so all unselected items are selected and vice versa.

To use this command, first select the “unwanted” items and then press the **Gray*** key (or use the **Mark | Invert selection** menu option).

Seeing your current selection wholly

Assume that you have a large number of items in a pane, out of which you have selected some non-contiguous items. Some of your selected items may be beyond the frame, and hence may not be visible currently. How will you see them all?

Just press **CTRL+SHIFT+F11** (or use the **Mark | Selection | Show** menu option). The top of your selection will be aligned to the top of the pane. That ensures that you get to see most of your current selection. (Of course, if the selection is too large, or too dispersed, you will still not see it wholly.)

For such cases, x^2 also has a more sophisticated method to let you see only the selected items (and hide the rest), by applying a “**Show selected items only**” visual filter to the pane.

Remembering a selection

In the preceding sections we saw how to select items using manual and mass-selection methods. Sometimes, you want to remember such a selection. x^2 can remember which items you had selected, by saving your selection definition. (Note: We are *not* talking about saving the selected items!)

Note that you can store a selection from a **scrap pane** also. Such a selection would contain items from various folders, drives and even PCs. (In contrast, if you store a selection made in folder pane, all items in the selection must belong to that folder only: You can't select items from different folders.)

To save the selection, press **CTRL+F11** (or use the **Mark | Selection | Store** menu option). x^2 will store the current selection in a “selection

clipboard”. Now you can change the selection, secure in the knowledge that x^2 remembers your selection for you.

Later, whenever you want to select the same items again, press **F11** (or use menu **Mark | Selection | Select**).

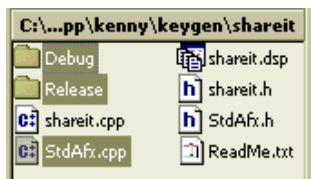
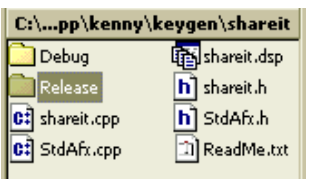
On the other hand, suppose that you have already selected some items in the folder, but you want to unselect items that are on your “selection clipboard”. To do that, press **ALT+F11** (or use menu **Mark | Selection | Unselect**).

Now let us assume you have a saved selection, and you want to add some more items to this saved selection. Here are the steps:

1. After making the new selection, press **F11** (or use the **Mark | Selection | Select** menu option). This will retrieve contents of the Selection Clipboard and add it to the current visible selection. (This is a Boolean OR operation between the current selection and the selection clipboard.)
2. Save this combined selection in the Selection Clipboard with **CTRL+F11**.

If you want to find items that are common between a saved selection and the current selection (in the active pane), press **SHIFT+F11** (or select the **Mark | Selection | Combine** menu option).

This is best explained with an example: In the following table, the first column shows the current selection, and the second column shows the selection stored in the selection clipboard. The third column shows the result of **SHIFT+F11**.

Current selection	Stored selection	Result of SHIFT+F11
	Release Nonsexist.cpp	

Only files that are both currently selected and also present in the “selection clipboard” remain selected. All other files are unselected. (This is a Boolean AND operation between the current selection and the selection clipboard.)

A saved selection has two interesting uses:

1. Use it to check if two collections have the same items

Store a selection (**CTRL+F11**), switch over to a different folder, and use it (**F11**). x^2 tries to select matching items in this folder.

(Note that this command matches the items by names only; not by content. So the selected items could be actually different; although they have the same name.)

2. Hide the non-matching items (to reduce clutter):

After following the steps described above, you can hide the non-matching items by pressing **CTRL+ALT+J** (or selecting the **View | Visual filter | Selected only** menu option). Now this pane shows only those items that are present in the other pane; and hides the rest. (But don't worry- the non-matching items are not deleted: You can unhide them by using the **View | Show all** menu option.)

Note that this quick-and-dirty technique has some limitations:

- x^2 can remember only one selection (In fact, that single selection is shared between all the running copies of x^2 : Individual copies cannot have their own selections).
- Each time you close x^2 and restart, the selection is forgotten.

These limitations are overcome with **scrap containers**, as shown below:

Remembering multiple selections

Sometimes, you need to make multiple selections (each for a different purpose) and remember them all.

For example-

- Source material required for a presentation (some PowerPoint files, some images, some pdf files with description, etc)
- Items to be sent to boss next Thursday (budget papers, worksheets, project proposals)
- Items to be read for the meeting on 2nd July.

So, instead of memorizing selections of items, you ask x^2 to remember collections of items: After copying items into a Scrap Container, save it with a suggestive name that reminds you of its purpose.

Tips:



1. Include the subject (and also the date-stamp for time-bound tasks) in the file name itself (for example, Meet_2Jul.cida will remember your collection for the meeting on 2nd July.)
2. Organize your office work and personal work into major areas. If you are more organized person, create subfolders to reflect subtopics. Create a folder system that reflects this organization. Always store your collections in the appropriate folders; so you will know where to search. See **chapter-8** for a detailed discussion about this.
3. Using Scrap Containers, you can define and remember unlimited number of collections. As discussed, when you copy an item into a scrap container, x^2 does not occupy double the disk space. Therefore, you can copy the same item into multiple scrap containers without really bothering about disk space.

How your actions affect the selection and focus status

When you move in x^2 or take some actions, your selection is affected. Let us see what actions destroy the existing selections, so you can avoid them.

By default, in a “fresh” pane, none of the items are selected, and the focus is on the top item. (You get a “fresh” pane when you start x^2 , load a new folder in the folder pane, launch a new tab with a new folder or load a new selection in the scrap pane.)

However, the selection and focus status changes as soon as you start any activity in the pane.

- When you launch a new tab while focused on a file, x^2 will load the same folder (clone it) in the new tab, and automatically select the same file in this new tab.
- If you click in the “background” area of the pane, the previously made selection is lost, but the focus is not lost.
- If you have turned on the sticky selection mode, the selection remains undisturbed.
- When you apply a different sorting order to a pane, the items are rearranged, but their focus and selection status remains unchanged.
- When you close a tab, the selection and focus information for that tab are lost.
- When you close x^2 , all selections and focus information for all tabs is lost.
- When you revisit a folder tab during a session, the selection and focus remain unchanged from the last visit.
- You may focus on an item regardless of its selection status, but the reverse is not true: As soon as you select the next item in a pane, the focus automatically shifts to it.
- If you want to focus on a certain item, you will have to again shift the focus to it.
- When you visit the recently visited folders (i.e., when you go up/down in the history chain), then the selection and focus information for the folder you just left is lost.



Tip: To avoid running a command on unintended items, you should carefully check your current focus/selection just before issuing the command.

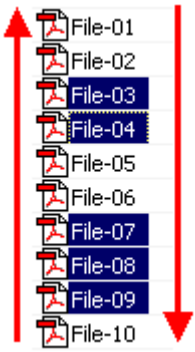
Changing focus without affecting selection

Some commands apply to the focus items in active and inactive pane; rather than on the selected items. For example, commands composed with some tokens act on the focused items from both panes.

To use such commands, you have to manipulate the focus in the active pane and also the inactive pane.

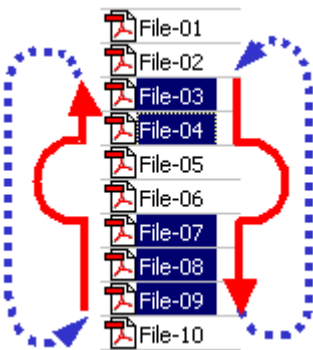
But there lies a problem: If you have already made a selection in these panes, moving the focus would destroy the selection. Therefore, you must move the focus without disturbing the selections, and then issue the token-based commands.

x² offers the following controls to move the focus without disturbing the selection:



1. Using **CTRL+UpArrow** and **CTRL+DownArrow** move the focus up and down respectively. You can move the focus to any item in the pane: Even to those items that are not selected currently. (In other words, the current selection has no bearing on the focus.)
 - When you reach the top/bottom end of the pane, the focus remains there: It cannot jump to the other end of the pane and continue in the same direction.
2. Using **CTRL+PageUp** and **CTRL+PageDown** keys act similarly, but they take the focus to the top and bottom of the screen, respectively. These keys are useful to move the focus in larger jumps.

Note that we have deliberately used the term “screen” above, and not “folder pane”: If the folder pane contains many items, its list will extend beyond a screen (you have to scroll down/up to see the remaining items in the folder pane). In such case, the shortcuts mentioned above will not jump to the top/bottom of the entire list. Rather, they will stop at the top/bottom of the partial list that is being shown currently on your screen.



3. Using **ALT+UpArrow** and **ALT+DownArrow** also move the focus up and down respectively. But in this case, the focus remains within the current selection. If you had selected non-contiguous items in the pane, then the focus jumps over the “gap” to the next selected item. (In other words, you cannot focus on an unselected item using these keyboard shortcuts.)
 - If the focus reaches the last item in the selection, a downward move will cycle to the first selected item (and vice-versa for the reverse direction).
4. Using sticky selection: In this mode, the selection sticks (i.e., it does not get disturbed when you move the focus with **UpArrow**, **DownArrow**, **PageUp** or **PageDown** keys.)

You can toggle the sticky selection mode on/off by pressing **ALT+S** (or using the **Mark | Sticky selection** menu option).

Even when this mode is in effect, you can still use the different selection methods described above to add more items to the selection (or to remove some items from the selection).

Note: The *sticky selection* option is not compatible with *hover selection* option. You cannot select both these options simultaneously. Choose the option that makes you more comfortable.

Using Scrap Containers

In this section, we will see the basic operations of Scrap Containers:

- Changing the appearance of the Scrap Container's window
- Adding items from different folders (or the NN PCs) to a scrap pane
- Removing items from a scrap container
- Deleting the items from the scrap container and the disk
- Save the contents of a scrap pane (as CIDA files)
- Re-load the saved contents (i.e., a CIDA file) into a scrap pane
- Edit the CIDA files

More specialized uses like synchronizing folders and searching for duplicates will be explained in later chapters.

Note: Most of the following description applies to **mini-scrap pane** also. (After all, the mini-scrap pane is a special type of scrap pane.) However, some commands are available in a Scrap Containers window only; and therefore they cannot be used with the mini-scrap pane (which is located in main x^2 window). In general, whenever the term “scrap container” is used, the description does not apply to the mini-scrap pane.

Changing appearance of scrap container

The GUI of a Scrap Container is very similar to the main x^2 GUI; so almost all GUI controls of x^2 's main screen also apply here.

The only exceptions are as follows (see the **screenshot**):

- A scrap container does not have a folder-tree pane
- The scrap panes do not have pane headers
- The scrap pane does not have a history chain

Refer to the preceding sections to see how to control the appearance of the scrap container's GUI.

Adding items to a scrap pane

The most general use of a scrap pane is to hold items (usually from different folders and even PCs).

There are multiple ways to add items to a scrap container.

3. Select items in folder panes and press **CTRL+S** (or select menu option: **File | Send to scrap**). The selected items are sent either to the mini-scrap or to a scrap pane, according to the following logic:

Mini-scrap pane	Scrap container	Items are sent to-
off	off	A new scrap container is opened, and the items are put in its active scrap pane.
on	off	Mini-scrap pane.
off	on	The last used scrap pane
on	on	The last used scrap pane

Note the pattern here: The Mini-scrap pane gets the items only if it already ON and there is no scrap container open (row-2 in the table). In all other conditions, a scrap container gets the items.

You can change this default behavior: Add `GLOPT_NOKEYSENDMS` in the **binMiscOptions** registry key. Now **CTRL+S** will send all items to a scrap container only; not to the mini-scrap pane.

- If a scrap container is already open, the selected items will be sent to its active pane.
 - If a scrap container is not open, x^2 opens a new scrap container and places the selected items in its active pane.
4. Drag-n-drop the selection from a folder pane into the desired scrap pane.
 5. R-drag a selection of items from folder pane of x^2 to a scrap pane. A context menu appears. Select the **Insert here** option from it.
 6. If you have a path to a single item stored in the clipboard, then you can paste it in a Scrap Container's Address Bar and press **Enter**. The item will be added to the active scrap pane.

This method does not apply to the mini-scrap pane.

7. If you have stored paths to several items in the clipboard, these items can be directly inserted into the scrap pane by selecting **Actions| Import clipboard** menu option. (This method does not apply to the mini-scrap pane.)

Notes:

- The clipboard must contain complete paths, not just the file names.
- The clipboard must contain one path per line; not a comma-separated list.
- Apart from the paths, if there is any extra text, it will be

ignored.

8. You can even drag-n-drop items from one scrap pane to another scrap pane (including the mini-scrap pane).

Note that you can have several scrap containers open at a time; and you can drag-n-drop items from any scrap pane to any other scrap pane (not just to the opposite scrap pane).

Note: When you drag-n-drop items from one (“*source*”) scrap pane to another (“*target*”) scrap pane, the items will not disappear from the source scrap pane, and yet they will appear in the target scrap pane. So, if your intention is to move the selection, then after finishing the drag-n-drop, you will have to delete the selected items from the source pane.

Removing items from scrap panes without deleting them

Sometimes, you want to remove an item from the scrap pane list without deleting it from the disk. To do this, select the items and press **DEL** (or use menu option **File | Remove**), or r-click on the “background” area of the scrap pane and from the context menu that appears, select the **Clear** option.

Deleting items from disk

Using the scrap pane, you can delete the original items from the disk: Press **CTRL+DEL** (or use menu option **File | Delete**). These items will be deleted and their entries will be removed from the scrap pane.

Flattening a folder system

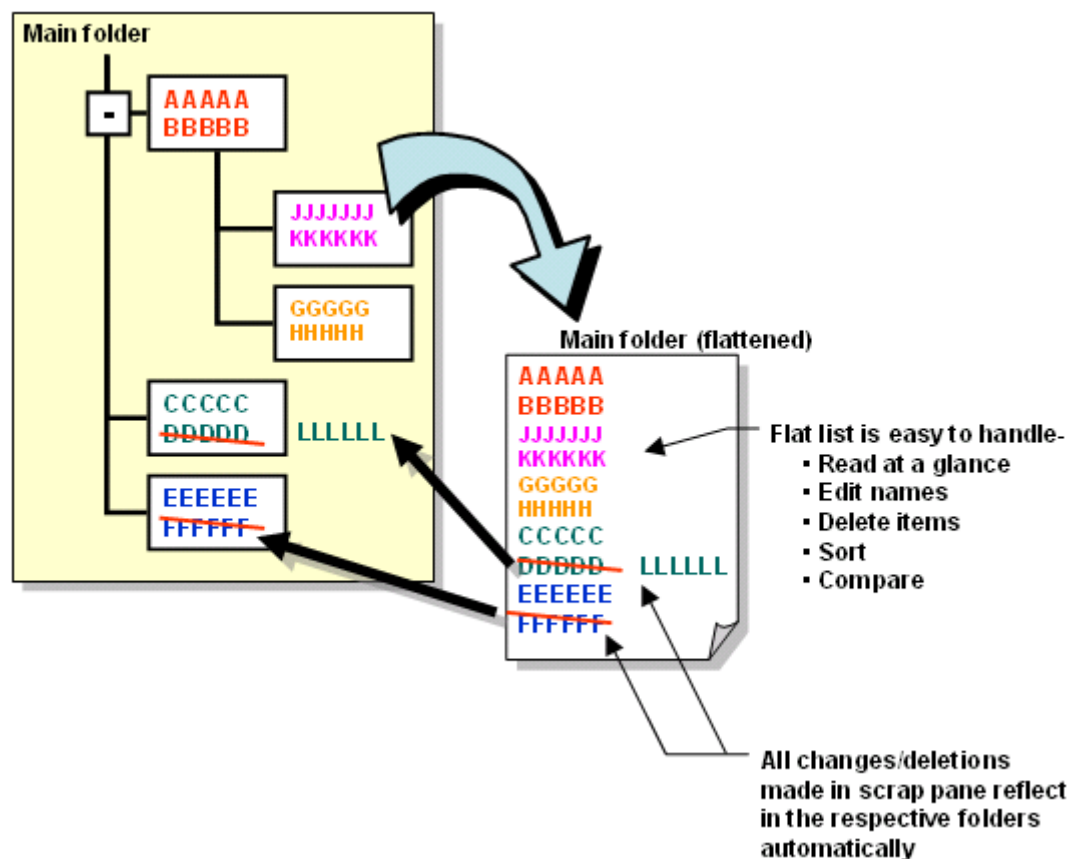
Browsing the items in a complex folder system is difficult: You have to go up and down the folder hierarchies and open multiple folders. Even the dual panes of x^2 can’t show more than two folders at a time. In complex directories, the user is lost: He can’t be sure if he has already browsed through a particular subfolder.

Scrap panes make this task very easy, by flattening the selected folders: They show all the items contained in the folder and its subfolders in a flat list. A flat list is much easier to read, edit, compare different items, rename the items and eliminate duplicates.

For example, see the figure below, in which two operations are carried out in scrap pane:

1. The file DDDD is renamed to LLLLL.
2. The file FFFFF is deleted.

Both these changes are immediately reflected in the respective folders.



You can flatten any folder or directory; even the entire Network Neighborhood!

There are multiple ways to flatten a folder:

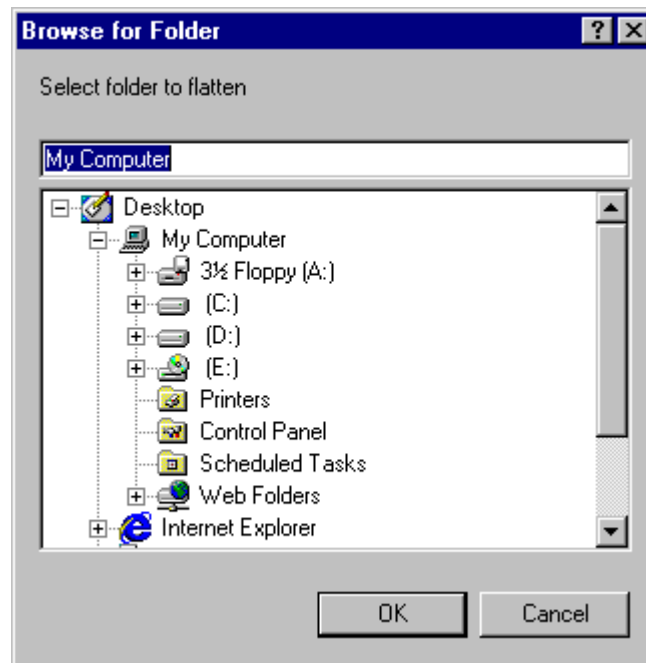
1. In x^2 , highlight a folder (or a CIDA file) in folder pane and press **SHFT+Enter** or select the **Files | Browse Flat** menu option. Each time, a new scrap container is opened and the folder is flattened into it.
 - If the folder has several subfolders, you can flatten them in one stroke into a single scrap pane: Just **select** them and press **SHFT+Enter**. Note that only the selected subfolders will be flattened, not all.
 - Sometimes, you need to flatten multiple unrelated folders in a single scrap pane. (For example, to check if they have **duplicate files**). To do this, after selecting each folder, press **CTRL+SHFT+Enter**. This will flatten the folder in the “nearest” scrap pane (i.e., the scrap pane that was focused on last).
 - Typically, you will flatten the first folder using the **SHFT+Enter** command and then flatten the subsequent folders in the same scrap pane by using the **CTRL+SHFT+Enter** command.



Caution: *If you have opened multiple scrap containers, focus on the correct scrap pane (by clicking in it) before switching back to the main screen of x^2 and flattening each folder; otherwise your*

folder will get flattened in the wrong scrap pane!

2. If you want to flatten a folder without leaving a scrap pane, select the **Actions | Flatten path...** menu option in the scrap container. A navigation window opens:



Navigate to the desired folder and select it. Press **OK**. The selected folder will be flattened and added to the scrap pane contents.

3. You can select multiple folders in a scrap pane, and flatten them in one stroke by pressing **ALT+Enter**. The selected folders will be flattened in the opposite scrap pane.

One possible use of this is to perform a local search limited to a few hand-picked folders.

4. Right-drag the selection from x^2 into a scrap pane. When you release the button, a context menu pops up, with four choices:

Option	What x^2 does
Insert here	<p>Inserts selected items in scrap pane.</p> <ul style="list-style-type: none">➤ All folders in the selection are treated as single units: x^2 does not list the files and subfolders contained inside those folders.➤ This option can insert multiple items at a time.➤ If the scrap pane already has some items in it, the new selection will be added to it.➤ In case of files having duplicate names, these are NOT overwritten, as they are actually at different locations.

Option	What x ² does
Browse Flat	Flattens folders and CIDA files. <ul style="list-style-type: none"> ➤ If the selected item is a folder, x² recursively lists all files in the folder (and all its subfolders). ➤ If the selected item is a CIDA file, x² lists its contents
Get subfolders	(Applicable only for folders) List all subfolders of the folder recursively. The files inside the folder are ignored.
Cancel	Cancels the right-drag operation (useful to escape)

If the active pane already has some items in it, x² adds the new items to it.

Saving the contents of a scrap pane

The data is saved in the form of a file with “cida” extension. In dual-pane mode, you will need two CIDA files; one for each Scrap Pane.

To save the data, press **CTRL+S** (or use the **Actions | Write contents** menu option, or r-click anywhere in the pane and select the **Write contents** option from the context menu).



- At this time, you can save the CIDA file with UNC names of the items, so that it can be used by other PC users on the LAN for PC-independent access. To save the CIDA with UNC names of items, use the Save as type pull-down and select the “UNC pidl files” option.

If you try to close a saved scrap pane without saving the contents first, x² checks if changes in the scrap pane(s) are saved. If the latest changes are not saved, x² alerts you. You can either save the changes or ignore this warning, and close the scrap container without saving.



Caution: *If you try to close an unsaved Scrap Container, x² does not warn you if you want to save it as CIDA file(s). In a dual pane mode, to save the contents, you must use two CIDA files (one for each pane). If you use just one CIDA file, contents of the other pane will be lost!*

Re-loading saved contents in a scrap pane

The saved contents (i.e., in the form of a CIDA file) can be re-loaded in a scrap container. There are many ways to do this:

1. In the active folder pane, navigate to the CIDA file and press **Enter** or **SHIFT+Enter** (or d-click on it).
2. Select the CIDA file in x²'s folder pane, and then select **File | Browse flat** menu option.

3. Add the CIDA file to a scrap pane, make the scrap container dual-pane (using **CTRL+O**). Select the CIDA file in the scrap container and press **Alt+Enter**. The contents of the CIDA file will be loaded in the opposite (inactive) scrap pane.



Caution: *The existing contents of the inactive scrap pane are replaced with the CIDA file's contents. Move them to another scrap pane before this operation!*

4. Use x^2 in **command line** mode with **F:1** option. (Specify the path of the CIDA file you want to load in it)
5. In active scrap pane, select **Actions | Load contents** menu item. A navigation box pops up. Select the CIDA file (or enter the path of a CIDA file).
6. x^2 maintains a list of CIDA files used in the current session. You can reload any of these CIDA files by using the **Actions | Recent file** menu option.

As soon as a CIDA file is loaded in a scrap pane, x^2 does the following:

1. x^2 checks if all items are still available.
 - If any items are deleted or moved, such items are treated as missing. Even renamed items are treated as missing (x^2 does not attempt to trace the item's new name and correct it in the scrap pane). x^2 generates a list of such "missing" files in a report (described later in this chapter). x^2 also marks the underlying CIDA file as "changed": Even if you don't make any further changes in the scrap pane, when you attempt to close the scrap pane, x^2 will prompt you to save the CIDA file.
2. x^2 treats the CIDA file as open (in the current scrap pane). Any changes in the scrap pane would be treated as changes in the CIDA file. When you try to close the scrap pane, x^2 will prompt you to save the changes in the CIDA file.

Editing saved contents (editing a CIDA file)

To edit a CIDA file, load it in a scrap pane, and make changes in that scrap pane (add or delete items). Then save the changed CIDA file.

Even if you try to close the scrap pane without saving, x^2 checks if the contents are changed, and prompts you whether you want to save the changes you made in that CIDA file.



Caution: *If you flatten multiple CIDA files in a single scrap pane, x^2 will be able to handle only the first CIDA file, and ignore the rest. Changes in these CIDA files will be lost!*

How scrap containers reflect changes in directories

As discussed before, scrap containers actually show an image of the original items. Therefore, if an original item is affected by some operation (such as renaming or deletion), then the new status is immediately reflected in the

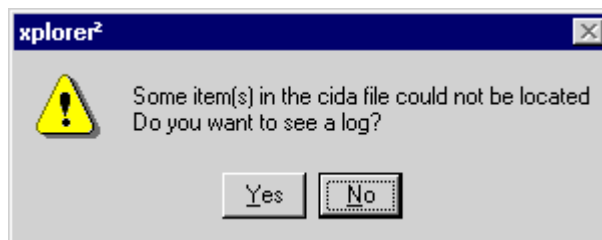
scrap container. If the same item appears in multiple scrap panes, all of them will reflect the change.

Some typical examples are given below:

1. If an item is deleted from x²'s main GUI (folder pane or tree pane), then it is automatically removed from the scrap pane.
2. If a file is renamed from x²'s main GUI (folder pane or tree pane), then the new name will immediately appear in the scrap pane.
3. If you move an item out of its folder, then it is automatically removed from the scrap pane. The reason is that scrap pane is no longer able to “see” the item in the originally specified path. (In a way, this is equivalent to deleting the file.)
4. If you edit the path name of an item (by renaming any of the parent folders in the path), then the item will vanish from the scrap pane. Again, the reason is that scrap pane is no longer able to “see” the item in the originally specified path.
5. **Flattening** is a one-time operation: If new items are added to the source folder after it is flattened, they will not automatically get added to the scrap container. However, if you flatten the source folder once again, these new items will appear in the scrap container.

Tracing missing files

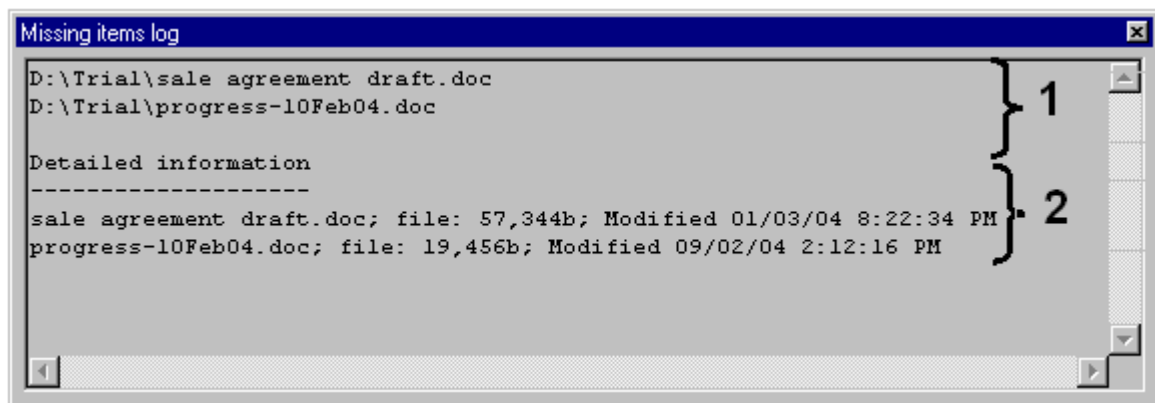
Sometimes, after saving the contents of a scrap pane as a CIDA file, you may have deleted or renamed some files. When you reload a CIDA file, x² checks if all the files are correctly available. Any renamed/deleted/moved files are treated as “missing from CIDA”, and x² prompts you if you want to see a log.



If you press **OK**, x² will provide a report as shown below.

While the first part is a plain list of the missing files including paths, the second part provides details of each file, so that you can search for the missing files based on the parameters (such as size and date).

You can search inside this log file by pressing **CTRL+F** (or r-click inside the window and select the Find command from the context menu that pops up).



Using mini-scrap pane

The menu option **View| Mini scrap command** toggles the mini scrap pane on/off.

The mini-scrap pane behaves just like any other scrap pane, with the exception that some commands are not available. See the **previous section** to understand how mini-scrap works.

This section describes the special uses of a mini-scrap pane.

You can use the mini-scrap pane as a bookmark pane or program launchpad.

- Select a file in the mini-scrap pane and press **Enter** (or simply d-click on it) to launch the file with its default associated program. If you press **CTRL+Enter** instead, x² will load the item's parent folder in the active folder pane and select (highlight) the file.
- Select a folder in the mini-scrap pane and press **Enter** (or simply d-click on it) to load it in the active folder pane.

Using the Mini-scrap pane in Autosave mode

The mini-scrap pane differs from the other normal scrap panes in an important way: When you close the mini-scrap pane (or x²), and restart them, the contents are remembered. In other words, you do not have to **save its contents** (as a CIDA file) before closing the pane (or x²) and manually **reload the contents** when you restart the pane (or x²).

- Actually, behind the scenes, x² maintains its own CIDA file to store these contents. (As soon as you add/remove items in the mini-scrap pane, x² updates this file, and saves it automatically.)
- The default location of the CIDA file is in the Windows' special folder C:\TEMP\. But you can specify your own file name and path. The process is simple: r-click in the mini-scrap pane and use the context menu option **Save as**). In the window that pops up, specify a new name (and a new path if you want). Now onwards, the new file will be used as default.

Caution: *The default CIDA is placed in C:\TEMP\ folder, which is routinely emptied by Windows to get more free disk space. Since*



x² does not lock this file, Windows will neither protect it nor warn you before deleting it. All of a sudden, you could lose your “Favorites” list.

- If you select all contents and press **Delete**, then these items are removed from the pane (but not from the disk). Now if you close and restart the pane (or x²), the mini-scrap pane will be blank.

Using the Mini-scrap pane in manual save mode

Although the *Autosave* mode is convenient, it also poses a problem: The contents of the mini-scrap pane are saved instantaneously. Thus you cannot control what to save, and when.

To have better control, you can turn off the Autosave mode (by removing a **registry value**). Thus you decide what to save, and when. You can even save the contents in another CIDA file.

- To save the contents in the default CIDA file, first focus inside the mini-scrap pane, and press **CTRL+S** (or use the context menu Write contents).



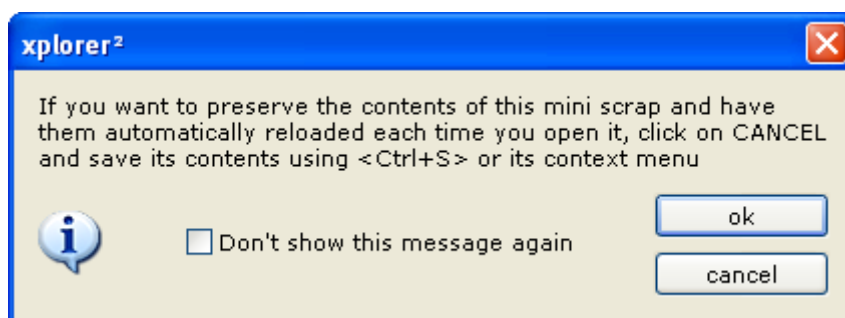
Caution: *The default CIDA is placed in C:\TEMP\ folder, which is routinely emptied by Windows to get more free disk space. Since x² does not lock this file, Windows will neither protect it nor warn you before deleting it. All of a sudden, you could lose your “Favorites” list.*

- To save the contents in another CIDA file, use the **Save as...** option in the context menu. Note that after saving the contents in the new CIDA file, x² switches over to the new file. Your earlier CIDA file will be kept aside. It will have contents that you last saved in it; not the latest.



Tip: You can re-load such saved CIDA files any time in any scrap pane (or even in the mini-scrap pane).

Although the Autosave mode is turned off, the contents of the mini-scrap pane are safe: When you try to turn the mini-scrap pane off (or close x²), x² checks if you have saved the contents. If they are not saved, x² will alert you:



You can decide whether to save the contents.

Working with multiple copies of x²

Launching multiple copies

The tabbed interface of x² allows you to view multiple folders simultaneously in a single copy of x². In addition, you can run unlimited number of x² instances simultaneously.

But note that although you can launch multiple copies of x², it may not be a good idea to run concurrent operations on the disks, because Windows in general get bogged down whenever the Operating System accesses disks for Input/Output. The whole system comes to a near standstill.

Launching a second file operation in parallel will make things worse (in fact, much worse if both operations access the same physical drive). The read/write head keeps jumping back and forth to accommodate both tasks and you end up waiting far longer than the combined time of the two individual operations. Therefore it is advisable to avoid parallel operations whenever possible. Still, if you need to launch multiple copies of x², there are three different methods, each having a slightly different effect:



Click on x² button in the Quick Launch Bar. Each click launches a new copy.

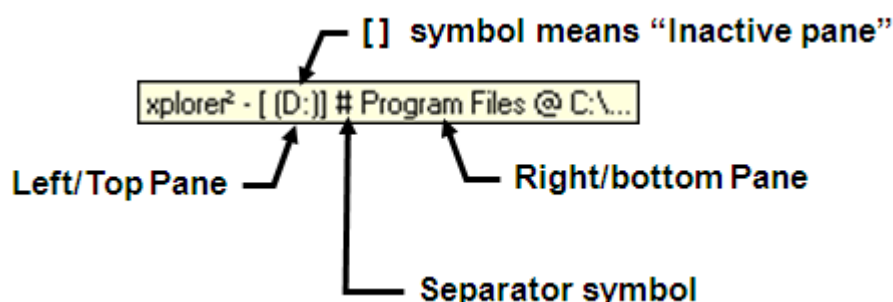
1. While using one copy of x², select a folder and press **CTRL+Enter**. A new copy of x² is launched. The new copy opens the highlighted folder in its active pane. Its inactive pane is same as the originating x².
2. While working in x², press **CTRL+N**. A new copy of x² is launched with the same folders loaded in its folder panes.

Keeping track of all running copies of x²

When multiple copies of x² are running on your PC, you can get a snapshot of all copies. You can then jump to any of these copies.

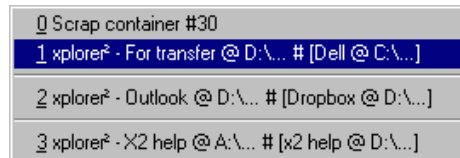
x² has two different mechanisms to manage multiple copies:

1. Hover your mouse over any x² (or **scrap containers**) icon in the task Bar. An infotip pops up, as shown below.



As explained in the figure, the infotip provides you many important tips:

- Which folders are loaded in that copy of x^2
 - What is loaded in the left/top pane and what is loaded in the right/bottom pane
 - Which of the two folder panes is active
2. Press **CTRL+W** to get a list of all x^2 windows (and also scrap panes) running on the PC. This command is useful when windows from other running programs clutter the system **ALT+TAB** list.



- You can think of this display as stack of tooltips for all copies of x^2 and scrap panes; because the same information is contained here. To go to the desired copy of x^2 , either select the underlined number, or click on any desired row.

Navigating in different windows of x^2

The preceding sections explained to you how to work in different parts of x^2 **GUI**. But when you use x^2 , you will not be using these parts one at a time. Rather, you will use them as a set; very much like how you make a well-coordinated use of several parts of a car (clutch, accelerator, brakes, steering wheel, horn, lights, wipers, etc).

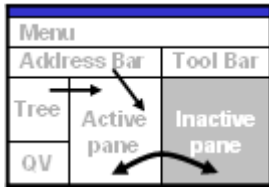
In other words, while working in a certain part of x^2 's **GUI**, you will go to some other part of the x^2 GUI, do some operation there and optionally return to your original place. For example, when you see an interesting item in a **scrap container**, you may want to browse its parent folder in x^2 's main window (because its parent folder has more items on the same subject).

You can move to any part of any x^2 windows using your mouse: Just click and start working. However, x^2 also has keyboard shortcuts that facilitates quick movements between different parts of its windows, as shown below:

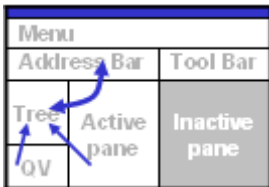
Movement within x^2 's main window

You can move to different parts of the x^2 's main window using the following keys:

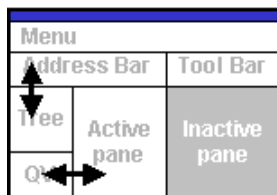
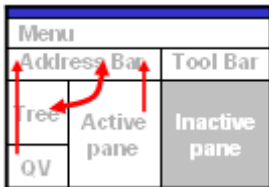
Note: In the figures, the thinner single-headed arrows show one-time movements; where as the thicker dual-headed arrows show the indefinitely toggling movement.



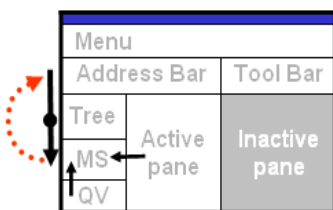
Key combination	Remarks
TAB	<p>Switch from one folder pane to another</p> <ul style="list-style-type: none"> ➤ Even if your initial focus is in QuickViewer, Tree Pane or Address Bar, the focus shifts to the active Folder Pane. ➤ Repeat the keystroke indefinitely to toggle the focus between the folder panes



CTRL+TAB SHIFT+TAB	<p>Toggle the focus between Address Bar and Tree Pane.</p> <p>(Note: The shortcuts and figures are color-coded so you can spot the minor difference easily)</p> <ul style="list-style-type: none"> ➤ Even if your initial focus is in Folder Panes or QuickViewer, the focus shifts to the Address Bar and Tree Pane. ➤ The difference between CTRL+TAB and SHIFT+TAB is minor: While CTRL+TAB lands the focus in Tree Pane, SHIFT+TAB lands it in Address Bar. However, the difference ends here: When you repeat these keystrokes subsequently, both of them indefinitely toggle the focus between Address Bar and the Tree Pane.
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CTRL+SHIFT+TAB	<p>This shortcut toggles focus within a pair of panes:</p> <ul style="list-style-type: none"> ➤ Active Folder pane and QuickViewer ➤ Address Bar and Tree Pane <p>If you repeat the keystroke subsequently, the focus toggles within the concerned pair of panes indefinitely.</p>
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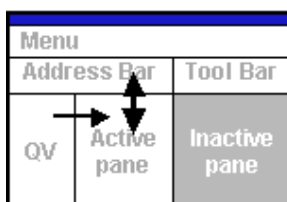
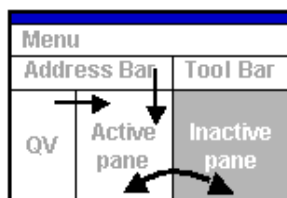


CTRL+ALT+TAB	<p>If your initial focus is in a folder pane or QV, it jumps to the mini-scrap pane. If the focus is elsewhere, it will follow the Address Bar ► Tree ► Mini-scrap pane sequence.</p> <p>If you repeat the shortcut subsequently, then the focus follows the Address Bar ► Tree ► Mini-scrap pane loop sequence indefinitely.</p>
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Movement from a scrap container

In a **scrap container**, you can move using the following keys:

Note: In the figures, the thinner single-headed arrows show one-time movements; whereas the thicker dual-headed arrows show the indefinitely toggling movement.



Key Combination	Remarks
TAB	<p>Toggle between the active and inactive scrap panes</p> <ul style="list-style-type: none"> ➤ Even if your initial focus is in QuickViewer or Address Bar, the focus shifts to the active Scrap Pane. ➤ Repeat the keystroke indefinitely to toggle the focus between the scrap panes
CTRL+TAB SHIFT+TAB	<p>Unlike in folder panes, both shortcuts behave identically in scrap panes: They toggle the focus between Address Bar and the active Scrap Pane.</p> <ul style="list-style-type: none"> ➤ Even if your initial focus is in the QuickViewer, the focus shifts to Active Scrap Pane. ➤ Subsequent pressing of these shortcuts will toggle the focus between the Address Bar and the Active Scrap Pane indefinitely.
CTRL+Enter	<p>Moves the focus from a scrap container to the last opened folder pane</p> <ul style="list-style-type: none"> ➤ If your initial focus is on a file in the scrap pane, its parent folder is loaded in the active folder pane, and the file is highlighted. The focus shifts from the scrap pane to the active folder pane in x²'s main window. ➤ If your initial focus is on a folder in the scrap pane, this folder itself is loaded in the active folder pane, and the file is highlighted.
Enter	<p>Essentially moves the focus out of x² windows:</p> <ul style="list-style-type: none"> ➤ If your initial focus is on a file in the scrap pane, it gets launched with its default application. The focus is shifted to this opened file. ➤ If your initial focus is on a folder in the scrap pane, the folder is opened in a separate, free-floating explorer window. The focus shifts to that window.

Aborting an operation

Most of x^2 operations can be aborted simply by pressing **ESC**. Some dialog windows also have **Cancel** buttons.

Note that the command may have affected some changes in the file system before it was canceled. This cannot be undone. For example, when a **file transfer command** is canceled, some items may have already been moved. These items cannot be returned to their original locations.

Repeating the last command

You can repeat the last used menu command by pressing **CTRL+Y**.

Undo

At present, x^2 does not have **Undo** command (this is slated for a future version). Till that time, prevention is better than cure!

This manual can help you avoid situations that could cause loss of data: Read all warnings and cautions provided in this manual carefully.

Note that most of these situations are predictable, and are applicable to any file manager, including Windows Explorer.

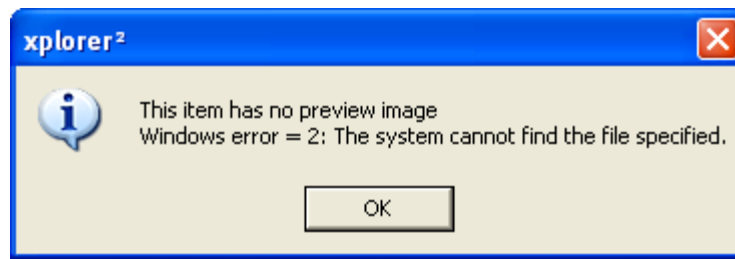
Handling the last error in the current session

When a command fails, x^2 shows a warning in the Status Bar that the command has failed; and also shows the reason for failure. The message vanishes after 5 seconds. If you are not alert, you may miss reading the message.

However, you need not worry about such lost messages: x^2 stores the last error that appeared in the Status Bar in the current session.

- x^2 does not store error messages that appear in a message window, because they require your explicit acknowledgment; and so you will never miss them in the first place.

To see the last error message, just use the menu option **Help | Last error**. A message box pops up, showing you the error and also some more details.



After this, you may decide to take corrective steps or just to ignore the error.

See **Appendix 9C** to see a list of some common errors and their remedies.

Finding the right command

x² comes with a huge number of commands. How will you keep track of all those commands?

x² has a command finder that helps you locate the right command based on the keywords you specify.

To use this facility, use the **Help | Command finder...** menu option. A window appears, as shown below:



Tip: If you do not know the keywords for the desired command, use the “any” option, and enter as many synonyms as possible. Use the “exact” option only when you are sure of the exact keywords to use.

5. File management

In this section, we will see how to use x^2 for file management. This is it: Finally we are going to drive the car on the road!

This chapter begins with day-to-day operations, such as-

- Browsing in your directories
- Opening files with their default applications
- Creating and deleting items
- Renaming items (individually and en masse)
- Changing the attributes of items
- Copying and moving the items
- Searching for files, folders and computers
- Disk operations such as formatting and labeling
- Network operations such as mapping drives

Then we will take some higher-order tasks:

- Comparing folders and directories
- Finding duplicates (and eliminating them)
- Splitting and merging files
- Managing your disk space
- Reorganizing your directories

In the **next chapter** we will see some high-power uses of x^2 . Now that will be like taking your car on the racetrack!

But safety first: If you have still not mastered your clutch and brake, go back to the **previous** chapter!

Browsing folders

Browsing (= reading at random) folders is the most basic function of a file manager. In fact, for basic browsing, single-pane **mode** is quite adequate; although occasionally you will find that the other pane is useful to open a

subfolder and see its contents simultaneously.

But we are going to see some more exciting ways of browsing, where you can rapidly fly through multiple folders.

In the previous chapter, you have already seen how to navigate in the folder system using folder pane, Address Bar and tree. In this chapter, we will connect those separate movements to show how smooth the browsing experience is.

We will also see some additional tips on browsing.

In the following discussion, we will use the expression “go to <folder/drive>” or “jump to <folder/drive>” to mean ‘load it in the active folder pane’.

1. First of all, realize how easy it is to browse multiple folders in x²: All you have to do is launch **multiple tabs**, and load all your folders in them. With this, you are all set to browse at break-neck speeds!
2. Compared to browsing a single folder at a time, this multi-folder browsing gives you complete freedom to access several folders at a time, launch items from them (or just check them out, using the built-in QuickViewer and/or **Editor²**).

Users of tabbed web browsers (like Mozilla) will readily appreciate this experience. Just like in a tabbed browser, you browse by switching between tabs and going up/down in the history chains of these tabs.

And here is the best part: Did you notice the similarity in the keyboard shortcuts for both?

Switch between folder tabs	CTRL+ALT+LeftArrow
	CTRL+ALT+RightArrow
Go up/down history chain	ALT+LeftArrow
	ALT+RightArrow



And did you notice the locations of these keys on your keyboard?

That’s right! You can use these keys like an arcade game: Just lightly place both hands on the keyboard as shown, and start using these shortcuts to fly across the tabs and their history chains!

Mainly you will use the first key group, but once in a while you will have to go into history chain of a particular tab. For that, just lift your finger from the CTRL key. Even to scroll up/down within a pane, you only have to move your right-hand middle finger just a little to reach out to the UpArrow and DownArrow keys.

Occasionally, you will need the **Enter** key (to enter a subfolder) and BKSP (to go one level up). That’s it!

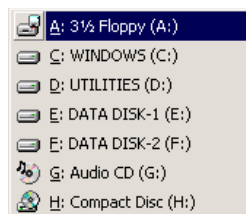


All in all, you will need only a few keys for your browsing, as shown on the left. Once you get used to this, you will wonder how you managed without tabs!

- 3.If the given folder has subfolders, you can select multiple subfolders and press **CTRL+Ins** (or select the **File | New tab** menu option). x^2 opens a separate tab for each of the selected subfolders.

In case you select files and use this command, x^2 will simply launch another tab for each selected file, but launch the same (current) folder in these new tabs.

- 4.The **tree** shows the entire “map” of all folders accessible from your PC (including folders shared on **NN** PCs). Therefore, it is more convenient to use the tree to jump to distant folders or between branches of a directory.
- 5.To find the target item of a link, press **CTRL+L** (or use **Go To | Find target** menu option). (The target could be a file, a folder or a **folder junction**)
 - If the target is a folder, x^2 loads it in the active pane.
 - If the target is a file, x^2 loads its parent folder in the active pane, and highlights the file.
- 6.To go to root of a drive (a floppy drive, CD ROM, logical partition of a hard drive, etc), press **CTRL+SHIFT+<Drive letter>**. For example, to go to D:\, press **CTRL+SHIFT+D**.
 - Sometimes you may not know how many drives your PC has. For example, all mapped network folders appear as additional drives on your PC. Secondly, some programs like Ahead Nero and Alcohol 120% allow you to view the contents of CD image files (with extensions like iso, nrg, etc) by mounting them as virtual drives. As drives are added/removed, Windows re-allocates drive letters. You can ask x^2 to show a list of all current “drives” by pressing **ALT+F1** (or select **Go To | Select drives...menu** option). A list like this pops up:

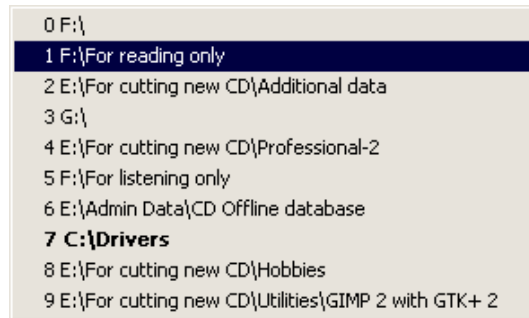


To go to any of these drives, click on it, or press the underlined letter. (Example: To go to the audio CD, press G on your keyboard.)

(Note: the actual list will keep changing, depending on how many drives you have mapped, and how many CD images you are using at any moment.)

- 7.Pressing **ALT+F2** (or selecting the **Go To | Recent folder** menu option) will show you a list of all **recently browsed folders (History chain)** in

that pane. Note that each **tab** has a separate history chain.



To go to any folder, either press the number (0-9) shown against the folder, click on it or move the highlight to the desired folder (using the up/down arrows) and then press **ENTER**.

8. There are two special folders that can be quickly reached by entering a special address string in the Address Bar of x^2 :

Special folder	Address
Windows TEMP folder	%TEMP%
Installation folder of x^2 . (In case of portable version of x^2 , the drive letter assigned to the USB drive may keep changing from PC to PC. This string finds it.)	%x2DIR%

Note that the strings are not case-sensitive (you can use lowercase letters also). You can compose other paths with these strings. The string is replaced by the entire path of the special folder, starting from the root of the drive.


For example, if your x^2 installation directory contains a tool1.exe file, you can use the following custom **user command**:


%x2DIR%\tool1.exe \$n

Browsing special folders

Windows has some special folders, where you can carry out specific operations. You can go to these special folders using **Go to | Special folders** menu option. The function of these special folders is explained below:

Special folder	What you can do there
My documents	Your personal documents (Each user of the computer will have an independent list)
My pictures	All your pictures are usually stored here.
My music	Your music is usually stored here.
Downloads	Files recently downloaded

Special folder	What you can do there
Recent items	<p>Documents and folders accessed recently. This list is also accessible from the  menu (“Recent documents” option).</p> <ul style="list-style-type: none"> ➤ Remove some items from the list to reduce clutter. ➤ Remove all items ➤ Add new shortcuts (favorites). <p>Note that some applications have their own lists of recently opened documents. Such lists cannot be accessed or edited through x².</p> <p>On the other hand, files viewed in the QuickViewer will not be listed in this folder (Windows does consider them as “opened”).</p>
Drop Target	<p>Folder where you dragged-n-dropped (or pasted) some items.</p> <p>Sometimes you may copy/move some items in the wrong folder by mistake (a typical example is while dragging a selection, you release the LMB midway by accident, and the selection gets transferred to an undesired subfolder. But now you are not which of the subfolders received your selection.) Well, this menu will quickly take you there, so that you can recover your items!</p>
Recycle bin	Shows a list of deleted items. You can either recover the items from the recycle bin, or delete them permanently.
Desktop	<p>Folder representing your PC’s desktop.</p> <ul style="list-style-type: none"> ➤ You can place shortcuts to folders, files and programs used on daily basis.
Root	Root of the current directory (e.g. D:\)
My computer	Shows all local and mapped drives. See total storage capacity and free capacity of all drives at a glance.
Network	Computers connected to this computer (through a LAN)
Control panel	<p>Settings for the computer can be controlled here.</p> <p>Some shell extension programs add their settings here. (This is the only place to change their settings.)</p>

Special folder	What you can do there
Printers	All available printers. Virtual printers like “pdf995” (which actually creates a pdf file) are also listed.
Start menu	Folder representing the  button.
Startup	Programs that start automatically every time you log on. (Note: some programs use some different mechanisms to auto-start, so this list will not be exhaustive: You will find that some programs not listed here also start at log on. However, you can add new programs here to make them start automatically.)
CD burning	Items waiting to be written to CD (Windows XP only). Note that only shortcuts are stored here; not the original items.
Send to	Targets appearing in the send to- shell context menu. It has two important uses: <ol style="list-style-type: none"> 1. Add your favorite backup folders (Later, you can simply select a few items, r-click and directly send the selected items to a backup folder using the context menu) 2. Add shortcuts of new programs to this list (or remove some from this list). Later, you can select an application from this list to open a given file. (This is similar to the open with... context menu, but with a concise, user-defined list of applications to choose from.)
Compatibility files (Vista or later)	To keep legacy applications running, Windows lets them write to their familiar file locations (This is usually a subfolder in the application's installation folder or in the Program Files folder or in Windows folder). However, in reality, these folders do not exist: Vista simply keeps the data in a virtual folder. To access this special virtual folder, use the Go to Special folders Compatibility files menu option.

Viewing files with the QuickViewer

With Windows Explorer, you will have to open (or play) each file to confirm whether that's the file you want.

In x^2 , you can have a quick glimpse of the focused file in the QuickViewer, so that you can identify the file easily without having to open it with its default application. This is a tremendous timesaver.

- The QuickViewer is especially helpful for images, audio, video, HTML, text (including RTF, DOC and TXT files) and PowerPoint files. It displays/plays the beginning of these files.
 - In case of the audio and video files, the QV offers basic controls (play, pause, stop, next track, previous track).
- Other types of files (such as pdf, zip, exe, excel, etc) are decoded, and their code is displayed in Hex and ASCII format. Here too, you can read the embedded text/comments and make a quick judgment about the file.
 - If you have installed the **Ifilter** plugins, QuickViewer shows unformatted text of the PDF, CAB, CHM, HLP and ZIP files (Windows 2000/XP/2003 only)

When in text preview mode, QuickViewer allows you to search for text just like a text editor. You can also copy text and images using the context menu (right-click anywhere in the QuickViewer pane).

QuickViewer also provides a preview for a variety of graphic formats.

When the folder pane is set to **thumbnail view** style, it can also show you a preview, but the QuickViewer has an advantage: It can be resized to occupy almost the entire screen. (On the other hand, the thumbnail view has its own advantage: It can show you multiple items at a time.)

View files like a slideshow

Using the Quickviewer, you can view the files like a *manually advanced* slideshow: Just maximize the Quickviewer and change **program options** to view the Index Number pane. Now you are ready for your “slideshow”.

When you view the files in the Quickviewer, the **Status Bar** shows the file's number, like the slide number in a slide show. The total number of items in the folder are shown in the next pane. Put together, it is the equivalent of “slide x of y” display shown in a slideshow application.



For example, the screenshot on the left is the equivalent of “slide 25 of 60”.

Viewing files with Editor2

After viewing a text-based file with the QuickViewer, you may decide to have a more detailed look at the file. x^2 has a built-in companion product called Editor2 that can be used to view or edit the text-based files.

- To view the selected file in read-only mode, press **F3**. (This mode is useful to preserve the original file by preventing any accidental changes to the file.)

- To view and edit the selected file, press **F4**.

For detailed help on **Editor²**, see **Appendix 9Q**.

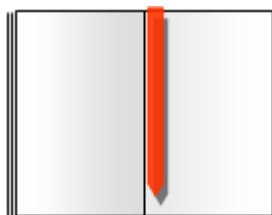
Note that the file may be associated with any application. (For example, an html file would be associated with Internet Explorer or Firefox. An rtf file may be associated with MS Word, or OpenOffice Writer.) Regardless of these associations, you can open them with Editor2 using the **F3** and **F4** shortcuts.

Viewing files with external editor

If you have specified an alternative viewer and/or editor in the **Program Options**, you can use them instead of the default **Editor²**, by selecting a file and pressing **CTRL+F3**.

Note that the **Editor²** can still be used with **F3** and **F4**, as described above.

Using bookmarks



When you have to interrupt reading a book, you place a bookmark (which is a ribbon attached to the book or a strip of paper) on your current page. When you resume reading the book later, you simply start at the bookmarked page.

x² has similar bookmarks to mark folders (either because you browse them frequently, or they contain information that you want to access quickly).

x² remembers these locations as “bookmarks”. Once you define a bookmark, you can jump to it by pressing its keyboard shortcut (if you have defined a shortcut for this bookmark), or using the Bookmark menu. For each bookmarked folder, x² remembers three things:

Item	What is registered?
Path	The bookmarked folder’s path
Name	<p>A name for each favorite folder (select any name that is relevant to the bookmarked folder and also easy to remember)</p> <p>Note: Defining a name for a shortcut is optional. If you don’t define a name, x² will take the path as name.</p>
Shortcut	<p>A keyboard shortcut that will load the bookmarked folder in the active folder pane.</p> <p>Note: Defining a shortcut for a bookmark is optional.</p>

There are two different mechanisms to create bookmarks:

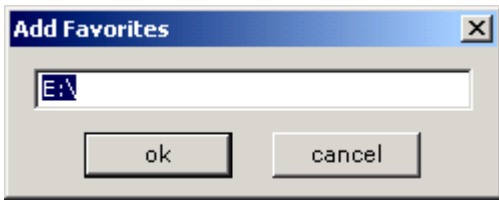
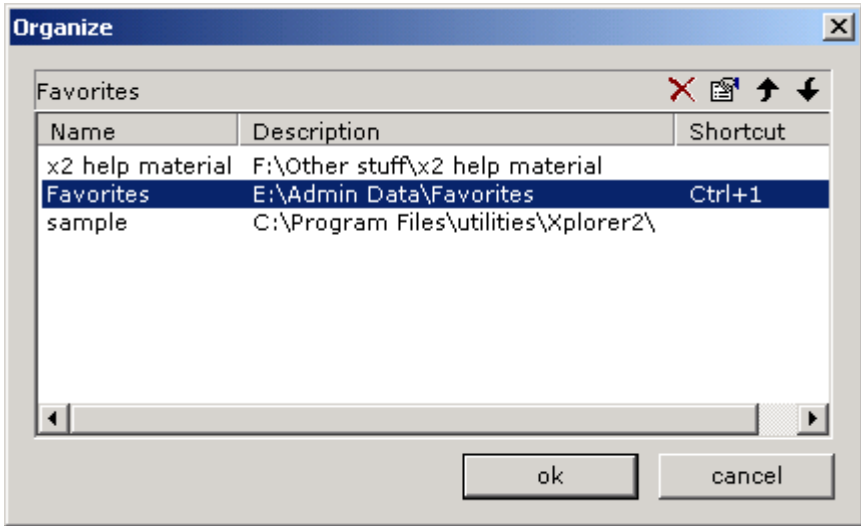

1. Using the Bookmark menu
2. Store all favorite shortcuts in a folder (and bookmark this folder itself, so you can easily reach it).



You can use both methods simultaneously.


Both methods are explained below:

Using the Bookmarks menu

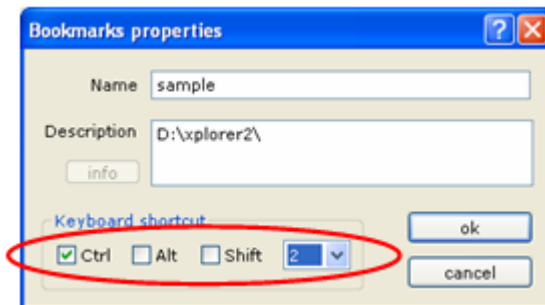
In this method, bookmarks are managed using the Bookmarks menu.

Adding bookmarks	<p>When you have a folder open in the active folder pane, use the Bookmarks Add menu option. A dialog box pops up:</p>  <p>The current folder's path is shown here. You can save it as it is, but it is better to give a distinct functional name to each favorite. This name appears in the bookmarks menu.</p> <p>You can create 100 bookmarks this way.</p>
Organizing bookmarks	<p>Select the Bookmarks Organize... menu option. The following organizer window appears:</p> 
	<ol style="list-style-type: none"> 1. To delete any bookmark, select it and press DEL (or press the  button) 2. To move any favorite up or down in the Bookmarks

menu, select it and press  or .

3. To change the bookmarks name, path or keyboard shortcut, double-click on it (or press the  button).

The following dialog box pops up:



Click in any field and edit the entry.

You can also define/edit the keyboard shortcut for the favorite folder by using the controls highlighted in the red oval. (For example, if you put a tick in the CTRL and ALT check boxes, and select 5 from the pull down menu, the favorite has a new keyboard shortcut of **CTRL+ALT+5**.)

The new settings will take effect only when you press **OK**.



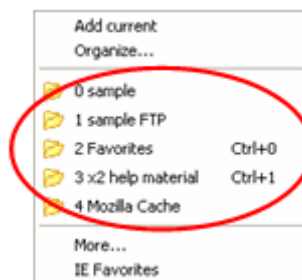
Tip: Normally, bookmarks point to folders. But you can have bookmarks on favorite files also: First create a bookmark to the file's parent folder and then edit the bookmark's description field. Append the file name in the path. Now the bookmark will select this file!

Jumping to a bookmark

There are multiple ways to jump to a bookmarked address:

The easiest method is to enter the desired bookmark's name in the address Bar. The bookmarked folder is loaded in the active pane. You can also enter the bookmark partly and use the Address Bar's **autocompletion** feature.

Another method is to click on the Bookmarks menu. All the bookmarks pop up as shown below:

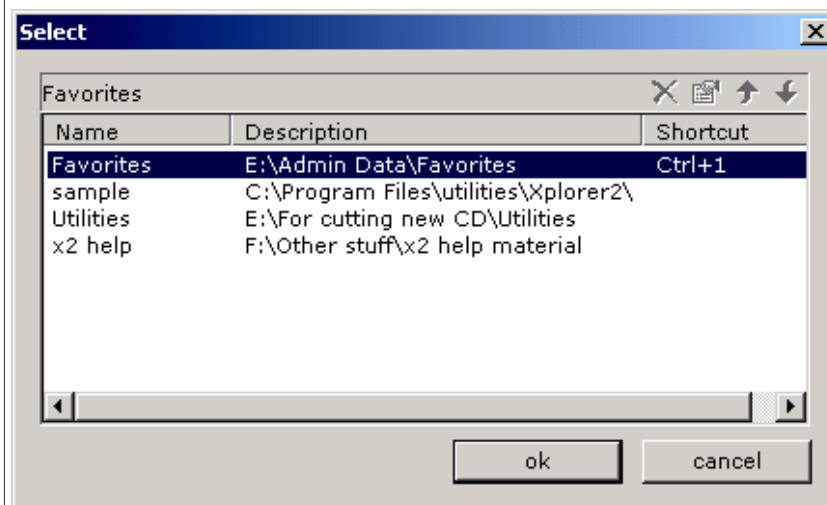


Note that the menu displays all bookmarks in the same sequence as in the Organize window (shown above).

To jump to any bookmark, either click on it or press the number shown opposite it.

The third method is to use a keyboard shortcut assigned to the bookmark. You can press the shortcut directly (without launching the Bookmarks menu).

The fourth method is to browse all bookmarks and select the appropriate one: Click on the More... option, and the following dialog box pops up, showing the complete list of bookmarks — useful when you have more than 20 bookmarks and the menu is full.



Click on any bookmark to load it in the active folder pane.

Note that this window is almost identical to the Organize window shown on the previous page. The only difference is that the four buttons (in the right-hand top corner) are disabled here.



Tip: With the Pro version, you can add the first 20 bookmarks to any Tool Bar (or a new Tool Bar specifically created for these bookmarks). This will give you instant access to the bookmarked folders.

Note that you can also store favorite locations in the **mini-scrap pane** and use them as bookmarks. The advantage is that all bookmarks are always visible.

Using a Dual Bookmark

x² is a dual-pane application, and some of its functions work on a pair of folders that are loaded in the opposite panes. For example, **checking builds (software programming)** or **comparing the contents of the two folders**.

This means you may need to bookmark such pair of folders, so that after a break, you can quickly load the same pair of folders in your next session, and continue with your work.

x² provides a “Dual Bookmark” for this purpose, in the **Bookmarks | Dual** menu. Aside from being able to remember two folders at a time, a dual bookmark behaves just like the normal bookmark. Even the menu options for a dual bookmark are similar to the **normal bookmark**.

Using bookmarks stored in a folder

Well, this is not really a totally independent scheme- actually it depends on the bookmark menu, as explained below:

In this method, the favorites are managed by storing their links in a folder. For best results, create a dedicated folder that stores the links to all your favorite locations. Name this folder “Favorites” (or give any name you fancy). Add this folder to the bookmarks menu (using the **Bookmarks | Add** menu option). Assign a keyboard shortcut to it (I recommend **CTRL+0**) using the technique described above.

Now you are ready to add more bookmarks.

To do this-follow these steps:
Adding bookmarks	<p>In one folder pane, open the parent folder of the item(s) you want to bookmark. In the opposite pane, open the Favorites folder (to open the folder, you can use the keyboard shortcut).</p> <p>Now drag-n-drop links of the bookmarked items to the Favorites folder (to create a link, press CTRL+SHIFT while dragging the item).</p>
Organizing bookmarks	<p>Open the Favorites folder, and edit the name of each link. (Note that when you edit the name of a link, its target path remains unchanged. You can exploit this fact to give a normal recognizable name to each favorite.)</p> <p>Since this is a normal folder containing only links, you can sort all items based on names.</p>
Jumping to favorites	<p>First open the Favorites folder in the active folder pane. (Use the keyboard shortcut assigned to this folder). Once it opens in the active folder pane, select the desired favorite and click on it (or press ENTER). The bookmarked folder will open in the active folder pane. (The favorites are opened in two jumps).</p> <p>You can even share bookmarks over a LAN. Just prepare a folder with links and share it over LAN. If the other users also have x², they can set up this folder as one of their bookmarks.</p>

Using a Quick Bookmark

The two methods described above provide you with long-term favorite folders.

However, sometimes you need to jump to only a temporarily favorite location. You may not want to remember this location as a long-term favorite.

For example, suppose you are editing/renaming files in a large directory, and you have finished work till a certain subfolder in this directory. You want to stop work here, and continue working in the same subfolder the next day.

For this, you have to mark this subfolder as a temporary favorite. But tomorrow, once you resume your work, you will no longer need to remember this subfolder.

x² provides a temporary (recyclable) bookmark called Quick Bookmark, for such purposes.

- To store the active folder as Quick Bookmark, press **CTRL+SHIFT+F1** (or use the **Go to | Set quick-mark** menu option).
- To jump to the quick bookmark, press **CTRL+F1** (or use the **Go to | Quick Bookmark** menu option).



Tip: Rather than using the Quick Bookmark, you can open this “temporarily favorite” folder in an **additional tab** for, and switch to that tab whenever you want. You can also **save the tab group**, so that when you restart x² (or the PC), you can re-load the tabs.

Opening files and starting applications

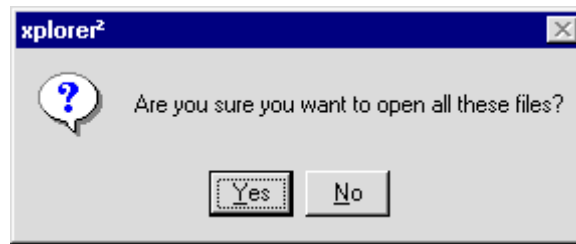
Opening with default application

Select a file and press **Enter** (or d-click on it). The file will be opened with its default application. For example, a file with “doc” extension will be opened in Microsoft Word.

Opening multiple files at once

Rather than opening each file separately, you can open multiple files simultaneously. This is a tremendous time-saver. After making the selection, press **Enter** (or select the **File | Browse** menu option).

- If these files are associated with different applications, these applications will be launched and each file will be opened in its default application.
- If you have selected more than 10 items, x² will confirm whether you really intend to launch all these files.



This is to make sure that you do not launch too many items by mistake.

Opening multiple files with drag-n-drop method

You can make a selection of multiple files and drag-n-drop the selection on another application's **GUI**. Many applications allow this way of launching files. (For example, adding the selection to the play list of a media player.) This is even more useful when you collect the desired files in a scrap pane first, and then drag-n-drop it in the other application.



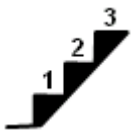
Tip: The normal way to drag-n-drop is to move the selection first to the bottom of your screen. Without releasing the **LMB**, hover the mouse on the task button of the other application. After a couple of seconds, the other application's **GUI** comes to the front. Now move the mouse into the GUI and drop the selection in the desired part of the GUI.

Note that when you pick the list from a folder pane, the selection is dropped in the same visual order that you see. However, when you pick the selection from a scrap pane, the selection is sorted first in alphanumerically ascending order and then added to the other application.

Open with... options

Sometimes, it is necessary to open a file with an application that is not associated with the file by default. For example, the MIDI files on your PC may be associated with a player. If you want to edit a MIDI file with a MIDI editor program, rather than playing it with its default application, then this option is useful.

To do that-



1. Select the file
2. Press **SHIFT** and r-click on the file. A context menu appears.
3. The context menu has an **Open with...** option. Select this option.
4. Navigate to the desired application and press **OK**.

Creating new files, folders, shortcuts and links

This section describes how to create new items.

Creating a new file

To create a new file, press **F7** (or select the **Actions | New file** menu option).

A new entry pops up in the active pane; and x^2 goes in rename mode.

The dummy name “New file” is already highlighted: Just enter a proper name and extension for the new file and press **Enter**.

Do not forget to enter the extension; otherwise the file will not be associated with any application, and remain useless! But not to worry: You can enter the extension even afterward. Just select this file, press **CTRL+F2** and enter the extension. Also remember to enter the dot (.) between the base name and the extension!

Note that the file you create is really an empty file: x^2 does not insert the appropriate file-header in this file. That is done only when you edit the file with its associated application.

Creating a new folder

To create a new folder, press **F8** (or select the **Actions | New folder** menu option). A new entry pops up in the active pane; and x^2 goes in rename mode.

The dummy name “New folder” is already highlighted: Just enter a name for the new folder and press **Enter**.

Creating a shortcut

Usually, All your files and folders are organized in a directory structure that reflects your subjects and topics (see **Chapter-8** for tips on how to organize your directories).

Normally this is not a problem, but if some file or folder covers multiple subjects, you face a dilemma as to where to place this item.

Your knee-jerk reaction would be to place one copy of the item in each directory. But these duplicates waste valuable disk space. Besides, when you edit the item (or replace it with the latest version), you may forget to update all the other copies simultaneously.

The solution is to place the item in the most relevant folder, and place its shortcut in all other candidate folders.

A shortcut is actually a tiny file with “lnk” extension (abbreviation of “link”). It only contains a reference to the actual file (or folder).

(Note that the term shortcut is also used to mean a combination of keys on the keyboard, such as **CTRL+F**).



The icon of a shortcut is derived from the item it points at. In fact, it has the same icon, with a small arrow added at the left hand bottom. This makes it easy to recognize the target item’s type at a glance.

What happens when you click on a shortcut?

- If it points to a folder, x^2 loads the folder in the active pane.
- If it points to a file, x^2 launches the file using its default application

The link between the original item and its shortcut remains intact even when you carry out many operations on the shortcut and/or its original item:

1. Rename the shortcut
2. Move a shortcut to another folder, directory or a **NN** PC.
3. Create a copy of the shortcut. (Even the new copy of the shortcut will point at the original item.)
4. Rename the original item
5. Move the original item to a new location

The only condition is that the item and its shortcut must be accessible simultaneously when these changes are carried out.

For example, if you move a shortcut to a floppy, remove the floppy and do any of the operations on the original item. When you insert the floppy again, you will find that the link is broken. For the same reason, if you have shortcuts pointing at items on remote PCs, they may not work reliably!

How to create a shortcut:

Shortcuts are created using drag-n-drop operation. Since this operation can also copy/move items, creation of shortcut is described in a **later section**.

Creating hard links

A hard link is just like a hyperlink in the sense that when you click on the link, the original item is opened. However, while a hyperlink can be created inside a document, the hard link is created in the folder system. Once created, the link can be renamed, deleted and moved like any other item.

This is an extremely powerful and space-efficient concept that allows you to have many copies to the same file in different locations without using any extra storage. When you change one copy all the other instances are automatically updated.

To create a hard link, focus on an item and then press **CTRL+ALT+H** (or select **Paste special | Hard link** menu option).

You can create a hard link for folders also, and then the complete hierarchy below the folder is hard linked — but this shouldn't be confused with folder junction points. When x² hard links a folder, it creates real folders but instead of files, inserts hard links of the originals.

Note: Hard links have two major limitations

1. They can exist on NTFS-formatted hard disks only.
2. The source files must be on the same partition.



Tip: You can check whether a drive is NTFS-formatted using its property sheet. From “My Computer”, right-click on the drive and select the Properties option from the context menu. In the window that pops up,

select General tab. The file system of the disk is listed here.

NTFS formatting is possible only on Windows NT-based PCs: The Windows 9x architecture supports the FAT32 format only.



Caution: *If you edit the file using certain applications, the hard links can be destroyed without your knowledge. Instead of saving straight to the target file name, such applications create a temporary file, write in it, delete the original file and then rename the temporary file to the actual file name. Thus the hard link information in the original file is lost forever. The new file will lead a separate life.*



Tip: Check beforehand whether the editing application is friendly with hard links!

Creating symbolic links (Vista only)

Unlike a hard link, which points directly to data and represents another name for the same file, a symbolic link contains a path which identifies the target of the symbolic link. Thus, when a user removes a symbolic link, the file to which it pointed remains unaffected. Symbolic links may point to files on other mounted file systems also.

To create a symbolic link, first select the items and press **CTRL+C** (or select the **Edit|Copy** menu option). Now navigate to the folder where you want to create the symbolic links. Now r-click. From the context menu, use the **Edit | Paste special | Symbolic links** menu option.

Note that once a symbolic link is created, x² does not ensure that it is always pointed correctly at the target. This means a symbolic link may lose its target when the target file is renamed, deleted or moved elsewhere. Such links are called orphaned links.

Note: Vista's User Account Control blocks this command, so you have to "Run As" administrator.

Deleting files and folders

When you do not need an item, you can delete it in one of the following ways:

1. Send the items to Recycle Bin (Earmark the items for deletion)
2. Bypass the Recycle Bin and delete the items permanently
3. Shred the items (secure, non-recoverable deletion)

Let us see each method in more detail.

Sending items to Recycle Bin

Just make your selection and then press **Delete** (or use the menu option **File | Delete**) to delete the selection. The selected items are removed from your folder and sent to the Recycle Bin.

Items sent to the Recycle Bin are actually not immediately removed from the disk: They are only earmarked for deletion. You have one more chance to retrieve any item from the Recycle Bin. Thus, the Recycle Bin acts as a “safety net” against accidental permanent deletion.

- To retrieve accidentally deleted items, d-click on the Recycle Bin node in the tree (or on the Recycle Bin icon on the Desktop). This shows the contents of the Recycle Bin. Select all the items you want to recover. Now r-click, and from the context menu, select the **Recover** option.
- To empty the Recycle Bin, r-click on its node in the Tree pane (or its icon on the Desktop). From the context menu, select the **Empty Recycle Bin** menu option. Once you empty the Recycle Bin, the items cannot be recovered without specialized tools.
- Even when you send items to the Recycle Bin, they continue to occupy disk space. The disk space is released only when you empty the Recycle Bin. So, if you are planning to transfer new items to this disk, you may have to first free some disk space by emptying the Recycle Bin.



Caution: *Items sent to the Recycle Bin remain there until you empty the Recycle Bin. Anyone who has access to your PC can easily retrieve the items from the Recycle Bin.*

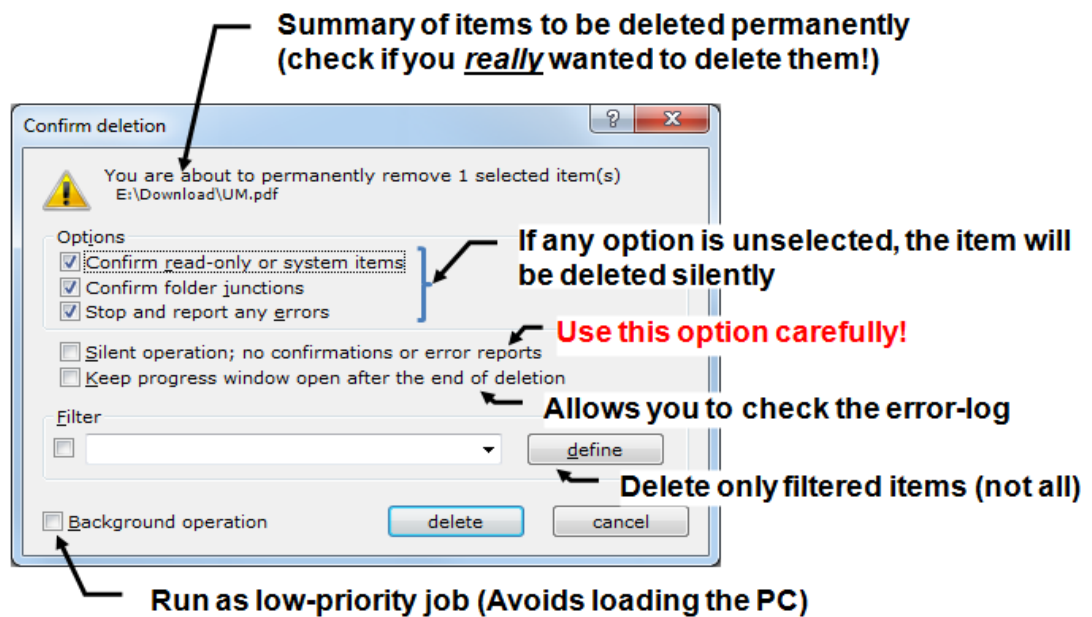
In fact, the items can be recovered even after the Recycle Bin is emptied. (Requires special tools and techniques.)

Thus sending to recycle Bin is not a secure method.

Robust-deleting items (bypass the Recycle Bin)

If you are convinced that you will never need the selected items, you can delete the selection permanently with **SHIFT+Del**.

A Robust Delete windows pops up, as shown below.



Select the options you want and press **OK**.

- You can opt to delete the read-only, system files and folder junctions without confirmation.
- You can opt to suppress any information and delete the items silently
- You can set a filter. Only items that match it only will be deleted. The check box at the left allows you to reuse the last filter used.
- You can set it as a background (low-priority) operation, so that x² does not load the PC. Now your other tasks running on the PC will not be slowed down.

The Recycle Bin is bypassed while deleting. This saves you the next step of emptying the Recycle Bin.

Even when you send a selection to the Recycle Bin, Windows may decide to bypass the Recycle Bin if the selection is too large for the Recycle Bin.



Caution: Before deleting your selection permanently, x² will warn you that your selection is too large for the Recycle Bin, but if you press **OK**, it goes ahead with the deletion. So, do not be hasty with the Enter key!

Caution: Although the Recycle Bin is bypassed in this method, the deleted items can still be recovered directly from disk, using special techniques and tools. Therefore, this also is not a secure method.

If you want to ensure that no one can recover sensitive (critical) data, use the shred method (see below).

Shredding items(non-recoverable deletion)

Even if you bypass the Recycle Bin, the data is not safely erased: Special disk recovery processes can recover deleted files. If you don't want that, you can use a special menu command **Actions | Shred**. Now the file is truly

erased from the disk; and no operation can recover it!



Caution: *Before using the shred command, make sure that you really do not want the items. Once shredded, they will be lost forever!*

Tip: You can't delete a folder from the tree if you are browsing that folder in one of the list view panes. In this case, it is considered "locked" and you can't permanently delete it. So please make sure you are not browsing the folder in any program, including within x². You should be able to delete a folder to the recycle bin without problems, though.

Using the Recycle Bin



You can browse the Recycle Bin like any other folder.

- Load it in a folder pane and browse it to see what items are earmarked for deletion. It is a good idea to **sort** them on *Path* or *Deleted* date column and then browse the entire collection.
- If you want to undelete any of these items, just select those items and r-click. From the context menu that pops up, select the **Restore** option.
- To remove the selected items permanently from the Recycle Bin, press **Delete**.
- To remove all items from the Recycle Bin at once, r-click the Recycle Bin node in the tree and select the **Empty Recycle Bin** option.



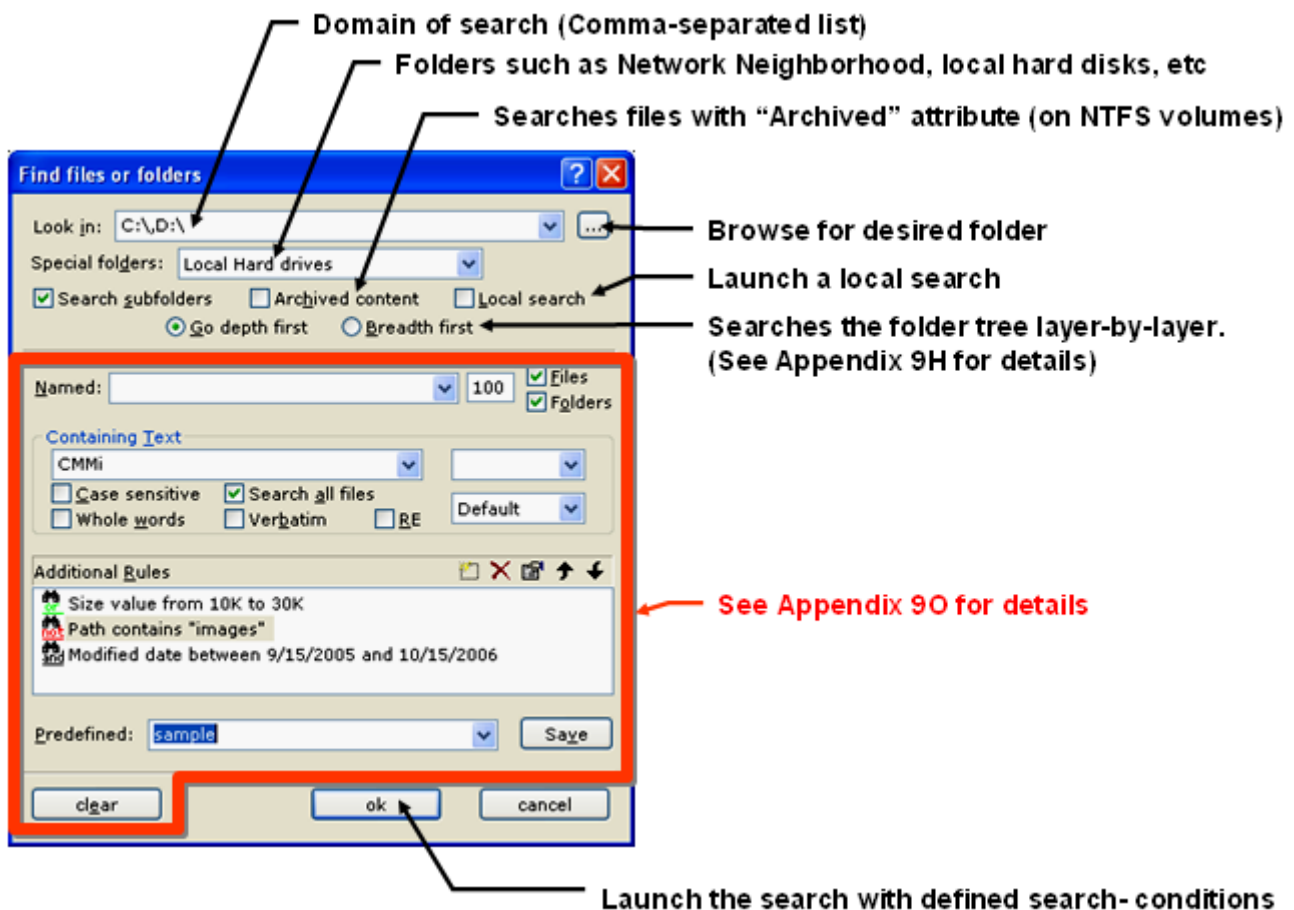
Caution: *x² cannot automatically refresh the contents of Recycle Bin. So, even if you delete or restore any item(s), those item(s) will still appear in the Recycle Bin. You will have to manually refresh the view (press CTRL+R or CTRL+ALT+Space Bar) to get rid of these items.*

Finding files, folders and computers (Omni-Finder)

The "Omni-Finder" command locates files, folders and computers on the local PC and also in the entire **NN**. You can specify a complex set of rules that the searched item must meet.

Launch the Omni-Finder with **CTRL+F** (or use the **Tools | Find files...** menu option). It pops a window as shown below.

The part of GUI that is enclosed in red is called *Hyperfilters*, which allows you to set complex conditions involving multiple attributes of the items. (see **Appendix 90** for details).




You can use this command in x^2 's main window or in a **scrap container** window. The latter is called **local search**, described in the next section.

Composing a search

The step-by-step procedure to use this command in the main x^2 window is given below (refer to the figure above):

1. Start by defining the search domain with the help of **Look in...** or **Special folders** fields, located at the top of the window.

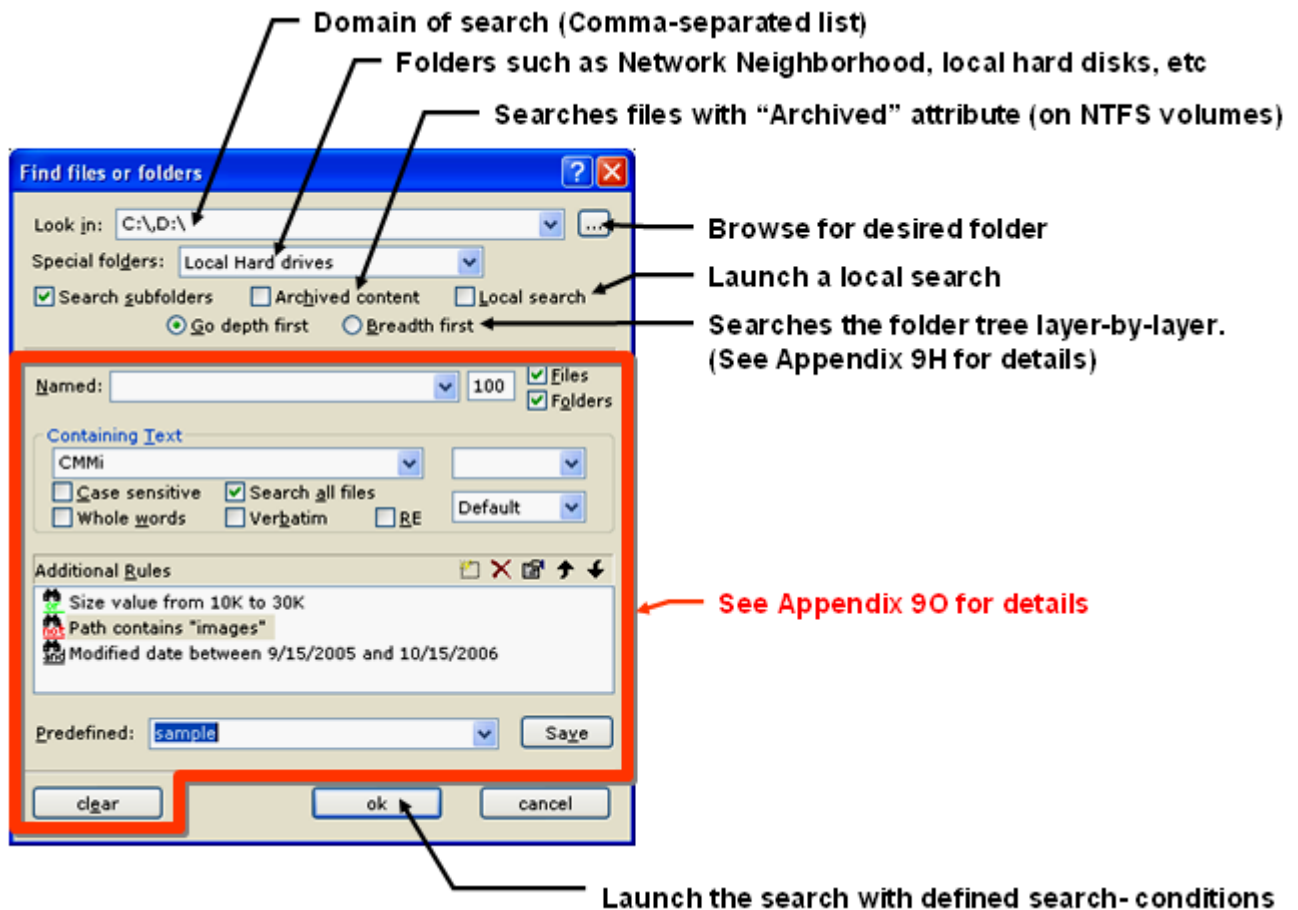
By default, the **Look in...** field shows the current folder pane's path automatically (in other words, the current folder pane is the default search domain). You can change the search domain as follows:

- You can change the path defined in the **Look in...** field: Either type in a new path or press the *browse* button  to locate the folder you want to search.
- If you want to search multiple paths, enter them all in the **Look in...** field (separate them with commas).
 - If any folder name in your path has a comma, x^2 will treat that as a separator, and give you "*invalid path*" error. For example, if you enter D:\John, the fifth\Biography\ in the Look in... field, x^2 will split it into two separate paths: D:\John and the fifth\Biography\. Since the PC does not

have either of these paths, x² will report an error. To avoid this problem, use two commas in place of a single comma (e.g. If the name is John, the fifth, enter John,, the fifth). The first comma acts as an escape character, and tells x² that the second comma is part of the name, not a separator.

- The special folders field has a pull-down list of some commonly used search domains (**NN**, all local hard disks, etc). If you select anything here, the entries in the main Look in... field are ignored.
 - Note that the special folders field allows only one selection at a time: It does not allow multiple entries (e.g. you can't select all hard disks and **NN** options together). That means you will have to run separate searches for each option selected from here.

2. Next, select your search options:



Search subfolders	If selected, contents of all subfolders will be searched recursively.
Archived contents	If selected, x ² searches within archive files (zip, etc) (if supported as folders by your system) and other special types of folders, such as FTP, webfolders, etc.

	(Searching archives is kept optional because it is a time-consuming process, and slows down the search.)
Local search	Forces a local search
Depth-first Breadth-first	<p>x^2 can conduct the search in two distinct ways:</p> <ul style="list-style-type: none"> • In the Depth-first mode, x^2 goes deep within each folder and finishes off all subfolders before taking up the next folder. • In the Width-first mode, x^2 searches layer-by-layer: First, it searches in the top folder, and then searches all subfolders one layer down, and so on. <p>See Appendix 9H for details.</p>

3. Complete the middle section (Hyperfilter) as explained in **Appendix 9O**.
4. Press the **OK** button to launch the search.
5. The search results (i.e., items found with this command) are listed in a **scrap pane**:
 - If there is no scrap container, the Omni-Finder command will create a scrap container and put the search results in its active pane.
 - Even when you are working in an existing scrap pane (and not on x^2), you can still launch a new search in x^2 , in any folder(s) of your choice. In this case, x^2 does not open a new scrap pane: Instead, x^2 will overwrite the existing contents of your current scrap pane.



Warning: *You will lose the existing contents of your current scrap pane!*

- If a scrap container is open, the Omni-Finder window automatically focuses on its active pane.
 - If the active pane is has some entries in it, the Omni-Finder will automatically switch to “**local search**” mode. If you don’t want to launch a local search, then uncheck the local search check box. The new results will overwrite the existing contents of the active scrap pane.



Warning: *You will lose the existing contents of your current scrap pane!*

- If the active scrap pane is blank, the Omni-Finder will focus on the current copy of x^2 and search in its active folder pane.

Notes:

- A search command slows down x² (the main window and the scrap container). So, if you plan to do some other file-management work while the search goes on, launch a new x² window (using the **Window | Clone** command) before you start a search. This clone will run in its own thread and will be relatively unaffected and more responsive to user input. Still it does slow down the PC. Sometimes patience is the best policy!
- You can check the progress of a search either by noticing the folder being scanned on the Status Bar, or see the detailed **Search status report**.

This information is available even after the conclusion of the search.

- Multiple additional rules can slow down a search. To speed up the searches, x² automatically checks easier rules first and leaves slow ones for last, thus optimizing searches as much as possible. You need not worry about setting the rules in correct order.
- If you are searching for some text, this information is instantly shared with QuickViewer and Editor². So, when you view the items listed in the search results with QuickViewer and Editor². The first match of the text is already highlighted in QuickViewer and Editor². You can see other matches by pressing **F3**.

Saving the search results

The results of a search are collected in a scrap pane. You can **save the contents of a scrap pane** as a CIDA file. However, it does not save the search conditions along with the file. So, when you see the saved search results (in the CIDA file), you will not know how those results were collected.



Tip: You can “embed” some of the search-related information (such as the subject, search conditions, search domain, date of search, etc.) in the CIDA file’s name itself. For example, `MIDIs_NN_Jan05.cida` contains your search results for MIDI (music) files in your NN.

In fact, the CIDA file is not meant to save individual search results only: You can remove some items from the search results, add some more items manually, or even combine the results of several searches in a single scrap pane and then save these modified contents as a CIDA file. Name such “modified” CIDA file appropriately, so that you will not confuse it with a pure search result. If the CIDA file is stored on an NTFS drive, you may attach **comments** to it, to describe how you created it.

Aborting a search

In case you want to abort a search midway, just press **ESC**. The search stops immediately, but the results found till that point of time are retained.

Local searches


Normally, x² searches in the specified folders as described **above**. However, sometimes we need a local search within a scrap pane.

Typical applications of a local search are-

- Searching within the results of an earlier search; and
- Searching in a **scrap pane** that was manually loaded; by any combination of the following methods:
 - **Flattening** some folders
 - **Adding items to a scrap pane** from various directories
 - The results of an earlier search.

To set x^2 in “Local search” mode, put a tick in the **Local search** check box and launch the search.

There are four important differences between a “normal” search and a local search:

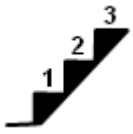
Difference	Search type	
	“Normal” search	Local search
Domain of search	Active folder pane	Active scrap pane
Search in subfolders	All subfolders and files are searched. 	Only the names of subfolders are searched; their contents are not searched. Tip: If you want to search inside a subfolder, flatten it first.
How the result is displayed	Matching items are listed in a new scrap pane	Matching items are highlighted in the scrap pane itself.
Saving the results	Save as a CIDA file.	The results cannot be saved directly: First transfer the highlighted items into a fresh scrap pane and then save the contents .

Skipping some folders during search

You can tell x^2 to skip certain areas during a search; generally because you know these areas don’t hold anything of interest (so you can save time by skipping them), or to deliberately avoid accessing some sensitive information. There are two different provisions for skipping an area during a search:

Area type	Remarks
-----------	---------

Adding an area to blacklist



1. Close all running copies of x² (including scrap panes, if any)
2. Using a registry editor, navigate to
HKEY_CURRENT_USER\Software\ZaBar aKatranemia
Plc\explorer2.global\Find Blacklist folder.
3. You will see some default values here (labeled 00, 01, etc.). Add a new value (you should label it as the next available number). Specify the path of the area to be blacklisted.
4. Press **OK**, and exit the registry editor
5. Start x². The area is blacklisted now: It will always be skipped.

Removing an area from blacklist

1. Close all running copies of x² including scrap panes
2. Using a registry editor, navigate to
HKEY_CURRENT_USER\Software\ZaBar aKatranemia
Plc\explorer2.global\Find Blacklist folder.
3. Select the area to be removed from blacklist and delete this value.
4. Adjust the numbers of the remaining entries so that they form an ordered list from 00 to (number of blacklisted folders-1).
5. Press **OK** to confirm and exit the registry
6. Start x². The area is no longer blacklisted.

Excluding an area from an individual search

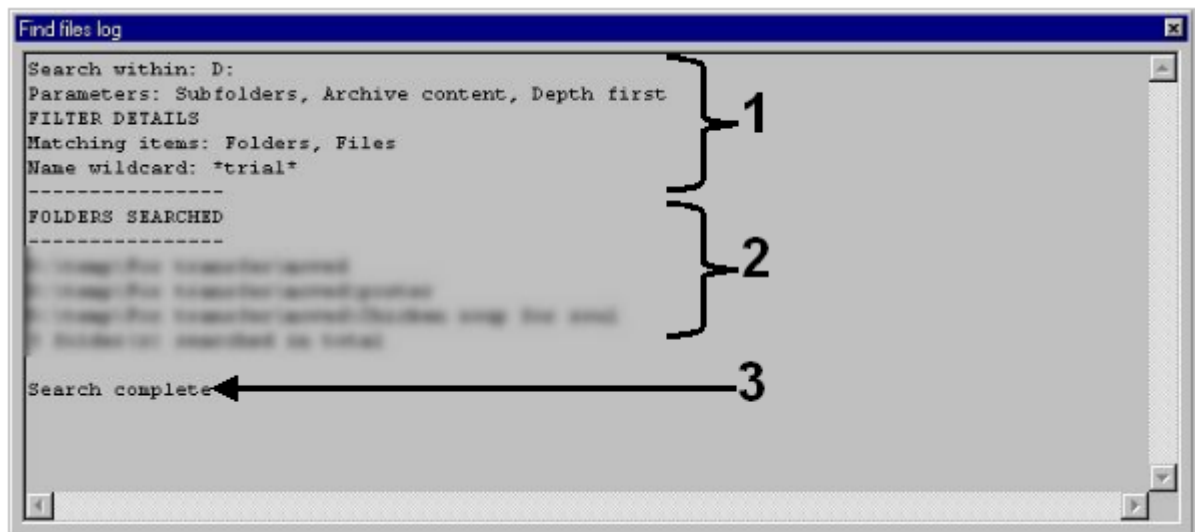
After specifying your search domain in the “Look in...” field, enter a comma and enter the name of the folder to be excluded with a -sign. (e.g. D:\, -dropbox will search in D drive, but will skip the folder “dropbox” and all its subfolders.) Note that you don’t have to specify the entire path of the excluded area: Just the name. However, if you have multiple folders with the same name, and if you want to skip only a particular folder out of them, then you will have to specify the path.

- You can exclude more folders using wildcard characters. So D:\, -*drop* will exclude all folders that contain “drop” as part of their name.

Search status

x² stores the status of the last search in a log file. In fact, it has a separate log file for each scrap pane. If you have conducted multiple searches in a given scrap pane, you will be able to see the status of only the last search. However, if that last search is a **local search** (i.e., search within search results), then the log file retains the results of the main search; and ignores the local search.

To see the search log, select **Tools | Search status** menu option. A window pops up, as shown below:



As shown above, the log has three parts:

1. Description of the search parameters, the search domain and filter.
2. List of folders searched.
 - a. The list contains all folders in the search domain and their subfolders.
 - b. The log shows [Excluded] tag against the following types of folders:
 - i. Folders excluded during the specific search
 - ii. Folders listed in the blacklist
3. Conclusion: This statement tells you whether the search ended normally or it was aborted.

You can search inside this log file by pressing **CTRL+F** (or r-click inside the window, and from the context menu that pops up, select the **Find command** option).

Repeating a search

All details entered in the Omni-Finder dialog box are saved by default: When you launch the Omni-Finder command again, you will see all the previously entered details, including the additional rules.

Only two things are not retained from the last search:

1. The search domain: The **Look in...** field always re-focuses on the current folder pane; and so it replaces the last entries with the current folder pane's path. However, changing it is easy: The last entries are still available from the **Look in...** field's drop-down list. You can select them once again.

2. The name of the item you want to find. In fact, notice that x^2 has already highlighted the entries in the **Named** field. Simply start typing the new name(s)!

This is a tremendous time-saver, because you don't have to enter all the details again: At the most, you have to only edit some fields.

But just in case you do need to start an entirely new search, simply use the **Clear** button at the bottom of the dialog box. All entries (including additional rules) will be cleared, so that you can start afresh.

- All the past entries are still available through the pull-down lists
- The **Look In...** field is not reset: You will have to tell x^2 specifically where to look.

Saving search conditions and re-using them

If you have to repeat the same search often, you can save the entire set of search conditions under a unique name. Note that this is quite different from **saving the search results**: Here, we save the criteria (search conditions); so that we can reuse the search.

To save a search-

1. Click in the **Predefined** combo and type a name (select a name that helps you remember why you want to save these search conditions).
2. Press the **Save** button.

All such saved searches appear in a drop-down list of the Omni-Finder command. You can select any of the previously saved searches, modify any of the search parameters and then run the search. Changing the parameters at runtime does not change the original saved search.

Typical uses of saved searches are:

- To compose a “subject search”, consisting of all possible keywords for any given subject. Save such search and reuse it periodically to search for all files on that subject. Good for searching your collection and LAN for subjects of your interest.
- To use the saved search as a search template; so that you don't have to fill in a lot of details each time. In this application, the saved search contains all commonly used values; and many fields are left blank (to be filled at the time of running the search).
- To search a remote PC or server on your LAN periodically and compare the latest results with the earlier results, to check if any new files are added to it. In this case, you typically define and save all search conditions and search domains.

Copying and moving folders and files

Because of the dual-pane structure of x², copying and moving files is extremely easy: The active pane acts as source and the inactive pane acts as the destination.

x² also has powerful commands to copy/move the selection to any of the tabs or even an unlimited number of pre-defined folders.

Broadly, the process can be described as follows:

After selecting the files in the source pane, use any of the following methods:

- Using mouse, **drag-n-drop** the selection to the destination
- Use x²'s Robust File Transfer commands (Press **F5** or **F6**)
- Copy the selection, go to the destination folder and paste the selection there.
- Make a bundle, take the bundle to the destination and unbundle.

The following sections describe each of these methods in detail.

Using the drag-and-drop method

You can reach the destination folder through three different routes. Each route has a particular advantage:

Target-	Specific advantage
Folder pane	<p>The “background” area in the pane and pane headers act as drop targets.</p> <p>While dragging in a pane with many items, you can scroll the contents by hovering on the window edge closest to the direction you want to see revealed.</p> <p>You can also drop the selection in any subfolder listed in the pane.</p>
Tabs	<p>The tabs (in the Tab Bar) themselves are drop targets. You can drop your selection on any tab, located either in the active pane or in the inactive pane. The selection will be transferred to the folder that is loaded in the respective tab. You can also drop the selection in any subfolder listed in the pane.</p> <p>➤ You do not need to open the destination tab before transferring your selection. (In other words, the destination folder pane need not be on top of the stack.) This allows you to transfer files at much faster speed.</p>



	<p>➤ Sometimes, you may want to check the contents of the destination tab before dropping your selection there. In that case, just hover your mouse on the tab, and after a preset delay, the tab will automatically open. If you move the mouse laterally, the neighboring tab will open up. If you wish, check out all tabs this way. When you have found the correct tab, just release the RMB to complete the transfer.</p>
Tree	<p>The tree gives you a panoramic view of all the folders available in your PC and even the entire NN.</p> <p>While carrying your selection, cross over to the tree pane and locate your destination folder's node. Drop your selection on it.</p> <p>The tree has open-on-hover feature: While dragging your selection, hover on a node to open it up. This way, you can go down a path and transfer your selection to any node.</p> <p>While dragging in a tree with many nodes, you can scroll in any direction by hovering on the Tree pane's edge closest to the direction you want to see revealed.</p>
Drive Bar icons	<p>All icons in the Drive Bar represent the respective disks as drop targets. This means you can also drag-n-drop your selection into all mapped drives (folders on your LAN) and removable drives (e.g. USB drives).</p>
Bookmarks in Tool Bar	<p>The Tool Bars in x² can be customized to show bookmarks as buttons. You drop your selection on such a bookmark button, which represents the bookmarked folder.</p>

The drag-n-drop operation can do three different jobs for you:

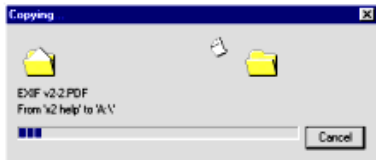
- Copy the selection to the destination folder,
- Move the selection to the destination folder or
- Create shortcuts for all items in the selection in the destination folder.
- If you don't do anything other than drag-n-drop, x² will decide what to do: If the source and destination folders are on different logical drives, x² will copy the selection; otherwise it will move the selection. (You can't create shortcuts with a plain drag-n-drop.)

To select an option manually, follow one of the following methods:

- Press and hold down a “drag-modifier” key while you drag. Each modifier key achieves a different effect:

SHIFT	Always moves the selection
CTRL	Always copies the selection
SHIFT+CTRL	Always creates shortcuts of the selected items. (When you complete the drag-n-drop operation in the destination folder, only the shortcuts are dropped there, not the actual items.)

- Start the drag with **RMB** (not **LMB** as usual). When you drop, you'll be presented with an options menu. Select the option you want.



For the actual transfer, x^2 uses the file-transfer engine of Microsoft Windows. During the actual file transfer, an Explorer-like window shows the current status.

During drag-n-drop operations, you may accidentally drop your selection in a wrong subfolder. You may not be sure where you dropped the selection. To trace that folder, use the **Goto | Drop target** menu option to go to the specific target folder.

Using Robust File Transfer commands

x^2 's robust file transfer commands have several advantages over the default (Windows) file transfer:

1. If errors occur during the transfer, the transfer is not aborted (or even halted for your instructions): You can ask x^2 to create a log of these errors and carry on, so that you can deal with the errors later.
2. In case the destination folder already has an item with the same name, x^2 can rename the transferred files on the fly. (The original is not affected.)
3. You can set x^2 to overwrite files with the same names and "Read only" files without asking for a confirmation each time. The overwrite function has an additional "*No to all*" option.
4. If you set the file transfer as a background task, the transfer task becomes less aggressive, which in turn frees more system resources for the other tasks of x^2 , making them run faster.
5. You can pause the transfer midway and resume it later. This is useful if you have to create some disk space (by deleting some other items), finish some other resource-consuming task first, disconnect your PC from LAN for a while, etc.
6. If the destination (removable) disk becomes full during the transfer, x^2 will not abort the transfer: It will allow you to change the disk and then continue. On the other hand, if you do not want to split your load over different disks, you can ask x^2 to check the disk space before starting the actual transfer.
7. When files are copied from CDs, Windows Explorer automatically marks them read-only. If you want to edit them, you have to first reset

their read-only attribute. On the other hand, x² can automatically reset the read-only attribute during transfer.

8. It has an "overwrite newer else skip" option, which can act as a quick automatic folder synchronizer, including subfolders. (x² also has a set of **folder synchronizer commands** that allows you to have a detailed look at the items before synchronizing.)
9. You can use robust transfer options to simulate a backup operation. When copying a folder to its "backup" location, if you check Overwrite if newer, else skip and Clear archive attribute for source files options together, only files that were modified or added will be copied and marked as backed up.
10. If you don't want to process any newly added files check the Copy only files that already exist at destination option.
11. You can load all your transfer jobs in a queue and turn to other things. x² automatically launches all transfer tasks one by one.
12. You can apply **Hyperfilters** to the items being transferred (only files matching the specified complex criteria would be transferred)
13. When a file is copied, you may ask x² to reset the "Archive" **attribute** of the original to signify that the file is archived (backed up).
14. When files report loss of ADS stream during the transfer, you can suppress these warnings by pressing the Yes to All button. (You don't have to press the Yes button separately for each file.)

The command **F5** (also launched from the **Edit | Copy to...** menu) copies the selection to its destination; and command **F6** (also launched from the **Edit | Move to...** menu) moves the selection to its destination. Since both the commands are nearly identical, we will study only **F5** to understand how to use them both.

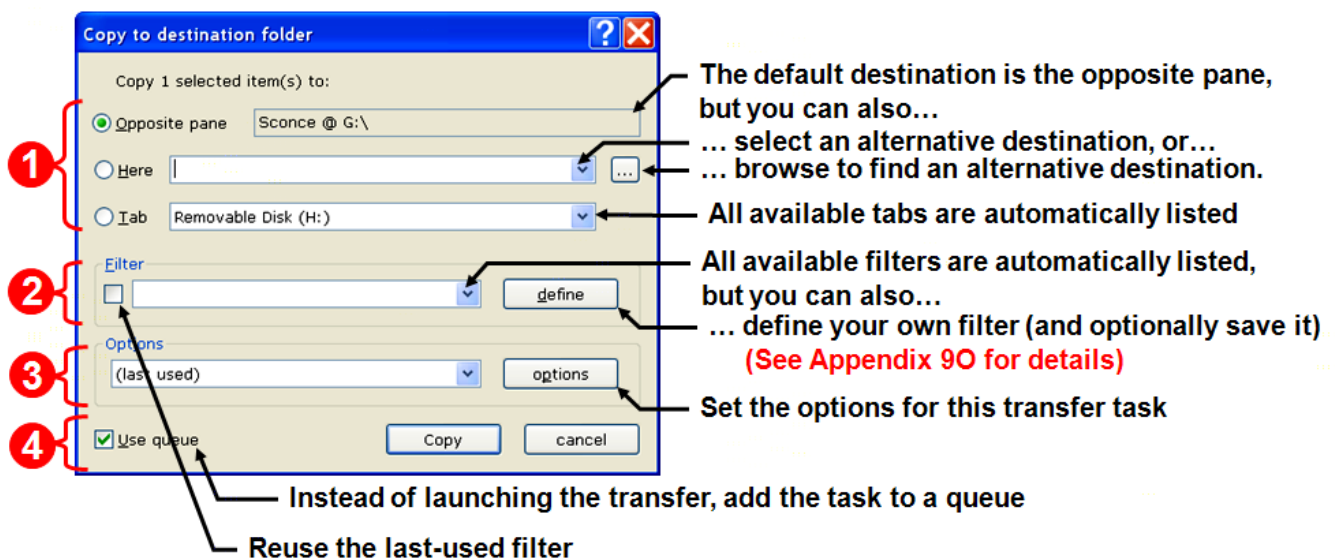
Note that in move operations, if your destination folder is on the same logical partition, then x² uses Windows' native move mechanism. In that case, the Robust Transfer mechanism is not used. (But in case of copy operation, x² always uses its robust transfer.)



Warning: *If your destination has folders with the same name, the robust transfer command will merge the two folders without warning you about it. In some cases, the resultant merged folder may become unusable because integrity of the hyperlinks is damaged. It may be extremely difficult to separate the folders once they are merged. So, before using a robust transfer, check that your source and destination folders do not have subfolders with the same names.*

Starting a robust transfer task

When you press **F5**, a dialog box pops up, as shown below.



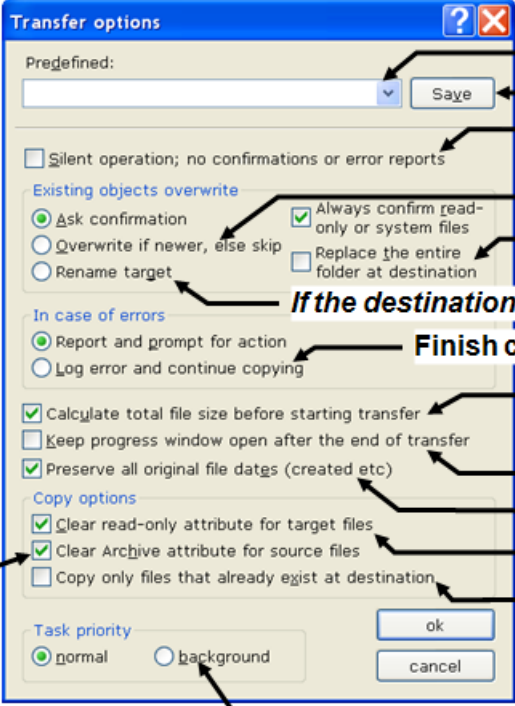
The box has four main parts (shown with numbers in red). Use them as follows:

1. Select the destination for your selection, by choosing one of the three radio buttons (opposite pane / selected folder / selected tab)
2. Optionally, select the **Hyperfilters** (complex conditions involving multiple attributes of the items). The drop-down list shows all defined filters. It also has a check box to select the filter that was last used, which allows you to reuse the filter that you loaded (=defined or used) last (not only used last, as the name suggests!) .
3. In the Options section, click on the **Options** button to **set options for the robust transfer task** (and optionally save them for later use). Options need not be set each time: x² automatically remembers all options for the subsequent robust transfers. You can also use the drop-down list to select from saved options. It also has two built-in options: *(Last used)* and *Default*.
4. Press either the **Copy** button (which **launches the robust transfer task** immediately) or the **Queue** button (which **adds the task to a queue**; x² automatically launches tasks from this queue, one at a time).

In the following sections, we will see these steps in more detail.

Setting options for the robust transfer task

When you click on the options button in the robust transfer dialog, it triggers another dialog box:



Transfer options

Predefined: Save

☐ Silent operation; no confirmations or error reports

Existing objects overwrite

☒ Ask confirmation ☒ Always confirm read-only or system files

☐ Overwrite if newer, else skip ☐ Replace the entire folder at destination

☐ Rename target

In case of errors

☒ Report and prompt for action ☐ Log error and continue copying

☒ Calculate total file size before starting transfer

☐ Keep progress window open after the end of transfer

☒ Preserve all original file datags (created etc)

Copy options

☒ Clear read-only attribute for target files

☒ Clear Archive attribute for source files

☐ Copy only files that already exist at destination

Task priority

☒ normal ☐ background

ok cancel

Annotations:

- Select from predefined transfer options
- Save all the current options as a named set
- Use this option judiciously! You may lose files through overwriting!
- Modification Date is used; not Created Date
- This option will delete all existing files!
- If the destination folder already contains an item with the same name
- Finish copying first; deal with problems (if any) afterwards
- To avoid "disk full" error at a later stage. Also, to get an accurate "% completed" display.
- Retains the error log (you can read it later)
- To clone the items exactly (with metadata)
- For items copied from DVDs/CDs
- To update / replace the existing files
- While the copying is going on, x² can do other jobs simultaneously.
- To signify that the source files were archived (backed up)



Warning: Some of these options allow you to suppress alarms when files are being overwritten with their namesakes. Use these options judiciously - you may end up losing important files!

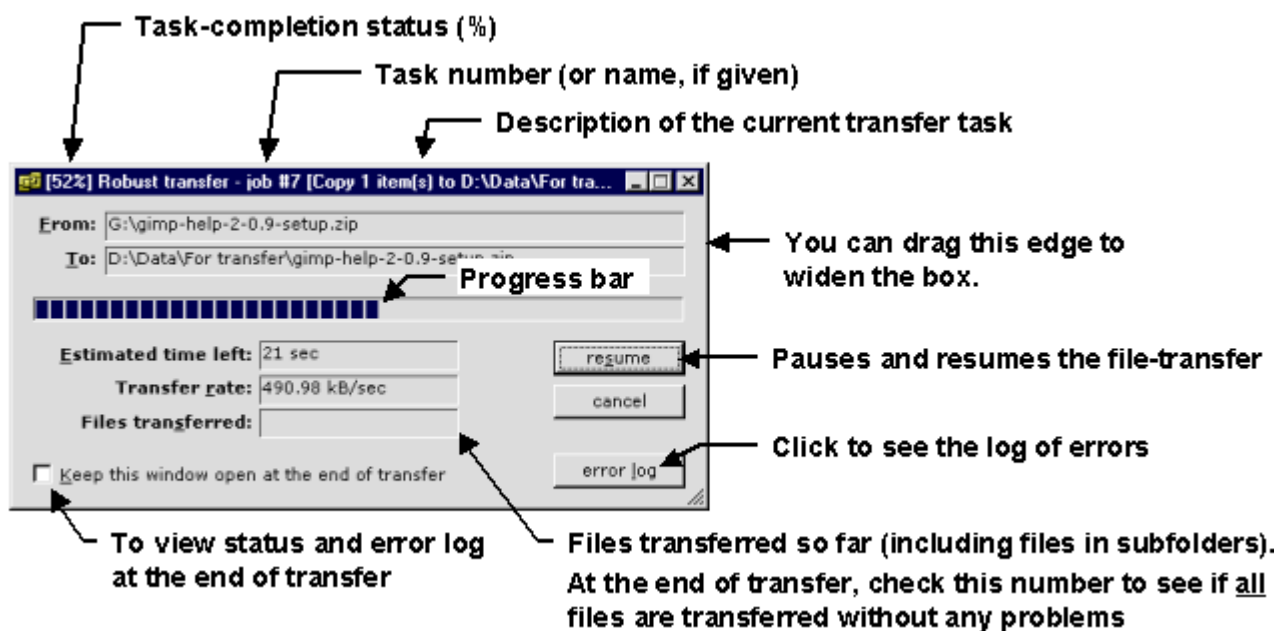
After setting the options, press **OK** to save them.

Once these options are set, they remain valid till they are set once again. These options are applied to all subsequent **F5** and **F6** operations. Some additional points to remember:

- If you select the Silent operation option, most other choices are blanked out: The only choice left to you is whether this transfer should run in the background.
- By default, x² does not know the size of load in advance. For each subfolder, it has to calculate the load size afresh. Therefore, even as the transfer is in progress, the Progress Bar (shown in the figure below) fluctuates when a new subfolder is taken up for transfer. If you want to avoid this, select the **Calculate total file size** option before starting transfer option.

Launching the robust transfer task

When you press the Copy button in the main **robust transfer dialog box**, x² launches the robust transfer task.

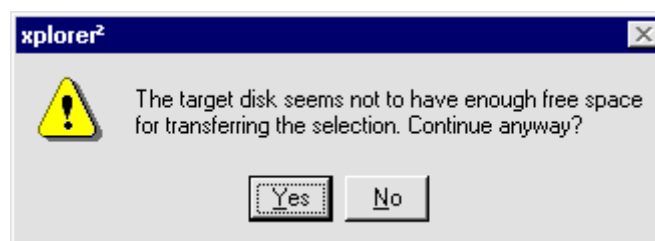


A Robust transfer progress dialog box opens:



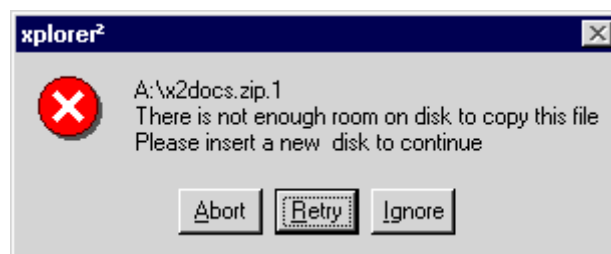
Tip: You can launch multiple tasks without waiting for the current task to finish. All such tasks run concurrently. However, the system slows down and the overall transfer time increases. Therefore, it is best to wait till the current task is finished or to use the **transfer queue**.

If you had selected the Calculate the total size before starting transfer option, x2 compares the load size with the space available on destination disk. In case the disk space is not adequate, it pops up a warning:



Now it is up to you what to do next:

- Select Yes. When the first disk is full, x² will prompt you to change the disk and continue the transfer.



You may have to change multiple disks before the transfer is complete. (So keep enough disks at hand, so that you don't run out of disks midway!)



Tip: Notice that the Retry button is already highlighted. So after inserting a fresh disk, just press **Enter**. (You can press SpaceBar in place of

Enter, which is more convenient.)

- Select No. Make alternative arrangements (such as increasing free disk space by moving/deleting some items) and then attempt again.

The **Robust Transfer progress** dialog box displays the live status of the file transfer. Its task button (displayed in the Windows Task Bar, at the bottom of your monitor screen) also shows the *percentage completion* status. Hover the mouse pointer on this task button to see more details of the task (task number/name and destination folder.)



Tip: This feature is very useful for transferring large loads: If the transfer is going to take long, you can turn to some other task; and glance at the task Bar once in a while to check the % completed status. This feature is also helpful if you have multiple robust transfer tasks running in parallel: The Windows Task Bar shows the status of all transfer tasks at once.

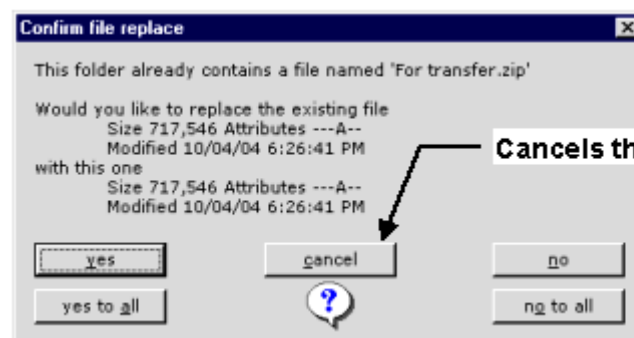
- In Windows, the transfer speed gradually increases during a transfer. This is normal. Because of this, the actual transfer time is usually lesser than the initially estimated time. As the transfer progresses, the Remaining Time drops at a higher rate.
- If the selection-to-be-transferred has multiple folders, the speed and time indicators will get reset with each new folder.



Caution: *In case of a floppy, even after the robust transfer is over, Windows continues to access the floppy for a few seconds. Therefore, do not remove the floppy from its drive till its LED turns off.*

You can pause the file transfer in case of emergencies. For example, if you have to create more space in the destination directory by moving/deleting some items, then pause the transfer, create some free space, and then press the same button again to resume the transfer. (When you click the **Pause** button, it automatically changes to **Resume** button.)

If the **Ask confirmation** (to overwrite objects) option is selected, x² will halt the file-transfer whenever an item has to be overwritten, and ask for your confirmation.



Cancels the rest of the file-transfer

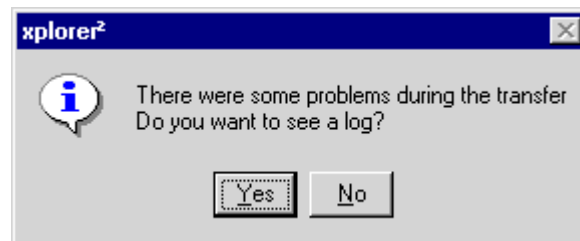
Compared to the Windows' dialog, x²'s dialog has the following additional facilities:

- It shows the attributes of both files, and also a short summary of the difference in size of the files (identical/smaller/larger), and age of the files (older/newer). This helps you in deciding quickly whether to allow the overwriting.
- It provides the *Yes to all* and *No to all* options, which make it easy to give a common response to all possible overwrite cases.

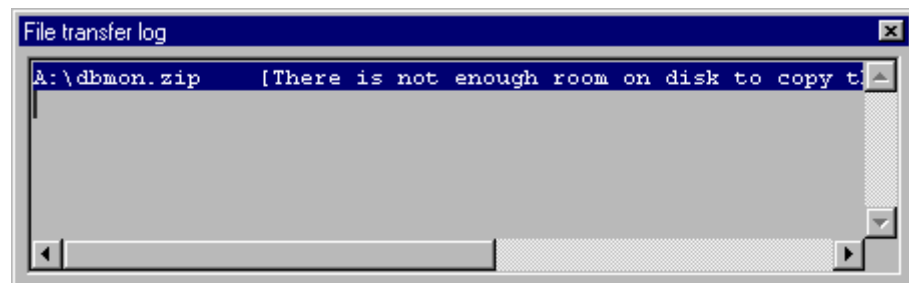
A similar warning is shown in case the file's **ADS content** is being stripped during the transfer. Rather than pressing *Yes* button for each file separately, you can press the *Yes to all* button just once.

Reporting the errors that occur during the robust transfer

Even when you have unselected the **Keep progress window open after the end of the transfer** option, if errors were encountered during the transfer, they are not suppressed: x² informs you that some errors occurred during the transfer, and prompts you whether you want to see the log of errors.



If you select *Yes*, then x² will show you the log, which you can use to trace the problematic files and take corrective actions.



You can search inside this log file by pressing **CTRL+F** (or r-click inside the window and select the Find command from the context menu that pops up).



Tip: The error log is displayed with its entire text highlighted. You can simply press **CTRL+C** to copy the entire report into the clipboard and paste it in a text file (or a worksheet), so that you can analyze the problem later. Also see how to **take a print** of this report.

Repeating the robust transfer with the same options

Once you **set the robust transfer options**, you will not need to change them frequently. For subsequent transfers, you can bypass the dialog box and copy the selection with a single shortcut: Just make a new selection and then either press **CTRL+F5** to copy the selection to the opposite pane, or press **ALT+F5** to copy the selection to the last destination used.

Note: The expression “Last used destination” requires closer inspection:

- By default, “Last used destination” means the folder you specified when you used the **Here** box the last time. Even if you subsequently transfer a few selections to the opposite pane, x² still remembers the location entered in the **Here** box as the “Last used destination”.
- If you want this command to remember the opposite pane’s path also, set the registry as shown **here**.

The command **F6** (and its variations **CTRL+F6** and **ALT+F6**) act exactly the same way, except that they *move* the selection instead of *copying*.

Creating a queue of robust transfer jobs

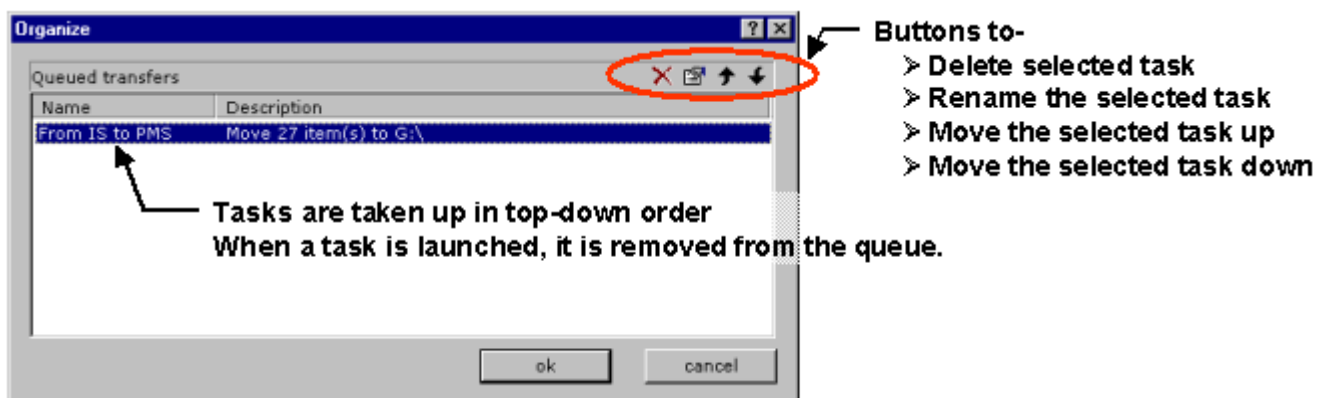
As mentioned before, concurrent transfers slow down the overall transfer speed. But you may not wish to wait patiently till the current transfer is over and then launch the next transfer task (especially when the tasks are large—you may have to wait for a long time). On the other hand, if you are not paying close attention, you will not know when the current transfer task is finished. That means you will lose time between two transfer tasks.

This is where the transfer queue is useful: Just **load all your transfer tasks in a queue**, and let x² take them up one by one.

This has multiple advantages:

- x² runs only one task at a time. As a result, the system does not slow down. Consequently, all tasks are finished in minimum possible time.
- No time is lost between two transfer tasks.
- While the transfers are taking place, they do not demand your attention: You can do something else (or even set the tasks to finish overnight).

The transfer tasks in the queue are taken up in top-down order. To change the order, select the menu option **Edit | Queue status**. A window pops up:



Now you can select any task and do any of the following:

- Use the arrow buttons to move the task up or down in the order.
- Delete the task from the queue.
- Provide a meaningful name to the task (e.g. “To free disk-space on F:\”)

Once a task is launched, it disappears from the queue. Now this task can be controlled using its own **Robust Transfer progress** dialog box. If you pause a running task midway, it will not return to the queue.

Note that the queue window does not have a provision to pause the queue: As soon as the currently running task is over, the next task gets launched automatically. The only way to pause the queue is to pause the currently running task.



Caution: *The present version of x² does not save the transfer queues. If your PC crashes for some reason, the queue will be lost. This can be a problem if you have not kept a track of exactly what was to be transferred (especially if some of the transfers are sourced from scrap panes). As a precaution, do not create huge queues.*

Using the copy-and-paste or cut-and-paste methods

The traditional copy-and-paste or cut-and-paste methods are really relics of the past: They were designed for the single-paned file-managers because you could not access the source and the destination folders at the same time. Although x² offers these commands, keep in mind that you don't really need these laborious methods, because with the **tabbed dual-pane interface** of x², you have direct access to virtually unlimited folders. The other methods described above are much faster.

The copy-and-paste method is used to copy the selection to the destination folder; whereas the cut-and-paste method is used to move the selection to the destination folder.

Both methods are nearly identical, except the first step, as explained below:

1. Make your selection, and then press **CTRL+C** (or select the **Edit | Copy** menu option) to copy all selected items into clipboard.
 - To move the selection, use the **CTRL+X** shortcut (or the select the **Edit | Cut** menu option). This operation cuts the selection from the source folder and places it in the clipboard.
2. Navigate to the destination folder in any folder pane and then press **CTRL+V** (or select the **Edit | Paste** menu option). This will paste the selection into the destination folder.
 - Instead of pasting the clipboard contents in an existing folder, you can **create a new folder**, open this new folder and then paste the clipboard contents.

Instead of pasting the items copied into the clipboard, you can paste links pointing to them in the destination folder. To do this, navigate to the destination folder r-click in the pane. From the context menu that appears,

select Paste link option.

Using the bundle-unbundle method

All the methods described above suffer from a common problem: The comments and other ADS (Alternate Data Streams) content attached to items are lost if the items are transferred to a non-NTFS medium.

Unfortunately, media with non-NTFS format are very commonly used; such as hard disks with FAT 16/32 formatting, CDs, floppies, USB-based devices, etc. If you use any of these devices to transfer the items, the comments will be stripped off.

Note: MS Office files (such as doc, xls, ppt, etc) are not affected by this problem, because the ADS data is embedded inside these files.

To overcome this problem, x² bundles the ADS contents with the items in a bundle. The bundle can be safely recorded in a non-NTFS medium. Simply unpack the bundle into the destination NTFS-formatted drive.

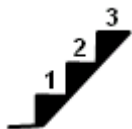


Warning: *The non-NTFS media can be used only for carrying the bundle: At the point of use, you must unbundle the contents into a NTFS-formatted disk; otherwise the ADS content will be lost.*

During both bundling and unbundling operations, the ADS part is handled completely automatically, without your intervention (or even knowledge).

Note that the bundle-unbundle operation can only copy the items: the original items are left untouched. If you want to move the items instead, after creating the bundle, delete the original items manually.

How to use this command:



1. Select the items and select the menu option **Actions | Bundle to go....** A window pops up. Enter any desired name for the bundle and press **OK**.
2. x² prepares the bundle and places it in the folder. The original items are not touched.
3. Now move the bundle to the destination medium which must be NTFS type (you may use a non-NTFS type medium to transfer the bundle, though).
4. At the destination, select the bundle and use the **Actions | Unpack bundle** menu option. The original file structure is reproduced in the destination folder.

Handling file transfers that get aborted repeatedly

With using Windows Explorer, you may have come across some folders that just cannot be copied (or moved), because Windows always reports an error and aborts the file transfer. You do not know how much was actually transferred in your last attempt; and so you have to transfer the entire directory all over again. But all your attempts are invariably aborted.

If you have faced such a situation, you would know how frustrating that is!

And partly that is because Windows Explorer cannot handle such directories.

However, using the **Robust File Transfer** function of x² PRO, you can isolate the problematic files (that were aborting the transfer) and transfer the good ones safely. Later, you can examine the error report to trace each problematic file and decide whether to repair it or replace it with a good one.

Since x² Lite does not have the Robust file transfer function, you will need another method, described in **Appendix 9N**. This is really a trick, rather than a straightforward command of x². (But then such situations are so rare that a developing a command specifically to handle such file-transfers may be overkill!)

Renaming files or folders

In x², you have the following options for renaming items:

1. Rename items individually (the extension is left untouched)
2. Change the extension of the file
3. Rename items in bulk

The following sections describe each method.

Individual renaming



To rename a file/folder individually, select it and press **F2** (you can also select the **File | Rename...** menu option). x² switches to *edit* mode, and opens the file's name in an edit field.

In this edit field, a “|” cursor blinks at the end, indicating where your new string will appear. Note that the entire name of the item is highlighted by default.

You have the following choices:

- To rename the file totally, just type the new name. You don't have to delete the older name first: The highlighted text is automatically replaced by the new text.
- To attach a suffix string to the name, press the **RightArrow** key (or the **END** key). The highlight around the name is removed, but the blinking cursor remains at the end of the name. Start typing the suffix string.
- To attach a string to the beginning of the existing name, press the Home key. The highlight around the name is removed, and the blinking cursor jumps to the beginning of the existing name. Start typing the prefix string.





- To move the blinking cursor to any other part of the name, use any combination of these shortcuts: **RightArrow**, **LeftArrow**, **CTRL+RightArrow**, **CTRL+LeftArrow**, **Home** and **End**. You can delete some letters at this place using **Del** and **BKSP** and type a new string.
- To delete a part of the name, you will need to highlight it first, and then delete this highlighted part, with **Del** or **BKSP**. Or simply type a new string to replace the highlighted portion of the name.

x^2 provides several mechanisms for easy highlighting: Place the cursor at the desired place in the name, and then use the following shortcuts to extend the highlight till a specific part of the name:



Shortcut	How it extends the highlight
SHIFT+LeftArrow	Letter-by-letter, towards the beginning of the name
CTRL+SHIFT+LeftArrow	Word-by-word, towards the beginning of the name
SHIFT+Home	Till the beginning of the name
SHIFT+RightArrow	Letter-by-letter, towards the end of the name
CTRL+SHIFT+RightArrow	Word-by-word, towards the end of the name
SHIFT+End	Till the end of the name

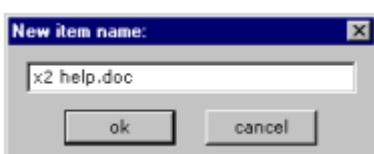
The renaming is not over till you press **Enter**. This is your last chance to abort the renaming (x^2 cannot undo a renamed file):

- To accept the changed name, press **Enter**.
- To cancel the renaming, press **ESC**. (If you switch to another application before pressing **Enter**, x^2 will cancel the renaming.)

Caution: Sometimes, another application pops up a dialog window, and steals the focus. This effectively terminates the renaming. When this happens, switch back to x^2 and check whether the item was renamed properly.



Changing extension of a file



Highlight the file and press **CTRL+F2**. A dialog box pops up. Change the extension (you can edit the base name, too) and press **OK**.

Note that not all type changes make sense, e.g. you can't change a *txt* file to *exe* and expect it to be transformed into an executable! Still changing

extensions can be useful for various text file types.

Here are some typical applications:

1. If you have a separate folder for installing utilities, you may want to change the installation path. However, many *WinZip* self-extracting executables do not allow you to select the installation path. To overcome this problem, simply change the file extension from "*exe*" to "*zip*". After this, if you d-click on it, the file will open rather than execute. Then you can extract the files and place them where you want.
2. If you have a PowerPoint presentation (*pps*) file, you can edit it after changing its extension to "*ppt*".
3. Some files downloaded from the Internet do not open (with Acrobat Reader or other relevant application). Sometimes this is because the file is corrupt, but often this is because the file was given a wrong extension (and therefore a wrong application is trying to open it). In this latter case, it is possible to recover the file by just changing its extension to the correct type. Whenever you get such errors, check out the file with QuickViewer or a text editor (select the file and press **F3**). The type of the file is usually identified near the top of the file (in a portion called file header). Although there will be junk (unreadable) characters in this part, you may be able to determine what type of file it is. (To avoid a sharing violation, first make sure that the editor is closed and only then change the extension.)
4. If you are not able to find the file's true type from its header, then you can run TrID on it (see **Chapter 8**). Then change its extension accordingly.
5. Security professionals have to handle virus and other malicious software. To prevent the software from accidentally running on their machines, they can mask the original extension of the file, by adding a dummy extension that cannot be executed. (for example, if the file *virus.exe* is renamed as *virus.exe.xx*, it cannot be executed *even by mistake*).

Later, to run the software, just strip off this dummy extension to recover the original file, which can be executed.

Mass renaming (batch renaming)

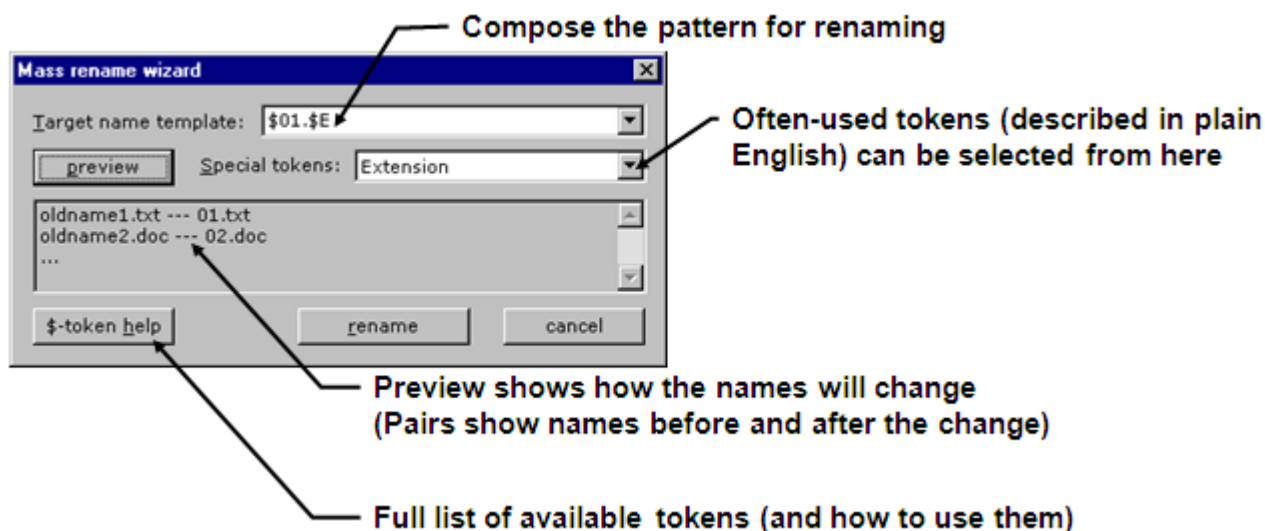
You can rename multiple items simultaneously with a single command. (This is called "mass renaming" or "batch renaming".) This command allows you to change both the base name and/or extensions.

Select multiple items and follow these steps:

1. Press **F2** or use **File | Mass Rename...** command. The Mass Rename wizard pops up (see the figure below).

Note that the shortcut **F2** is common for renaming individual items and also for renaming a selection. If you have selected more than one items,

x² automatically switches to mass renaming mode.



Using special “tokens”, compose a template for the new names in the **Target Name Template** combo.

- The **Special tokens** drop-down list provides you with some special tokens. Whatever option you select here gets added to the string already composed in the Target Name Template combo.
 - If you need help about tokens, press the **\$-Token help** button.
 - At any time you can press **Cancel** button to abort the command.
2. Press the **Preview** button to see a preview of the changes in the names using the current template.
 - If you are not satisfied, change the template and repeat step 2.
 3. When you are satisfied, press the **Rename** button.
 - If there are any problems (for example, if the new names conflict existing names, or if you do not have the access rights, or if the file is locked by some other program), x² will try to rename as many names as possible. An error message appears in the status line, warning you that some files could not be renamed.

Refer to **Appendix 9B** for a full list of tokens and their typical uses.

Using mass-renaming for changing the extension of files

In the previous section, we saw that the extensions of malicious software can be changed to disarm them. If you have many such files, you can use the mass rename command, as follows:

To mask the original extensions:

1. Select multiple files and press **F2**.
2. In the mass rename dialog box, enter **\$N.xx** and press **OK**.

This command adds *xx* as a dummy extension to the file name. (The *\$N* token represents the original name+extension of the file, and the *.xx* is a literal string, which is added to each file name.)

For example, the file *virus.exe* becomes *virus.exe.xx*.
This new file will not be executed like a normal exe file.



Tip: The *xx* extension does not imply anything. Instead, you can devise your own extensions, where each extension indicates some property of the file. For example, *xx1* can mean “critical”, *xx2* can mean “major”, *xx3* can mean “moderate”, etc.

To strip the dummy extensions:

1. Select multiple files having dummy extensions and press **F2**.
2. In the mass rename dialog box, enter *\$B* and press **OK**.

This command strips off the dummy extension. (The *\$B* token actually extracts the base name of the file. But in this case, the “base name” is actually the name+extension of the original file!)

For example, *virus.exe.xx* becomes *virus.exe*.
Now this file can be executed.

Associating file types

You can use the Windows interface to control the file associations. Browse the **Control Panel** (the easiest way is to click on the **Control Panel** node in the Folder Tree), select **Folder Options** and click on the **File types** tab. Follow the Windows instructions from this point.

Attaching comments to selected items

Comments are small pieces of text associated with files and folders, which are 100% controlled by the user and completely ignored by the file system.

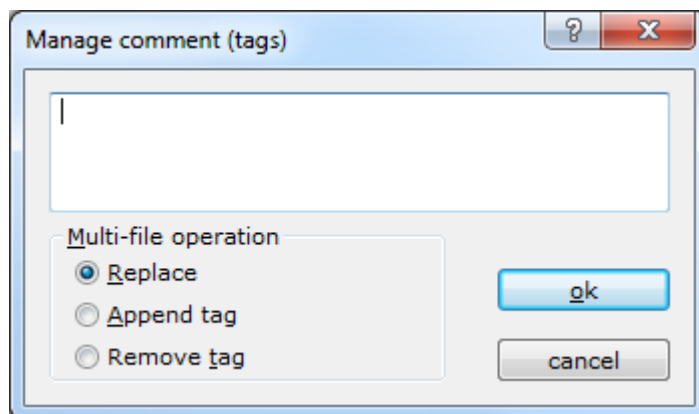
There are many possible uses for comments:

- Extended information for the contents of a document
- Keywords for document classification
- Any other arbitrary information as cross-references etc
- Most important of all, *x2* allows you to use comments as search rules, so you can easily check and retrieve files that have a set of keywords.

Note: File comments rely on an advanced NTFS feature called “Alternate Data Streams” (ADS). Imagine a file as a kind of “folder” that has a **stream** for the regular contents and secondary streams for other

information, including comments. When you move the file around, all these alternate streams are silently carried along.

You can attach comments to files and folders. After selecting the desired items, press **ALT+Z** (or use menu **Actions | Set comments...**). A window pops up.



If the items already have a comments attached, these appear in the box. You can clear them if you want, or add your own comments. Press **OK** when you are done.

The main use of comments is for searching for a particular keyword. Refer to **Omni-Finder** (**CTRL+F**) and **Selecting (marking) all items that match a rule** (**ALT+G**) commands for details.

Commenting is an extremely useful tool: You can attach an unlimited amount of additional information to files and folders without having to change their contents or names. For example, you can enter multiple keywords (such as author's name, subject, category, etc) in comments. Note that a common keyword can be attached to multiple files and folders; whereas you can't provide the same name to multiple files!

Comments are indispensable with graphics, audio and video files (jpg, AVI, mp3, mpg, etc), because you can't add your additional remarks in the main body of the file.

For example, suppose that you have a collection of cartoons and you want to use a suitable cartoon in your presentation. What would you do?

- One option is to view all your cartoons and read their lines to find a cartoon that conveys what you want. What a waste of time!
- Another option is to rename each cartoon after its punch line. But in many cases, it is advisable to retain the original file names (for example, if you regularly download them from a website, you should know which file you have downloaded already. If you change the names of downloaded files, you will lose that reference!).
- A far better option is to attach keywords to each file, using the comments field. The keywords should convey the subject and the punch line (You could do this as soon as you download/acquire each cartoon, or when you have free time). Later, while preparing your presentation,

you'll know exactly which cartoon will provide the desired punch line!
At the same time, you have the original file name if you need it.

- Apart from viewing the comments, the comment field can be split in a spreadsheet (e.g. Excel) and analyzed as explained in **Chapter 6**. To use this trick effectively, you should set some time aside to think about what information you are going to embed in the comments field. You can concatenate different (even unrelated) properties in the single comments field, and later split these into separate columns using Excel.

Unfortunately, comments are not supported universally:

	Supported on-	Not supported on-
Windows	NT4 note-1, 2000, XP	95, 98note-2
Disk Format	NTFS	FAT, FAT 32

Notes:

1. In Windows NT4, only x² can support comments; but Windows Explorer does not support comments.
2. Compound files (e.g. all Microsoft Office documents) support comments even for Windows 95 and 98.



Caution: *when you transfer your collection to a non-NTFS disk (such as disks with FAT/ FAT 32 format; or to a CD or a floppy), the comments will be lost.*

To avoid such loss of comments, first compress them using a backup program or an archiver like WinRAR that optionally preserves ADS.



Caution: *If you edit the file using certain applications, the comments can be destroyed without your knowledge. Instead of saving straight to the target file name, such applications create a temporary file, write in it, delete the original file and then rename the temporary file to the actual file name. The new file does not have the comments.*

Setting attributes of selected items

All files and folders have some properties called “attributes” , which are used in file management. Using x², we can check and change these attributes.

What are the attributes

The Windows Operating System handles files and folders according to their attributes, as shown below:

Attribute	How the item is treated if attribute is set (ticked)
Read-Only	Most programs cannot write or modify the file
Hidden	The item is normally hidden unless “show hidden files” is checked (in Program options)
Directory	The item is a folder (not a file).
Archive	Indication that the file has been modified since the last system backup. (As soon as a file is changed, Windows sets this attribute. A backup utility archives this file, and then resets the attribute.)
System	Reserved for special system files – do not change unless you are certain of its effects
Compressed	The file/folder can be stored in compressed form to save disk space, while offering instant access to its contents (NTFS only). This is not the same as storing the items in compressed archives such as zip, rar, tar, gz, etc.
Encrypted	The file is stored encrypted so that only the owner can read its contents (NTFS only)
Offline	When working in NN , remotely stored files are only physically available when connected to the remote disk. When you work offline, such file is not physically available. However, you can use synchronization tools to create local copies of these files. Such locally cached files are marked offline. They are not original files, and yet it is still possible to work with them. You can set the synchronization tools to periodically connect to remote disk and synchronize the files.
Folder Junction (Windows 2000 or later only)	Also known as “Reparse Point”. For a detailed explanation, see Chapter 6 .

Checking the attributes of an item

To see the attributes of an item, select it and press F12. A “Properties” window pops up. If this window has more than one tabs, open the General

tab. At the bottom, you will see all the attributes.

Changing attributes

In the “Properties” window, click on any check box to toggle its status between “cleared” and “ticked”. Click **OK**.

- A grayed check box with a tick shows that the selection has “mixed” status for that attribute. A click in the check box will clear it. In other words, that attribute is cleared for all the items in the selection. Subsequent clicks will toggle the status between “cleared” and “ticked”.

Checking attributes of a group of items

If all the selected items belong to a single folder, then press F12 to see the attributes of the selection.

- For any given attribute, if all selected items have the same status (i.e., either “ticked” or “clear”), then its box will show this status clearly.
- However, if the selected items have mixed status (some are “ticked” and others are “clear”), then the check box has a light gray shade and a gray-colored tick in it.
- If the volume cannot have “System” files, then the “System” check box will have a dark gray shade.

For example, the screenshot on the left shows attributes of multiple items. You can conclude the following about the selected items:

1. None of the selected items are “hidden” or “compressed”
2. All items in the selection were modified at least once (the “archive” is set).
3. Only some (but not all) of the selected items are “read-only”.
4. The volume cannot handle “system” files.

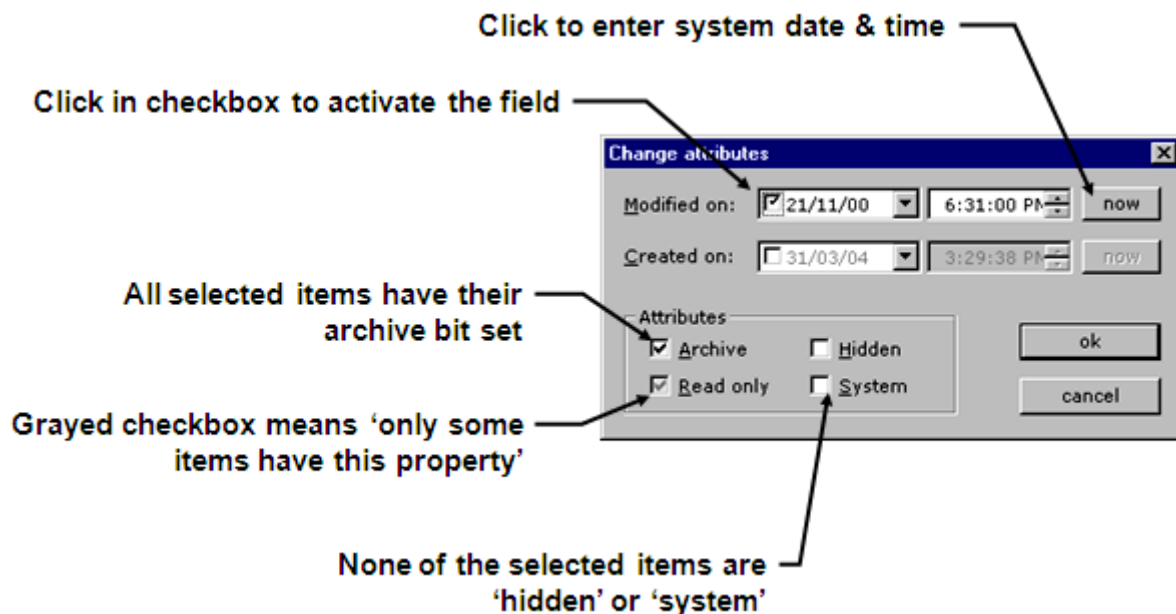
But this method is not always convenient: If the selected items belong to n different parent folders, x² pops up n “properties” windows (one for each parent folder).



Warning: *If you press F12 for a large selection, x² could pop up so many “properties” windows that it might crash the PC! Once these windows start popping up, they cannot be stopped with ESC: you will have to use the Task Manager to kill x².*

But this is not x²’s fault: Even Windows Explorer does the same thing! That’s why we have another lifesaver function in x²: **SHIFT+F12** (see below).

For changing the attributes (and dates) of such large selections, x² has a powerful command: After selecting items, press **SHIFT+F12**. A window pops up (see the figure below):



Using this window, you can grant full read/write access to all users on the PC, or make it read-only (so that others cannot edit it by mistake).

- To change any attributes, click in the relevant check boxes. The status toggles between “cleared” and “ticked”
 - A grayed check box with a tick shows that the selection has “mixed” status for that attribute. A click in the check box will clear it. In other words, that attribute is cleared for all the items in the selection. Subsequent clicks will toggle the status between “cleared” and “ticked”.



Tip: The dialog box does not offer the rarely used attributes: *Compressed* and *Encrypted*. To change these attributes, use the regular item properties command (**F12**) and click on the **Advanced** button.

Operations specific to some file types

Apart from all functions described above, some file-types have their own special operations. These additional functions are available through their context menu. To access this menu, select the file and r-click. Select from the menu that pops up.

For example, archive files (zip, gz, tar, rar, etc) will show extracting options (for that you need to have an archiver application like WinZip or ZipGenius installed on your PC)

If you **SHIFT+r-click**, you get an extended version of the context menu, which gives you even more options for some file types.

Some examples:

1. Executable files will include a **Run As** command that allows you to run a program impersonating a different user

2. Other files have **Open with...** menu option, to let you use a non-default application to open the file. For example, instead of playing a MIDI file with its default player, edit it with an editor.

Comparing directories with mirror browsing

Sometimes, you have two nearly identical directories; and you want to browse both to compare them visually.

To compare any two directories visually, load them in the folder panes and then press **CTRL+M** (or use menu **Go to | Mirror browsing**). x^2 goes in *Mirror browsing* mode, in which both folder panes follow each other as you go to different branches of the directories. As you go up and down in the directory tree, go on comparing the files listed in both folder panes.

When you activate the *mirror-browsing* mode, x^2 automatically activates *mirror-scrolling* mode described in the following section.

Remember that this is a manual method, and therefore not very reliable. A reliable method of comparing near-identical items is to **flatten** both directories in the opposite panes of a scrap container and then compare them with synchronization commands (**F9** or **CTRL+F9**).

Finding matching entries in two folders

Sometimes, you have two folders having similar contents. As you focus on each item in one folder, you want to see the matching file in the other folder. To do this, activate the Mirror Scrolling mode (use menu option **Go to | mirror scrolling**). As you move the focus in the active pane, x^2 automatically moves the focus to the matching item in the inactive pane. It scrolls the inactive pane as required.

- If x^2 can't find a matching item in the inactive pane, the focus in the inactive pane stays on the last focused item. It will move again only when x^2 finds another match.

Synchronizing folders (Comparing folders)

Synchronization is a special operation in file management: Just as you synchronize your watch, you can synchronize your files and folders.

You can compare files in two folders based on different criteria; such as dates, contents or names. Once you identify the differing files, you can optionally replace them.

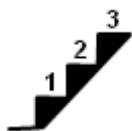
Synchronization based on modification dates

When you have multiple copies of a file, you are likely to modify one copy and let the other copies untouched. This makes the other copies of the file

“out-of-sync”.

Usually this will happen to multiple files in a given folder. So, it is better to check the entire folder for correct synchronization.

To synchronize folders, follow these steps:



1. Load the folders in opposite folder panes
2. Press **F9** (use menu option **Mark | Synchronize panes**). x² ignores all subfolders, and selects files in both panes according to the following rules:
 - If a file is present in only one pane, it is selected
 - If the same file exists in both panes, then the copy with later modification date is selected.
3. All items that match the specified criteria are highlighted in both panes.
 - Items that can't be decided are highlighted with little question marks on their icons. (We will call this “*undetermined*” status.) You may like to check these items further.



Now it is up to you what to do next. For example, you can select each pane and copy all selected files to the opposite pane. Or investigate the undetermined items.

Synchronization on other criteria

You can compare two folders based on criteria other than the modification dates. x² offers two different commands for this comparison:

Command	Effect
Mark Synch wizard (CTRL+F9)	Compares only the files in the folders. Subfolders are ignored. <ul style="list-style-type: none">➤ Optionally, the subfolders are compared, but only by their names (their contents are ignored).
Tools compare subfolders	The contents of both folders are compared recursively. (Both folders are flattened first and then compared.)

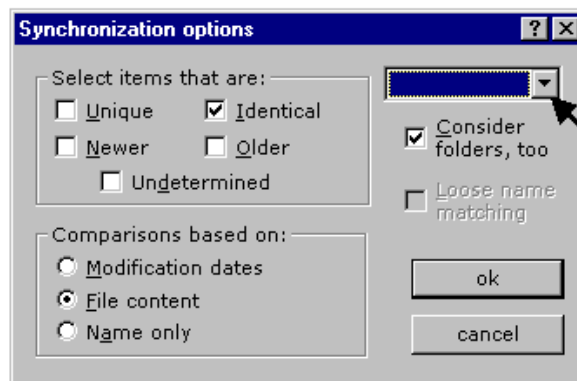


Tip: You may wonder why these commands are placed in different menus. Well, there is a reason: The first command selects (marks) all those items that match the defined criteria (in both panes); and therefore it is placed in the **Mark** menu. On the other hand, the second command is a dedicated tool for comparing two folders; and hence it is placed in the **Tools** menu.

Let us see both commands in more detail:

Follow these steps:

1. Load the folders in opposite folder panes
2. Press **CTRL+F9** (use menu option **Mark | Synch wizard**). The synchronization wizard pops up.



Ready list of typical scenarios

Start with the drop-down list that shows two commonly used scenarios (Different and Identical). When you select any of these scenarios, x² selects the rest of the parameters accordingly.

After this, you can modify the selection, as shown below:

Group	Guideline
Select items that are-	<p>This group offers choices based on three distinct criteria:</p> <ul style="list-style-type: none"> • Unique vs identical • Newer vs older • Undetermined (this allows you to select all items having “undetermined” status, given by an earlier synchronization command) <p>Yet, you can select only one item in this group; not one choice from each group.</p> <p>Caution: <i>If you select more than one choices from this group, you will get strange results.</i></p>



<p>Comparison based on-</p>	<p>You can select only one item in this group:</p> <ul style="list-style-type: none"> • Modification dates- You will get the same results as the F9 command; but here, the results are changed according to your choice in the “<i>Select items that are-</i>“ group. • File content- useful when dates are unreliable. Only files with matching names are further compared by their contents. A much slower method; but 100% accurate. When differences are found in this mode, there's no way to tell which file is "newer" so xplorer² arbitrarily considers the version in the active pane as newer and the one in the inactive as older. If in doubt, open the files and inspect their content. • Name only- will find groups of files having same names, even if the contents are different • Metadata (select a field from the drop-down list). For example, you can compare photos based on their “date picture taken” EXIF tag, rather than Date modified.
<p>Consider folders, too</p>	<p>Folders in opposite panes are checked for identical names.</p> <p>Caution: <i>This command does not compare folders based on their contents! So, even when two folders have totally different contents, x² will still mark them as identical if their names are identical. If you delete one of this pair, then you could lose data.</i></p> <p>To avoid this problem, first flatten the folders in opposite panes of a scrap container and then compare them (see the following section).</p> <p>This choice is not available in F9 command, which ignores all subfolders.</p>



Press **OK**. All items that match the specified criteria are highlighted in both panes.



- Items that can't be decided are highlighted with little question marks on their icons.

Now it is up to you what to do next. For example:

- Select each pane and copy all selected files to the opposite pane.
- If you were looking for items marked with the “undecided” status,

you may want to copy them somewhere and investigate them further.

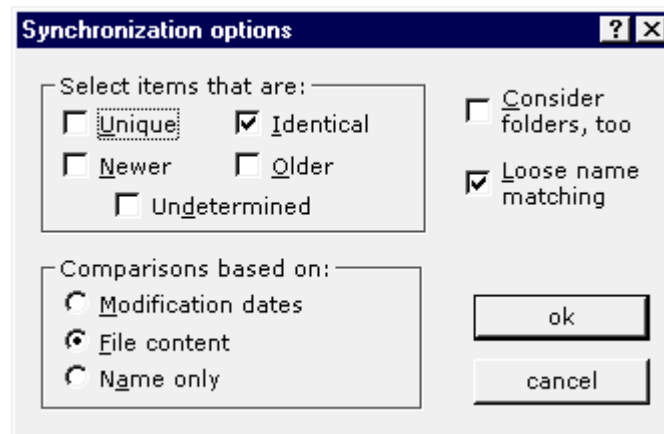
Using the compare subfolders method

Follow these steps:



1. Load the folders in opposite folder panes
2. Select the **Tools | compare subfolders** command.

Immediately, x² launches a new **scrap container** and **flattens** the folders in opposite scrap panes. The following dialog box pops up:



Note that this dialog box is very much similar to the one described in the **sync wizard** method (hence the same guidelines apply).

In fact, it has only one additional option: **Loose name matching**. When you select this option, x² matches the items by name, and ignores their relative position in the folder hierarchy. After locating each pair of matching items, x² applies the other selected criteria to check them further.

For example, with the settings shown above, x² will check if both files are identical, by comparing their contents. This command should be used where each scrap pane does not contain multiple items with identical names.



Caution: Use this option very carefully:

If there are multiple items having same names, x² may compare the item with a wrong item on the other pane. That is because x² takes up the items in top-down order in both panes for comparison. The actual order depends upon what sorting is applied to the pane. (The scrap panes automatically inherit the sorting order from the last active scrap container. You have no control on this.) If the panes are not sorted on the same attribute (or the same ascending/descending order), then the wrong items will be picked up and compared. You cannot use sync-o-paste (described in the following section) on the results of such a comparison, because the matching items may not belong to mirror positions in the folder hierarchy.

Select the options you desire in the box and press **OK**. x² will highlight the items matching the selected criteria.



- Items that can't be decided are highlighted with little question marks on their icons.

Now it is up to you what to do next. For example:

- Select each pane and copy all selected files to a folder (remember you are working in a scrap pane. So you will have to drag-n-drop the selection to the main x² screen.)
- Provided that you have not selected the Loose name matching option, **sync-o-paste** the selection to the other folder.
- If you were looking for items marked with the “undecided” status, you may want to copy them somewhere and investigate them further.

Synchronizing collections

The synchronization commands described above work for a single folder at a time. They are ideal if you want to compare two simple folders that don't have subfolders.

But if the two folders-to-be-compared have subfolders, you have to open each of the subfolders in opposite folder panes and run the synchronization command once again. Then you will get the results. Before moving on to the next pair of subfolders, you must decide what to do with your current results.

Obviously, this is not convenient at all.

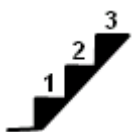
Here's where the scrap container comes to our rescue: You simply **flatten** both folders in the opposite panes of a scrap container, and then run the **F9** (or **CTRL+F9**) command. This will compare two complete folder hierarchies in one stroke.

For example, you have two similarly structured directories:

c:\mydocs	d:\temp\mydocs
c:\mydocs\res	d:\temp\mydocs\res
c:\mydocs\res\research	d:\temp\mydocs\res\research

(Notice that the folders below the "root" have identical names)

Then here's what you have to do:



1. Open a scrap container and force it to dual pane display mode by pressing **CTRL+O**
2. Right-drag c:\mydocs and drop it in the left scrap pane; pick the **flatten** path menu command
3. Repeat steps 1 and 2 for d:\temp\mydocs in the right scrap pane

4. Check synchronization as explained above (**F9** or **CTRL+F9**).

The sync-o-paste function

Once the differing items are highlighted, select **Edit | Sync-O-Paste** menu item. Each of the highlighted items ends up in its respective folder (e.g. items from d:\temp\mydocs\res end up in c:\mydocs\res and vice versa).

Sync-o-paste directly acts on the selected items: It doesn't require a prior **CTRL+C** (menu option **Edit | Copy**) command.

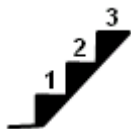
Scrap containers may host items from arbitrary locations. The deep synchronization logic tries to match folders first, and then applies the usual content comparison procedure for each folder pair. This deep-sync feature works well when the two hierarchies have identical structures. But sometimes it is not possible to match all folders left & right, when the hierarchies are completely different. In such cases there will be a lot of items left in an undetermined state, and a little red question mark will appear overlaid on their icon.



Synchronizing only the modification dates

Sometimes, you are sure that two files are identical, yet you see a difference in their dates. This typically happens due to changes in daylight savings time (DST) or when you have extracted the copies from zip archives, etc.

x² has a command called **Synch-touch** to synchronize only the dates of such matching items.



The command works as follows:

1. Open the folders in opposite panes of x² and use the **Action | Sync touch...** menu option.
2. x² compares the two folders and finds pairs of files with matching names.
 - Non-matching files in both panes are ignored.
 - All subfolders are ignored.
3. For each pair of matching files, x² takes the modified date of the file in the active pane as reference, and adjusts the modified date of the matching file in the inactive pane to this date.

At the end, items with the same name have the same *Modified* date.

This isn't exactly a synchronization command (it does not affect the files themselves) but it works in a similar fashion.

Also, compare this command with the **Changing attributes of a group of items** (**SHIFT+F12**) command, which gives a single date to all the selected items.

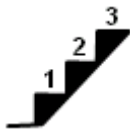
Deleting empty folders

First, let us see practical examples when you have to delete empty folders:

- Some installers create temporary folders, which you have to delete subsequently.
- When you uninstall some applications, they may leave behind a lot of empty folders, which you have to delete manually.
- When you are collecting new files on subjects of your interest, it is a good practice to use a directory template (which is an empty folder structure that covers all subjects of your interest: It has a separate folder for each subject, and all these folders are organized taxonomically. Refer to **Chapter 8** for further details). When the collection grows large enough, you may transfer it on a DVD. But before cutting the DVD, you have to delete those folders that don't have any files collected in them.

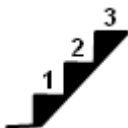
(If these empty folders are not deleted, they will clutter your DVD and make browsing difficult.)

Here is the method to find and remove such empty folders:



1. Use the **Omni-Finder** command.
 - c. In the **Look in...** field, specify the top-level folder
 - d. Make sure that the **Folders** check box is selected; and the **Files** check box is unselected (cleared)
 - e. In the **Additional rules** section, enter a rule to check for Contents=0. (Select the **Contents** column, and enter 0 in both **Min** and **Max** fields)
2. Press **OK**.
3. The search command will list all empty subfolders in a scrap pane.

The Lite version does not have the powerful search function. So, users of Lite version will have to use the following alternative method:



1. Switch the folder pane to **Details style**
2. Using **ALT+K** command, add the **Contents** column to the display.
3. Load the top-level folder in the active pane.
4. **Sort** on **Contents** column. Empty subfolders, if any, will get sorted to top/bottom. Decide what to do with them.
5. Repeat step-4 for all subfolders (one by one).

Warning: Before deleting each empty folder, check if it is reserved for applications such as WinZip, download accelerators, etc. While the folder may appear to be empty at present, the concerned



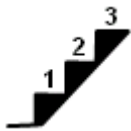
application may be using it from time to time. If you delete such a folder, the concerned application may not work, or may malfunction.

Cleaning up directories

Over the time, we accumulate a lot of files and folders. Periodically, we try to make sense out of this mess. This “spring-cleaning” activity involves opening the folders systematically and checking out whether the contents are useful. Useless material is deleted and useful material is retained.

The problem is that in a complex directory, we cannot be sure whether we have covered all nooks and corners.

Scrap panes are ideal for this application. Follow these steps:



1. **Flatten** the top-level folder into a scrap pane.
2. **Sort** the pane on path column. This will group the contents by their folder hierarchy. (Items belonging to a particular branch are grouped together)
3. Now select the items one by one and view them in the QuickViewer. If you want to have a more detailed look, press **Enter** to open each file with its default application (Microsoft Word, Excel, PowerPoint, GIMP, WinZip, etc). Now close the file in the other application and switch back to the scrap pane.
 - If the item is useless, press **CTRL+Del**. The item will be deleted from the disk.
4. Select the next item in the scrap pane list, and repeat step-3.
 - Sometimes, after seeing a few items, you may realize that the entire folder is useless (there is no need to check the remaining items in that folder). In that case, select all items with that path and press **CTRL+Del**. All items in that folder will be deleted at one stroke.
5. When you reach the end of the list in the scrap pane, you will have checked all the items in the directory, without missing anything.
6. At this stage, there is just one more thing to take care of: You may have deleted all items in some subfolders, leaving them totally empty. You may not want to have them any more. Get rid of them using the procedure described in the **preceding section**.

Copying all files of a directory into a single folder

Sometimes, you may want to copy/move files from a source directory (e.g. another PC, server or CD) into your disk, but you do not want to copy the

complex directory structure of the source.

With Windows Explorer, you have to go to each subfolder and select the files in it, and copy/move them to destination. This is a tedious task, and highly error-prone.

With x², just **flatten** the source directory into a scrap pane. Then switch to the scrap pane, and select all files (by pressing **CTRL+A**) and **copy/move them** to the desired folder.

- You can first create a new folder, and then transfer the files to it.

Warning: If you have duplicate names in the flat list, those files will be overwritten when you copy them to a single folder!



Copying only the useful part of a directory

This is a variation of the previous topic. Here, you do not want to copy the entire directory, but only certain useful parts.

x² allows you to **flatten** the selected parts of the source directory in a single folder (as before), or copy the selected part of source directory “as it is” in a desired destination folder.

First, let us see some practical applications of this feature:

- You want to copy only certain part of a directory on a **NN** PC (or a server). Since the original belongs to someone else, you can’t delete the unwanted part.
- You have a CD with partly outdated contents. You want to copy the useful part, add new updated contents and cut a new CD.
- You have many CDs. You want to cut a single CD by culling the useful parts from those CDs.

These examples have two common themes: (a) you cannot delete any part of the original directory, and (b) you do not want to copy the entire source directory.

Now let us see how to do it:

Repeat the procedure described in the preceding section, except that you have to press **Del** instead of **CTRL+Del**. (In other words, you are removing the “useless” items only from the scrap pane; not deleting them from the disk.)

Warning: If you press CTRL+Del, you may end up deleting the original items (if you have the necessary access rights).

Once you have only the useful items in your scrap pane, you are ready to copy them to a new location. You have two choices here, as shown below:



To do this-	...follow these steps:
-------------	------------------------



<p>Copy the items in a flat structure. (All files will go into a single folder)</p>	<p>Select all files from the scrap pane (press CTRL+A) and then drag-n-drop them into the destination folder.</p> <p>Warning: <i>If you have duplicate names in the list, those files will be overwritten when you copy them to a single folder!</i></p>
<p>Copy the original directory “as it is” (without changing its structure); but before copying, delete the empty subfolders.</p>	<p>Select all files from the scrap pane (press CTRL+A).</p> <p>Switch over to x² main screen. Navigate to your destination folder (the folder where you want to place the copied directory).</p> <p>R-click inside the folder pane, and from the context menu, select the Paste special Structured scrap clips option. All items are pasted in their respective subfolders. The command actually mirrors the original directory structure for each selected file.</p> <p>Refer to Appendix 9P to see how this command works.</p> <p>Notes:</p> <p>Only the selected items will be pasted here. If you do not select some items, they will not be pasted.</p> <p>This command mirrors the original directory structure only for the copied items. In other words, if you have not selected any item from a subfolder, it will not be mirrored in the destination. Consequently, many of the subfolders of the original directory are not created in the destination directory; simply because no items are selected from those subfolders.</p> <p>Thus x² avoids copying empty subfolders: You do not need to search for empty subfolders and delete them separately.</p>

Duplicates! Duplicates!

You may have many duplicate files on your disk, which you may want to remove. On the other hand, you may want to create duplicate files for

specific reasons. This section describes both these situations.

Creating duplicates in the same folder

Sometimes, you need duplicates of a selection in the same folder. There are two major uses of such duplicates:

1. To use a file as a template: Preserve your original file as a template. Create copies and fill them up with data.

Typical examples are-

- The original file is a blank form for student registration: To register each student, you have to create a copy of the original file, fill all details of the student in this newly created copy and save it under the student's name or roll number.
 - The original file is a blank template for creating work-instructions: It has all the required sections, blank tables, etc. To write instructions for a new process, you have to create a copy of the file, fill the blank spaces in the newly created copy and then save it under the new process' name.
2. To create a backup file: While carrying out operations on a file, it is a good idea to save a back up file first: If something goes wrong, you can discard the changed file and revert to the backed up file.

Typical examples:

- When you edit a drawing (or a digital photo), you are not sure if you will like the results.
- You are asked to draft changes in a large document, and you are not sure whether your boss would approve the changes.
- You may carry out a risky operation on a file, which can corrupt the file (e.g. you are using a beta version of an application that crashes often).

You can create duplicates with three alternative methods:

- **CTRL+Drag**-n-drop your selection in the same folder.
- Use the **Edit | Duplicate** menu option
- After selecting the items, press **CTRL+C** and then **CTRL+V**

By default, these duplicates are named as copy of <original name>. You will have to rename them as required. The only exception is when you are duplicating only a single item using the **Edit | Duplicate** menu option: In this case, x² automatically switches to **rename mode** and lets you rename the duplicate item.

Detecting duplicates (and optionally removing them)

Often you end up having several copies of the same file in different folders (probably you downloaded the same file several times, and stored it in a different place each time). In such cases, you may want to free disk space by retaining one copy and deleting the rest.

Using x^2 , you can locate duplicate files spread over your PC (In some cases, the duplicate files have different names. Even in such cases, x^2 can detect them by comparing their contents).

Sometimes, the situation is quite the reverse: You may have several files with the same name (say, because they are on the same subject). Despite having the same name, most of them may not be actually duplicates. So, your strategy might be to eliminate the duplicates and rename the non-duplicates (say, by attaching a suffix, etc). x^2 can detect such files also.

Scrap Panes have a special function called *DupChecker*, which checks for duplicate (identical) files; even the files that have identical contents but different names.

DupChecker can detect duplicates in any collection, not necessarily from the same folder. For example, you can collect folders and files from CD, your local hard disks and even from other PCs on your LAN (Network Neighborhood) and then look for duplicates in this entire collection.

DupChecker identifies sets of duplicate files. In each set, it treats the file listed at the top as “the original” and all the other files as “duplicates”.



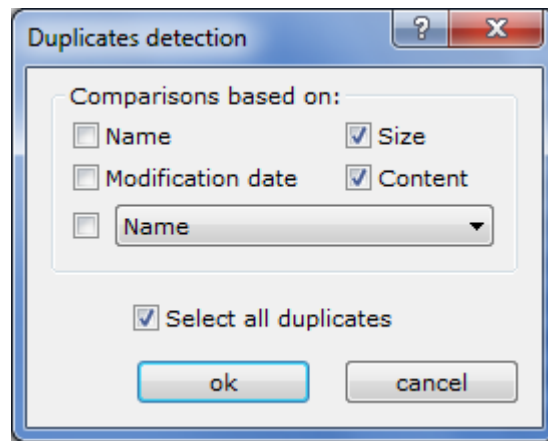
Tip: You can exploit this feature by **sorting** the collection before using the DupChecker. For example, if you sort by modified date, the item having the earliest modified date will be identified as original within a set of duplicates.

DupChecker can remove all such duplicate(s) and retain only the original (as we will see shortly).

To use DupChecker, just load a single scrap pane with all the items you want, and select **Tools | Check Duplicates** menu option.

- Note that although the scrap container is a dual-pane structure, the DupChecker works only in a single pane (it simply ignores the other pane's contents). So, you must add all your items in a single scrape pane.

The DupChecker dialog box pops up.



Select your options.

- Checking by comparing the **Name** field alone is fast, but it is extremely risky (two non-identical files can have the same name).

Use this option only if you are sure!

- The **Content** option is useful to find duplicates having dissimilar file names but same content. But this a very time-consuming process, because it compares the contents of each file in the selection with all other files.
- The drop-down list allows you to find “duplicates” based on other metadata. Note that these files may *not* be really identical; but merely files that have matching metadata (such as path, bit rate, duration, etc.). When you use this option, you would have to screen the “duplicate” files further, rather than just delete them.
- If the **Select all duplicates** check box is selected, DupChecker will highlight all duplicates in each set. At this stage, you can select **Delete** to delete all duplicates in one stroke, and retain only the original in each set.

After making your selection, press **OK**. DupChecker will identify sets of identical files, and hide all other files in the collection.

- If there are more than one sets, Dupchecker marks alternate sets with a gray background to set them apart (the display appears banded, like printer paper).

Only the content parameter gives you a foolproof list of duplicates. Searching by any other parameter(s) is much faster, but such listings provide only a preliminary evidence of duplicate files: You may need further proof before actually deleting the redundant copies. A good guide is the checksum column that you can activate with **ALT+K** (or use the **View | Select columns** menu option). It shows a numeric “summary” of a file’s contents.

- If checksums of two files are different, the files are definitely different. But if the checksums are equal, they imply a strong possibility that the files are identical, but this is not guaranteed.

Once you are sure that the highlighted entries are indeed duplicates, you



may proceed to delete them.

Warning: *If you delete an entire set, you will lose the “original” also!*

If your only aim was to find and remove duplicates, your task is over: You may close the scrap pane without saving it.

On the other hand, once you have got rid of the duplicates, you may want to see the remaining entries in the scrap pane and do some more processing. If so, use the menu option **Tools | Reveal unique**.

Note that if you want to save the collection after deleting the duplicates, you must reveal the unique items first; otherwise the scrap pane will save only those entries which are visible at the moment (i.e., only a few surviving entries from the sets of duplicates). Hidden items are not saved because scrap container has “what-you-see-is-what-you-can-save” policy.



Warning: *If you save the scrap pane without revealing the unique entries, all the unique entries are lost from the scrap pane collection forever!*

The DupChecker can be launched from x²'s **main screen** also: Use the **Tools | Check duplicates** menu option. A new scrap container is launched, and the current folder (along with all its subfolders and files) is **flattened** in it. Then the DupChecker dialog pops up, as shown above. Select your options and launch the command.

Re-organizing your files

Re-organization of files is necessary in the following cases:

1. If you have a large, complex collection of folders and files, you may want to reorganize it periodically, by moving files/folders to more logical locations.
2. You may want to copy selected files from someone else's collection (e.g. from a **NN** PC, CD, or a company server). At this time, you will copy these files in a directory that has a different structure compared to the source directory.

The common theme here is that for a given selection, you have a few alternative destination folders. (on the other hand, if you want to copy your selection to multiple folders, the method is described **here**)

You need an easy method to quickly make different selections and then drop them into the correct destination folders.

x² offers two different methods to reorganize your collection:

1. Using tabs
2. Using a scrap pane

Let us see these methods in detail:

Re-organize your collection using tabs

Before starting the actual re-organization, open the source and destination folders in different tabs.

1. Open multiple tabs (using **CTRL+Ins**) in the active folder pane.
2. In each tab, load a source (or destination) folder.
 - In case you are planning to re-organize the same folders again, it is a good idea to save the **folder group**; so that you can simply re-load the entire group when you are re-organizing the next time. (Before saving, you can optionally name the tabs so that you can remember their purpose.)

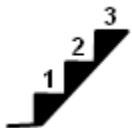
Now you are ready for the re-organization exercise.

Open a tab where a source folder is loaded. Select the items to be shifted out and move them to the desired folder, using one of the following methods:

- **Drag-n-drop** (drop the selection on the tab area).
- **Robust file transfer commands**. (Before using this method, you must load the target folder in the opposite pane).

Re-organize your collection using scrap panes

This method exploits the fact that a folder listed in a scrap pane acts as a drop target. The core idea is to make a list of all your “destination” folders in a scrap pane, and then move the items using **Drag-n-drop** method.



1. Launch a scrap pane (from windows menu)
2. If it is double-paned, make it single-pane (by pressing **CTRL+O**)
3. Resize its window to a convenient size.
4. Keep this window “Always on top” by using its system menu (available from its Window Bar).

Note: Instead of steps 1-4, you can simply use the mini-scrap pane (if it is not already used to store bookmarks, etc.)

5. Search for all "destination" folders. Drag-n-drop these folders into this scrap pane.
 - Don't worry- the actual folders remain where they are. Here, you will just get a shortcut.
6. Once you have created all shortcuts in the scrap pane, resize it once again to show all folders.



Tip: You may want to reduce the pane width: Just the initial words in a folder name are usually enough for you to guess its full name. To minimize the window size, turn off the Tool Bars (select **View | Tool Bar** menu item).

If you are going to use these same destination folders time and again, it is a good idea to save the scrap pane. Press **CTRL+S** (or from Actions menu, select the Write contents option.) Specify a file name that you'll remember easily (generally, what the entire group of folders represents).



Tip: Rather than making a single CIDA file, it is better to make several CIDA files; each having a separate group of destination folders. For example, make one CIDA file for your professional subjects, and another CIDA file for your hobbies. This reduces clutter and makes file-transfer much easier.

7. Use both panes of x² to browse your source folders, and start dragging items to the scrap pane (i.e., to the destination folder of your choice)

- Note that these transfers take place on real-time basis; not when you save the scrap pane. (In other words, these transfers take place instantly: It does not matter if you save or don't save the scrap pane again. This is not like a Word or Excel document, where you can revert to the previous state by not saving the changes.)
- To copy the selection, press CTRL while dragging
- To move the selection, press SHFT while dragging
- While dragging, when your mouse pointer comes over the “**background**” area of the scrap pane, it turns to "shortcut", as shown on left. Don't worry about it-- it simply means that the scrap pane is willing to accept your selection as a shortcut if you want to drop the selection there. (Since you don't intend to do that, move on!) When your pointer reaches the destination folder, it will change to "copy" or "move", depending upon your drag-modifier (i.e., CTRL or SHFT).
- Instead of browsing the source directory during the re-organization, you may use a scrap container: First fill it with items from the source directory using various methods; such as filling it with the results of one or more searches, **flattening** various directories in it, and dropping handpicked items in it.



Comparing dissimilar directories

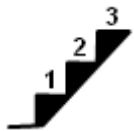
Consider this scenario: After copying articles from various sources (**NN** PCs, CD, or a company server), you may have reorganized those items in different directories. You may have even renamed some of the items (to suit your own naming scheme, or because you already had an item with the same name). And now you suspect that there are more goodies at the original source. But you do not want to download the items that you already have (let us say the source directory is huge, you have downloaded most of it and now you don't have that much free disk space). How do you quickly

spot only the new items and get them?

The **Synchronizing collections** command will not work in this case, because it works only if the directories under comparison have identical structure.

Here is the trick in brief: **Flatten** the “source” and the “destination” directories in a single scrap pane, and look for duplicates. If you have already copied any item, it will show up as duplicate of the original. Now remove all sets of duplicates and reveal unique items. All items having remote paths are the ones that you don’t have on your PC!

Let us see this process step-by-step (actually it takes care of some tricky issues we did not mention in the shorter version—As they say, god is in the details!):



1. Open a scrap container and set it to dual pane mode. Set the pane **style** to *Details*.
2. Select your own (“destination”) directories one by one, and **flatten** them in a single scrap pane.
3. Select the “source” directories (on CD or a remote PC/server) and **flatten** them in the same scrap pane.
4. **Sort** on path column.
5. Run the **Dupchecker**. That will display only the duplicate sets and hide the rest. But this does not necessarily mean that you have these items on your PC: Some of these duplicates could be in the source directory itself! So, check that within each set of duplicates, at least one item has a local address (in other words, you already have a copy on your PC).
6. Select all such sets (including the “original” and all its “duplicates”) and remove them from the scrap pane by pressing the **Del** key (or using the **File | Remove** menu option).



Warning: *If you press **CTRL+Del** (or use the **File | Delete** menu option), you will end up deleting the items from the disk (if you have the necessary access rights).*

At this stage, the duplicate sets remaining in the scrap panes do not have a local item (meaning you do not have that item). You will want these items, but then you will want to avoid copying the duplicates from the source directory! So first you will have to remove the duplicates from the source directory.

You can’t do it in the current scrap pane, because it still has the non-duplicate items hiding behind the scenes (which can be revealed by using the **Tools | Reveal unique** menu option). So we will have to use the opposite pane to remove “duplicates” from these sets and then bring back the “originals” to the current pane.

7. **Select all** items (by pressing **CTRL+A**) and move these items into the opposite scrap pane.

8. Although the items are moved, the original scrap pane will not look blank at this stage: You have to manually remove them by returning to the first pane and pressing **Del**. (They will be only removed from the scrap pane; but will not be deleted from the disk.)

That leaves only “originals” that you don’t have.

9. In the opposite page, **sort** first on names and then use the **Dupchecker** with **Select duplicates** option. Delete the duplicates.
10. Switch back to the original scrap pane, which is now blank. Use the **Tools | Reveal unique** menu option. Remember that these items are from both source and destination directories; whereas we need only items from the source directories. To delete all local items, **sort** on path column and delete all items with local paths.
11. Finally select all items from the other scrap pane and move them back to the original scrap pane.
12. At this stage, the scrap pane contains a list of items that you definitely do not have. But you may not want them all: To remove items from the list, select them manually and press **Del**.



Warning: *If you press CTRL+Del (or use the File | Delete menu option), you will end up deleting the items from the disk (if you have the necessary access rights).*

13. The scrap pane now contains the list of all items that you want. The pane itself serves as your source: Open your target (“destination”) directories and start copying from it.
 - Isolated files can be simply dragged and dropped,
 - In some cases, it is required to copy a whole folder, keeping its structure intact (for example, it might have HTML files having internal links which will be disrupted if you disturb the structure of the folder). In such cases, select the entire group of items and copy them to clipboard; then switch over to the destination directory and r-click. From the context menu that appears, select **Paste Special | Structured scrap clips** option.

Splitting and merging files

x² has a pair of commands that can split a file and later merge these split parts.

Such splitting-and-merging has some ready uses:

- You have to transfer a large file in smaller USB drives, because writing in a DVD is not possible.
- Your email account does not allow you to attach a file larger than a certain size.

- Your email server rejects files having size beyond a certain limit
- If your renamer application cannot recognize a certain file type, slice the first 1 kB header of a few known samples and send them to the developer for characterization.

In these cases, you can split the file, transfer the split parts using floppies or emails, and optionally join the parts at the other end.

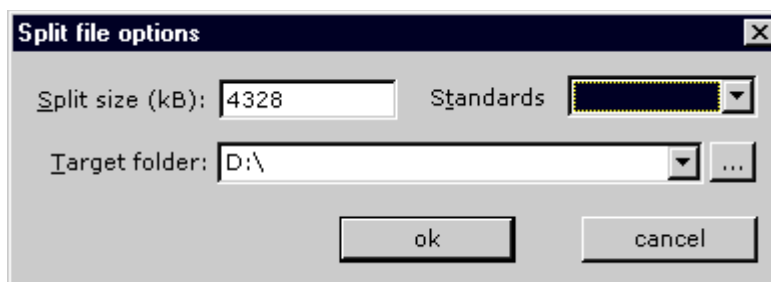
Note that while creating split parts, x^2 does not affect the original file in any way. Just imagine that x^2 creates a copy of the original file first, and then chops it up!

While you will need x^2 to split a file, you do not need x^2 to join the split parts. This is useful if you are planning to send split parts to someone who does not have x^2 .

Let us see how to split a file and merge these split parts:

Splitting a file


1. Select the file and use **Actions | Split file...** menu option. The following window pops up:



2. In the Split Size (kB) input box, enter the desired size for the split parts.

- The Standards combo box offers some standard splitting sizes:

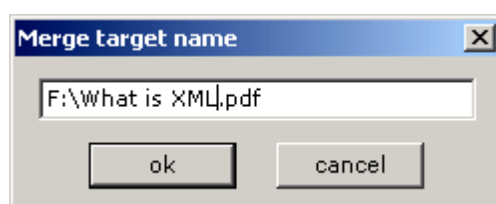
Size	Purpose
1.44 MB	Storage on floppies
100 MB	Uploading to RapidShare
650MB 700MB	Storage on CDs
4.5 GB	Storage on DVDs


- If you select any standard split size from this drop-down list, x^2 will ignore the value entered in the “Split Size” input box.
3. By default, the split parts are put in the same folder. Select a different target folder if you want, using the browse  button.
 4. Press **OK**.

- x² will split the file and put the split parts in the destination folder.
- As discussed before, the original file remains intact.

Joining the split parts using x²

1. Select all the split parts.
 - This command joins the parts in the order shown in the pane. Therefore, ensure that the parts are **sorted** in the correct order. (Sort by name or modified date; in ascending order.)
2. Use **Actions | Merge files...** menu option. A small window pops up.



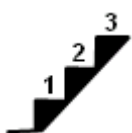
Tip: By default, x² gives the original name to the joined file and puts in the same folder where the split parts are. But you can change the resultant file name and/or enter a new destination path (The box does not have a separate browse  button to let you specify the destination folder).

3. Press **OK**. x² creates the joined file at the specified location.
 - The split parts are unaffected. If you want, you can delete them now.
 - The joined file will have the same *Modified* date as the original file. However, its *Created* date is the actual date-and-time when x² joins the parts (taken from the computer). This means the joined file will have a *Created* date that is later than its *Modified* date.

Joining the split parts without using x²

When you send the split parts to someone else (say, through separate emails), how will the recipient join these split parts if he does not have x²?

Worry not: He can join the parts without using x², using the following simple process:



1. Open your DOS command line window

Depending upon your Windows flavor, this is available at different places. Try the following locations:

Start | MSDOS command Prompt

Start | Programs | Accessories | Command Prompt



Tip: or simply type a \$ in the Address Bar and press **ENTER**.

2. Using the DOS commands, navigate to the directory where the splits parts are kept.

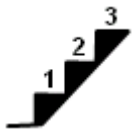
3. **Enter** the following command and press **ENTER**:

`copy /b part1+part2+...+partn Newfile name`

For example, assume that you have split a file called `house.doc` in four parts and sent it to your friend. (The four split parts will be named `house.doc.1`, `house.doc.2`, and `house.doc.3`)

Now assume that your friend does not have `2x` or `x2` to join the parts to retrieve the original file. He also wants to change the file name to `home.doc`.

You should advise him to follow this procedure (just copy the following steps and send them along with the floppies/email!):



1. Open the DOS commandline window.
2. Navigate to the folder where the split parts are kept, and enter the following command:

`Copy /b house.doc.1+house.doc.2+house.doc.3 home.doc`

3. Press **Enter**.

A new file named `home.doc` will get generated,.

Note that the split parts would still remain in his directory. Your friend will have to delete them after he retrieves the whole file.

This method works very well for small files; but if there are many split parts, the command becomes too big. Entering such a huge command becomes laborious. Also, if there is a typographical error anywhere, the command will fail. Therefore, it is better to use `x2` to join large files!

Splitting and joining folders

Actually `x2` cannot split or join folders. However, there is a workaround: Just convert the folder into a zip file (or any other **archive file**). Then split this file as shown in the previous section (and later join it at the other end).

Size Management

In size management, we monitor the free disk space and sizes of directories and selections. Many of our disk-maintenance decisions depend upon these factors.

Let us see some typical applications:

- Usually, before moving or copying a large folder, we look at its size and then check whether the destination drive has adequate free space to accommodate it. This requires checking the size of a selection and also checking the free space on the disk.

- All programs (including Windows) need certain minimum amount of free disk space to run properly (generally specified in “Required system resources” section). So, in case a program starts malfunctioning, we check whether there is enough disk space available for it. If not, we must make some space available.
- To keep our file system efficient and free of junk, we have to check our directories periodically to check if their contents are still useful.
 - Some articles are outdated because the technology has changed
 - Some articles are valid for a limited period (e.g. standards, quotes, etc). You need to replace them with the latest version.
 - We do not need some articles any longer, because we have better quality articles now.

Deleting (or at least, cleaning up) such directories releases precious disk space. Often, we begin by looking at the larger directories first because they are likely to contain the highest amount of junk. Deleting them can release the biggest disk space. Then we check progressively smaller directories.

- It is a good habit to keep a backup of all critical directories. But sometimes we have some “not-so-important” stuff, which we don’t backup so regularly. But it may be important enough to justify an occasional backup. So we look at such directories periodically to check if they are backed up. Again, we may like to focus on larger directories first because a larger content is at risk if not backed up.
- When you transfer your collection to CDs, you normally take up the folders in a particular order (e.g. By name, date, size, etc). But these methods are not able to fill up each CD to the full. You have to try various combinations that would fill each CD to the maximum. In this way, you would need minimum number of CDs to hold your collection.

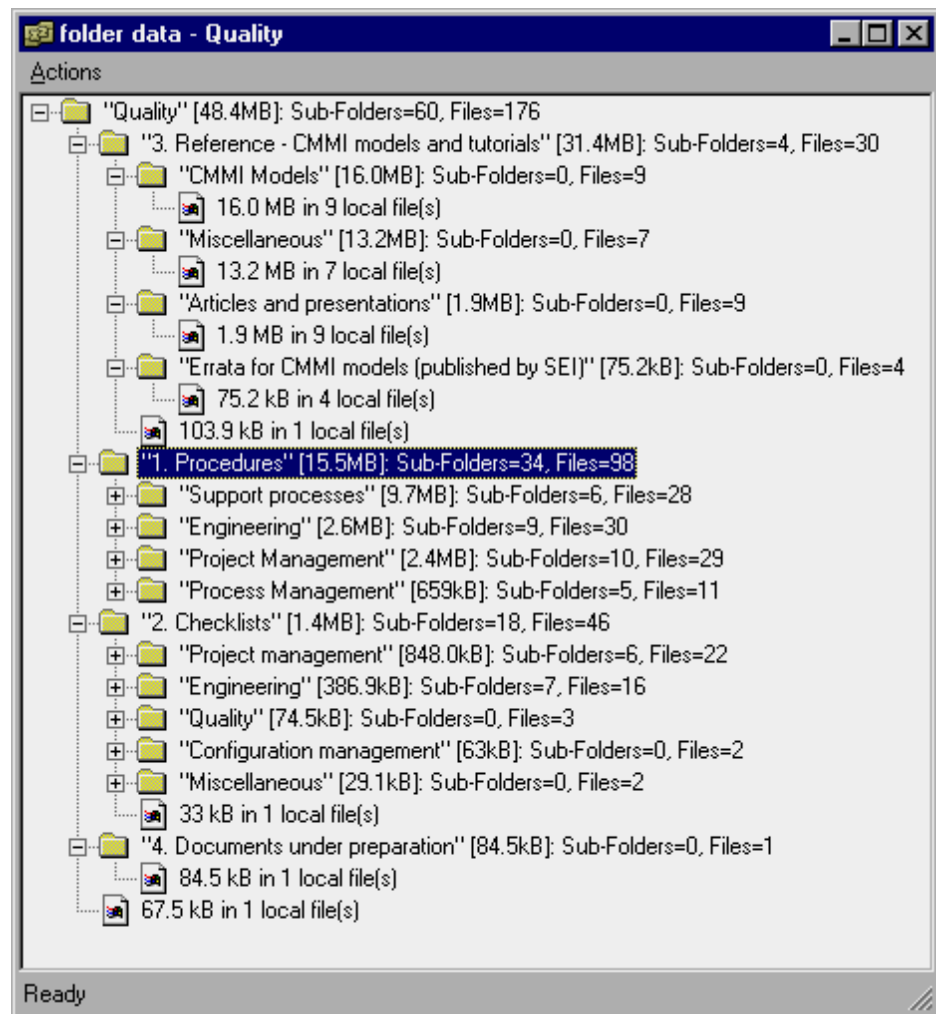
x² has multiple mechanisms to help you in these operations:

Folder statistics

This powerful command shows you the size of all subfolders of the selected folder, and also the count of all files in these subfolders.

Think of this command as extended form of **CTRL+D** command, which shows you size of all subfolders of the active folder.

To view the statistics of any given folder, press **ALT+D** while you are browsing that folder in the folder pane (in other words, the folder path must be displayed in the folder pane’s header). A window pops up, showing a tree of the selected folder (see the example below).



You can navigate in this tree as in the **Tree Pane** of x^2 , except that you cannot explode a node by pressing **ALT+RightArrow**.

The following statistics are shown against each subfolder:

Details	Example (see the figure above)
Name of subfolder	Quality
Size occupied by the folder	48.8 MB
Number of subfolders (All subfolders located in the branch are counted recursively)	60
Files (All files located in the branch are counted recursively)	176

In addition, the local files are counted and their total size is reported (e.g. "16.0 MB in 9 local files").

The window has the following menu options:

Browse	Enter
Sort by name	
✓ Sort by size	
Copy text	Ctrl+C
Close	

Menu option	What it does...
Browse (or press ENTER)	Loads the selected subfolder in the active folder pane.
Sort by name	Sorts subfolders at each level of the tree by name, in ascending order only.
Sort by size	Sorts subfolders at each level of the tree by size. Largest subfolders are listed at the top.
Copy text (press CTRL+C)	<p>Copies the data for the selected branch into the clipboard. (In our example, only the subfolder named “1. Procedures” would be copied to clipboard)</p> <p>There are at least four important uses of this facility:</p> <ol style="list-style-type: none"> 1. Paste the data in a text/doc/html file (and optionally print it) 2. Paste the data in a PIM (Personal Information Manager) and add more information there. 3. Paste the data in a spreadsheet (such as Excel) and analyze it. For example, you can try out different combination of subfolders to fill a given CD. 4. Take a print (either directly or after data-analysis) and use it as a checklist.
Close	Closes the window

Please bear in mind that **ALT+D** presents a frozen snapshot of the directory. Once the directory tree is displayed, the command is over: It does not continue refreshing the folder sizes. In fact, the following activities may be changing the size of some of subfolders at that very moment!

- Downloading
- Unzipping
- Deletion/addition of items by a remote user who has the required access (this may happen without your knowledge, or sometimes you may have kept a shared folder for this purpose)

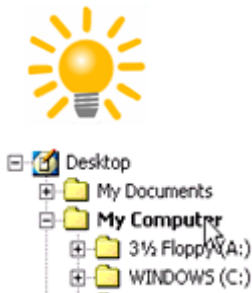
You can check this out by repeating the **ALT+D** command after a few seconds. Another window will pop up with the latest snapshot of the directory. Compare the two displays: If such activities are taking place, then some of the folder sizes will have changed. To get a correct picture, it is

better to wait till these activities are over.

Free disk space

Note all file managers indicate free disk space for the current logical partition; not the free space in the entire hard disk. (The hard disk may have several partitions; each having some free space.)

1. The free disk space for the folder displayed in the active pane is displayed in the Status Bar (see item 17 in **screenshot**).
 - The display also shows the free disk space in percentage. This is useful, especially in case of a disk that is split in multiple smaller partitions (compared to a disk of a well-known size like 40 GB or 80 GB, the partitions end up having odd sizes like 6 GB): Look out for disks with low percentage, and create space on them!



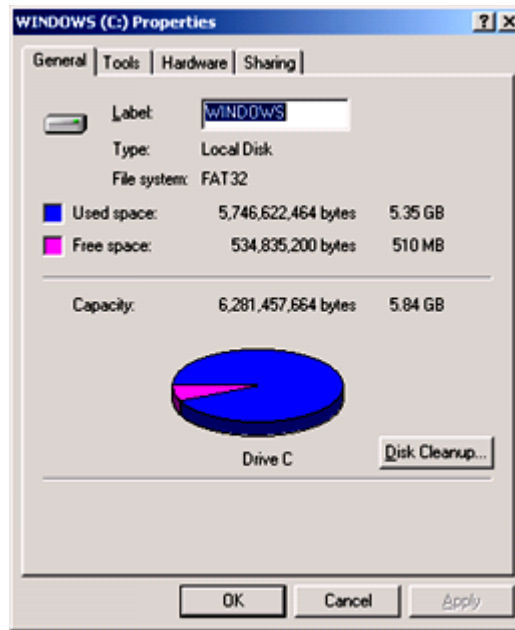
Tip: If you load a shared folder from a **NN** PC in the folder pane, the Status Bar shows free space available on that remote hard disk.

2. To check free disk space for all disks of your PC, click on My Computer node in the tree.

The active pane shows all disks on the PC, including all **mapped drives**. The total size and free space are shown against each drive. (Note: These figures are shown only if the pane is in details **style**.)

Name	Type	Total Size	Free Space	Comment
3 1/2 Floppy (A:)	3 1/2-Inch Floppy Disk			
WINDOWS (C:)	Local Disk	5.84 GB	510 MB	
Utilities (D:)	Local Disk	5.84 GB	2.13 GB	
DATA DISK-1 (E:)	Local Disk	11.7 GB	3.22 GB	
DATA DISK-2 (F:)	Local Disk	13.8 GB	306 MB	
Compact Disc (G:)	Compact Disc			
Compact Disc (H:)	Compact Disc			
Control Panel	System Folder			Customizes the appearance ...

Select the disk and press **F12**. The Properties window pops up as shown below. The used space, free space and total storage capacity of the disk are displayed. The file system of the disk (FAT/ FAT32/ NTFS) is also displayed.



Press **ALT+CTRL+SpaceBar**. The Message Bar of x^2 displays free space on disks being browsed in folder panes.

The display is smart: If both folder panes are displaying directories from the same disk, it recognizes this and shows the free disk data only once, as shown below:

Different disks in both folder panes	⚠ Free space: C:\ [509.558MB]; D:\ [2.134GB]
Same disk in both folder panes	⚠ Free space: E:\ [3.229GB]

Selection size

The first three tricks described below work both in the folder panes and the scrap panes.

1. When you have not yet made your selection, look at the Status Bar, near the right hand corner. The panel shows the total number of items in the active folder pane. This figure includes the subfolders listed in the folder pane.

Now make your selection and then look at the panel again: Now it shows the total number of items selected and their total size, as shown below (this screenshot is from x^2 's main screen. The Status Bar of a scrap container is similar, except that it does not show free disk space):

Normal view (without selection)	58 item(s) 1.6 GB free (25%)
After selection	14: 22.5 MB 1.6 GB free (25%)

The display 14: 22.5 MB means the selection contains 14 items, and their collective size is 22.5 MB.

The item-count always includes the folders in the selection.

However, the total size figure (in this example, 22.5 MB) does not include the sizes of folders in the selection.

Note that the Normal View (without selection) is shown in its default format: To change it, use the **Tools | Options...** menu **option**. In the window that pops up, select the **Advanced** tab. Put a tick in the Show total folder size check box. Now the Status Bar will display the number of items and also the total size of files when less than two files are selected. The subfolders are ignored.



For example, a display 58 Item(s) 254.1 MB means there are 58 items (including folders) in the current folder. The collective size of all files is 254.1 MB (in which subfolder sizes are not counted).

2. To see the sizes of all folders displayed in the active pane, press **CTRL+D** (menu option: **Tools | Subfolder size**). The active folder pane shows sizes of subfolders, instead of showing <folder> against them, as shown below:

Before	<table><tr><th>Name</th><th>Size</th></tr><tr><td>SubFolder 1</td><td><folder></td></tr><tr><td>SubFolder 2</td><td><folder></td></tr><tr><td>Bugzilla guide</td><td>769,157</td></tr></table>	Name	Size	SubFolder 1	<folder>	SubFolder 2	<folder>	Bugzilla guide	769,157
Name	Size								
SubFolder 1	<folder>								
SubFolder 2	<folder>								
Bugzilla guide	769,157								
After	<table><tr><th>Name</th><th>Size</th></tr><tr><td>SubFolder 1</td><td>475,214</td></tr><tr><td>SubFolder 2</td><td>5,718,629</td></tr><tr><td>Bugzilla guide</td><td>769,157</td></tr></table>	Name	Size	SubFolder 1	475,214	SubFolder 2	5,718,629	Bugzilla guide	769,157
Name	Size								
SubFolder 1	475,214								
SubFolder 2	5,718,629								
Bugzilla guide	769,157								

Notes:

- The size column is available only when the folder pane is in details style.
- Please bear in mind that **CTRL+D** presents a frozen snapshot of the folder sizes. Once the folder sizes are displayed, the command is over: It does not continue refreshing the folder sizes. In fact, the following activities may be changing the size of some of the folders at that very moment!
 - Downloading
 - Unzipping
 - Deletion/addition of items by a remote user who has the required access (this may happen without your knowledge, or

sometimes you may have kept a shared folder for this purpose)

You can check this out by repeating the **CTRL+D** command after a few seconds. If such activities are taking place, then some of the folder sizes will change. To get a correct picture, it is better to wait till they are over.

- The **CTRL+D** command always counts the size of Hidden items, although they may not be visible to you at the moment. In our example, the size of SubFolder 2 is 5,718,629 bytes. Even if you open this folder and **change the attributes of some items** to “hidden”, x² will still continue to show the same folder size of SubFolder 2.
- When **CTRL+D** is in effect, if you select any folders, their count and cumulative size are included in the summary displayed in the Status Bar.
- The **CTRL+D** command has an interesting side effect: When it is in effect, if you **sort** the active folder pane on size, all subfolders are sorted as if they are files.
- There are two limitations of **CTRL+D** command:
 - If your selection involves folders, you have to press **CTRL+D** first and only then make your selection. If you have already made your selection before pressing **CTRL+D**, the summary in the Status Bar will not include folders: You will have to select those items again to see the effect of **CTRL+D**.



Tip: In case your selection is complex, you will face difficulty in selecting exactly the same items again. To ensure that the other items do not come in your way, use the **CTRL+ALT+J** command before using the **CTRL+D** command. That will hide all items that are not in your selection. After finishing your work, select the **View| Show all** menu option to reveal the hidden items.

- If the folder pane is **sorted** on size and if **CTRL+D** is used, the items will not sort again to accommodate the folders. The only option is to click the corresponding column header twice (to bring back the same sorting order).

In both the cases above, you cannot use **CTRL+R** to refresh the display, as it will actually reset the **CTRL+D** command!

Caution: Use this command in the correct sequence; otherwise you will get wrong results!



Another thing to keep in mind is that the **CTRL+D** command has to calculate the size of all subfolders of all the folders displayed in the folder pane. This can be rather slow if the folders are large, with deep hierarchy. During this calculation period, x² does not show a “busy” status (either in Status Bar or by turning the mouse pointer into an hourglass). The only indication of completion of this command is when the size column shows actual size of all folders in the active folder pane,

instead of <folder>.

You have to wait till the command has completed its work, because the results of this command are not persistent: If you leave the current folder in the active pane, the **CTRL+D** command is reset: The size column will show <folder> against all folders.



Tip: If you are interested only in a few specific subfolders in the folder, select them before issuing the **CTRL+D** command. x^2 will calculate their size first. While x^2 calculates the size of the rest of the folders, you can check the size of the subfolders of interest.

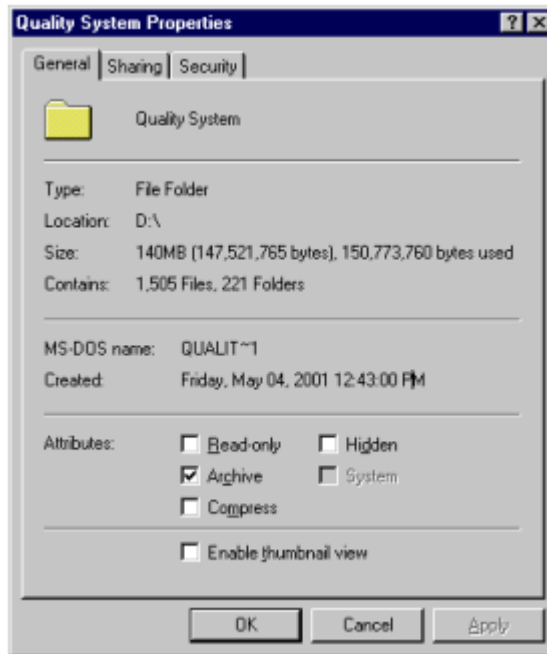
3. To know a selection's cumulative size, press **F12**. A properties window pops up, and shows the cumulative size of all files and folders of the selection.



Note the title Bar of this window: It actually sorts all items in the selection alphanumerically, and then picks the first name. This is followed by a comma and "...", which indicate that the window shows properties of a selection; not a folder.

The F12 always counts the size of hidden system files; regardless of whether they are visible or hidden at the moment. On the other hand, the Status Bar does not show the size of hidden files and folders. So unless you have set x^2 's to show hidden files and folders (using the **Tools | Options...** menu), there will be an apparent mismatch between these figures.

4. To know an individual folder's size, just highlight it (in folder pane or in the tree pane) and press F12. A "Properties" window pops up (see figure below).



It is very similar to the one shown above, except that this window has the folder name in its title Bar.

It also shows the number of files and folders in the selection.

- The F12 always counts the size of hidden system files; regardless of whether they are visible or hidden at the moment. On the other hand, the Status Bar does not show the size of hidden files and folders. So unless you have set x²'s to show hidden files and folders (using the **Tools | Options...** menu), there will be an apparent mismatch between these figures.
- If your selection is in a scrap pane, and if the selected items belong to different folders, a separate properties window pops up for each folder.

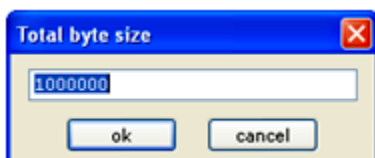
Select enough items to fit a given size

When you have a large collection to transfer to CDs, each CD ends up having a blank space in it because the next folder is too big to fit. At that point, you skip that big folder and look for smaller folders that can fit in. This ensures that all your CDs are packed to the fullest, and reduces wasted space.

This is a tedious process. x² can help you in making selections that fit the given size (such as 700 MB for a CD-R and 650 MB for a CD-RW).

Follow these steps:

1. In the **active folder pane**, load the folder that you want to split in batches of given size.
2. Select the menu option **Mark | Total size...**
3. In the window that opens, specify the target size (e.g. 700 MB, etc.) and press **OK**. (Note that this figure is to be specified in bytes)



x² will select all items that add up to this size.



Tip: You can also use this command in the scrap panes; which means that you can first collect files from various directories. You can make several selections (each fitting the given size), and then move the entries to a blank scrap pane. (Launch new scrap panes as required). When you have finished, each of the scrap pane will contain a different group, each totaling up to the target size (approximately). This way, you will be able to study the virtual groups before actually transferring them.



Warning: *When you use this command in the scrap pane, never use flattened folders; otherwise x² will group the items belonging to a folder into different groups! In other words, the folder will be spread over all your CDs and you will not be able to put together that folder! Instead, drag-n-drop whole folders inside the scrap pane.*

Disk operations

Labeling disks



To label a disk, follow this procedure:

1. Select the disk's node in the tree pane
2. Press **F2**. The existing name will be highlighted as shown in the figure on left.
3. Edit the name or enter a new name.
 - Remember to remove the drive letter in parenthesis. If you don't remove the drive letter, x² will show an error, and will not allow you to rename the drive.



- Do not try to re-enter the drive letter: Windows inserts it automatically.
4. Press **Enter**.

Formatting disks

To format any disk, r-click and select "Format" option from the context menu.

- You cannot format a floppy if some other program is accessing it, including x²! Make sure you are not browsing A:\ in any pane and collapse any tree nodes. If you still cannot format it, change your current browsing directory to other drives (such as C:\), to ensure that x² isn't

locking the drive.



Caution: *Once you format a disk, all data on it is erased forever: You can never recover it. Before attempting to format, please ensure that the data is backed up (or the data is not worth saving).*

Network operations

For all files and folders in PCs of your **NN**, the respective owners set your access rights. Within this constraint, you can carry out all file management operations on the shared files and folders in your network.

Some points to remember:

- You can see folders in your **NN** PCs only when the owners share them.
- Even then, you may not be able to change the folders you see in **NN**. For example, adding files to folders, deleting files from folders, renaming items, moving items, changing attributes. To be able to do so, you need full access to those folders.



Warning: *Be careful when you delete any item in a NN PC: The deleted item cannot be recovered, because it goes neither to your Recycle Bin nor to the remote PC's Recycle Bin. Such items simply vanish without a trace.*

- Before sharing your folders, always take a backup; otherwise someone in the **NN** might delete or edit your items (whether accidentally or maliciously—it doesn't matter!).

Mapping a network drive

Mapping a drive has several uses:

1. If you have to visit a particular **NN** folder often, it would be a good idea to map it as one of your drives. You can access such folder with its drive shortcut (**SHIFT+CTRL+<drive Letter>**), or by clicking the drive in the tree pane.
2. If you want to use a network path in a **DOS command**, you cannot use the UNC address in the command: You will have to first map the path on your PC (as a drive) and then use this drive letter in the DOS command.
3. Some Windows utilities do not work on **NN** folders, but they work on a mapped drive.

The mapped drives behave as follows:

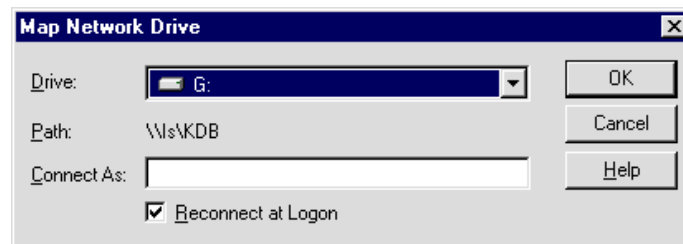
- Whenever you restart your PC, the connections to such mapped drives are restored.
- If your access to the remote PC is cut off (e.g. the remote PC is switched off or crashes; or if the path is cut off because of some network problem), the mapped drive will be inaccessible. Once that happens, you have to restore connection manually (Even if the remote problem is resolved, the

drive will not refresh automatically.)

Network mapping can be done only on top-level shared folders in any **NN** PC: You can't map their subfolders.

To map a folder shared on a **NN** PC, locate it in the Tree Pane (or in the Folder Pane) and r-click on it. From the context menu that appears, select "Map Network drive" option.

The following window appears:



- Select a drive letter that is not assigned to a drive yet.
- **Enter** your login name in the "Connect As:" field. Normally, entering your PC name in this field should work.
- If you want to connect to the mapped drive only for the current session, uncheck the "Reconnect at logon" check box at bottom.



Tip: Once a drive is mapped, you can rename its node in the **Tree pane**, to remind you of its purpose.

Unmapping a network drive

To unmap a network drive, locate it in the **Tree pane** (or in the **Folder Pane**) and r-click on it. From the context menu that appears, select "Disconnect" option.

- The drive letter assigned to that mapped drive becomes free. You can re-assign this letter to other mapped drive.

6. Advanced features

Attaching additional information

We have already seen that the **comments** command allows you to attach text to any item.

In addition, on NTFS drives, you can attach additional information to files, such as Author, Title and even comments.

To attach this information, select the file and press **F12** (or use the **Summary** tab of **File | Properties** menu option). In the dialog box that pops up, select the Summary tag. This tag has several input boxes. Enter the details and press **OK**.

Many of these fields appear as **columns** in x². You can conveniently browse these columns and also search for any desired text in this information.

Copying items' names into clipboard

This command set allows you to copy either the full name or the 8.3 name (also known as DOS name, because the early Disk Operating Systems from Microsoft used this format before the advent of Microsoft Windows).

The 8.3 name is called so because its base name can have a maximum of 8 characters and its extension is 3 characters long. Longer names are truncated with a tilde (~) followed by a running number. (If the first few letters in the names of multiple files are common, their 8.3 names will be distinguished by different numbers.) All spaces are removed.

For example, the 8.3 name of User manual.doc could be USERMA~3.DOC, if the same folder already has two files having names USERMA~1.DOC and USERMA~2.DOC.

To copy item names into clipboard, make your selection and-

Press	What it copies into clipboard
ALT+C	Item names (including paths) separated by linefeed
ALT+SHIFT+C	8.3 names (including paths) separated by linefeed
CTRL+ALT+C	Item names (including paths) in a comma-



Press	What it copies into clipboard
	separated list
CTRL+ALT+SHIFT+C	8.3 names (including paths) in a comma-separated list

Tips:

1. How to remember these commands: The **ALT+C** part is common in all commands. Additionally, press **SHIFT** for 8.3 names and **CTRL** for comma-separated names.
2. x^2 always includes the path in the item's names. If you do not want the paths, or if you want to copy only a file's base name, then use
3. There is an alternative trick that works for only one item at a time: Select the item and press **F2** (to get only the base name) or **CTRL+F2** (to get the item's name and extension). x^2 enters **edit mode**, and highlights the item's name. Press **CTRL+C** to copy the highlighted base name into the clipboard. Then press **ESC** to exit from the edit mode.

There are multiple uses of such information:

- Paste this list into a PIM (Personal Information Manager). Add your remarks about these files.
- Paste this list in a spreadsheet like Excel; and then use its **Data | Text to columns...** command. Specify that the data is delimited by “\”. Thus you will split each line into columns, where each column contains a folder name, and the columns to its right contain the names of its subfolders.
- Some applications require you to attach/insert a file. For example, Internet email, chat or instant messenger. These applications typically provide a browse button, so that you can manually locate the file. But such applications can't help you in locating the file. If you have to attach or insert multiple files this way, it becomes drudgery indeed! Instead, you can first locate all the files using x^2 's far superior search capabilities. Then for each file, copy the file name (including the path) from x^2 , paste it in the other application and paste **OK**.
- Some DOS functions need the file's “DOS” name as argument. Paste the 8.3 name of the file in such places. Using x^2 's **DOS command console** helps.
- The base name only is useful to name other files based on a given file's name, by entering a suffix, editing the name, etc.
- **Take a print** of this list and use it as a checklist.



Caution: *This command always copies the names in ascending order, regardless of what sorting order you have used in the folder pane (or a scrap pane). So if you intend to use the information in a certain way, do not rely on the source pane's sorting order.*

Copying preview of the selected item

It is useful to copy the item's preview image as bitmap. This image can be pasted into any document. To use this command, select the item and select the menu option

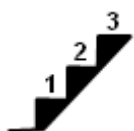


Tip: this command will not work for all items, because not all items have preview images (see the table below).

Preview image	No preview image
Image files (bmp, jpg, png, etc)	Folders
PowerPoint (ppt and pps)	Other MS Office files (xls, doc, mpp, etc)
	Archive files (zip, arc, rar, etc)
	text files (txt, rtf)
	pdf files

Copying columns

This command is very similar to “**Copying items' names to clipboard**” command described above; except that this command copies the text from all the columns of the active folder pane. To execute this command:



1. Ensure that all columns you want are available
 - a. To change columns (or their sequence of appearance), use the **ALT+K** command.
 - b. You can also change the pane's **style** (to *List* or *Details*)
2. Make your selection (only selected items will be placed on clipboard)
3. Press **CTRL+P** (or select **Edit | Copy columns** menu option)
 - a. If you press **CTRL+ALT+P**, text from only the active column (i.e., the column that is used for the **primary sorting** of the pane) will be copied

Now you can open another application (such as a text editor, Microsoft Excel or a Personal Information manager) and paste the contents of the clipboard there. Also see how to **print this report**.



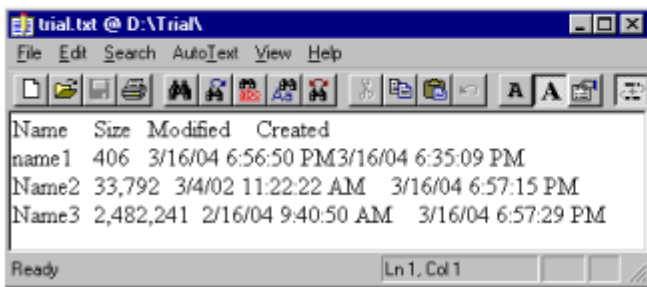
Tip: The text placed on the clipboard contains the **column headers** also. Usually this helps you in treating them as column headers in the other applications such as Excel (Simply select the first row and give it a different format, such as making it bold, increased font size, etc. The spreadsheet will automatically accept this first row as column headers.) However, in some cases they may be wrongly treated as

data. So, if you do not need them, remove them after pasting.

The following figure shows an example of pasting in a text editor. Note that the columns appear out of alignment because Editor² converts each tab into a certain number of spaces. This problem won't be seen if you paste the data in a spreadsheet like Excel: The data will be automatically pasted in different columns.

Name	Size	Modified	Created
name1	406	3/16/04 6:56:50 PM	3/16/04 6:35:09 PM
Name2	33,792	3/4/02 11:22:22 AM	3/16/04 6:57:15 PM
Name3	2,482,241	2/16/04 9:40:50 AM	3/16/04 6:57:29 PM
Name4	1,769	7/4/03 11:41:56 AM	3/16/04 6:57:51 PM

Select these files and press **CTRL+P** ...

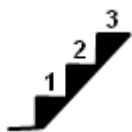


Open another application and paste (**CTRL+V**). This produces a TAB-separated list. (shown in Editor² here)

Copying only the structure of a directory

This powerful command copies an entire directory structure into another place, minus its contents. All the subfolders of the original directory are copied recursively, but files in them are not copied.

The original directory is not affected by this command at all. To copy structure, follow these three steps:



1. Select the top-level folder and press **CTRL+C** (or select the **Edit | Copy** menu option)
2. Go to your destination folder (the folder where you want to place the copied structure).
3. R-click and from the context menu that pops up, select the Paste **special | Folder structure** menu option. (Instead of the context menu, you can also use the **Edit | Paste special | Folder structure** menu option.)

This command has many practical uses:

- You have a CD on which you have collected articles on various subjects. You would like to cut more CDs with exactly the same folder structure, to maintain a uniform directory structure in all CDs.
- You visit a network neighborhood PC (or a server) and like the well-organized subjects there. You would like to create a similar folder structure on your PC.

- You might be using up to three PCs (one PC at work, another at home and also a laptop). You may maintain some files on all these PCs. You would like to create exactly the same folder structure on all your PCs, so that you don't have to remember your way around. (Wherever you are, you'd like to see the same familiar folder structure.)
- In that multiple PC environment, you like to work on the same files at work and then take them home and continue working. For that, you have to synchronize the directories in both PCs on a daily basis. That means you need to have identical folder structure in both PCs.

Hey these are pretty usual needs. Why didn't we do it earlier?

We never did this before because doing it with Windows Explorer had some serious problems. With Windows Explorer, you can follow two different optional methods to copy structure; and both have problems, as we will see:

- Copy the entire top-level folder to a new place (along with its subfolders and their contents). Now find all files in this directory by launching a search with *.* as your search condition. Explorer will list all files in the directory. Select all of them and delete. This will leave an empty folder structure that is identical to the original folder system.

The disadvantage in this method is that you need a huge free disk space at the destination drive, because the entire contents of the original directory have to be accommodated there before you start deleting them.

- Creating each subfolder manually. This is an extremely laborious method if you have to create large directory structures. You may make numerous mistakes, which requires enormous correction effort. Besides, if you don't realize your mistake, you will actually create a different subfolder!

So you see now how x^2 can make file management so easy!

Pasting text and images as a file

If your clipboard has a text or image (but NOT a file), you can still paste it directly in a folder as a file.

Depending upon the type of content, x^2 creates a new file with a generic name of $x^2\text{scraps}n.xxx$, where-

- n is a serially given number to avoid name conflict (if similar names already exist in the folder, x^2 automatically increments n till a unique name is generated.)
- xxx is the extension derived based on the type of content (an image is saved with extensions such as bmp/png/tiff etc, and text is saved with txt extension.)

Extracting unformatted text from files

All files except plain text files contain control characters that are used by the application to format the text. These characters are not visible to the naked eye.

But often you need to extract plain unformatted text from these documents.

To extract plain text from any document, select it in a Folder pane and then use the **Edit | Extract text** menu option. x² will create a plain text file with the same name as the source document.

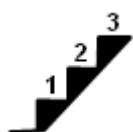
For example, a file called LETTER.DOC will create LETTER.TXT.

Pasting selection in multiple folders

Sometimes you want to paste your selection into multiple folders. Typical applications are-

1. You regularly back up selected files into multiple disks (or even remote PCs), so that at least one copy will survive in case of a disaster.
2. You have a large collection of files on various subjects. You want to copy some of these files to multiple PCs; but without giving them access to your full collection.
3. You maintain a digital library spread over multiple servers. You have to upload selected documents to these servers

The actual procedure is as follows:



Copy source items	Paste them in target folders
<ol style="list-style-type: none">1. Select your items in folder pane or a scrap pane2. Press CTRL+C (or select the Edit Copy menu option). This puts your selection into the clipboard.	<ol style="list-style-type: none">1. Select the target folders in a folder pane (if they are not in a single folder, collect them in a scrap pane first and then select them).2. If you are working in a folder pane, select the menu option Edit Paste special Multi paste. OR If you are working in a scrap pane, select the menu option Edit Multi paste.

Note that you have to specifically select the target folders: Unselected folders in the pane will not receive the clipboard contents.

If the target folder already has a file with the same name, normally Multipaste command asks you for confirmation before overwriting it. But it also has an option to suppress such confirmation (x² will silently overwrite all such files).



Tip: Often you would be using the same set of folders as targets. Rather than selecting them afresh every time, you can **collect** the target folders in a scrap pane, and **save the collection as a CIDA file**. Whenever you want to use the target folders, just d-click on this CIDA file. All the target folders will be loaded in a scrap pane, ready for use.

Checking builds and format-conversions

x² has a tool called build-checker. This function finds pairs of files that have identical names but different extensions.

In addition, it can optionally compare the Modified date of the converted file vis-a-vis the original file.

Consider some typical uses:

1. You are a developer, and you keep modifying and re-compiling your source files (say, from xxx.cpp to xxx.obj). Periodically, you want to find all your source files which were modified after your last compilation, and re-compile all those source files in one stroke.
2. While working with digital photographs, you have converted some photos from RAW format to a low-resolution format (e.g. JPEG) to send them in emails or to post them as thumbnails on a website. Now you want to know which of the photos are not converted yet. (The conversion date is not important.)

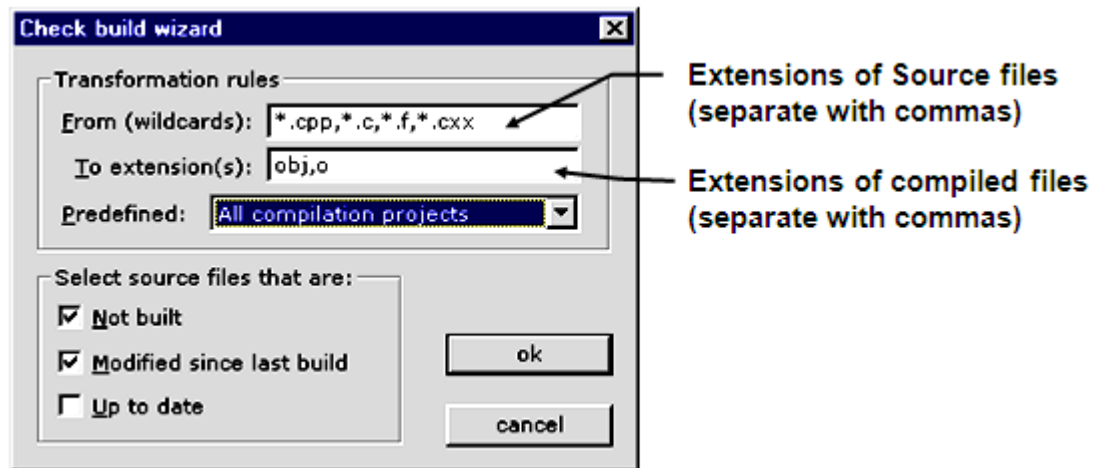
Now let us see how to use the tool for these purposes:

First of all, remember that this function requires both the folder panes (it treats the files in the active pane as reference and looks for converted files in the inactive pane). Therefore, load the folder with “source” files in the active pane and the folder with “converted” files in the inactive pane.

- If the original and converted files are in the same folder, you will have to load the same folder in both panes.

Now press **CTRL+F12** (or use **Mark | Check build** menu option).

The **Check build wizard** window pops up:



Use its fields as follows:

1. Click in the **From** field, and enter the name patterns for the “source” files or select from the Predefined pull-down list.

Only the files that match the specified patterns will be treated as “source” files. The other files in the active pane will be ignored.

Note that you can specify multiple types of “source” files at once (separate the patterns with commas, as shown above.)

2. Click in the **To** field, and enter the extensions of the “converted” files (or select from the Predefined list).
 - Note that the **To** field accepts the actual extensions only: It does not accept patterns of any kind. (It will not allow base names or even the dot.)
 - However, x² will allow you to enter multiple extensions, separated with commas (see the screenshot above).
 - In case you have entered multiple (comma-separated) entries in the **From** and/or **To** fields, the tool will check for all possible combinations of conversions (even if some conversions cannot actually happen).
3. Use the check boxes to choose what types of source files should be selected.
 - “Not built” means “not converted at all”. (In other words, the selected source files have no matching converted files.) So when this option is selected, x² will not select anything in the inactive pane!
 - When the “modified since last build” option is selected, x² selects the newly modified source files in the active pane, and the outdated converted files in the inactive pane. Now you have two options:
 - Switch to the inactive pane and just press **DEL** to

delete the outdated converted files.

- Take the selection of the newly modified source files (which are selected in the active pane) and re-compile them. This will overwrite the outdated converted files in the inactive pane.

Both approaches are equivalent. Both “not built” and “modified since last build” options are selected by default. When selected together, they cover all source files that require re-building.

4. Press **OK**.

x² automatically identifies each “source file-converted file” pair from the opposite panes.

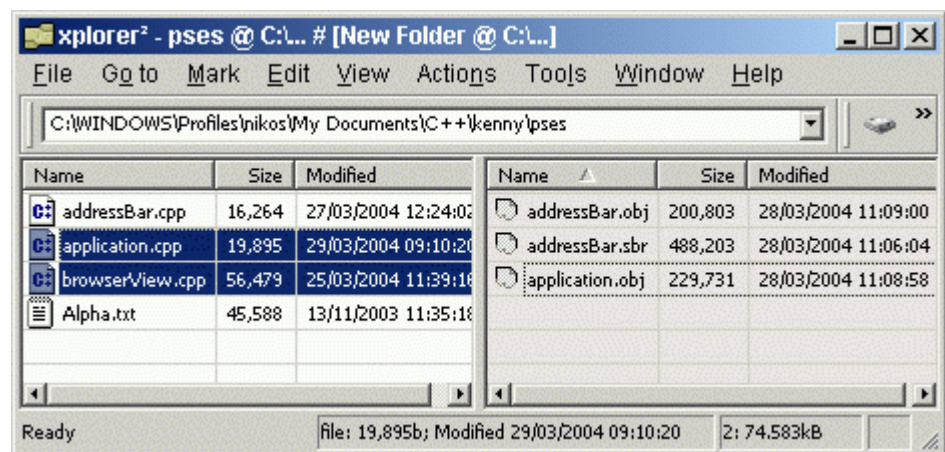
- If you had selected the second and/or third check-boxes, x² compares the modification dates of the files within each pair, and marks files accordingly.

After that, it is up to you what to do with these outdated converted files (or “source” files that were never converted): Most probably you would want to generate a script file that executes the compiler for each source file.

If you check your builds often, you can repeat this command without using the dialog. Just press **ALT+F12**.

Note that this function can’t check for complicated dependency patterns (headers etc) like the make command does, but it’s useful nevertheless.

An example is shown below:



Using the options on a pair of hypothetical “source” and “converted” folders, x² marks all source files that require compilation.

Note the following:

1. The file application.cpp was modified after it was last built (the date of its target application.obj is older), so it is marked.

2. The file `browserView.cpp` hasn't been compiled at all (there is no file called `browserView.obj` in the inactive pane), so it is "not built" and hence marked.
3. The file `Address Bar.cpp` is up to date, so it is not marked.
4. The file `Alpha.txt` is completely irrelevant for this transformation rule, so it is left unselected.

DOS and Windows commands

As described in **Chapter 4**, you can issue DOS and Windows commands directly from the Address Bar. Apart from that, `x²` has many other convenient features to handle DOS and Windows commands, as shown below:

Compose commands like a formula

You can construct commands and pathnames like a formula, using variables called "tokens". The advantage of using tokens is that you can repeat the command without having to type different file names each time.

Let us see two examples involving Windows and DOS commands:

Command	Remarks
<code>> windiff "\$N" "\$I"</code>	Launches the Windows utility <code>windiff</code> with two files as arguments. The tokens <code>\$N</code> and <code>\$I</code> pass the files selected in active and inactive folder panes, respectively.
<code>\$trid \$f</code>	Runs the DOS utility <code>TRID</code> with a target file's path (in 8.3 format) as argument.

Refer to **Appendix 9B** for the complete list of tokens.

Note: For programs launched from the Address Bar, you may need to enter their full path. However, if this path is already defined in the paths environment, you need to enter only the command's name.

For example, instead of entering-

`> c:\tools\windiff.exe $n $i`

You can enter-

`> windiff.exe $n $i.`

Provided that the path `c:\tools` is already entered in the path environment.

Borrow file names and paths from Folder/Mini-scrap panes

Usually, a DOS or Windows command requires the name and/or path of a

file or a folder as its argument. Using the Address Bar, you can easily insert the name/path in such commands:

1. In the active folder pane (or in the mini-scrap pane), select the item whose name and/or path you want to include in the command.
2. Place your cursor at the desired position in the Address Bar
3. Use one of the following shortcuts to insert the focused item's name and/or path at the cursor point:

Keyboard shortcut	What is inserted
CTRL+Enter	Name
CTRL+SHIFT+Enter	8.3 name
CTRL+ALT+Enter	Fullpath+name
CTRL+SHIFT+ALT+Enter	8.3 fullpath+name

Note: Windows file names are typically longer than 8 characters, and also contain spaces. The composer assistant automatically generates 8.3 names from such file names.



Tip: How to remember these commands:

- **CTRL** and **ENTER** keys are used in all commands.
- Use **SHIFT** to insert 8.3 versions of names
- Use **ALT** to insert paths also.

4. While composing a command in the Address Bar, you can move the focus to a different item using **CTRL+Arrows**. However, you must not go to a different folder to find a new item: As soon as you load a new folder in the active folder pane, the Address Bar will discard the partly composed command and display the path of the new folder!

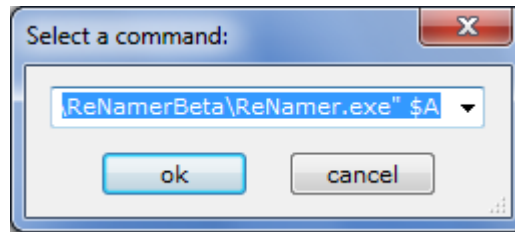


Tip: If you need items from multiple folders to compose commands, first collect all of them in a scrap pane. Then use the Address Bar of the scrap pane to compose your command. Reusing DOS/Windows commands from history.

x² maintains a history of all the DOS and Windows commands. You can select any past command from a pull-down list and issue it again.

Although commands are originally composed in the Address Bar, they are not listed in pull-down list of the Address Bar: x² has a separate window to list past commands. (This arrangement simplifies the pull-down list of Address Bar, which contains only addresses.)

To reuse a command from the history list, press **CTRL+F10** (or use the **Tools | Run history** menu option). A window pops up, as shown below:



Select a command from the drop-down list. Edit the command if required, and press **OK**. The command is issued.

To repeat the last executed command without any changes, press **ALT+F10** (or use the **Tools | Repeat** command menu option). However, keep in mind the following factors:

- If you are running multiple copies of x^2 , this “last executed command” could be actually issued by another copy, not by the copy where you are currently working.
- Even if you are running a single copy, this command could be the last command executed in your last session.
- The command is executed without any confirmations, so you will not get to see the command before you press **OK**.



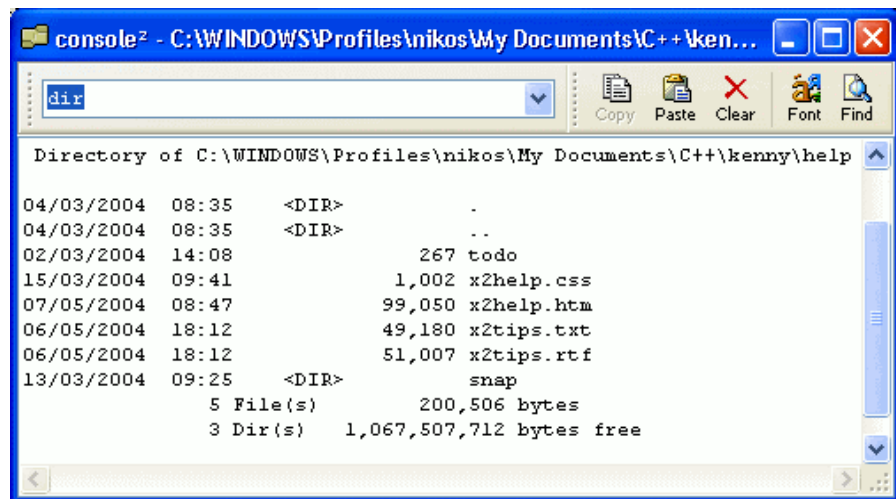
Caution: *Do not use this command if you are not sure which command you executed last. Since x^2 fetches the last command executed by another copy running in parallel (or even from a previous session), this could turn out to be risky, or give you unforeseen results!*

DOS command console

Most DOS commands don't have a **GUI** of their own and rely on the console window for their output. This is the traditional black & white system DOS box, which is rather awkward to use.

The PRO version comes with a substitute console that is nearly equivalent in functionality and much easier to work with. It has the following facilities:

- You can mark (highlight) multiple lines
- You can copy and paste multiple lines of text, as in a text editor
- You can search for text
- The console automatically focuses on the active pane: As you browse folders with x^2 , it changes its current directory. (The working path is shown on its title Bar.)



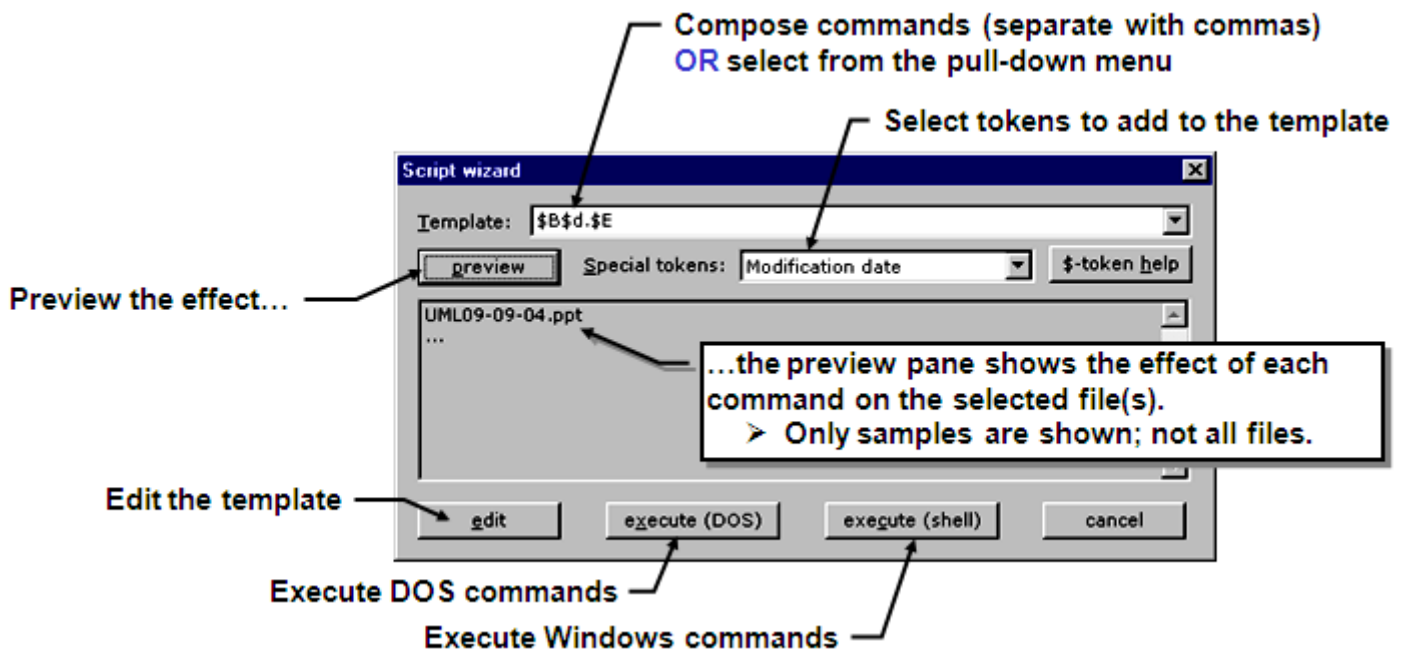
The console serves the following functions:

- It receives the output of all \$-prompted commands issued from the Address Bar of x² and also from command scripts.
- You can deliver input to running programs (e.g. Y/N responses).
- You can also type DOS commands directly in the console window. This input area supports path autocompletion with F1 and also maintains a history of past commands. The DOS console pops up automatically when you enter a DOS command in the Address Bar. However, you can also launch it for the current folder: Just type \$ in the Address Bar (without any command) and press Enter.
- If you still prefer the traditional DOS console, you can disable the Command Output Redirection Console using the **Tools | Options | General** menu option. Note that in such a case you will get a separate console for each command you execute.

Automatic script generation (Script Wizard)

Commands launched from the Address Bar operate only on the single focused item within the folder being browsed. If you want to apply multiple commands to a number of files, this technique is not useful. (For example, for batch conversions of mp3 files.) It is more convenient to use an automatic Script Wizard, which can run a sequence of commands on all the selected files in one stroke.

To start the script wizard, first select all files and then press **CTRL+B** (or use the **Tools | Command** script menu option). The script wizard window pops up, as shown below:



Specify a command Template that will be applied to each and every selected file.

- You may enter more than one commands in the template: Just separate them with commas.
- The syntax of each individual command is identical to the commands used in Address Bar: However, in place of actual file names, **\$-tokens** are used.
- In each command, the plain text part is reproduced verbatim and the tokens are replaced with elements of file name (or path) on a per-file basis.
- The Script Wizard picks the first file in the selection, and runs all the commands in the given sequence. Then it picks the next file in the selection and repeats all commands in the same sequence. It continues this cycle till all the files in the selection are dealt with.

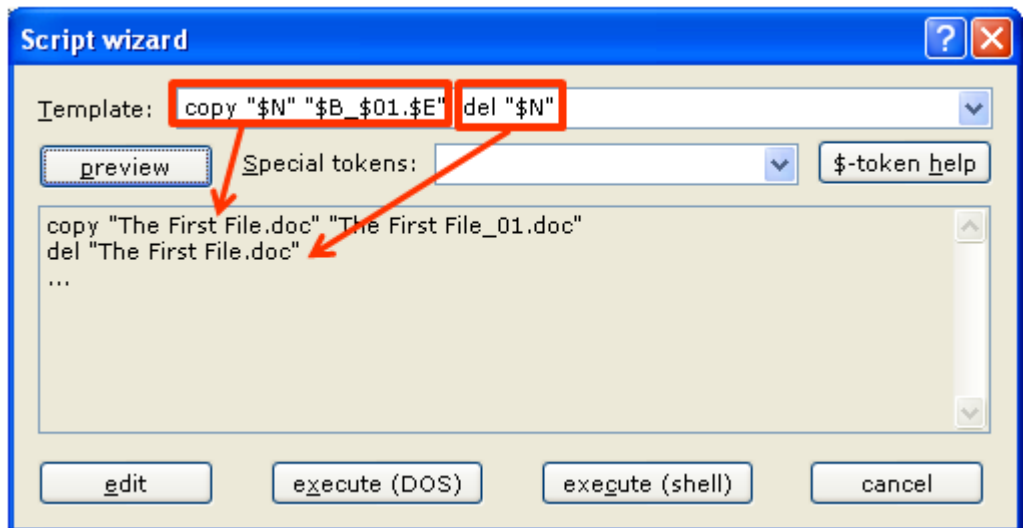
So, if your selection has 100 files, then 100 sets of commands will be generated and run effortlessly.

Let us understand this with an example:

We select two files: The First File.doc and The Second File.pdf. (These names are intentionally chosen to show how the script wizard works.)

Press **CTRL+B** to launch the Script Wizard. In the Template field, enter copy "\$N" "\$B_\$01.\$E", del "\$N". Now press the Preview button.

At this point, the Scrip Wizard window looks as shown below.



Note that all arguments are enclosed in double quotes “ ” to handle file names that have spaces. When the Script Wizard converts the template into command, it takes these quotes as literals. As a result, the file names get enclosed in quotes.

This example uses four special \$-tokens:

Token	What it represents-
\$N	Whole name (file name with extension, including the dot)
\$B	Base name (without the dot and the extension)
\$E	Extension
\$01	A two-digit auto-incremented counter, starting from 01.

(Refer to **Appendix 9B** for the complete list of tokens.)

There are two different commands (copy and del). The first command creates a copy of the file and inserts an automatically incremented suffix in the copied file's name. Then the second command deletes the original file, leaving only the renamed copy.

The net effect of this script is that all files will be renamed with a running serial number as their suffix.

(We could have used the ren command directly, but this example illustrates how the wizard runs comma-separated commands.)

The Script Wizard generates the following sequence of commands:

```
copy "The First File.doc" "The First File_01.doc"
del "The First File.doc"
copy "The Second File.pdf" "The Second File_02.pdf"
del "The Second File.pdf"
```

Notice that the counter has automatically incremented to 02 for the second file.



Caution: *Sometimes a batch processing can create unforeseen conflicts in file names. For example, when you use the automatic counter, it may try to rename a file with a name that already exists.*

At this point of time, the Script Wizard has only generated a script (a sequence of commands with actual file names). But these commands are not run yet. Now you have three options:

- Execute (DOS). This is the mode you would most often use: running a batch file in DOS. Behind the scenes, a file called x²tmpScript.bat is created in the %TEMP% directory.
- Execute (shell). This is the script equivalent of >-prompted windows program execution. In this case, templates must contain Windows commands only; and not DOS commands like `ren` (which require the DOS interpreter).
- Edit. Instead of immediately executing the script, you can edit it (perhaps to add a few final touches). If you are in dual-pane mode, the inactive pane will focus onto x²tmpScript.bat so that you can easily execute the final script by double-clicking, after you save your changes.



Caution: *The wizard merely manipulates the strings and is oblivious about their meaning or command syntax. If you make any mistakes you will notice them only during execution!*

Taking a print

All operations in x² are completely paperless; so you will never need to take any print. In fact, the next chapter shows that you can achieve much, much more than plain file-management with absolutely no paperwork. Therefore, x² does not provide any printouts.

Yet, if you insist on paperwork, then x² does have some outputs worth printing.

To print the contents of any file, select it and press Enter. That will open the file with its default application (Microsoft Word, Excel, PowerPoint, etc). Now use the Print command of this default application.

- For graphic files, you may use Irfanview or XnView.
- For text files, use the built-in text-editor **Editor²**.

The following four commands copy different contents into the clipboard. You can exploit this by pasting this content in a file of suitable type (Microsoft Excel, Word, etc).

Command	Where used	What is saved on clipboard
ALT+C	Folder/ scrap panes	Names of selected items with path
SHIFT+ALT+C	Folder/ scrap panes	Names (8.3 format) of selected items with path
CTRL+P CTRL+ALT+P	Folder/ scrap panes	Column text
CTRL+C	Folder statistics (ALT+D) window	Folder statistics for the selected node

But even there, you don't get much benefit if all you want to do is to take the printout of raw data and start ticking (or crossing out) these entries: you can do all that in an instant within x^2 (Using the scrap panes or comments)!

Instead, we suggest you should use the other application for some data processing (e.g. statistical analysis, or making segregated lists), and only then take a print. To generate such tables, use Pivot table command in Microsoft Excel (or the DataPilot command in its freeware equivalent, OpenOffice Spreadsheet).

Note that these spreadsheet programs will add an extra column that shows some statistical summary (e.g. sum, count, minimum, maximum, etc). In most cases, you will have to hide this column. In some cases, though, you may want to use this statistical summary: You can even generate charts (such as pie charts and Bar charts)!

Some sample printouts are given below. They are chosen to demonstrate how different columns in x^2 can be exploited.

These are just sample reports: you can create a mind-boggling variety of reports and take a print!

If you like digital photography, then printouts like the following sample can help you in systematically editing your photos (or to simply maintain a master-list of your photos). You can use any combinations of **EXIF columns** to create a large variety of reports. You can also add a column to describe some interesting facts about each photo (about the place, people appearing in the photo, the occasion on which it was taken, etc)

Photo list

Zoom	File name	Date taken-
35 mm		
80 mm		
200 mm		

↑ ↑
EXIF columns

A printed list like the sample below could serve as an index card for your CD albums. There are a lot of **MP3 columns** to choose from.

Song list

Artist	Album	Title	Duration
Britney			
Madonna			

⏟
MP3 columns

In the following example, we have exploited **comments** that can be attached to any file. Keeping the following printout in mind, we had inserted a few “standard” phrases in the comments field; and here we simply consolidated the files based on those comments.

You can use such a list to prioritize your tasks.

Task Priority list

Finish date	File name
Most urgent	
5 th October	
December end	

“Finish dates” are actually text tags,
inserted by x² in the *comments* column!

Actually this table shows manipulated data: when we copied the columns from x², the first column was comments (which holds free text; and not a date)!

However, in our example, we had inserted comments identifying deadlines. So, although comments is a text column, we could extract date-related information from it. After consolidating the data, we have renamed the table’s header to “Finish Date”.

In general, the comments column can take any free-form text, so you are free to enter any string and later interpret it any way you want.



Tip: The comments field may contain several strings, concatenated with a string-separator character such as a semicolon. (Insert each string to serve a different purpose.) When you copy the columns to Excel, you will get all these strings; even if some of them are not useful for your current exercise. You may have to clean up the data a bit to serve your purpose. On the other hand, by separating the strings you get several columns; each column representing a different aspect. You may also have to use other data-manipulation in Excel (such as filters) to search for the desired strings and prepare a summary chart as shown above.



Tip: From the very beginning, you should decide exactly what type of comments you would be inserting, and how you will be using them later. **Chapter 8** explains this concept in detail.

Apart from these manipulated reports, x² also has four text-formatted reports which can be printed straight-away:

- **Search status** report
- **Missing files report** (when a CIDA file is loaded)
- **Error-report for each robust transfer**
- Keyboard assignment **list** (includes the customized shortcuts)

These reports can be directly copied to the clipboard using the **CTRL+C** command. Then open a new file of suitable type (Microsoft Word, Excel,

PowerPoint, etc). Paste the contents of the clipboard with the **CTRL+V** command. Then take a print as described in point-1 above.

This method prints text as you see it in the report, but you may want to process the information before taking a print (for example, create a summary, or consolidate the records in different groups). In that case, first paste the text in Excel, and then parse (chop) it into columns, using **Data | Text to columns** command in Excel. This allows you to consolidate the data as shown above.

Inspecting the ADS contents of a file

Some malicious trojans like keyloggers may hide in ADS of a legitimate file. With x², you can locate files with suspect ADS contents, and then inspect the streams.

A typical file has two ADS streams:

1. A stream contains its user-access information
2. Another stream has the actual contents of the file.

While the first stream is very small, the second stream is as large as the file.

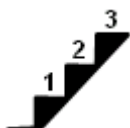
When you attach **comments** to a file, this creates a small third stream.

So, if a file has more streams (or large streams), then they are suspect.

Here is the process to find such files and inspect their ADS streams:

1. Launch the **Omni-Finder** command. In the **Additional rules** section, select the **Streams** column. Set the Min value to 4 in this rule, to find files having 4 or more streams. (Leave the Max value blank)
2. Once you locate the suspect files, investigate them further by using the **Actions| ADS | View streams** menu option. A window like the following pops up.
3. You can use the **Actions| ADS | Split streams** menu option to extract the secondary ADS stream into a separate file.

Note that only named streams can be split. (For example, in the window below, all the three streams are unnamed; so they cannot be split.)



Alternate data stream info									
TYPE	SIZE	NAME	CONTENT						

D:\xplore2\editor2 UC.exe									
3	188	(empty)	01 00 04 80	14 00 00 00	30 00 00 00	00 00 00 00	0.	
1	118,784	(empty)	4D 5A 90 00	03 00 00 00	04 00 00 00	FF FF 00 00	MZ.....		
7	64	(empty)	DC 05 93 D2	35 06 DC 11	88 FC 00 13	20 8E 14 445....		

These streams are not named;
so they cannot be split.



Caution: This is a specialized subject, and best done by experts. If you do not have adequate expertise in this area, you may miss malicious contents.

Folder junctions

A folder junction (also known as *Reparse Point*) allows a folder to be grafted into another folder on the same computer. For example, you can put an entire drive (say, 40 GB) in a folder. To the user, this drive will appear as a folder.

Folder junctions have several uses:

Windows allows you to have only 26 drive letters (A to Z). But if you are using Folder Junctions, you can use any normal path. Thus you can use more than 26 drives.

Some programs do not allow you to change their working directory. But your disk may be nearly full, which will cause the program to crash. In such cases, folder junction comes to your rescue: Just create a folder junction, with another drive as its target. The free space in the other drive is made available to the program now. In other words, it is now actually using the other drive for all its operations.

Creating a folder junction

First select the folder (or volume) that is to serve as the target of the folder junction. Now press **CTRL+C** (or select the **Edit| Copy** menu option). Now go to the place where you want to place the folder junction, and select **Edit| Paste special| Folder junction| Paste** menu option.

Note: Folder junctions are possible only when the drive is NTFS formatted (Not FAT or FAT32). Secondly, you cannot create folder junctions to remote folders (e.g. to target folders that are in **NN**).

Deleting a folder junction

If you want to remove the junction without affecting the real folder contents use **Edit | Paste special | Folder junction | Delete**.



Caution: When you delete a folder junction, you risk deleting all the target folder contents without warning.

To avoid such a mishap, follow these rules:

1. Name junctions clearly (e.g. using "junction" as part of the file name),
2. Pay attention to the "J" (=junction) file attribute,
3. Use a **coloring rule** to mark such items, so you are constantly aware that these are not ordinary folders.

7. Customizing x²

x² is highly customizable. You can customize the following:

- Icons associated with the files, folders and drives
- Layouts (change relative size of panels, show/hide different parts)
- Tool Bars and individual buttons in these Tool Bars
- Column sets that appear in the panes (only in details mode)
- Set of tabs
- Keyboard shortcuts
- User commands
- Context menu in the Folder pane and Scrap pane

Apart from these customizations, you can also change how x² responds to your commands, by setting program options.

The following sections show how to exploit this customization:

Customizing icons for items

x² supports customization of icons shown against files, folders, etc. You can change the icons for files and folders with a suitable icon changer utility such as the **IconTweaker**.

The icons can be changed globally or within a certain folder.

Changing of icons serves the following purposes:

- To personalize your screen
- To use an icon that better suits your taste
- To display certain folders more prominently in the tree/pane.
- To categorize files into various classes (e.g. personal/family/office)

Customizing layouts

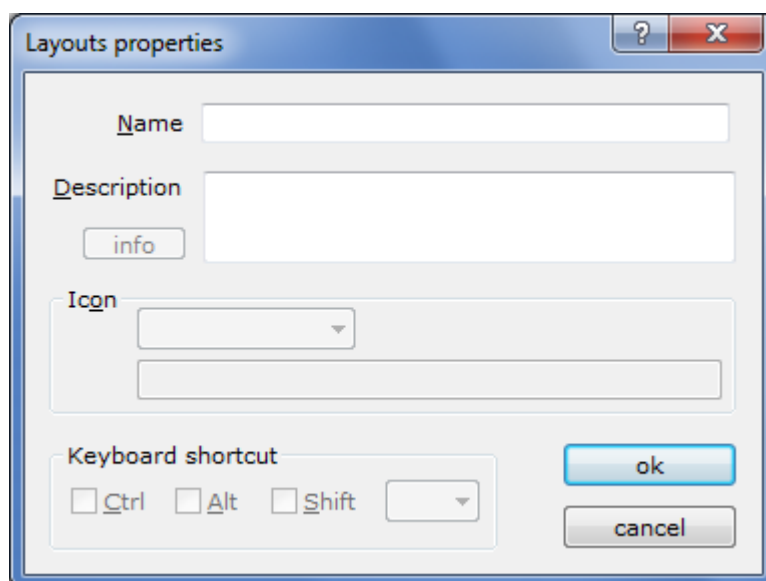
We have already seen a brief discussion about changing the display styles of the folder panes in **Chapter-3** and **Chapter-4**.

This section describes how to achieve more permanent changes.

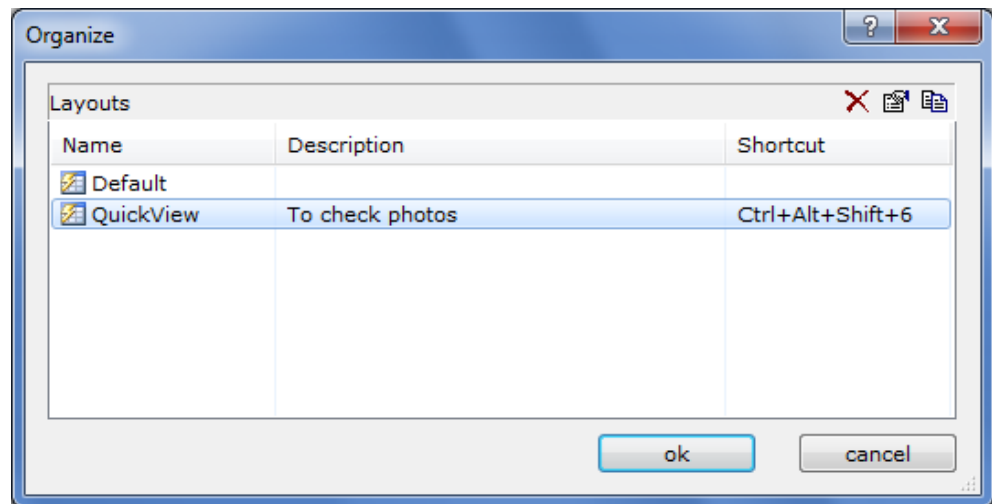
Once a layout is changed, x² remembers the new layout forever. Whenever you start x² (or the PC), the same layout will be presented to you.


But the customization does not stop here: you can save multiple screen layouts and load them whenever you want. The following table explains how to use customized layouts:

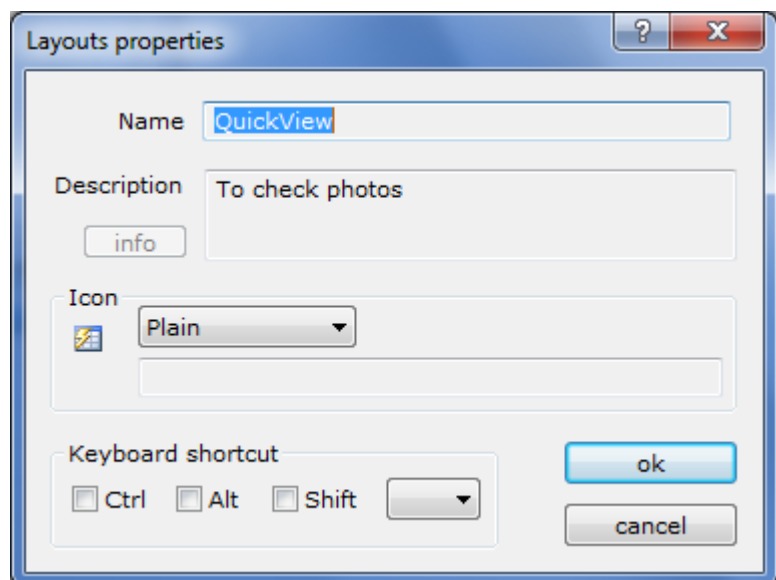
Save a layout	Use the Window Save layout... menu option. The following window pops up:
---------------	--



	<p>Enter a name that best matches the purpose of this layout. Also enter the description (the <i>purpose</i> for this layout).</p> <p>At a later stage, using Layouts Organize, you can define a keyboard shortcut for the layout: just put a tick in the relevant check boxes and select a letter. This key combination will henceforth serve as your keyboard shortcut for this layout.</p>
Apply a layout	<p>The Window menu lists all saved layouts. Simply click on the desired layout. x² launches a new window with the selected layout.</p> <p>Note that x² will <i>not</i> apply the selected layout to the current window. (Full layout customization feature will be released in future.)</p>
Delete or edit a layout	Use the Window Organize... menu option to delete or edit any of the saved layouts. The following window pops up.



D-click on a layout entry; or select a layout and press the **Properties** button  or simply press **ENTER**. Another window pops up:



You can edit the properties (including the keyboard shortcut) of the selected column layout. You cannot change the name of the layout.

You can change the icon by selecting the **Custom** option in the drop-down list. A window pops up, as shown below:



Click on the **Browse** button. Select a dll or ico file. x² shows all the icons available in that file. Click on the desired icon and press **OK**. Now the Tool Bar shows this custom icon for the custom group.

To revert to the original icon, repeat the process and select the **Default** option from the **Icon** drop-down list.

Customizing Tool Bars

Tool Bars contain buttons for frequently needed commands.

Every user likes to have a different set of commands on the Tool Bar, in a particular desired sequence. Tool Bar customization is the answer.

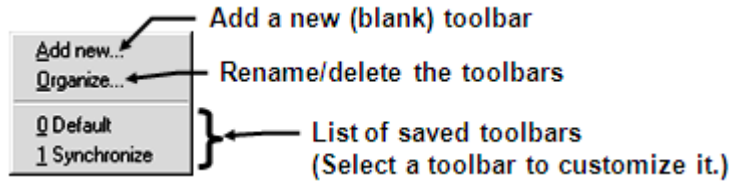
You can customize the Tool Bars as follows:

- Add new Tool Bars (or delete some Tool Bars)
- Hide/show Tool Bars
- Add (or delete) buttons in existing Tool Bars
- Move the existing buttons to new position within a Tool Bar
- Move the Tool Bars to new positions within the Tool Bar area
- Resize the Tool Bars
- Change the skin of a Tool Bar (change icons for its buttons)
- Add text labels to the buttons on any Tool Bar


- Resize the Tool Bar buttons

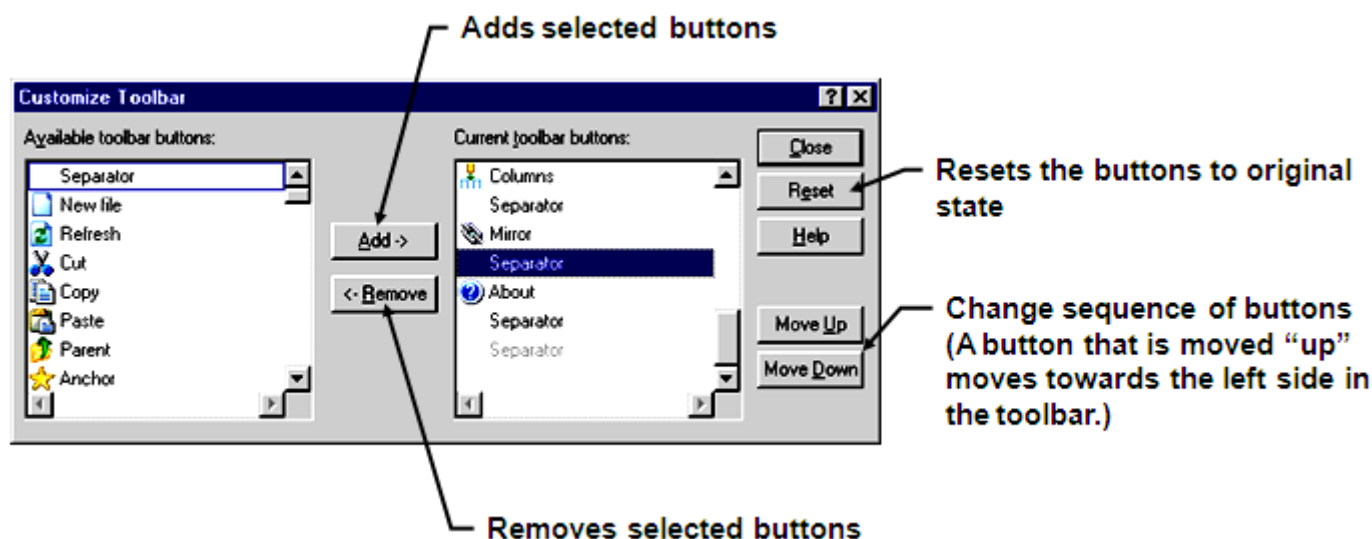
To customize the Tool Bars, use the **Customize | Tool Bars** menu option, or right-click on any Tool Bar and use the context menu.

- When you select **Customize | Tool Bars**, the following submenu appears:

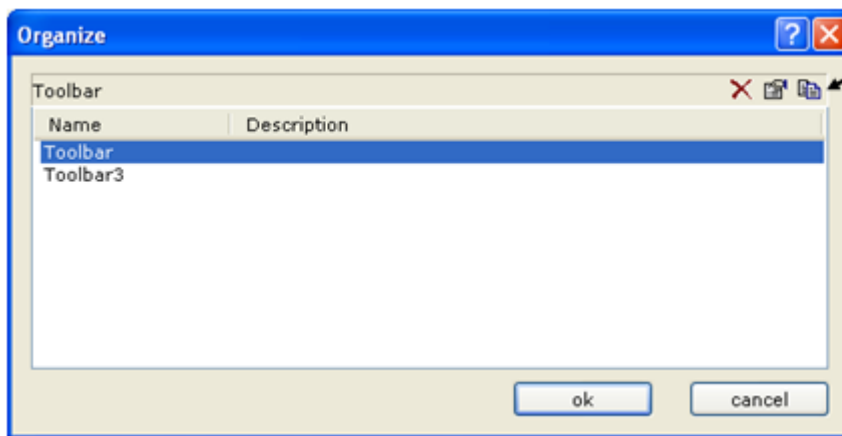


- The Tool Bar area works as follows:

Add a Tool Bar	<p>When you select the Customize Tool Bars Add submenu, a dialog box pops up:</p>  <p>Enter a name for the new Tool Bar and press OK.</p> <p>Apart from the main Tool Bar, you can create up to 14 additional Tool Bars.</p> <p>Tip: Organize extra Tool Bars in a task-oriented fashion, by bunching relevant buttons together. Whenever the need arises you activate the Tool Bar using the View Tool Bars menu option. (Hide the other Tool Bars that are not required.)</p> <p>Tip: Provide a meaningful name to each Tool Bar: it will help you in selecting the right Tool Bar.</p>
Add/remove buttons	<p>The Customize Tool Bar... window (shown below) Pops up automatically when you define a new Tool Bar. You can also trigger it by r-clicking on any Tool Bar, and selecting the Customize... option from the context menu.</p>




	<p>Note that you can also drag-n-drop the buttons across the two windows to add/delete the buttons. You can also use the drag-n-drop method to move the buttons up/down.</p> <p>A simpler way to rearrange buttons is to drag them around while holding SHIFT. If you drag them off the Tool Bar they are removed.</p> <p>Note that 45 spare buttons are provided for the customized layouts, folder groups, column-sets, bookmarks and user commands (9 buttons are reserved for each category).</p> <p>When you define new items in these categories, they appear in the corresponding menus. Out of these, the first 9 items in each list are automatically assigned to these buttons. (The Customize Tool Bar... window displays the newly assigned names for these buttons.)</p> <p>These customized buttons can be placed in any of the 15 Tool Bars.</p>
Rename or delete Tool Bars	<p>Select the Customize Tool Bars Organize... submenu.</p> <p>The following dialog box appears:</p>

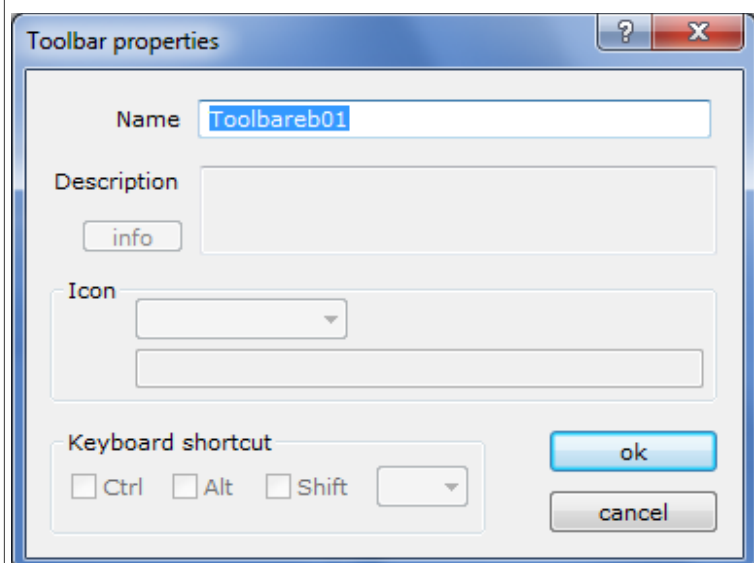


Buttons to-
Delete the selected toolbar
Rename the selected toolbar
Copy the text of all entries



Select a Tool Bar from the list and press the relevant button.

- To delete the selected Tool Bar, you can simply press **DEL**.
- To rename the selected Tool Bar, d-click on it; or select it and press the **Properties** button  or press **ENTER**.







The following window pops up:



x² allows you to only rename the Tool Bar. (There are no other editable properties.)

Move the Tool Bars	<p>You can move a Tool Bar to new place by dragging its handle  (located on the left edge of the Tool Bar).</p> <p>Tips:</p> <ul style="list-style-type: none"> ➤ When you drag the Tool Bar, the cursor turns into , suggesting that only a <i>horizontal</i> movement is possible. Despite that, you can move the Tool Bar vertically also (to a new row). ➤ The movement of Tool Bars is limited within the Tool Bar area: you cannot drag any Tool Bar to a separate area on your screen. ➤ If you want to swap two toolbars, you cannot make one toolbar jump over the other. Instead, first drag the toolbar vertically to a different row, move it sideways till you cross the other toolbar and then drag the toolbar back to the original row. ➤ When a Tool Bar is made too short, some of its buttons are hidden. In such case, a >> symbol appears on the right edge of the Tool Bar. To reveal the hidden buttons, click on this symbol. ➤ When multiple Tool Bars share a row, and if any Tool Bars overlap, then the Tool Bar on the right will cover the Tool Bar on its left.
Resize the Tool Bar	<p>If you go on clicking on the Tool Bar's handle repeatedly, the Tool Bar size changes cyclically, as follows:</p> <ol style="list-style-type: none"> 1. Take up the entire row 2. Return to its ideal size
Lock the Tool Bars	<p>You can freeze the size and position of all Tool Bars (and the address Bar) by r-clicking on any Tool Bar and selecting the context menu option Lock Tool Bars.</p>

<p>Change the icons of the Tool Bar buttons</p>	<p>If you don't like the default theme of the Tool Bar buttons, you can have your own buttons with a different theme.</p> <p>This is known as changing the Tool Bar skin.</p> <p>Separate icons are required for each button in “normal” and “disabled” states.</p> <p>x² also allows you to use larger icons (permissible sizes: 24x24 to 48x48 pixels).</p> <p>First, download a kit from here:</p> <p>This zip file contains a pair of bitmap files:</p> <ul style="list-style-type: none"> ● x2skin.bmp for “normal” state icons, and ● x2skinBW.bmp for “disabled” state icons <p>Drop them in the x² installation folder. All Tool Bar buttons of x² will automatically take up these new icons.</p> <p>You can edit these bitmap files to design your own customized icons. Just follow the instructions provided in the zip file, and then drop the modified bit map files in the installation folder of x².</p> <p>Share your files with other users at the x² website!</p> <ul style="list-style-type: none"> ● The x² website provides some user-contributed icons. ● You can make your own custom-made icons: Create an alpha-transparent bitmap for the icons, and name it x2skin_XL.png. Place this file in x²'s installation folder.
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Add/remove labels	<p>You have the option to label the Tool Bar buttons. Labels help us in recognizing the symbols, as shown below:</p> <table border="1"> <tr> <th>Without labels</th><th>With labels</th></tr> <tr> <td></td><td></td></tr> </table> <p>This feature is very useful in the following cases:</p> <ul style="list-style-type: none"> ➤ New users can't recognize the symbols in the beginning. They can keep the text activated. ➤ All buttons for customized commands (e.g. column layouts, customized commands, etc.) share a common button image. These buttons need to be identified with labels. <p>But the penalty is the increased size of the Tool Bar. Experienced users may turn off labels for selected Tool Bars.</p> <p>To activate/deactivate labels, simply right-click on any Tool Bar and select the Text labels option from the context menu.</p> <p>Note: Depending on your needs, you can decide which Tool Bars will have labels and which won't. However, it is not possible to display the text labels selectively within a Tool Bar: either all buttons will have text labels, or none of them will have text labels.</p>	Without labels	With labels		
Without labels	With labels				
					

Customizing column sets

You can save different column layouts and then instantly switch to the desired column set without having to add and remove columns each time.

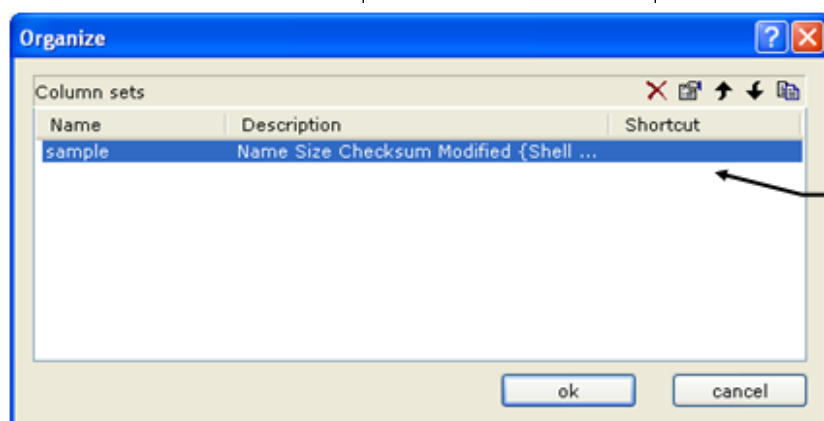
This is a very useful feature: while viewing the panes in details style, you may want to use different columns for different purposes, as the following examples show:

Purpose	Columns used (typically)
Normal browsing	Name, size and modified date
Browse a flattened folder	Name, modified date and path
Folder synchronization	Name, size, modified date and path

Let us see how to make use of this customization. When you select the **Customize | Columns set** menu option, the following submenu appears:

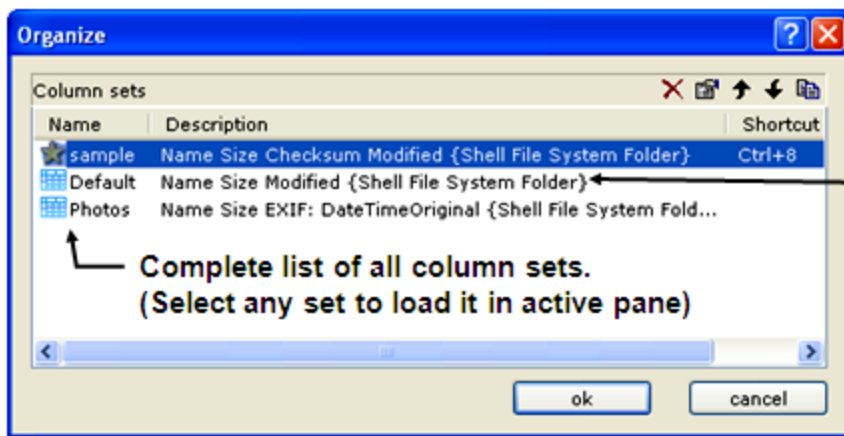
All the commands related to column layout management are in this submenu, as explained below:

To save a new set of columns	<p>Select the submenu option Add.</p> <p>The current column layout will be added to the existing list in the menu.</p> <p>Tip: You can first configure column layout using the ALT+K command.</p>
Switch column layout	<p>All the saved column layouts are displayed in the middle of the submenu (as shown above). Click on the desired set, or press the number (0-9) displayed against each option. The selected column layout will be loaded in the active pane.</p> <p>Sometimes, you may not be able to visualize a layout based on its name. You need some more information. In such cases, select the submenu option More.... The following dialog box pops up:</p>



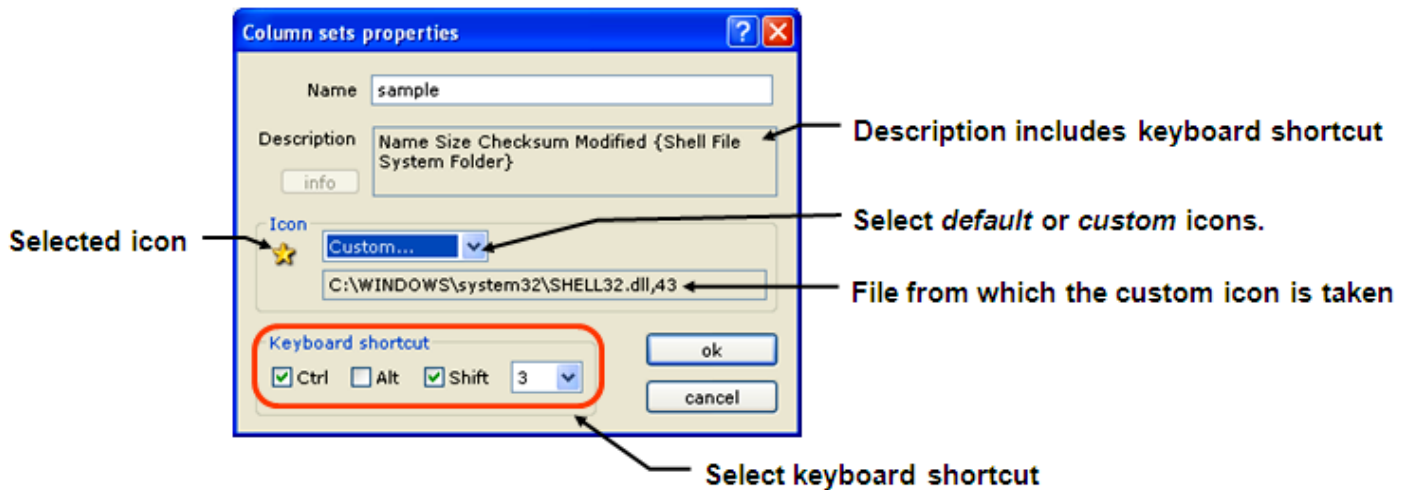
Complete list of all column sets.
(Select any set to load it in active pane)

	<p>It provides all details about the layout; such as the columns selected, the sequence in which they appear; and also the keyboard shortcut for each layout. Click on any layout (or use the keyboard shortcut) to load it in the active pane.</p> <p>Don't forget the Status Bar help: When you browse the column set submenu items, it gives a short description of the columns in each set!</p>
Organize the list	<p>When you select the Organize... submenu, the following dialog box pops up. You can use the buttons to add/delete/edit or rename the column layouts.</p>




Description shows -
1. Columns selected
2. The custom icon's source, in { }

When you press the Properties button, the following dialog box pops up:



You can edit the properties (including the keyboard shortcut) of the selected column layout.

You can change the icon by selecting the Custom option in the drop-down list. A window pops up, as shown below:



Click on the **Browse** button. Select a dll or ico file. x² shows all the icons available in that file. Click on the desired icon and press **OK**. Now the Tool Bar shows this custom icon for the custom group.

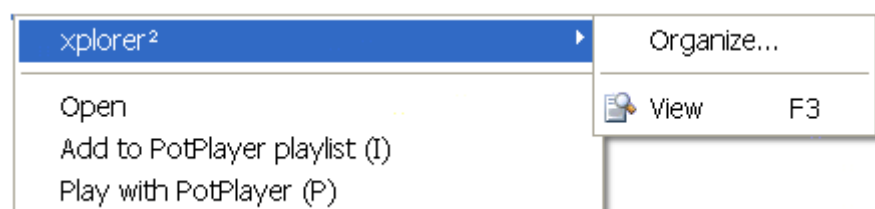
To revert to the original icon, repeat the process and select the **Default** option from the **Icon** drop-down list.

Customizing the context menu

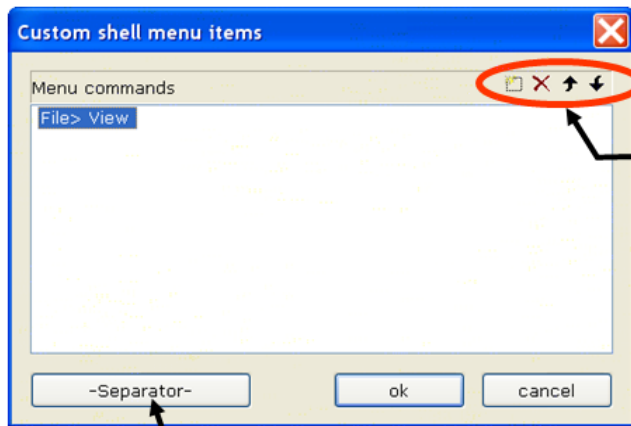
Some users like to select a few items and then use a x² command on that selection by using the context menu.

x² allows you to customize the context menu and add any command to it.

The default context menu looks like this:




As you can see, the default list has just one command, to view the selected item. To add more commands, click on the **Organize...** menu option. The following window pops up:

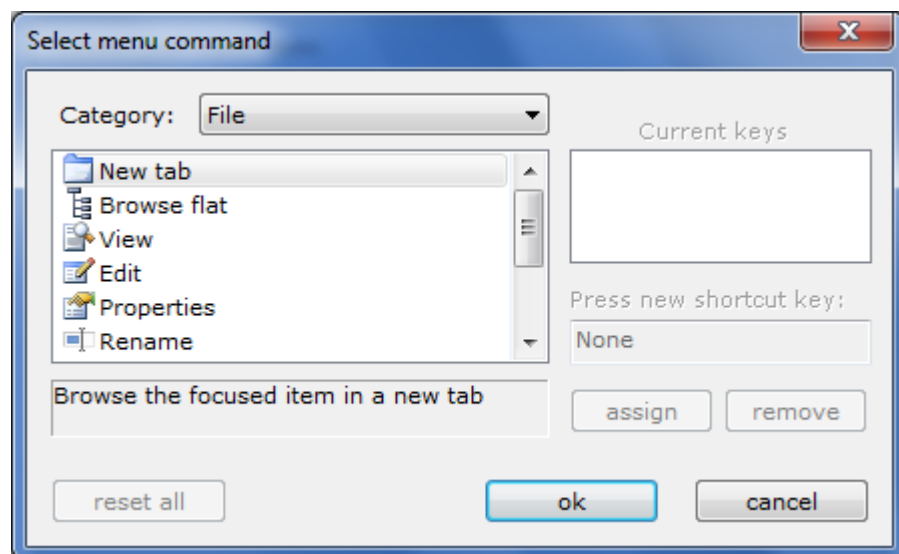


Buttons to-

- Add a new command
- Delete selected command
- Move the selected command up
- Move the selected command down

To insert a horizontal line between commands

When you click on the  button, the following window pops up:



Note that the controls in the right-side of this window are disabled.

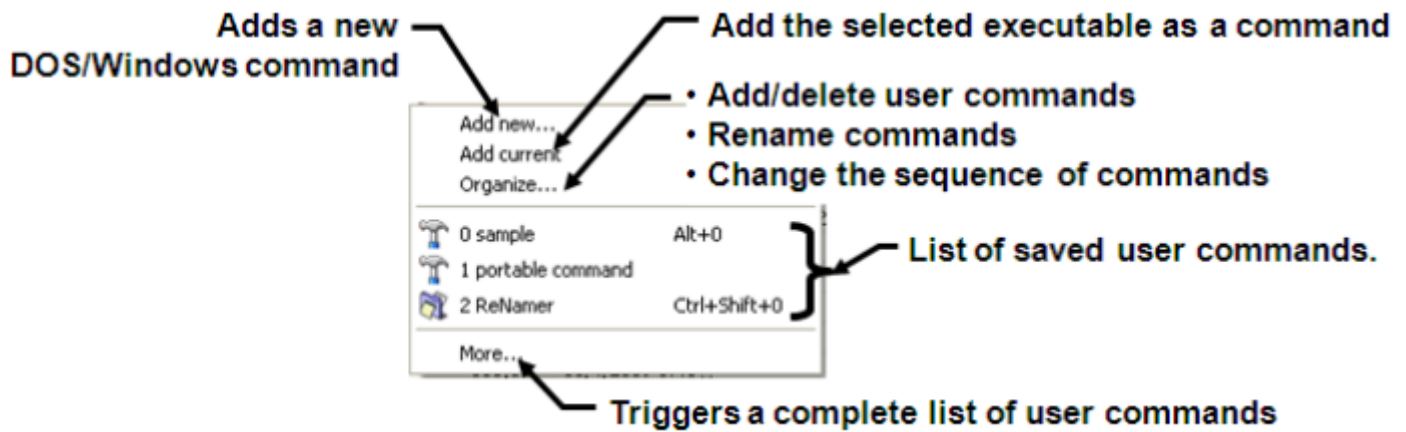
First select the category using the drop-down list at the top. The list in the pane below changes accordingly. Now scroll through the list. When any item is selected, the pane at the bottom shows the function of the item.

Select a function and press **OK**. The selected command is added to the context menu.

Customizing user commands

The **Customize | User Command** menu option provides customized buttons and keyboard shortcuts for any user commands. You can program both DOS commands and Windows commands.

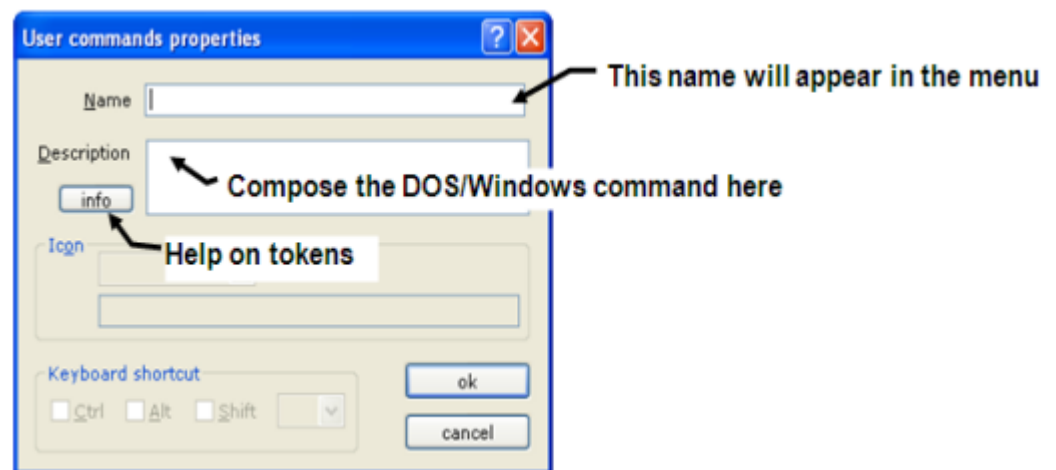
The menu provides the following options:



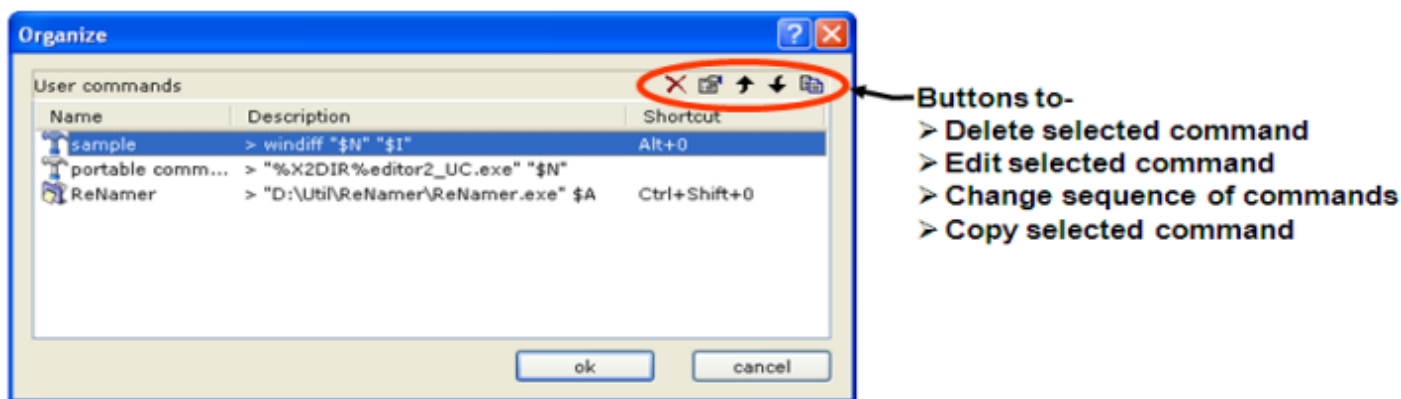
Tip: Keep in mind that you have to specify the command type explicitly, using either “>” (for Windows commands) or “\$” (for DOS commands). Windows commands like “windiff”, “notepad” etc must be started with “>” and DOS commands like “dir” must start with “\$”. If you forget to enter this character at the beginning of a command, x² will assume that it is a DOS command and add a “\$” character for you automatically.

The sub-options are explained below:

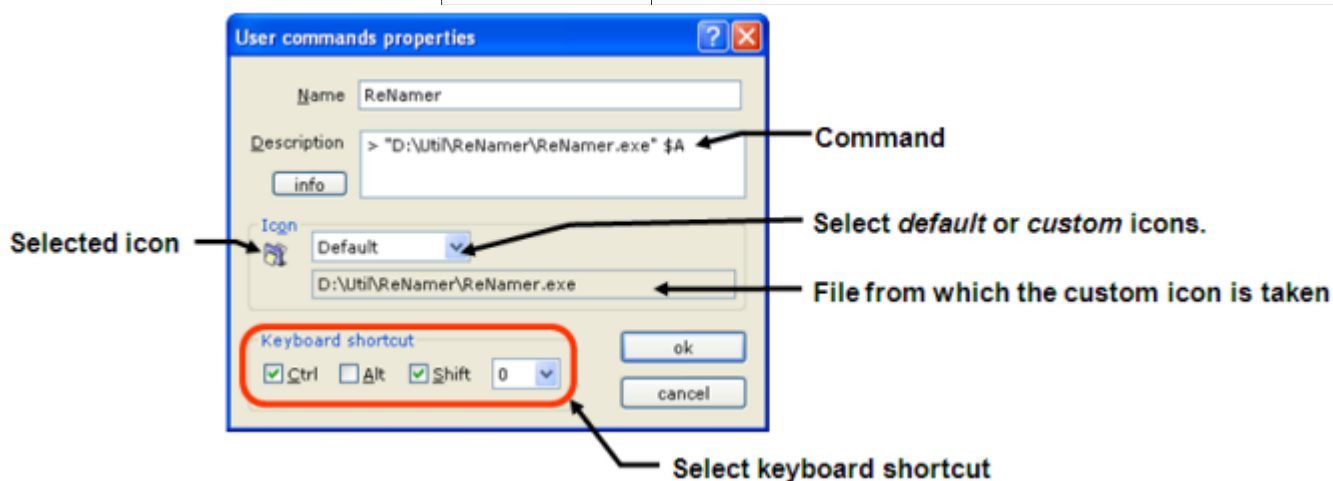
Add new...	The following window pops up. Compose your command and give it a name. Press OK to save.
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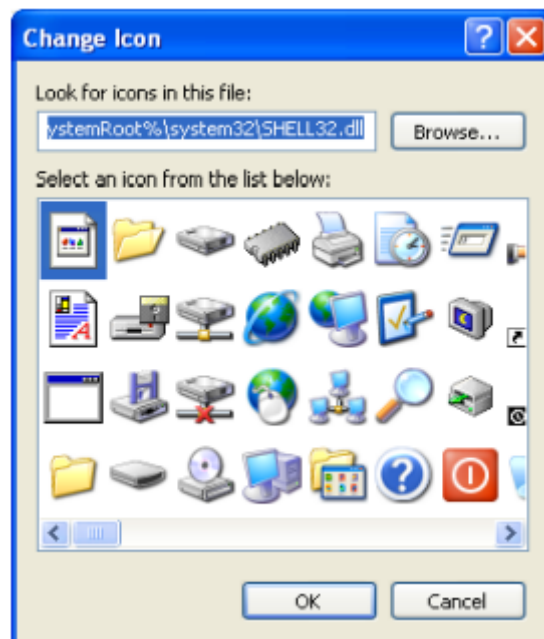
Add current	Select an executable file in the file pane and select this option. x ² creates a new user command, using the path of the currently selected executable file.
Organize	Use the Customize User commands Organize... menu option. The window shown below pops up, and lets you organize the user commands (rename any command, edit any command, change their sequence, or delete any command.)



Edit command	In the Organize window, d-click on any entry to edit the command. A window appears as shown below. All its controls are explained in the figure.
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	You can change the icon by selecting the Custom option in the drop-down list. A window pops up, as shown below:
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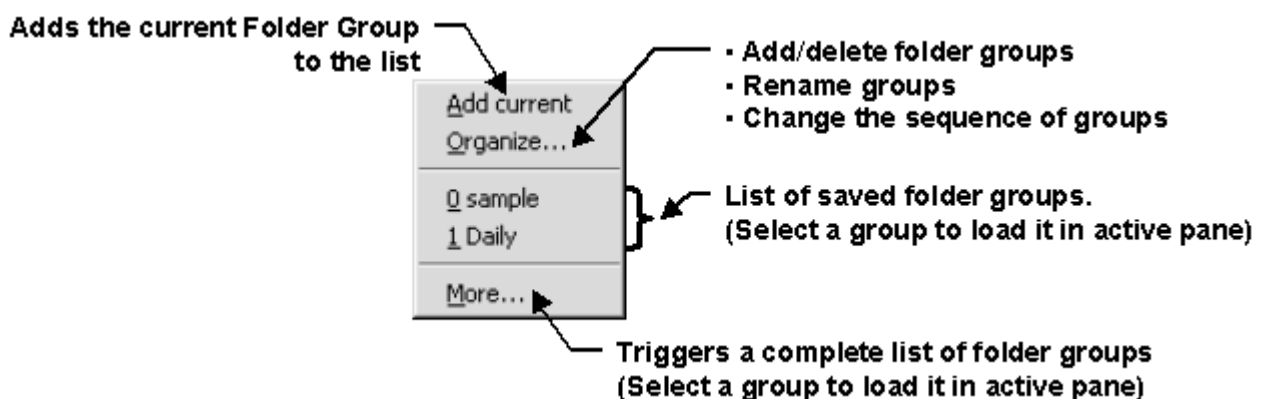
Click on the **Browse** button. Select a dll or ico file. x² shows all the icons available in that file. Click on the desired icon and press **OK**. Now the Tool Bar shows this custom icon for the command.

To revert to the original icon, repeat the process and select the **Default** option from the **Icon** drop-down list.

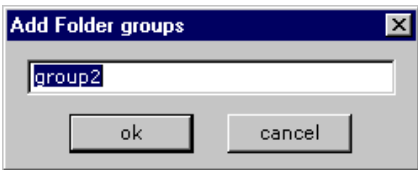
Customizing Folder Groups (set of tabs)

You know that each folder pane has multiple tabs. Now assume that you need a particular group of folders often. Each time, you would have to open several folder sheets and load these folders in them. This laborious task is lightened with a powerful set of commands that allow you to remember important folder groups and load any desired folder group (set of tabs) instantly.

To access these commands, use the **Customize | folder groups** menu option. The following submenu appears:

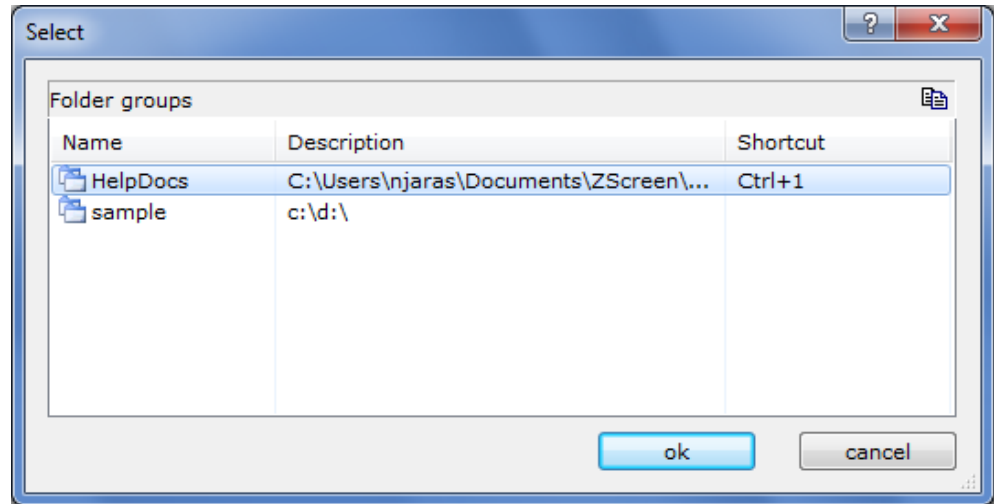



The options in this submenu are explained below:

<p>Add the current folder group</p>	<p>To add the folder group currently displayed in the active folder pane, select the Customize folder groups Add current menu option.</p> <p>The following window appears:</p>  <p>The name appearing in the window is only a dummy name: Enter a name that helps you in remembering the purpose of making this folder group. Press OK.</p> <p>Immediately, this group is added to the list of saved folder groups. All named tabs are also saved in the group.</p> <p>From now on, you will be able to load this group as shown below:</p>
<p>Load a folder group</p>	<p>Use the Customize folder groups menu option. From the submenu that appears, select the group you want (alternatively, press the number shown against the group). x^2 immediately launches the required number of folder sheets and loads the folders in them.</p> <ul style="list-style-type: none"> ➤ The existing folder sheets (tabs) are closed before loading the saved folder group. ➤ All named tabs will be re-loaded with the given names. ➤ If a tab's target folder is missing, that tab displays Desktop. (This typically happens when the folder is renamed, deleted or moved to other location. It also happens if a parent folder is renamed, which changes this folder's path.) So, if you see Desktop in any tab, it could mean that a folder is missing. ➤ Even when a tab's target folder is missing, it preserves the target folder's path. This is useful when the folder is only temporarily inaccessible (For example, a folder on LAN can be temporarily inaccessible when the connection is broken). To see the path of such folders, use the Tab Organizer window (described below) <p>The method described above can provide access to a maximum of 100 folder groups, out of which the top ten groups will have a quick-access number listed against them.</p> <p>If you want to select a folder group from a complete list</p>

of folder groups, then select the **Customize | folder groups| More...** menu option.

A window as shown below pops up:

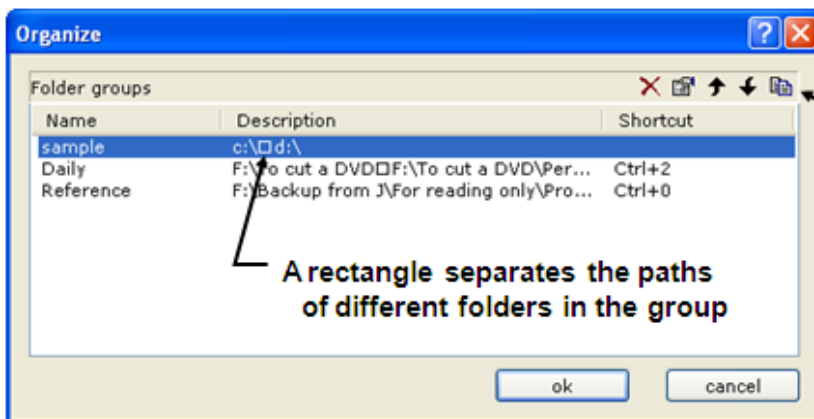



Select the desired folder group from the list. You can also press the  button to copy all the entries (even if they are not selected) to the clipboard.

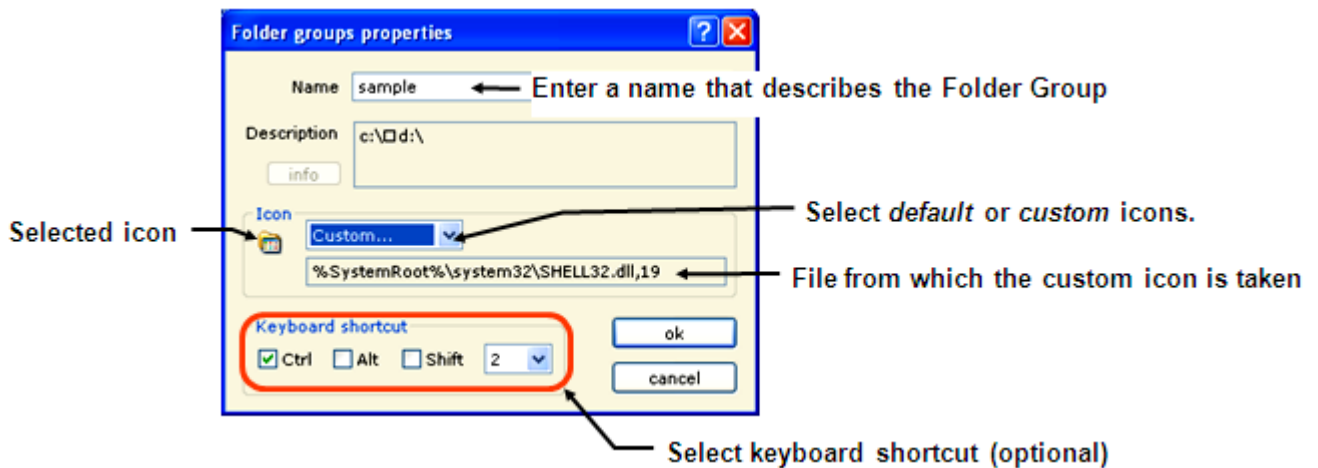
Organize a folder group

You can rename, delete or reorder the tab groups.

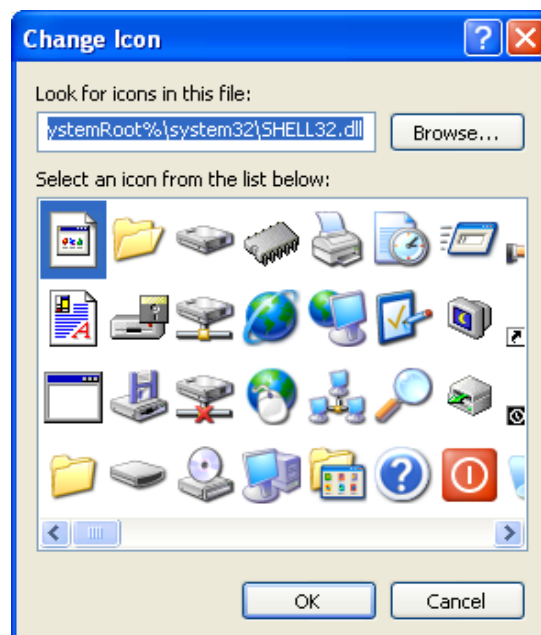
1. Select **Customize | Folder groups | organize** menu option. A **Tab Organizer** window pops up:



2. To edit the properties of any Folder Group, d-click on it or press the  button. A **Folder Group Properties** window pops up:



You can change the icon by selecting the **Custom** option in the drop-down list. A window pops up, as shown below:



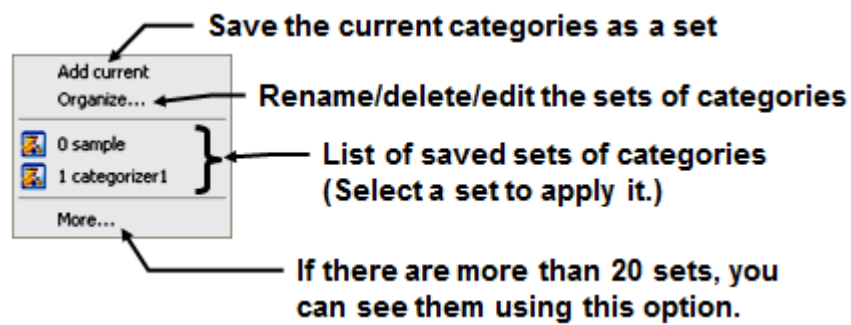
Click on the **Browse** button. Select a dll or ico file. x² shows all the icons available in that file. Click on the desired icon and press **OK**. Now the Tool Bar shows this custom icon for the custom group.

To revert to the original icon, repeat the process and select the **Default** option from the **Icon** drop-down list.

Customizing the Custom Groups

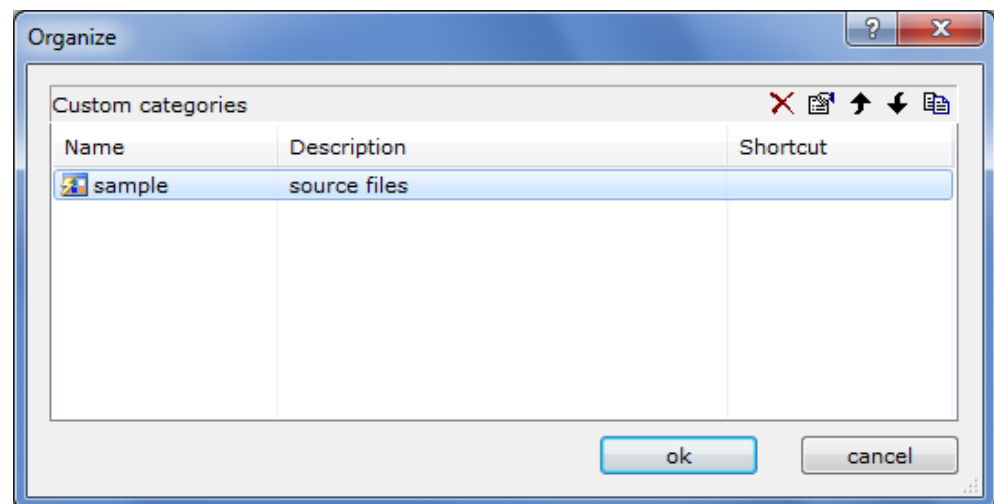
Well, the title is a tongue-twister (like “She sells seashells in Seychelles”). So let us understand exactly what we are about to do: In Chapter 4, we saw **how to view the items in customized Groups (categories)**. Here we will see how to customize those sets of categories.


To access these commands, use the **Customize | Custom groups** menu option. The following submenu appears:

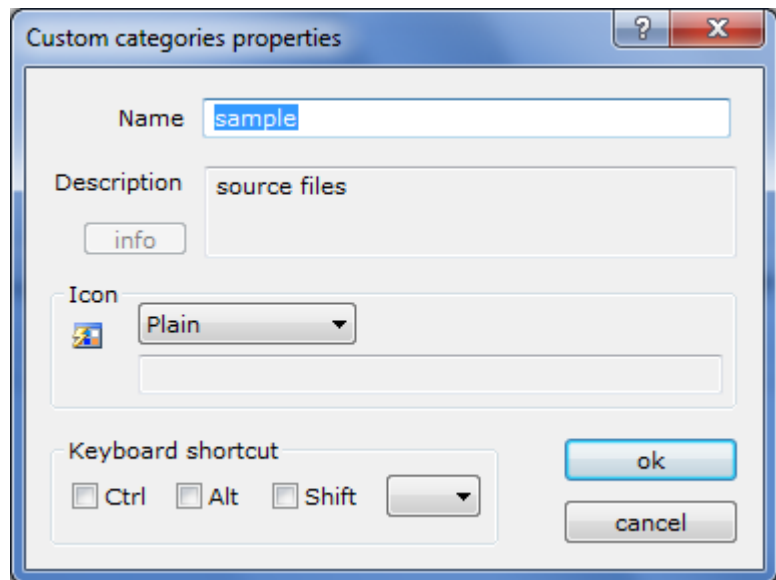


The menu options can do the following:

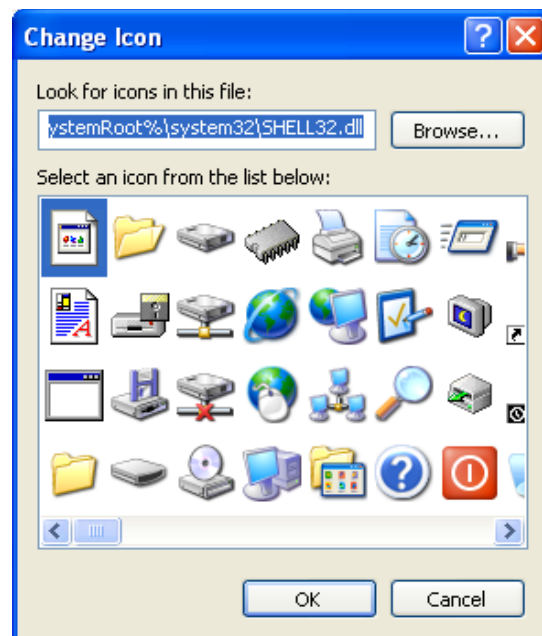
Option	What it does
Add current	Saves the currently defined set of categories, as described in chapter 4
Organize	Launches the following window, where you can organize the categories saved so far.



If you select the **Properties**  button in this window, the following window pops up, in which you can edit the name, set a different icon for the custom group, and/or set a keyboard shortcut.



To change the icon, simply use the drop-down list in the Icon section, and select the **Custom** option. Immediately the following window pops up:



Click on the **Browse** button. Select a dll or ico file. x² shows all the icons available in that file. Click on the desired icon and press **OK**. Now the Tool Bar shows this custom icon for the custom group.

To revert to the original icon, repeat the process and select the **Default** option from the **Icon** drop-down list.

Customizing keyboard shortcuts

x² has a huge number of keyboard shortcuts (see **Appendix 9D** for a list of keyboard shortcuts). You can customize many of those shortcuts.

Checking out the existing shortcuts

Before customizing the keyboard shortcuts, first check the existing keyboard shortcut-assignments, so that you do not disturb a useful shortcut.

Use the **Customize | Keyboard use...** menu option.

The Keyboard assignments window pops up, as shown below:

You can use the list in three different ways:

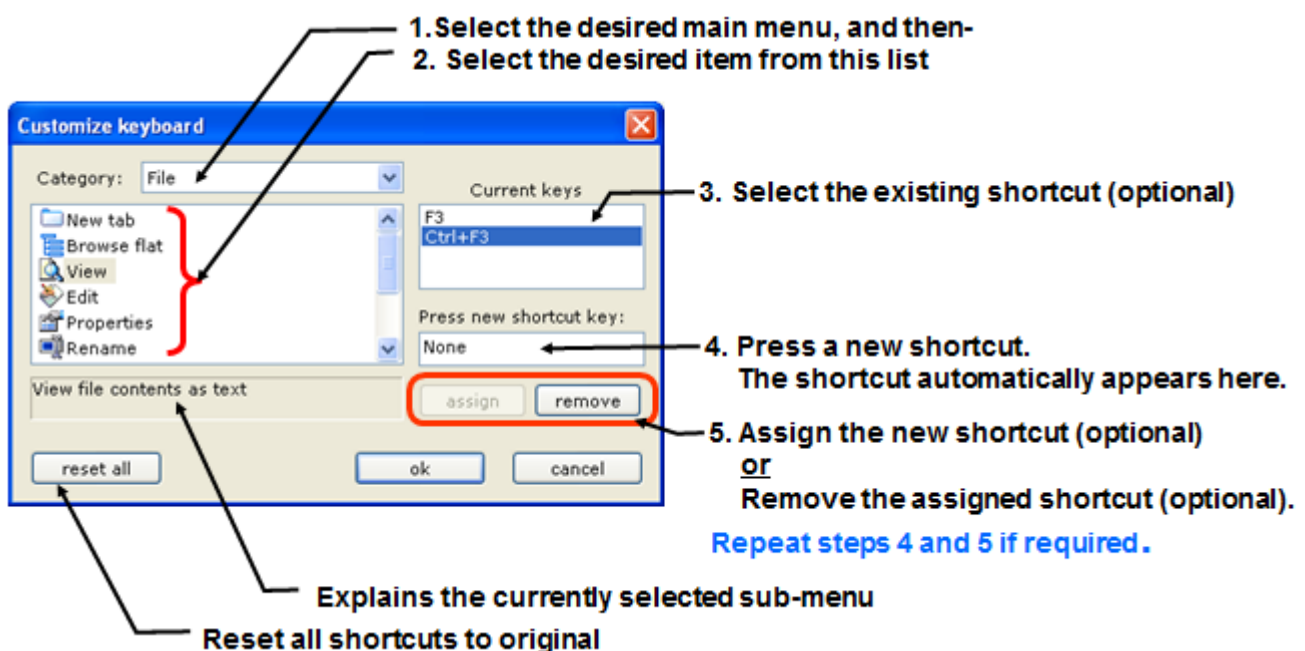
1. Identify a free shortcut that you can assign to a new function.
2. Identify a shortcut that you don't use (which you can reassign to your favorite command).
3. Identify a shortcut that you want to disable. (For example, you may be using that particular shortcut in some other application, which may be causing trouble in x²; so you want to disable that shortcut in x².)

Tip: You can search for a desired keyword by pressing **CTRL+F** (or right-clicking inside the window, and selecting Find option from the context menu that pops up.)

Make a note of your choices. However, keep in mind that Windows does not allow the use of the following keys for shortcuts: **ENTER**, **ESC**, **BKSP** and **Space Bar**. So if you see any shortcuts that makes use of any of these keys, do not try to re-assign it for some other purpose (it will not work).

Assigning a new shortcut or re-assigning an existing shortcut

To assign a new shortcut (or re-assign an existing shortcut), use the **Customize | keyboard...** menu option. The **Customize keyboard** window pops up, as shown below.



When you select a category from the drop-down list, the functions available in that category are listed in the middle pane. As you scroll through the list, the bottom pane displays some explanation about the selected function, and the right pane shows if that function is assigned any hotkey(s).

The screenshot shows that the **File>View** function is assigned two hotkeys: **F3** and **CTRL+F3**.

You can use the window for any of the following:

Assign a new keyboard shortcut for the selected function	Click in the Press new shortcut key box. Press the new hotkey. The new shortcut will be added to the existing shortcuts displayed in the Current keys box.
Remove an existing keyboard shortcut	Select a shortcut in the Current keys box. Press the Remove button.

After you have changed the keyboard assignments, press the **OK** button to save the changes and exit the window.

- If you press the **Cancel** button, all the changes you made will be discarded.
- The **Reset all** button is similar to **Cancel**, but it lets you to continue working in the window. Note that this button does not reset shortcuts assigned through the **Customize** or **Bookmarks** menus.

All the changes in shortcuts are immediately reflected in the **Keyboard assignments** window.

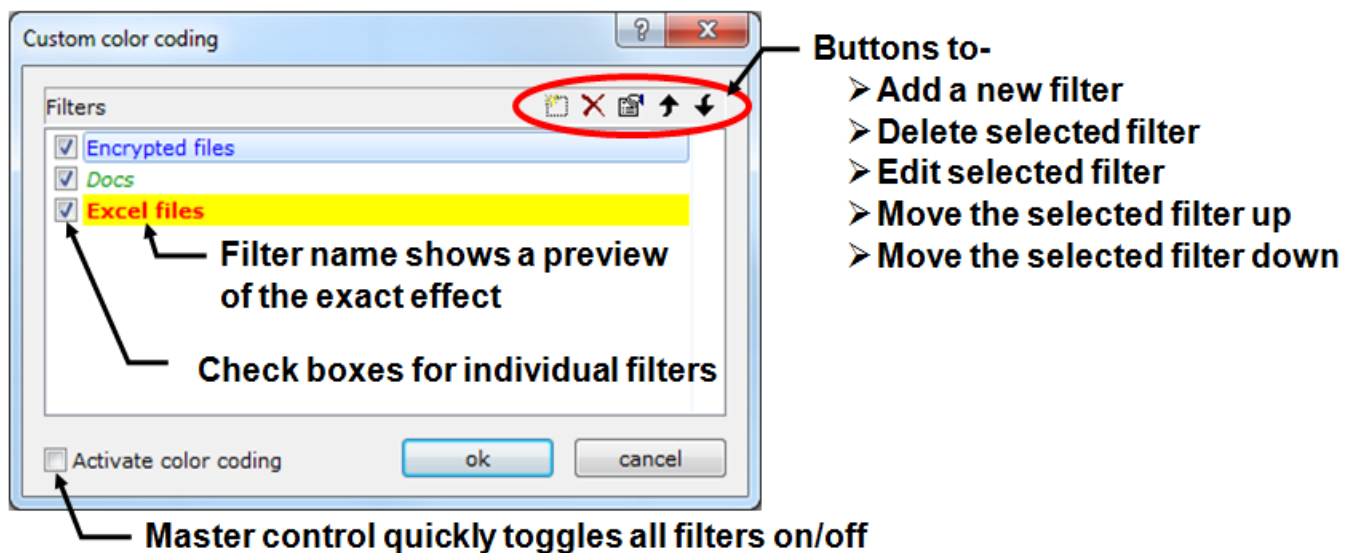
Tip: If you customize the shortcuts heavily, it is a good idea to take a **print** of the new keyboard assignment list, and keep it as a ready reference till you can memorize the changes.

Customizing the Display Color of File types

In the folder panes and scrap panes, the items are normally displayed with normal font and text attributes, according to your desktop preferences (e.g. black text on white background). Windows Explorer can show certain types of files with other colors, making them stand out and easy to recognize. x² extends this feature by allowing you to customize the text color and font size for file types of your interest (e.g. showing Excel files in **bold red letters and yellow background**).

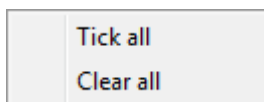
To use this feature, select the **Customize| Colour coding...** menu option.

A window pops up:



The buttons have the following equivalent shortcuts and mouse actions:

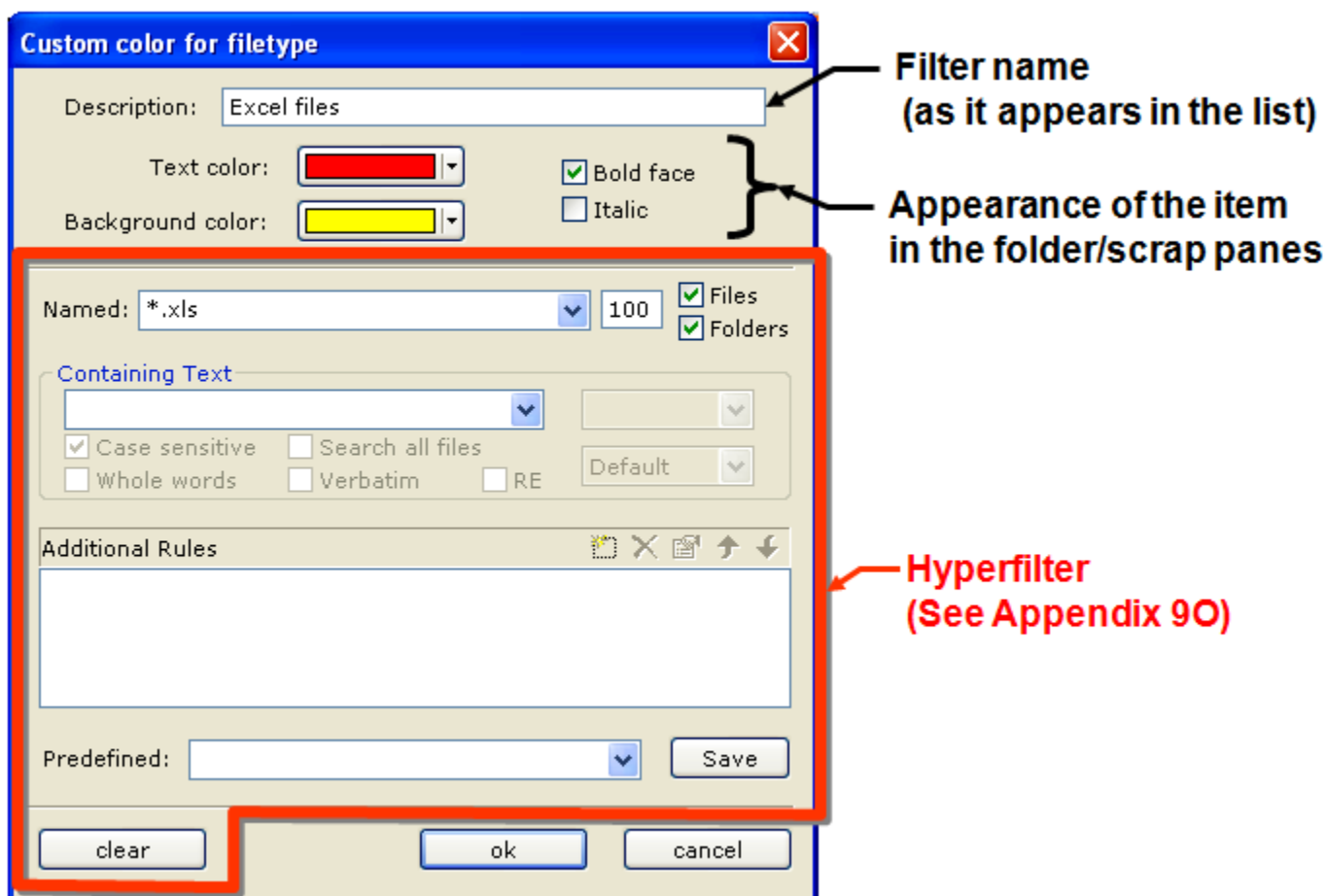
Button	Equivalent shortcut (or mouse action)
Add (New)	Enter (or d-click in empty space in the window)
Delete	Del
Edit	Enter (or d-click on an entry)
Move up	CTRL+UpArrow
Move down	CTRL+DownArrow



To mark (or clear off-) all the check boxes at once, right-click in the background area. A context menu offers two choices. Select the relevant option.

Adding a new filter (or editing an existing filter)

When you add a new filter (or edit an existing filter), the following window pops up:



The example shows Excel files in **bold red, with yellow background**. When this filter is applied, the files will be shown exactly like the entry in the custom color coding window.

Note the following:

1. You have to activate the filters for each pane separately.
2. When you apply filter on one tab, it will not affect the other existing tabs.
3. You cannot selectively apply the filters from the list: Either all the filters are applied at once, or all of them are turned off!
4. You can apply either Bold or Italic attribute to the text, but not both!

But these limitations are minor, because these filters are for special use: You will not need them for everyday use.

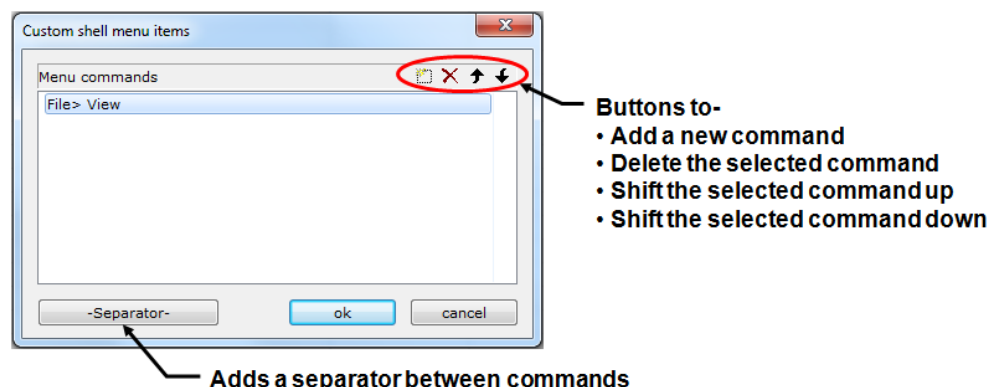
Customizing the context menu

When you select some items in Folder pane or Scrap panes and r-click, you get a context menu. x² allows you to add your own options to this menu.

To add new options, r-click on any item (not in the background area). In the


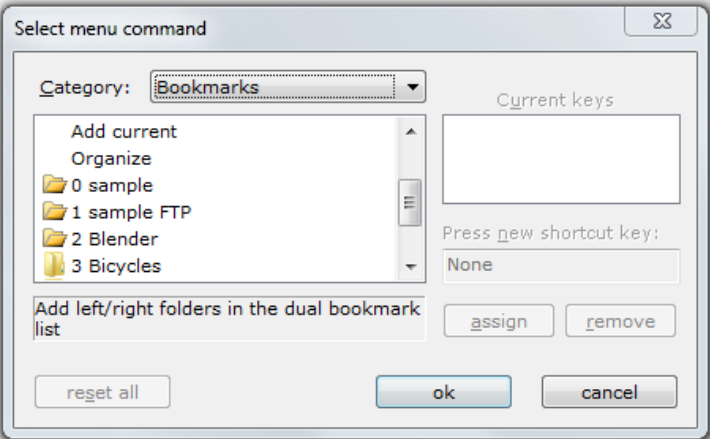

context menu that appears, click on the **xplorere2 | Organize...** option.



A window appears.



The window contains a dummy entry (“File>View”) as an example only (the function is already available through a Tool Bar button, and also with the keyboard shortcut **F3**). You can delete it if you want.

You can do the following:

<p>Add a new command</p>	<p>Click on the  button, or d-click in the background area.</p> <p>A window pops up:</p>  <p>This window shows you the entire menu system of x². Select any menu option and press OK.</p> <p>Tip: If you have added any user commands (to invoke any external application), they too would be available here.</p> <p>The right side of the window is disabled (you cannot create/edit a keyboard shortcut from here.)</p>
<p>Delete a command</p>	<p>Select the command and press DEL on your keyboard, or click on the  button.</p>

Move a command up or down	To change the order of the menu options, use the  or  button.
Add a separator	<p>You can add a separator line to create groups of commands. Click on the Separator button.</p> <p>The separator line can be moved up/down and deleted just like a menu option. (see the rows above)</p>

Customizing program options

x^2 allows you to customize its behavior using the program options menu. Select the **Tools | Options...** menu option. The **Program Options** window pops up. It has three tabs (see the figures below).

The options are explained in **Appendix 9K**. Once set, all options are remembered.

The **More Options...** button in the first tab will point to you the rarely required options settable through registry editing. However, rather than editing the registry directly, you can use **x2SettingsEditor** utility (which is located in the x^2 installation folder) to set the additional options.

Copying the customized settings to other PCs

If you have multiple PCs, you do not have to customize x^2 for each PC separately: You can customize x^2 only once (on any one of the PCs), and then copy the settings to all other PCs. The PCs need not be connected to each other for this purpose.

The settings are exported to another PC in the form of a .reg file. All you have to do is to transfer the file to the other PC, close x^2 and d-click on it using Windows Explorer. All the registry settings of the source PC are copied into the target PC. When you restart x^2 , the new settings will be applied to it.

This command copies only the x^2 settings from the registry. Registry settings for other applications are not touched. It does not alter any part of the registry.

To copy the customized settings to another PC, follow this process:

1. Customize x^2 to your liking. Take your time to complete all settings exactly as you want them (**display style**, **columns to display**, etc)
2. Use the **Actions | Export settings** menu option. A window will pop up, asking you to specify a name for the .reg file. Specify any desired file name, and press **OK**.

3. x^2 generates the .reg file in the current directory.
 - This is a small text file. You can open the file and edit it using a text editor (such as **Editor²**). If you don't want to copy all settings to the target PC, then you must delete the unwanted parts of the file.
4. Transfer this file to the target PC (using LAN, floppy, etc)
5. In the target PC, repeat step-2 to create a backup of the x^2 settings of your target PC. Let us name this file backup.reg.
 - If something goes wrong (or if you don't like the results), you can restore the original settings using this *backup.reg* file.
6. Close x^2 in the target PC (you must close any program before you change the registry values associated with it; otherwise it won't accept the changed registry values).
7. Start Windows Explorer. Locate the .reg file and d-click on it. All settings of x^2 in the target PC are changed to match the source PC's settings.
8. Now close Windows Explorer and restart x^2 .

In steps 6 to 8 above, you can use x^2 in place of Windows Explorer. The alternative steps are as follows:

6. Close all copies of x^2 (including scrap containers) except one. In this remaining copy of x^2 , unselect the **Tools| options| General| Save program state on exit** check box.
7. Locate the .reg file and d-click on it. All settings of x^2 in the target PC are changed to match the source PC's settings.
8. Now close x^2 and restart it.

Caution: *The .reg file carries all bookmarks of the source PC. That means the bookmarks from the source PC will overwrite the existing bookmarks on the target PC. Your original bookmarks in the target PCs will be lost!*

To restore the original bookmarks of the target PC, follow this process:

1. Edit the backup.reg file using **Editor²**. Delete everything except the bookmarks.
2. Since you still want the *backup.reg* file, you should save the changed file under a different name (say, as *bookmarks.reg*).
3. Close Editor² and switch to x^2 . Locate the *bookmarks.reg* file and d-click on it.
4. Close x^2 and restart it. The original bookmarks of the target PC will be restored.

8. Productivity tips

To see the entire range of x²'s powerful file-management functions, look at the Bookmarks panel on the left (under chapters 5 and 6).

But a powerful file-management tool by itself cannot make you productive. This chapter gives you additional tips on how to become more productive at work and at home.

What is “productivity” in the context of file-management?

You use a PC for various purposes at work and at home:

Profession/Hobby	Typical information handled
Student	<ul style="list-style-type: none">➤ Articles and essays (ps, pdf and doc files)➤ Tutorials (pdf and doc files)➤ Data (Excel or Access files)➤ Presentations (ppt, pps and pdf files)➤ Logos, icons, etc.
Office work	<ul style="list-style-type: none">➤ Procedures (doc and pdf files)➤ Articles and tutorials (doc and pdf files)➤ Data (spreadsheets)➤ Minutes of meetings (doc files)➤ Presentations (ppt, pps and pdf files)➤ Logos, icons, etc.
Home & garden	<ul style="list-style-type: none">➤ Recipes➤ DIY articles on home and gardening
Photography	<ul style="list-style-type: none">➤ Articles, e-books and tutorials➤ Photos (original, corrected)➤ Video files (original, edited)

Profession/Hobby	Typical information handled
Computer art	<ul style="list-style-type: none"> ➤ The images you create ➤ Material you use (logos, icons, fonts, etc.) ➤ Articles, e-books and tutorials
Music	<ul style="list-style-type: none"> ➤ Articles, e-books and tutorials ➤ Musical score sheets ➤ Digital audio (mp3, wma files) ➤ MIDI files
Sports, health, fitness	<ul style="list-style-type: none"> ➤ Articles, e-books and tutorials ➤ Video (MPEG, avi, etc) ➤ Data (e.g. world records, BMI index)

Note: Only a few sample hobbies are listed here, to demonstrate how PCs can be used to support them. Likewise, PCs can support your other hobbies also.

Normally, you play multiple roles, which means you have to deal with multiple types of information. For example, you may be a student and may be interested in cooking and photography. Or, you may be a housewife with photography as a hobby. In fact, you may have all of these interests (e.g. a professional who is a part-time student, and has multiple hobbies).

Now let us consider your productivity in these areas. Your productivity can be raised if you can handle all this information efficiently and maximize its benefit to your activities in each area of interest.

How?

Well, look at the previous table. Pick any row (such as sports). Notice that there is a definite relationship between the files you have on this subject and your knowledge on the subject:

Observe that-	What it implies-
None of the file in your collection covers the subject exhaustively: each file contributes some unique information on the subject. Therefore, you need all those files.	You must organize files on each subject in a well-coordinated set, to form your body of knowledge (“BOK”).
The original information is too fragmented: You have several files on each subject, but each of these files contains only a limited amount of information on the subject.	You must have a tracking system that is able to retrieve instantly what you want, given a subject or a topic.

Observe that-	What it implies-
Your knowledge is actually a compilation of snippets of information culled from these files. But as time passes, you are not sure where you read what about a given issue.	You must track which snippet of information comes from which file; so that you can refer to the source of your information any time later, or quote it accurately.
The files eventually get scattered over your PCs and CDs, and it becomes difficult to trace them just when you need them.	Your tracking system must be able to locate the physical location of any desired file; across your PCs and CDs.
Although you know a lot about the subject, your grasp on it may not be complete: If you are asked to talk about it, you may fumble for the right keywords. Your narrative may not be in right sequence or may not be even coherent. If you are asked a question about a finer aspect, you may discover that you don't really have a clear answer.	If you need to be an expert on any subject, you have to prepare yourself thoroughly by building your own seamless article, presentation and/or FAQ on the subject.
Some of the knowledge you possess is actually inferred from this information. It is in your head: it does not explicitly exist in your PC (or anywhere else). You may not be able to articulate this inferred knowledge, because you have never made an effort to distill what you know. Worse, it becomes hazier as time passes; and the insights you have gained may be lost or get distorted.	<p>You must precisely define what you have learned or concluded on this subject, so that your learning is not lost (or distorted) over time.</p> <p>As you come across new information, you must update this learning; and keep it ready to be used when needed.</p>

So these are your clues about how to become productive in whatever you do!

What about the printed books and periodicals you might have on these subjects?

Unless you have a few definitive books on a given subject, it is actually much more difficult to search through your printed collection for a given keyword (when compared with the convenience, thoroughness and speed of the **OmniFinder** command).

Fortunately, you can leverage even your printed books and periodicals by creating a catalog of your printed collection first. Use a PIM (personal information manager), a spreadsheet (e.g. Microsoft Excel) or a database (e.g. Microsoft Access) to record your books' titles, subjects covered, and keywords. Once you do that, many of the tricks described in this chapter become applicable even to that printed items' collection!

How to achieve higher productivity

Are you extracting the maximum out of your BOK? Does it support your work and hobbies adequately?

Often you will have no idea about your current productivity levels unless you see a better example.

This is easier to understand using our car example: Your daily routine in the city does not put great demands on you; and so you might be pretty smug about your car and your driving prowess. You would never think of changing anything. But now think of a situation where a much higher level of performance is expected out of you and your vehicle. For example, taking your vehicle on a safari. All of a sudden, your preparedness looks woefully inadequate! And yet, you were reasonably happy with it till yesterday!

So what would you do in this hypothetical case? To meet these new stretched requirements, you would “upgrade” your car and your skills:

- Fit some vital accessories to your car (fog lamps, winch, GPS receiver, etc)
- Learn special driving skills: crossing surging rivers, driving over boulders and in sand (or in deep mud), etc.
- Learn how to handle emergencies: first aid, engine repairs, etc.

In much the same way, you might be satisfied with your existing collection of files (and how you are handling them now), but that does not necessarily mean that your productivity is at its peak. It is possible to reach new heights of productivity by converting this collection into a well-organized body of knowledge, and x^2 is an ideal tool for that.

Just like our car example, you will have to add a few accessories to x^2 , and also learn some new file-management skills. This chapter gives you tips on both.

The text is divided in two different sections:

- Using software that complement x^2 (or extend its functionalities)
- Extracting the most out of x^2 (by adopting smarter work-habits)

Applications that extend x^2 's functionalities

The following applications either complement or extend the functions of x^2 . Some of these applications are for handling specific needs (e.g. handling the EXIF data contained in the digital photos, or MP3 tags information). Depending upon your interests, some of them may not be of use to you.

Note that the following list is based on the experiences of x^2 users. It does not imply warranties of any kind; either about their own performance or

even their integration/performance with x². They are independent software in their own right; and most are listed in freeware host sites such as www.nonags.com. In case of any problems, please contact the author of the concerned application.

Since these programs are available from many host sites, we have not given URLs of any download sites. All you have to do is to use an Internet search engine, like **Google**!

Note also that the applications listed here are not the only ones in their class: there is a stiff competition amongst beautifully crafted applications, and they all keep evolving. For you, it means greater choice: any particular software may not remain your favorite for long. So the purpose of this section is to make you aware of a need, and point to one of the best applications that serves this need.

You are most welcome to experiment with other software and even share your experience with other users at the user forum!

Some of these applications are windows shell extensions, and therefore will also extend the functions of the Windows Explorer.

Notepad++

The Editor² is adequate for general viewing/editing of text files. But if you want extended features, such as programming syntax, then use Notepad++. (specify it as your external text editor in **Program Options**.) Apart from the many built-in plugins, it also has more plugins that can be separately downloaded from its website.

Unlocker (for Windows 2000/XP); WhoLockMe

Sometimes, some items cannot be renamed, moved or deleted (either with x² or with Explorer), because they are in use by some other application. The problem is, you don't know *which* application is locking the item: your task manager (or Windows task Bar) does not show any application running.

Such rogue applications can be easily detected and closed with Unlocker and WhoLockMe: In the folder pane of x², r-click on the locked item, and select Unlocker/WhoLockMe option from the context menu. A window pops up and shows the rogue application that is locking this item. You are offered an option to unlock this item by closing the application. Then you can rename, delete or move the item.

Process Explorer

An advanced version of your Task Manager. It can display all processes running on your PC in a tree hierarchy, which is more convenient for a quick assessment. (It also has the conventional process list like the Task Manager).

Process Explorer has an additional panel to show all dlls and files used by the highlighted process: If a file is locked and can't be deleted, you can search which process is locking it.

While the simple interface of Unlocker/WhoLockMe is just right for an average user, Process Explorer is for the power user who wants to get more out of a process explorer.

Totalcopy

Adds the following functions to Windows' traditional file transfer:

- Speed of transfer can be adjusted to avoid congestion
- You can pause and resume the file transfers (for example, to let someone create disk space on his PC by deleting/moving some files)
- Auto-pause on any error: This feature can be used to pause if you run out of disk space, the network goes down, or some other error occurs
- Resuming on power failure: If the computer is turned off during the copy process (e.g. power loss or system crash), you can resume when you restart

PowerMenu

Adds the following features to all windows (right-click on the top Bar to select from a context menu):

- Priority (select from 7 different options)
- Minimize to tray (the window minimizes to system tray. The application's icon will appear there. To restore the window, r-click on that icon and select restore.)
- Transparency: you can set the transparency of the window. (Available only in Windows XP/2000.)

Tray It

This utility is similar to PowerMenu, but it specializes in System Tray-related options:

- Put any window in the System Tray temporarily when minimized (when you minimize it the next time, it will not go to the System Tray)
- Configure any application's window so that whenever you minimize its window, it always goes to the System Tray (not to the task Bar)
- If you want to minimize multiple windows of an application to the tray, you can configure Tray It to group their tray icons, to avoid clutter in the System Tray.

Only the main features are mentioned here.

Ninotech copy path

This application actually extends **ALT+C** and **SHIFT+ALT+C** commands of

x². R-click on any item to copy its name and path in various formats, as listed below:

Option	What it copies to clipboard
Short Name	File/folder name converted to 8.3 characters
Long Name	File/folder name
Short Folder	Parent folder name converted to 8.3 characters
Long Folder	Parent folder name
Short Path	Full path name converted to 8.3 characters
Long Path	Full path name
Short UNC Path	Full UNC path name converted to 8.3 characters (Only enabled in network environment)
Long UNC Path	Full UNC path name (Only enabled in network environment)
Internet Path	Full UNC path name converted to Internet path (Only enabled in network environment)
Setup...	Create your own copy methods for copying the path names.

Strokelt

Define a *mouse gesture* (= a quick movement of your mouse in a certain shape) and define its equivalent sequence of keystrokes. After this, whenever you execute that mouse gesture, its equivalent keystrokes are input. Thus long sequences of keystrokes can be replaced by simple mouse gestures.

ECCO

This PIM (Personal Information Manager) is for the real power user! Although it has little to do with file management, if you are a control freak, this application (along with x²) will meet nearly all your needs!

It has the following fully integrated features:

- Diary for appointments
- Phone book
- A scheduler that can make a phone call to any desired contact

person at a predefined time automatically (it automatically takes the phone number from the phone book!)

- Hierarchical notes
- To Do lists (completed tasks are automatically moved to another list with date stamp)
- Calendar (day/week/month)
- Scheduler with alarm (with “repeat” function)
- Daily journal

MP3Ext

This column handler is for the MP3 aficionados.

When you install this program, x² can show all details of MP3 files in regular columns (use the **ALT+K** command to add these columns to your folder pane).

You can use this information in multiple innovative ways:

- **Sort** on any field (artist, genre, album, etc)
- Search for a genre, artist, etc., and play only those songs
- Create and save playlists (in the form of CIDA files), etc.

In fact, you can treat x² like a jukebox with powerful search facility!

You can also **search** for any string in these columns. For example, you can search for any genre, artist name, album name, title, track length, etc. (Provided that these details are actually available in your MP3 collection!)

- Use this facility responsibly: Respect the copyrights of the original owner. MP3 is the most rampant form of music piracy, and harms the music industry.

PixVue

If you are an amateur digital photographer, you will love this one!

Digital cameras embed some important information with each photo. This is called EXIF data (see **Appendix 9M** for details).

When you install this program, x² can show all EXIF data in its columns. (Only on Windows 2000 and XP: additional columns are not supported on earlier Windows versions).

By default, the EXIF columns are turned off in PixVue. To display the EXIF columns, you have to open the Control Panel, and click on the PixVue's icon. The Configure PixVue dialog box pops up. Open the Shell tab and put a tick in EXIF Columns check box.

Searching and **sorting** by EXIF data opens up many possibilities, like-

- If you know even the approximate date when the photo was taken, it would be very simple to track down the photo. Example: your spouse's birthday party photos, the trip you took in your last vacation, your daughter's annual school function, etc. Search for the date on which the photo was taken (note that this is not the same as the Created Date of the JPEG file; and there lies the beauty of EXIF information!)
- Some cameras can capture bracketed photos (i.e., multiple photos of the same scene with different EV (Exposure Value) settings). You have two different options with such a set: select the best photo from the set, or use a photo editor to merge selective parts of these photos to increase the contrast. To find the bracketed photos, sort on Photo taken date (not Created date). Photos that were taken together will be shown next to each other. Browse through the photos. Select the sets and transfer them to a scarp pane. Later you can evaluate these sets and decide what to do.
- Search for all your photos that were taken in portrait mode, and then flip them by 90 degrees to have the same orientation in your slide show or printed albums. Also, you can resize these photos for uniform printing. (A few cameras can do this automatically.)
- If you have multiple digital cameras, search for photos taken on a particular camera (for example, you found that the lens of a camera was fogged when you took a fishing trip, and you want to trace all photos taken with that camera after that date.)
- Search for photos where the flash was not fired. These photos are likely to have exposure problems.
- Search for photos that were taken at night or late evening; especially with a subject distance of more than 3 meters. These are likely to have exposure problems too.
- Search for photos that were taken with wide-angle lens setting. These would most probably need correction for perspective.
- Photos taken at night with flash and a close subject distance are likely to have severe red-eye problem, which needs touch up.
- Photos taken under colored light will have a noticeable tinge. They need to be corrected.

Tip: GIMP (available from www.gimp.org) is an excellent open source freeware tool for correcting photos.

ReNamer

This is an extremely powerful mass renamer that supports Unicode (i.e., file names that use non-English characters). It offers you a huge variety of ready-made naming options (such as Capitalize only the first word,

capitalize all words, etc). You can find and replace a character-string in the file name. Apart from that, it allows you to set your own free-form rules for naming the files. It can handle **RegEx**.

You can also extract information from MP3 tags etc and use this information in naming of files. You can also detect files that have too long names (such names get truncated when you cut a CD, so it is a good idea to rename these files beforehand).

This is the only renamer that allows to program your own complex renaming rule using Pascal script.

MRename

This utility provides a lot of renaming options in the context menu of x^2 , so you can rename all selected files right inside x^2 . You can also define your own renaming pattern and add it to the context menu. You can create a sequence of up to three different renaming operations and run them as a single command.

MRename allows you to use **RegEx** in your renaming.

It also has a regular GUI of its own.

Visual CD

Once your items are moved to CDs or DVDs, searching for a file/subject becomes tedious: You have to put all disks in your drive one by one and search them individually. You may accidentally damage your disks during such frequent handling, and lose your precious data permanently!

Visual CD allows you to browse and search disks even when they are not in your removable disk drive. It keeps a small “offline” database of your disks on your hard disk for that purpose.

To generate the database of disks, you have to let Visual CD scan all your disks once: just put all your disks one by one in your drive and run this application. Visual CD will create a catalog of all items on each disk. Enter a few additional details (such as the marking on the disk, where it is stored, etc); and your disk database is ready.

You can enter detailed comments against each CD (or even against any folder or file in the disk). Like x^2 's own comments field (the **ALT+Z** command), this application also allows you to search in this field. However, keep in mind that it does not make use of the comments inserted by x^2 !

Visual CD shows you a master list of all disks. You can select any disk and browse its contents. You can also define user-defined logical groups (such as articles, utilities, photos, etc.) and then classify the contents of a disk in any of these groups. (Visual CD shows you a virtual tree called “Favorites”, which has a node for each of your logical groups.) Later, you can browse the database either CD-wise or logical group-wise.

Visual CD has an explorer-like **GUI**, with a folder tree pane (that shows the files and folders as they are), a favorites tree pane (that shows the logical

groups of the items), a folder pane, and a search pane.

When you browse (or search in-) this database, you feel that all the disks are in the drive. When you want to open/run a file, insert the related disk in the drive and d-click in the Visual CD. Visual CD opens (or runs) the file using its default application.

Thus the amount of handling of disks is cut down drastically.

You can browse and search files contained inside ZIP and RAR files. This is a powerful feature in an offline database, because you don't have to guess the contents of a zip file from its name and size: you can drill right down and see what's inside!

Bear in mind that offline databases cannot search/browse the following:

- Contents of files.
- Many of the “standard” columns
- Additional columns (e.g. EXIF, MP3)
- Comments inserted with x²
- Because of this, the search is not as powerful as x²'s search. However, the advantages of an offline CD/DVD database by far outweigh these minor inconveniences.

Resplendent Registrar lite

This is a wonderful registry editor. You can search the registry for keys and values; and edit them. You can enter registry values in decimal (rather than Hexadecimal) format.

See **Appendix 9I** to see how x²'s behavior can be changed by editing certain registry keys.

Startup Control Panel

Using the **Go To | Special folders | Startup** menu option, you can edit the applications that get launched automatically when you start your PC. However, this is not the only way in which applications are configured to launch at startup.

The Startup control panel utility controls even those applications which use the other mechanisms to launch themselves at startup.

SpaceSniffer/TreeSize/SpaceMonger/WinDirStat/JDiskReport

These applications show you the disk space occupied by different folders in a graphical fashion: the folders are represented by rectangles whose area is proportional to the folder's size. The hierarchy of the directory is shown by nesting these rectangles. (The traditional tree view and list view are also provided.) You can directly delete the unwanted folders to free disk space.

IFilters

Normally, when you view PDF, CHM, CAB, ZIP, RAR, MHTML and HLP files with **QuickViewer** and **Editor²**, you see a lot of control (“junk”) characters, which clutter the display. As a result, you cannot read the contents of the file easily. The Ifilters suppress the control characters from the displayed files, and let you read the text of these files. (Although the text is unformatted, the readability improves a lot.)

Suppression of control characters also allows you to search these files for a given text string.

The IFilters work on Windows 2000/XP/2003 only.

There are multiple IFilters, each for a different type of file. You can download the required types of IFilters from **msdn** and **Planetpdf**, and install them on your PC.

As soon as these filters are installed, x² will start using them without needing any changes in its settings.

Caution: IFilters are in a constant state of development. Some of them cause x² to crash. In such case, try an older version (or check the website for a newer version), which may work properly.

Junction Link Magic

This **software** lets you create Junction Points (aka Reparse Points). (Windows 2000/XP/2003 only).

Typical applications of junction points are:

- To remove clutter.
- To move programs to another place (e.g. move your "Program Files" directory contents to another drive, and linking the original "Program Files" directory to this new location.)
- To map more than 26 drives (Windows allows you to map only 26 drives, because only 26 drive letters (A-Z) are available.)

MP3BookHelper

While x² can handle the MP3 files based on their tags, it cannot edit those tags. Mp3BookHelper is a feature-rich tag editor. It can convert the file's name and path into several MP3 tags, or construct the file name from these tags. It can edit the tags of several files at a time.

It can act on files collected from different folders (exactly like a **scrap pane**). So you can use x²'s excellent search commands and then drag-n-drop the resultant collection into this utility, to edit their tags.

IconTweaker

This utility allows you to **customize the icons** of files and folders.

AutoIT/AutoHotKey

These are scripting utilities. You can simulate keystrokes, mouse movements and clicks, issue commands (using command IDs), work with items put on the clipboard, etc.

Ready-made scripts are **available at x² forums** to serve some commonly used functions. You can also request other experienced members to create special-purpose scripts.

Using scripts, many of the x² functions can be linked to each other and automated in the form of scripts, and linked to buttons on x²'s Tool Bars. In other words, a single Tool Bar button can do multiple pre-programmed tasks for you.

You can use command IDs provided in **Appendix 9D** in your scripts.

CDRecovery Toolbox

If a CD or DVD is badly scratched, some of its data may not be readable. Windows Explorer or x² will not copy/move such items. The logic is that such files would be rejected by their applications. However, despite partial loss, some file formats can still be used (e.g. movies, mp3 tracks).

This application can copy the good parts of selected files.

Note that the “recovered” files may not work if the data loss is severe.

GreenFish Icon Editor Pro

You can use this application to extract icons from any dll file, and then edit it. You can create a fresh icon from scratch. Using these icons, you can customize the Tool Bar buttons.

How to extract the most from x²

Would you like to drive a Ferrari on a congested city road? Or cut a huge tree with a Swiss Army Knife?

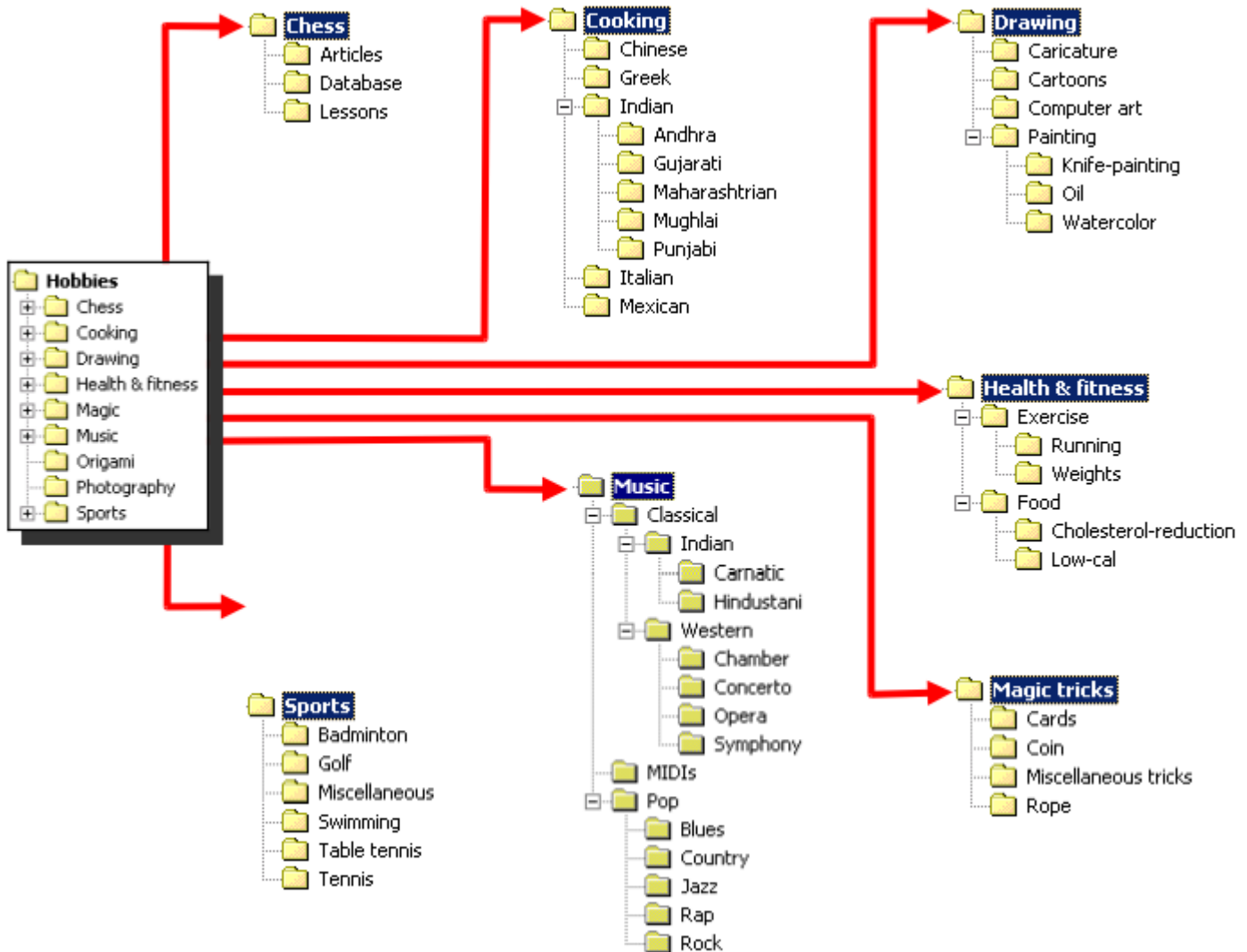
Even the best tool in the world will leave you unsatisfied if you don't use it properly; and x² is no exception. To get the best out of it, you will have to change how you use it!

First of all, organize your folder structure!

x² is an extremely powerful file manager. But it can't help you much if your files are stored haphazardly. On the other hand, You can easily retrieve your files if they are grouped according to their themes and subjects. This calls for a well-organized folder structure, as explained below:

- a. First of all, make a rough list of all subjects in which you have professional or personal interest. Eliminate any overlapping subjects.

- b. Create a hierarchical tree for each of these subjects: Divide the subject into topics. Divide these topics into subtopics. In this way, go on splitting each subject till each smallest unit is logically distinctly recognizable.
- c. Create a folder structure to reflect this structure (see the figure below).



Tips:

- The success of your file management depends on this single critical task. If you don't build the structure correctly, you will have to reorganize it soon. Moving all those files across a multitude of folders is extremely tedious. So, devote ample time to build this structure: Do not try to finish it in a hurry.
- In fact, if you sleep over it for a few days, you will remember a lot of subjects that you had missed earlier!
- There are no "rules" for making the structure. Also, there is no "uniquely right" structure: Build the tree to suit your unique needs.

In our example, the topic Western Music is arranged in terms of forms.

Instead, you could have arranged this topic in terms of Musical Eras (then the subfolders would be- Avant Garde, Baroque, Neoclassical, Modern, Renaissance, Romantic, Classical, Neoromantic, Middle Ages, etc). And that structure also would be equally “correct”! Further, if you are interested in only certain varieties of music, you may omit the folders for the other varieties.

When making a directory for a new (or unfamiliar) subject, it is a good idea to add a “miscellaneous” subfolder. This folder serves as a “catch all” for all sundry items. When you cannot decide where to put a particular item, put it in this subfolder. For example, in the magic tricks folder, we have subfolders for coin-, rope- and card tricks. We have added a “miscellaneous” subfolder to hold articles on all other types of tricks.

Move your existing files in this structure

It is advisable to transfer your entire data to the new structure.

Despite your best efforts, you will never be able to build a structure that allows you to place each of your files in a unique folder: You will always have some files that belong to two or more folders. (For example, suppose you have an e-book titled *Secrets of Healthy Living* that contains health food recipes and also tips on exercise. Clearly, this file belongs to two folders: *Food recipes* and *Exercise*.) In such cases, put the file in the best-fitting folder and place its hard links in the other folders.

But if you are going to move this collection to separate CDs, then the hard links will lose their reference. In that case, it would be better to keep a separate copy of the common file in each folder.

Tip: Try to reuse the same folder structure in all your PCs (home, work, and laptop), so **synchronization** is easier: You can use x²'s **copy structure** command.

Create a folder to hold temporary files

Often, you make temporary files. After serving a specific task, these are meant to be deleted; and they don't have a lasting value.

You must store these files separately from your permanent files, to avoid a mix up. It is a good idea to create a separate folder to hold such temporary files.

Name this folder appropriately (call it temp, trial, etc.; or at least include these terms in its name) so that you don't end up moving it into your CDs!

A good place to put this folder is in My documents folder or right on your Desktop, where you can instantly access it.

Define your backup policy

To avoid running out of disk space, you may be regularly cutting CDs of your existing collection. Try to create separate CDs for each major subject. That way, you can label the CD after its subject(s). Proper labeling of CDs is critical for instant retrieval.

Tip: Delay cutting backup CDs till this new structure matures.

Despite your best effort, your first attempt at organizing will not be a total success: initially, you will want to reorganize the folder structure often.

If you create backup CDs during this unstable period, those CDs will not have the same structure, and it may be difficult to retrieve data from these CDs. Therefore, it is best to wait till your structure matures and then take CD backups.

To avoid wasting CDs, you can take backups on CD-RWs till the folder structure matures. Cut CD-Rs only when the folder structure is reasonably stable.

Periodically review and modify the tree structure.

1. As you discover new subjects, fit them in the existing hierarchy.
2. Sometimes, a given file does not exactly fit in your structure, although there may be plenty of folders that almost (but not quite) qualify. Typically, you put that file in the folder for the nearest subject. The problem is, next time you will put a similar file in a different folder! This has a long-term disadvantage: you can't find these files easily, as they are scattered around! So, from time to time, you must search the existing folders for these not-quite-fitting files, and move them to new folders.
3. Sometimes a collection becomes too large to manage easily. It is better to split such large collection into subtopics.
4. Periodically, check all your "Miscellaneous" folders. If they have accumulated a large number of items on a certain topic, create a new folder for that topic.

Tip: In fact, you can search your standard directory for folders named "Miscellaneous" and save the list in a CIDA file. This list will help you scan all Miscellaneous folders at a stroke.

Adopt a meaningful naming scheme for your files and folders

Decide beforehand how the names of your files and folders will be composed.

The path should convey the subject and the theme.

The file name should reflect the contents. Be as specific as possible.

Each name can be made from 2-3 building blocks

Some examples:

Subject	Building blocks
Minutes of a meeting	MOM+Subject + meeting date
Software	Name+Version (or date stamp)

Subject	Building blocks
General	Subject + Author

Decide how to separate these building blocks. For example, you can use dots, commas, spaces or hyphens; or simply capitalize the first word of each block (e.g. GIMP v2.0.3.zip, xplorer2UserManual.doc)

Always follow the scheme consistently

Never use cryptic names: after a few days, you will forget why you named the file like that. Secondly, such names will be meaningless for other persons when you share the files.

If some files (or folders) have identical names, attach suffixes to distinguish them.

Attach **comments** regularly

On a regular basis, devote some time to attach comments to files and folders.

The comments are extremely useful for **searching** and **data-analysis** with the help of spreadsheets like MS Excel. If you don't use comments, you will be forced to use lengthy file names to ensure that the same information stays with the file.

The comments field allows you to enter multiple keywords; each serving a different purpose:

- Themes covered; especially for files that cover multiple themes or subjects.
- Level of information: beginners, intermediate or advanced.
- Rating: Develop your own rating scale (e.g. 1=ordinary, 10=best)
- Identify secondary classification of the file; such as author, genre (of music), etc. (The primary classification of the file is clear from its path. The secondary classifications can be identified in the comments; so that you don't have to copy the same file in different folders.)

Some people add keywords like “(best)” to the names of their best files. But this is not an elegant solution: You can't add multiple keywords to a file name!

Spend time to identify your best files and mark them out

Sometimes, you may have a huge number of files on the same subject, spread all over your hard disks and even CDs. Out of that huge collection, only a few files are actually useful: the rest is just mediocre stuff that is hoarded in the hope that some day it will be useful. (Yes, the “80-20 rule” applies everywhere!)

Now suppose you have a job interview or a meeting with a customer; and you have to urgently brush up your knowledge on that topic. How will you find the right file to read? At that eleventh hour, can you really afford to search through your hard disks and CDs? Without a clue, you will have to open each and every file to locate that one file you need!

Obviously the answer is to mark your best files, so that you can easily locate them when you need them. And the **comments** field is the best place to enter such keywords.

Create a special “For reference only” directory

Sometimes, having an organized collection is not enough: you may need to instantly access your best articles, to brush up your knowledge on various subjects.

In such cases, consider having a copy of all your best articles in a special “For reference only” directory on your PCs.

To build this directory, go through your collection (on CDs and PCs), and copy the best items into this structure. If you have used a standard directory structure everywhere, you will find it easy to locate such material, because all articles for a given subject are kept in a standard, well-known directory path on all PCs and CDs. For example, if you want to see all articles on the subject of “swimming”, you will look in *Sports>Swimming* path.

As time passes, you will come across better (and the latest) articles on any subject. Place a copy of these articles here regularly, and remove the outdated material.

Create this directory on all your PCs, and keep all PCs synchronized, so that later you can access any article at any time, on any PC, without fearing that a copy may be outdated.

Create your own summaries

Creating summary has two distinct benefits:

1. If you need quick brushing up on any subject (say, in less than a minute), your “best-of-the-best” collection may be too large for the purpose. On the other hand, summaries are excellent for this purpose.
2. Making a summary on a subject forces you to compose your thoughts in clear terms on that subject. During this exercise, you will find out that many aspects of the subject were either unclear or even totally unknown to you!

How to make a summary on a given subject

If you have used a standard directory structure in all your PCs and CDs, creating summaries is really easy: Just copy the standard directory structure for keeping these summary files. This makes it very easy to correlate the summary file with the original material.

For making summaries, select a file-type that is best suited to the subject and your summary style (e.g. Excel for tables and formulae; WinWord for text, PowerPoint for animated diagrams and charts, etc).

For a given subject, you may need one or more types of files. In these files, summarize the subject knowledge in your own words.

Add charts, diagrams and tables as necessary.

Add links to your sources of information (e.g. path of files on PCs and CDs, URLs of websites, etc) so that you don't have to hunt for the original article if you need more details. Keep in mind that putting references to original article lends more authenticity to your article (or presentation). At the same time, you are acknowledging the efforts of the original author; which is a fair practice.

Periodically **find empty folders** in the structure. An empty folder means you have not made a summary for that subject yet. So plan ahead which subject you want to take up next!

Keep your summary updated on daily basis: Whenever you get new material in your collection, make it a point to scan it quickly and see if there is something worthwhile to add to your summary. Update the summary accordingly. If you put it off "for later", you might never do it!

To sum up, you should arrange your articles in 3 tiers:

1. The original collection (in your PCs and CDs)
2. The best-of-the-lot articles (on all your PCs, synchronized)
3. The summary articles (on all your PCs, synchronized)

You should use an identical ("standard") directory structure for all 3 tiers; so that you can correlate these three tiers easily.

Use your standard directory structure to enhance your knowledge-base

Your "standard directory" represents all subjects of your personal and professional interest. Apart from housing files, the directory has an important use: you can use its structure in enhancing your knowledge base.

Here is the method:

1. Make a list of all your subjects using the standard directory structure
2. Think of keywords for each subject
3. Find new articles on Internet and LAN using these keywords
4. Reorganize your collection using these keywords.

Let us see each step in more details, and also how x² helps us here:

1. Make a list of all subfolders of the standard directory.

Go to the top of your standard directory. Press **CTRL+F**. Ensure that Search subfolders check box is ticked. Put a tick in the folders check box; and deselect the files check box. Enter a single asterisk (*) in the Named... field. Press OK.

All the subfolders in your standard directory will be listed in a scrap pane.

Switch over to the scrap pane and **switch the display** to List pane style. (That hides all the column details, leaving only the folder names.) Now select all folders by pressing **CTRL+A**. Press **CTRL+P**. (This puts the folder list in clipboard.) Now open a spreadsheet and paste the list. Save this file for future reference. Maintain the list (if you change the structure of the standard directory, you will have to edit this list).

From now on, we will think of this list as the master list of your subjects.

2. Think of keywords for each subject:

At this stage, we only have a plain list of subjects. We have to add keywords to each subject.

Open the spreadsheet, look at the first subject in the list and start adding keywords. If necessary, open the concerned folder in x^2 and look at file names. Also, open a few files and browse through them. That should give you an idea about what keywords to use.

Add keywords against all subjects in a similar way.

3. Find new articles on Internet

You can use these keywords to search Internet periodically and collect more articles. x^2 does not offer a direct integration with a browser: You will have to enter the keywords manually in an Internet search engine like **www.google.com**.

4. Compose search commands for each subject and save them

Basically, you compose **search commands** for each subject, and save them. Later, you can use these saved searches to find files on any subject in any search domain.

Each search command looks for a subject's keywords in the file name or text. (The logic is: if a file or folder covers a given subject, its name or contents will definitely contain one or more keywords of that subject.)

You have to compose two different searches for each subject: one for searching in the names; and the second for searching in the contents. Separate searches are required because contents of the files are not column data.

Note: Do not confuse the **Contents** column with contents of the

files!

Composing the search in file-names

Press **CTRL+F** and clear all previous entries (if any) by pressing the Clear button at the bottom.

Enter all the keywords for this subject in the **Named** field. Put an asterisk (*) on each side of each keyword; and then separate these padded keywords with commas. (For example football, soccer)

To save the search, enter the subject name in the **Predefined** field and add a suffix "1". Click on the **Save** button.

Composing the search in contents

Press **CTRL+F** and clear all previous entries (if any) by pressing the Clear button at the bottom.

Enter all the keywords for this subject in the Containing text... fields. Separate the keywords with commas. (Asterisks are not required here.) Check that the three check boxes in this section are selected or unselected as required.

To save the search, enter the subject name in the Predefined field and add a suffix "2". Click on the Save button.

With that, you have created and saved a pair of search commands that will search for all keywords of a subject in a given search domain. (The suffixes 1 and 2 were deliberately added, so that you can easily identify the pair.)

Think of this pair of search commands as a "subject search" command.

Repeat the steps to compose and save search commands for other subjects also.

Running a subject search command (pair)

To search for a subject, run its pair of subject search commands. This pair will report any file that has any of the keywords in its name or in its text.

Run both search commands separately. The results will be collected in two different scrap panes. Now combine the results in a single scrap pane. (Select all results from one pane by pressing **CTRL+A** and drag-n-drop the results to the other scrap pane). If there are any duplicate records in the results, they will be automatically removed.

How subject-searches can be used:

Use	Details
Search for new articles in LAN	Periodically search LAN or company servers for your subjects. Select some files out of this search result, and add to your collection.

Use	Details
Reorganize your collection	<p>Periodically, search your own collection, and locate files for various subjects. Move them to their logical folders.</p> <p>This is especially useful if you store your newly acquired files in a general folder before moving them out to their final destinations; or if your mass downloader has a predefined folder to dump all downloaded files.</p> <p>Occasionally, you will also discover that you had placed some files in wrong folders. Your periodic searches will help you in restoring these files to their correct folders.</p> <p>Some files cover multiple subjects. Consider placing copies of such files in all the concerned subject folders; especially if you are planning to cut separate CDs.</p>

Conclusion

This brings us to the end of this user manual. We hope it has provided enough insight on the subject of file-management and how it can boost your personal productivity.


The rest of the manual contains appendices. If some things are difficult to memorize (especially the commands and their keyboard shortcuts), simply take a printout and pin it up as a memory aid.

If you have any additional ideas on any of the topics covered here, please let us know through the user forums. We will incorporate these ideas in the next version of the User Manual.

Here's wishing you a fruitful use of x²!

Appendices




9A. Feature comparison table

This table compares Windows Explorer (windows 7 version), and the lite and professional versions of xplorer². Click on  symbols to see a video demonstrating how each feature in the professional version can help your daily file management tasks.

Feature	Windows Explorer	x ² lite	x ² pro	demo
All-area shell namespace access	✓	✓	✓	
Shell integrated with drag/drop, context menu etc	✓	✓	✓	
Automatic sensing of changes in all folders (networked etc)	✓	✓	✓	
Multithreaded & multi-window operation	✓	✓	✓	
Folder tree panel	✓	✓	✓	
Dual pane mode (browse 2 folders in one window)	—	✓	✓	
Tabbed interface	—	✓	✓	
Save and restore tabs (folder groups)	—	—	✓	
Keyboard shortcuts and overall usability	—	✓	✓	
Path autocompletion	✓	✓	✓	
Filtering of item visibility	✓	✓	✓	
Filtering on arbitrary criteria (hyperfilters)	—	—	✓	
Selection engine for precision marking of files	—	✓	✓	
Selection with arbitrary criteria (hyperfilters)	—	—	✓	
Extended filesystem information columns (comments etc)	✓	✓	✓	
Even more columns (checksum, 8.3 name etc)	—	✓	✓	
Multi-column sort (using shift+column click)	—	—	✓	
Individual folder settings	✓	—	✓	
Window layout saving and management	—	✓	✓	

Feature	Windows Explorer	x ² lite	x ² pro	demo
Export folder information as text (for printing etc)	—	✓	✓	
Hard links (NTFS)	—	✓	✓	
Mass renaming	—	✓	✓	
Change file dates (touch)	—	✓	✓	
Find text in files	✓	✓	✓	
Search for multiple keywords with boolean context	—	✓	✓	
Search for text in office and PDF/WPD/ODT documents using filters	✓	—	✓	
Search for contained text and filenames using regular expressions	—	—	✓	
Customizable info bars (status bar for each pane)	—	—	✓	
Unicode, UTF-8 & file encoding aware	—	✓	✓	
Unicode version available	✓	—	✓	
Split/Merge/Shred	—	✓	✓	
Text/RTF/Hex preview	—	✓	✓	
Text editor	—	✓	✓	
Graphics & HTML preview	✓	✓	✓	
Thumbnail view mode (using fast system cache)	✓	✓	✓	
Mini- and densely packed thumbnails	✓	—	✓	
Fuzzy filename matching	—	—	✓	
Multimedia preview (audio & video)	✓	✓	✓	
Find files with arbitrary criteria	—	—	✓	?
Search within archives, FTP, webfolders (webDAV) etc	—	—	✓	

Feature	Windows Explorer	x ² lite	x ² pro	demo
Refine previous search	—	—	✓	
Scrap containers (simultaneously manage many folders)	—	—	✓	?
Folder comparison & synchronization	—	✓	✓	
Deep synchronization (including subfolders)	—	—	✓	?
Script wizard for DOS & win32 text commands	—	✓	✓	
Intercept command output in user-friendly console	—	—	✓	?
Customizable user command menu	—	—	✓	
Detect duplicate files & cleanup	—	—	✓	?
Toolbar customization	✓	✓	✓	
Add extra toolbars and custom button icons	—	—	✓	?
Drivebar for easy access to local drives	—	—	✓	
Detailed breakdown of subfolder disk usage (statistics)	—	—	✓	
Robust background file transfers with optional filters	—	—	✓	?
Exact preview of ActiveX documents (office, PDF etc)	✓	—	✓	?
Custom/skinned system icons (drives etc)	✓	—	✓	
Show in (collapsible) groups	✓	—	✓	?
User defined groups	—	—	✓	
Extended icon overlays (e.g. TortoiseSVN)	✓	✓	✓	
Color coding of filenames	—	—	✓	?
Folder junctions, symbolic links (NTFS)	—	✓	✓	
Calculate folder sizes in detailed view	—	✓	✓	
Bookmark and quicklaunch panel (mini-scrap/"drop box")	✓	—	✓	?

Feature	Windows Explorer	x ² lite	x ² pro	demo
Keyboard (hotkey) customization	—	—	✓	
Toolbar skinning	—	✓	✓	
Native 64 bit executable	✓	—	✓	
Robust deletion with error control and filters	—	—	✓	
Column handler support for vista & windows 7	—	—	✓	
Extract plain text from office/PDF/WPD/ODT documents	—	—	✓	
Docking and floating panes	—	—	✓	
Context sensitive file information (details) pane	✓	—	✓	
Mass tag/comment management	—	✓	✓	
Sample reading speed for folder with 7000 items (sec)	1.05	0.83	0.83	
Program size (kB)	2553	683	970	
Commands in the menu system	56	154	229	

9B. Using tokens

Instead of typing specific file names as parts of a command, you can use special characters (“tokens”), which get automatically substituted with the name of the item(s) that is **selected** when the command is executed.

To understand this concept, assume that we have focused on `file1` in the **active** folder pane. Now let us use the DOS command type with tokens (This command shows the contents of the file).

We can issue this command in two different ways:

1. `$type file1`
2. `$type $N`

Let us see how they are different:

- The `$type file1` command acts on only one file (`file1`), To see the contents of several files, you have to repeat this command with each of those names. That is lot of work!
- Its equivalent version `$type $N` can be used to view any file. You do not have to enter the command again for the other file(s). All you have to do is to first select another file in the active pane and then repeat the same command again.

Thus, using special tokens like `$N` saves keystrokes and allows us to reuse the commands.

There are multiple `$`-tokens, each representing a different part of the active item. Some tokens represent an entire selection of items, taken as a unit.

Let us use a hypothetical situation to clarify the meaning of each `$`-token. Suppose we have a dual-pane arrangement where the right pane is active and the contents are as follows:

- The Left (inactive) pane shows the contents of the folder `c:\music` and contains 10 items, out of which only one is selected & active, called `titles.txt`
- The Right (active) pane shows the contents of `c:\work\c++` and contains 2 items, both selected; the first one is called `file.txt` and the second one `active.cpp`. The **focus** is on `active.cpp`

The following table lists all the available tokens. The third column shows what each token would have been substituted for, given the above scenario. Unless stated otherwise all tokens act on the single focused (or active) item in each pane.

Token	Description	Example
<code>\$N</code>	Local file name	<code>active.cpp</code>

Token	Description	Example
\$B	Base name (part of the name before the dot)	active
\$E	file name extension (part of the name after the dot)	cpp
\$P	Parent folder path	c:\work\c++
\$D	File modification date	13/3/2004 10:12
\$C	Parent folder plain name ('C' stands for "container")	c++
\$F	Full path name	c:\work\c++\active.cpp
\$S	All selected file names	active.cpp file.txt
\$A	<p>All selected file names (full paths)</p> <ul style="list-style-type: none"> •One file is listed per line. •There are no line-terminations 	c:\work\c++\active.cpp c:\work\c++\file.txt
\$L	Left (top) pane path	c:\music
\$R	Right (bottom) pane path	c:\work\c++
\$I	Inactive pane path	c:\music
\$Q	file name from inactive pane	titles.txt
\$G	Path and file name from inactive pane	c:\music\titles.txt
\$Z	<p>Temporary file name extracted from zipfolder, FTP, etc.</p> <p>Note: Within normal file system folders, this token behaves like the \$F token)</p>	%TEMP %\x2TMP_001_active.cpp
\$nn	Automatically incremented counter starting from number nn. If you insert zeros between the \$	See note-3

Token	Description	Example
	and the nn, the resultant numbers are padded with the same number of zeros.	
\$\$	Escape sequence to represent a single \$ character	\$
,”	Escape sequence for a single comma	,
\$?	Asks for an input from the user. Useful when the user cannot feed all details in advance.	
\$U	UNC path for the current file (in the active pane) for network-wide file access.	\\ComputerName\SharedFolderName\file.txt

Special tokens

Apart from these tokens, x² also has two special tokens \${ColumnName} and \$>.

We will see the details of each in this section.

The column token

In \${ColumnName} token, ColumnName is any of the columns you see in the **ALT+K** dialog. (Just copy the desired column's name exactly from the **ALT+K** dialog). In the command, this token is substituted with the contents of the concerned column for each of the selected item.

- If you have installed column-extenders, you can also use the additional columns for EXIF and mp3.
- The curly brackets { } are literals.
- Some of these tokens may contain characters that are not allowed in a file name. Such illegal characters will be replaced with an underscore (_).

Some examples:

Situation	Sample command (and how it works...)
Insert mp3 tags in the file names	\$B (\${Audio sample rate}).\$E Inserts the mp3 track's audio sample rate after the file's base name.

	e.g. DolphinSound.mp3 becomes DolphinSound (44 kHz).mp3
Identify authors of selected files	<p>\$B_{\$Author}.\$E</p> <p>For each file, inserts the author's name after the file's base name.</p> <p>e.g. UserManual.pdf becomes UserManual_Narayan.pdf</p>

Notes:

1. Many of these tokens are intended for renaming large numbers of files, as they are used in **File | Mass rename** command. But you can use them for any other purpose too; just type as many tokens as necessary in a single command and they will all be substituted according to the rules explained above.
2. In the previous table, all tokens were listed in uppercase. If you type a token in lowercase, x² uses the “DOS” (8.3) version of the file name. For example, if the \$N token produces undocumented.h the lowercase token \$n would result in UNDOCU~1.H, which is the DOS version of the same file name.
3. When executing commands, you should keep in mind the whereabouts of the current directory. If the files you want to act upon are in the active pane, then you can address them with their simple name \$N. To access files in the inactive pane or in situations where there is no active folder (e.g. in scrap containers) you should use \$F or \$G; and in general, only use tokens that include path information.
4. The automatic counter’s behavior can be changed by putting leading zeros and starting numbers, as shown below:

Token	Sequence	Remarks
\$1	1,2,...,10, ...100	No leading zeros.
\$01	01,02,...,10,...100	Padding with leading zeros continues till 09, after which the numbers have no leading zeros.
\$001	001,002, ...010,..., 099,100	Padding with leading zeros continues till 99, after which the numbers have no leading zeros. In fact, numbers in the range 10~99 have only one leading zero.
\$5	5,6,...,10,...100	Begins with 5; otherwise

Token	Sequence	Remarks
		similar to the \$1 token.

The \$> token to pass file names through a text file

Many command line applications can operate on multiple files at a time. For this, they need the list of these files as argument. However, some applications need a text file as argument, in which the text file contains the list of target files.

Typically, this text file has to observe certain rules:

- Each line must list only one file (multiple files must not be placed in one line).
- No line-termination (such as comma, semicolon, etc) is allowed

x² caters to such needs with a special \$> token.

This token is very similar to the \$A token, but the paths are first saved to a special text file %TEMP%\x2tmpList.txt, and then this file is passed as argument to an external command line application.

Let us see a real-world example: **ReNamer** can run in command line mode with the following syntax:

```
<ReNamer exe path> /list <text file that contains the list of files>
```

In our example, let us assume that the ReNamer executable is in the D:\Util\ReNamer folder.

First select the files, and then execute the following **Windows command**:

```
“D:\Util\ReNamer\ReNamer.exe” /list >$
```

First of all, x² creates a list of the selected files in the %TEMP%\x2tmpList.txt file.

And then executes the following command:

```
“D:\Util\ReNamer\ReNamer.exe” /list %TEMP%\x2tmpList.txt
```

Now ReNamer extracts the full paths from x2tmpList.txt, and renames the files.

9C. Troubleshooting

In this section, we will see the error messages that can appear in x². We will also see some common problems and their remedies.

Error messages

The error messages are listed in alphabetical order, so that you can locate any given error easily.

Error message	Where this happens	What happened? What to do next?
<file name> Bundle file is corrupted, extraction aborted	Unbundle command	Try bundling your selection again.
<Shift> on its own isn't a valid accelerator modifier. Please use it in combination with <Alt> or/and <Ctrl>	For bookmark lists	Use SHIFT with ALT and/or CTRL .
Accelerators meant for bookmarks shouldn't contain the ALT key	Defining the accelerators for bookmarks	Define a shortcut without the ALT key.
Attempt to move a folder below itself	Robust copy(F5)	You cannot transfer a folder as its own subfolder.
Attempt to overwrite folder with file or vice-versa	Robust copy (F5)	Correct the error and retry.
Cannot access contents of selected item(s)	Editor (F3 or F4)	Item has no contents (e.g. a folder) or it is inaccessible for viewing
Cannot launch editor/viewer; check command lines in Tools Options	Editor (F3 or F4)	Probably registry corruption (did you change anything there?), just close all x ² windows and then delete the relevant registry keys. Restart x ² .
Can't group on this column	Grouping	Some non-English Languages would have nonsensical groups.
Can't paste (or hard link) an item in its original folder	Robust transfer (F5 , F6); Drag-n-drop; Hard link	You cannot transfer (or hard link) a folder as its own subfolder. Try to create a desired folder structure somewhere else and then replace the folder.
Can't paste a folder within (below) itself	Hard link	You attempted to paste a folder as its own subfolder. Try to create a desired folder structure somewhere else and then replace the folder.

Error message	Where this happens	What happened? What to do next?
CPU tried its best but this command is ineffable	Commands entered in Address Bar with \$ or >	A windows command cannot be launched; probably the file does not exist or cannot be found in the path.
Double click in the box to add at least one category	Display items in custom categories (CTRL+ALT+G)	You didn't add any categories! D-click in the window to add at least one category.
Due to problems during the installation, this program will terminate. Do you want to submit an error report to the authors?	If x ² PRO is used beyond 21 days without registration, or hacked.	Contact the author
Error creating hard link(s); are source & target on the same NTFS partition?	Hard link (CTRL+ALT+H)	You may be attempting to create a hard link on a partition/disk that has FAT formatting.
Error creating target folder	Robust transfer (F5, F6)	Check your access rights for the <i>parent</i> folder
Error reading and/or corrupt contents file	Load a CIDA file in a scrap container	Get expert help.
Error reading from source	Robust copying (F5)	Get expert help
Error writing contents file	Save a CIDA file	Get expert help.
Error writing to <file name>	Saving a file with x ² (e.g. CIDA)	Whenever something cannot be saved
Failed to create new browser tab	Creating a tab	Very rare! Try to restart x ² .
File copy failed	Robust copying (F5)	See the error log for more information. Retrying <i>might</i> help.
Folder contents can't be refreshed; try getting out and back in again	Refresh display (CTRL+R)	Check if a floppy disk or CDROM is missing. If this is a remote disk, check with your system administrator or the user of the remote PC!
Folder could not be read in its entirety	Robust copying (F5)	See the error log for more information. Retrying <i>might</i> help.
For one reason or other, the item(s) can't be renamed	Renaming (F2)	The folder does not allow renaming (e.g. zip folder).
I/O Error accessing desktop.ini file	When folder settings are saved	Get expert help
I/O error or user aborted the operation	Splitting a file	You pressed Esc .

Error message	Where this happens	What happened? What to do next?
I/O error while writing the script file	Script wizard (CTRL+B)	Check the last error
Identifiers cannot be longer than 32 characters	All customize menu commands	User identifiers smaller than 32 characters.
Invalid data for rule. Please check dates and sizes are in order	When defining the Hyperfilter rule	<ul style="list-style-type: none"> The <i>Date</i> rule in hyperfilter is invalid, e.g. the low date is more recent than the high date. You defined the sizes in reverse (low > high).
Junctions are supported only on NTFS partitions and for local paths.	Folder junctions	You attempted to create a junction on a non-NTFS drive, or to a different drive.
Licencing subsystem fatal error	When x ² starts	<p>Check these possibilities:</p> <ul style="list-style-type: none"> You do not have administrator privileges for this installation You typed the license key incorrectly? (re-type it; or better, copy the key from the email and paste it in the “Register” dialog). <p>If the problem persists, please contact the author.</p> <p>See the licensing FAQ at the website</p>
List is full; please delete some unused items	The Organize submenu in Customize menu.	Delete some less-needed entries and try again. (Maximum limit is 100 items per list)
New item creation failed	New file (F7) New folder (F8)	You may not have the required rights in this folder/PC; or it could be a readonly medium.
No bundle files in the current selection	Unbundle command	Make sure that there are bundled files in your selection.
No duplicate items found	Duplicate checker	The selection does not contain any duplicates. (Actually this is not an error —Just the result of the DupChecker command that you ran just now).
No information available	Log command	No search information is available

Error message	Where this happens	What happened? What to do next?
		for this scrap pane. (This is just a statement--not an error: You may not have used this scrap pane for a search operation.)
No items match the specified filter	Any filtering command	This is not an error really—Just the status of the search command.
No matching items found in the inactive pane	Sync touch command	This is really a status message, not an error.
No matching items in the selection clipboard	Store selection command (F11)	Use the command when it has matching names with the current pane.
No sync-matched folders found; have you tried a synchronization command (e.g. F9) first?	The sync-o-paste function	You tried to use the Sync-o-paste command <i>without</i> a previous synchronization command.
Not enough memory for requested operation	Various (most) commands	Close some windows (or upgrade your RAM)
Paste from clipboard failed	Paste command (CTRL+V)	Probably the target folder doesn't accept the contents.
Please define some custom groups first using View Arrange by menu	Display items in custom categories (CTRL+ALT+G)	You did not define any groups
Please enter a number between xxx and yyy	Various commands (e.g. Mark Range)	You entered an out-of-range number: Follow the instructions.
Please type a name for this option set		
Please use \$ or > to specify command type or type a path to add in list	Command execution in Address Bar	Use the correct prompt
Please type a name for this group	Robust transfer (F5, F6)	You tried to save options without supplying a name.
Read error or user interrupt	While x ² is reading a folder	Could be disk error; or you pressed Esc during the read operation.
Reading from <Folder Name> failed miserably	While x ² is reading a folder	Folder read failed e.g. empty floppy
Relative folder structure is ambiguous; paste aborted	Paste scrap clip	Probably you tried to paste a folder in its own subfolder (e.g. paste c: into c:\temp)
Requested path is outside the local	Any browse command	When a browser is rooted in a

Error message	Where this happens	What happened? What to do next?
namespace root		subfolder of desktop (using /R command line option), x ² will not allow you to go to unrelated branches.
Reserved or unacceptable keyboard shortcut	Customize keyboard shortcuts	You tried a key combination that is not allowed.
Secondary streams (e.g. file comments) couldn't be transferred to target	Robust copying (F5)	See the log for more information. Retrying <i>might</i> help.
Selection clipboard is empty	Store selection command (F11)	You tried to use a F11 command variant without first saving a selection.
Some item(s) in the CIDA file could not be located Do you want to see a log?	Load a CIDA file in a scrap container	Did you delete/rename/move some of the target items after closing the CIDA file? See the log and decide whether your list should be amended or you really those items back.
Some items could not be located	Load a CIDA file in a scrap container	The items were moved, renamed or deleted after the CIDA was saved (see log for extra info)
Some items don't support comments (FAT partition?)	Commenting	Check the disk type (in My computer node)
Some items were not accessible (insufficient access rights?)	Read folder	You may have blacklisted the item, and therefore x ² may be skipping it. Also, you may not have access rights to some folders in the search domain. Check.
Some link(s) cannot be resolved today	Find target (CTRL+L)	Probably the shortcut target was deleted or moved from its original location
Some of the file attributes couldn't be set	Change attributes	Write-protected, not enough security clearance, etc.
Special paste commands require file system source (& target) items	Menu command Edit Paste special	The source or targets are not normal folders (e.g. a zip "folder")
Target cannot be identical to source name	Robust copying (F5)	Select some other folder as target.
Text and background colors should be different	color coding file types	If text and background colors are same, you will not be able to read

Error message	Where this happens	What happened? What to do next?
		anything!
The Clipboard is inaccessible	Paste command (CTRL+V)	Rare—Get expert help
The command template is invalid	Script wizard (CTRL+B)	Check the command template (it could be empty, etc)
The CPU cannot make any sense of the last input	Load a path in Address Bar (or click on a shortcut)	Invalid command. Check syntax. The message also appears if you are trying to load a disk that is corrupted, or the entered path is invalid.
The Description field shouldn't be empty	Organize menu commands	Enter some description. (The actual text would depend on the item: command/bookmark etc)
The file <file name> is not present in the installation folder	Help menu options (e.g. F1)	Can't find some help/tip file.
The folders involved have incompatible columns	When using "same filter" in opposite pane	Columns in filter can't be matched.
The From field shouldn't be empty	Check build command (CTRL+F12)	Specify the "From" rule.
The item(s) cannot be renamed	Renaming (F2)	The folder doesn't accept renames (e.g. a zip folder)
The layout name contains invalid characters or is reserved	Save layout	Names are not supposed to have characters such as spaces. Remove such characters from the name.
The Look in specification is invalid	The Omni-Finder (CTRL+F)	Check if an the Look in... field contains an invalid string (e.g. a string of commas).
The main frame window for this thread is unavailable	When you select an item in a scrap pane and press Enter	Rare problem. Get expert help.
The Name field shouldn't be empty	Organize dialogs for Tool Bars, column sets, user commands and folder groups .	Enter a valid name in the Name field.
The name template contains characters that are illegal for files. The rename command will most probably fail; continue anyway?	Mass renaming (F2)	This is an early warning. Check if characters such as * ? etc. are entered; and remove them.

Error message	Where this happens	What happened? What to do next?
The pasted object contains no folders	Paste folder structure command	You have not copied any folders into the clipboard.
The regular expression syntax is incorrect	Find text commands	Check your RegEx against Appendix 9T of this manual.
The search filter must not be completely unconstrained	The Omni-Finder (CTRL+F)	You haven't defined anything in the search dialog. This will result in too many hits. Define a condition.
The selection cannot be dragged	Dragging with a mouse	You tried to copy or rename or obtain the properties of an item but this may not be supported, depending on the item and its location (e.g. in virtual folders)
The selection doesn't contain any folder junctions	Paste folder junction	You attempted to paste a folder junction when the clipboard does not contain a folder.
The selection does not support this verb	Various commands in file or edit menus.	You tried to copy or rename or obtain the properties of an item but this may not be supported, depending on the item and its location (e.g. in virtual folders)
The specified filter is invalid	Rule-based visual filter (ALT+H)	You have entered some invalid conditions (e.g. multiple commas)
The target folder does not accept this file operation	Paste command (CTRL+V) (or drag-n-drop)	Check if you have the required access rights in the target folder. Get expert help.
The target folder is invalid	Robust transfer (F5 or F6)	The target folder does not exist any more (e.g. disk is removed; network connection is lost, etc).
The To field shouldn't be empty or contain wildcards or/and dot characters	Check build command (CTRL+F12)	Specify the "To" rule.
There are no items queued for transfer	When you check the queue status using menu Edit Queue Status	The Robust Transfer Queue is empty. (Check if that is a problem really, or your mistaken impression that there ought to be some items there.)
There is no active visual filter	Toggle filter (CTRL+J)	The CTRL+J command needs a filter to toggle. But there is no filter defined.
There is no text in the clipboard	Import clipboard command	Copy the contents again into the

Error message	Where this happens	What happened? What to do next?
	in scrap container	clipboard.
There is not enough room on disk to copy this file. Please insert a new disk to continue	Robust copying (F5)	The target disk does not have enough room. Make room by deleting some items, or change the disk. This message also appears if you intend to transfer a large collection of files to <i>multiple</i> disks. When each disk becomes full, x ² finds that it cannot transfer the next file in the selection, and generates this message. Simply insert the next disk and continue.
There must be at least two tabs to define a group.	Defining a folder group	Add a tab and then define a tab group. If you want to save a single tab, save it as a bookmark.
This categorizer is incompatible with current view. Its rules correspond to a different folder type	Display items in custom categories (CTRL+ALT+G)	You selected a predefined set with columns that don't have anything to do with current folder (e.g. zipfolder columns in a normal folder)
This column cannot be renamed in place; please put Name column first	ALT+K dialog; Drag-n-drop of columns	You tried to put a non-editable columns (e.g. Size, contents) in the first position. Move the <i>Name</i> column to the left-most position.
This column set is incompatible with the current folder view	When reusing a saved column set	e.g. a column set for file system folders with "comments" isn't relevant in a FTP folder
This command is not applicable for the tree pane	Attempt to run a command while the Tree Pane has focus	The tree pane is not designed to run all commands. Try the same command in the active folder/scrap pane.
This command is only applicable to file system folders	ALT+K dialog;	Do not use the command on zip files, My computer, ftp etc.
This command is only applicable to file system items	General	You may be trying to use the command on zip files, (e.g. creating file or folder)
This command isn't supported for windows 9x	ADS-related commands (e.g. ADS stream)	Update windows
This command requires a shortcut item selected	Find target (CTRL+L)	The command works only on links
This filter is not compatible with this	A command that uses	Use a filter that is compatible, e.g. a

Error message	Where this happens	What happened? What to do next?
search scope. Some of its rules correspond to a different folder type.	hyperfilter (e.g. search)	column set for file system folders with "comments" is not relevant in a FTP folder
This folder does not seem to be a valid data source	CTRL+C (or drag)	Can't copy from the specified folder
This identifier already exists, please use another	Lists of Tool Bars, column sets, user commands and folder groups (in the Customize menus)	Change the name (or if you want the same name, add a suffix)
This is not a valid registration key; keys are -200 characters long and contain only CAPITAL letters & numbers It will be easier to COPY the key you received by email and then right-click and PASTE it in the box provided	The "Register program" dialog	Error in entering the key. Check if you omitted some characters (especially at the beginning or end)
This item has no named secondary streams	ADS secondary stream	The secondary streams for the selected item are not named; so they cannot be split.
This item has no preview image	Copy preview	Some items do not have a thumbnail; so do not expect to copy its thumbnail to clipboard.
This key combination is already in use. Erase the old command assignment?	Keyboard customization	The keyboard shortcut is already assigned to some other command. You can cancel the new assignment. If you go ahead with it, the other command will lose this shortcut.
This operation requires a file object	Commands that act only on files, such as F3 or F4	Do not use the command on a <i>folder</i> .
This option set is already saved as <Name>	Robust transfer (F5 or F6)	You tried to save the same options under a different name
Too few files selected for merging	Merge files	This command needs at least <i>two</i> files to merge. Folders are ignored. Check your selection again.
Unable to create scrap container	Launch a scrap container	Out of memory. Close some applications and then retry.
Write error while pasting special target	Paste special	Check the last error
Write error, shredding aborted	Shredding	Get expert help.

Error message	Where this happens	What happened? What to do next?
You can't combine wildcards with fuzzy name searches	Any command where the fuzzy name-matching is used	When you have selected a figure less than 100 in the Fuzzy search, do not use wildcards (* and ?).
You must fill in the items you want compared first (e.g. using the Flatten Path command)	Using DupChecker on an empty scrap pane.	Use the DupChecker <i>after</i> loading the scrap pane with some items.
You must leave at least one item in the list	Organize dialogs for Tool Bars, column sets, user commands and folder groups .	You tried to remove <i>all</i> items from a customized list. Leave at least one.
You must not use backslash (\) in identifier names		Windows does not accept a slash in group names etc. Remove the slash.
You must pick a modifier key for the shortcut, e.g. CTRL	Organize dialogs for Tool Bars, column sets, user commands and folder groups .	The shortcut you chose does not have a "legal" key combination. Change it.
You must select at least one column	ALT+K dialog;	The pane must have at least one column! Select any column and add it.
You must specify a name for the filter (to be added or deleted)	The Omni-Finder (CTRL+F)	Press <i>Save</i> after entering a filter name.
You must specify a starting folder for the search	The Omni-Finder (CTRL+F)	The "Look in..." field is empty. Either select a folder there, or select from the Special folders pull-down list.
You must specify at least one criterion for comparisons	Using DupChecker	Select one or more criteria and try again.
You must specify some unique text attributes	Color-coding file types	There's a filter but no color or boldness differentiation from other files!
Your name template has no variability (\$-token). All the files will be renamed using the same target name; continue anyway?	Mass renamer (F2)	If you select "Yes", x ² will just create the same name and only the last file will remain!

Commonly encountered problems

The following problems are very commonly reported. Some of them are because of wrong settings, and some occur because of some external factors. For an expanded and updated list of such issues, visit the **FAQ on the x² website**.

Problem	Root cause	Solution
"licensing subsystem fatal error" during installation	You don't have enough privileges to install programs on your machine.	Contact your system administrator or a power user for help.
	Your system clock is wrongly set.	Set your system clock.
I have logged on as administrator but x ² does not accept my registration key	Invalid key.	Rather than trying to enter the key manually, copy it on clipboard and paste it in the dialog box.
x ² stopped working before the 21st day of the trial	Probably you installed x ² on your PC before? If so the trial has most probably expired, since it counts from the <i>original</i> installation date. If it is a fresh installation there could be some problem with your system clock.	Please submit a problem report for further information.
QuickViewer does not display some items	x ² has a program option to ignore files that are larger than a threshold size (for the sake of faster performance). You have set this too low.	Set it to correct value, or to 0 (for no limits)
I cannot switch between tabs using the CTRL+ALT+LeftArrow and CTRL+ALT+RightArrow shortcuts: The entire screen rotates to the left and right, instead.	This is because of graphic chipset setting.	In Control Panel , select the Intel GMA driver node. Select the Shortcuts tab. Remove the tick in the Enable the shortcuts check box. Press OK .
I cannot set a pane to Thumbnail view	One or more of the following dll files were removed by accident when you uninstalled some other application: browseui.dll, comctr32.dll, shimgvw.dll, shdocvw.dll, webvw.dll	Register these dlls again using a DOS command in the following format: regsvr32 file name.dll e.g. Regsvr32 browseui.dll
I cannot see HTML previews on Windows XP	Windows SP-1 has turned it off as a security precaution.	Add this key in the registry: [HKEY_CLASSES_ROOT\html\ShellEx\{BB2E617C-0920-11d1-9A0B-00C04FC2D6C1}]\@="{EAB841A0-9550-11cf-8C16-00805F1408F3}"

Problem	Root cause	Solution
x ² cannot show items in groups	This feature is only available in Windows XP and later.	
I have downloaded the User Manual (pdf file), but cannot launch it with F1 .	The pdf file is launched with F1 only when it is in x ² 's installation folder.	Put the file in x ² 's installation folder (usually C:\program files\zabkat\explorer2).
Cannot format a floppy disk	Windows does not format a disk if some application has a lock on it.	If any of the panes is displaying the floppy's contents, load any other folder in it. This will release the lock. Now format the floppy.
Gridlines get jumbled when I scroll	This is a bug in Windows XP.	There are two workarounds: <ul style="list-style-type: none"> • Turn gridlines off from Tools Options Window, or • Delete the file explorer2_UC.exe.manifest — but this will turn off <i>all</i> visual styles.
Cannot delete a folder from the tree	If you are browsing the folder in one of the panes, it is considered "locked" and you can't permanently delete it. So please make sure you are not browsing the folder in <i>any</i> program, including within x ² . On the other hand, you should be able to delete a folder to the recycle bin without problems.	If you must delete from the tree you have to check "Don't lock browsed folder" box in Tools Options Advanced , but note that it will have repercussions in command line execution (no current directory).
Cannot create a hard link	Possible only in NTFS partitions. Possible only within the same disk.	Create hard links within these constraints.
Cannot attach comments	Possible only in NTFS partitions	
Comments attached to a file are lost without trace	You edited the item with an application that does not handle ADS streams properly.	Contact the author of the other application.
Hard links are broken (separate files are created)		

Problem	Root cause	Solution
I get a warning about <i>stream loss</i> when I transfer files with comments	You are attempting to transfer files to non-NTFS media; and comments will be <i>lost</i> . Windows is warning you in advance for this potential loss of information.	Use Actions ADS Bundle to go and Actions ADS Unpack bundle command pair .
I can't find files within some folders	Check your search blacklist .	Remove the folder from the blacklist.
x ² crashes without any warning during a search	Some versions of Ifilters cause the crash.	Look for an older version (or the latest version) that is stable.
When exiting x ² , an error message “ <i>Runtime error 216</i> ” pops up	Did you use an application written in Delphi (e.g. XN Resource editor, StarUML, Zip genius, WordWeb, etc.) during the current session of x ² ?	This is a harmless error message, caused by faults in these Delphi applications .

9D. Menus, keyboard shortcuts, Tool Bar buttons and mouse actions

Functions of x^2 are available through one or more of the following: menus, keyboard shortcuts, Tool Bar buttons and mouse actions.

- Most of these commands are available through menu and keyboard shortcut
- A few commands are available through only menu or a keyboard shortcut (but not both).

Many other windows of x^2 (e.g. the ALT+D window) also have menus, keyboard shortcuts and Tool Bars. However, since they are not used so frequently, they are not covered in this section.

Users of the Lite version should check the last column in the tables: If you see a P symbol against any command in this column, it means that the command is available only in the PRO version.

You can use a printout of this appendix as a lookup table till you remember the shortcuts perfectly.


To read more about the commands, click on the hyperlinks. Note that the hyperlink will take you to the top of related article: the actual command is somewhere farther down. This is intentional: reading the entire section will give you a better idea about the command.









In the tables, command ID numbers are mentioned for most of the commands. These command IDs can be used to create Tool Bar buttons or scripts with **AutoIT/AutoHotKey**.

For main screen

This section describes the menus for the main window of x^2 .






Main screen menu: File

Menu Item	Shortcut	Button	Remarks	ID
Browse	Enter		Browse folder or launch item	32777
Clone+browse	Ctrl+Enter		Browse the focused item in a new window	32778
New tab	Ctrl+Ins		Browse the focused item in a new tab (i.e., in a new folder sheet)	33036

Menu Item	Shortcut	Button	Remarks		ID
Browse flat	Shft+Enter		Open a new scrap container. Add the contents of the selected folder recursively into the active scrap pane. (Tooltip: Flatten)	P	32903
	Ctrl+Shft+Enter		Add the contents of the selected folder recursively into the active scrap pane. This command reuses the scrap pane that was opened last.		
Send to scrap	Ctrl+S		Place selection in the active pane of scrap container that was selected last (Tooltip: To scrap)	P	32968
View	F3		View file contents as text		32788
	Ctrl+F3		View file contents as text with an external editor		
Edit	F4		Edit file contents as text		32789
Properties	F12		Displays the shell properties of the selected items		32811
(None)	Alt+Enter		(If the selected single item is a file; or if the selection contains multiple items) Displays the shell properties of the selected files		32777
			(If the selected single item is a folder) Loads the folder in the opposite folder pane .		
Rename	F2		Rename the selected item in place		32792
Change type	Ctrl+F2		Edit the name and extension of a file. Also allows editing of folder names that contain a dot (period)		32902
Mass rename...	F2		Change selected file names in bulk, using name templates.		32975
Delete	Del		Send selected items to the recycle bin.		32791
Trash	Shft+Del		Permanently delete the selected items (Robust-delete) (in x ² PRO only)		32774




Menu Item	Shortcut	Button	Remarks	ID
Close			Close this window (other copies of x ² will keep running)	57602
Exit	Alt+X		Quit the application (all windows of x ² will be closed)	57665

Main screen menu: Go To


Menu Item	Shortcut	Button	Remarks	ID
Up a level	Bksp		Browse one level up from the current folder (go to parent folder) (Tooltip: Parent)	32779
Back	Alt+Left		Return to the folder browsed before	32831
Forward	Alt+Right		Advance to the next folder in the list	32832
Find target	Ctrl+L		Find the target item pointed to by this shortcut file (resolve link)	32798
Select drive...	Alt+F1		Go to a local disk (Tooltip: Drive)	32940
(None)	Ctrl+Shft+DriveLetter		Jump to the specified drive's root.	
	Alt+Ctrl+Shft+DriveLetter		Load the specified drive's root in the opposite pane.	
Recent folder	Alt+F2		Select amongst folders recently browsed in this pane. (History chain)	32945
Special folders	Ctrl+Alt+F		Shows a list of special folders (see the entries below for details) (Tooltip: System)	33016




Menu Item	Shortcut	Button	Remarks	ID
Special folders >My documents	Ctrl+K		Go to My Document folder	32873
Special folders >My pictures			Go to My Pictures folder	32870
Special folders >My music			Go to My Music folder	32871
Special folders >Recent items			Recent files and folders which you have opened using any Windows application	32879
Special folders >Recycle bin			Go to the recycle bin. Also accessible as a special node in the tree.	32875
Special folders >Desktop	Ctrl+Bksp		Go to desktop	32872
Special folders >Root	Shift+Bksp		Root drive of current folder	32942
Special folders >My computer			Go to My Computer	32877
Special folders >Network			Go to the root of the connected PCs. Shows all PCs connected in your LAN (Local Area Network).	32874
Special folders >Control panel			Go to Windows Control Panel.	32876
Special folders >Printers			Go to all installed printers, including virtual printers that print to ps/pdf files.	32878
Special folders >Start menu			Go to folder representing the Start button on your desktop.	32880
Special folders >Startup			Go to the folder that shows programs that start automatically at startup	32881
Special folders >CD burning			Files waiting to be written to CD (available only in Windows XP)	32882
Special folders >Send to			Targets appearing in the “send to” shell context menu	32883
			Goes to virtual folder maintained by Windows to run the legacy applications.	33161


Special

Menu Item	Shortcut	Button	Remarks		ID
Quick bookmark	Ctrl+F1		Go to the folder bookmarked earlier (Tooltip: Jump)		32834
Set quick-mark	Ctrl+Shift+F1		Set a bookmark on the current folder.		32835
Mirror browsing	Ctrl+M		If checked, the panes follow each other as you traverse the folder hierarchy (Tooltip: Mirror)		32849
Mirror scrolling			Automatically scroll the inactive pane to reveal matching items.		32933
Same folder	Ctrl+I		Load the current folder in active pane in the inactive pane. (Tooltip: Force)		32868
	Alt+Ctrl+I		Load the current folder in inactive pane in the active pane.		
Swap panes	Ctrl+U		Mutually exchange the contents of the two panes.		32869

Main screen menu: [Bookmark](#)







Menu Item	Shortcut	Button	Remarks		ID
Add current			Add current folder to the bookmark list		32989
Organize			Rename, delete or reorder bookmarks; assign shortcut keys to bookmarks		32990
<List of user-defined bookmarks>			<ol style="list-style-type: none"> In the menu, each bookmark is displayed with the user-given name. The button is same for all bookmarks. Hover your mouse over a button to see the bookmark name. 		
More...			Select a bookmark from the complete list of bookmarks		32991
IE Favorites			Go to the folder holding Internet Explorer's favorites		32884

Menu Item	Shortcut	Button	Remarks	ID
Select All	Ctrl+A		Select all the items	32787
Unselect all	Alt+A		Unselect all (previously selected) items	32803
All folders	Ctrl+Alt+Q		Mark all items that are assumed folders (including drives)	33009
Sticky selection	Alt+S		Toggles sticky selection mode (the selection is unaffected by clicks or pressing of keys) (Tooltip: Sticky)	32802
Select group...	Gray +		Select items that match a filter. It automatically adds asterisks (*) as wildcards on both sides of the string.	32845
	Alt+Gray+		Same as above, but re-uses the search string entered earlier (there is no dialog box)	
Unselect group...	Gray -		Unselect items that match a filter. It automatically adds asterisks (*) as wildcards on both sides of the string.	32846
	Alt+Gray-		Same as above, but re-uses the search string entered earlier (there is no dialog box)	
Invert selection	Gray *		Toggles the selection status of each item (selected ↔ unselected)	32847
Select range...			Select a number of items below the active item	32891
Total size...			Selects items whose combined size equals the specified size (approximately)	33105
Synchronize panes	F9		Select items that differ among the panes, using Modified Date information. (Tooltip: Compare)	32843
Sync wizard...	Ctrl+F9		Synchronize panes using tailor-made options.	32886
Check build...	Ctrl+F12		Check items according to file-transformation rules (e.g. compilation)	32888

Menu Item	Shortcut	Button	Remarks		ID
			(Tooltip: Build)		
Containing text...	Ctrl+G		Select files that contain some specified string (Tooltip: Find text)		32855
Matching a rule...	Alt+G		Select items whose properties match a specified complex rule	P	32932
Quick search			Select items with text in either file name, columns or file contents		33108
Selection > Store	Ctrl+F11		Remember the selected items for later use		32910
Selection > Select	F11		Select all items stored earlier in the selection clipboard; in addition to the current selection.		32911
Selection > Unselect	Alt+F11		Unselect all items stored earlier in the selection clipboard		32912
Selection > Combine	Shift+F11		Items common between the existing and saved selections will be selected.		32982
Selection> Show	Ctrl+Shift+F11		Brings as many of the selected items in view as possible (can also be used for "scroll to top" of the selection)		33132
(None)	Shift+Alt+Gray+		Adds to the selection all files that have the same base name as the currently focused item		33123
	Shift+Alt+Gray-		Removes from the selection all files that have the same base name as the currently focused item		33124
	Ctrl+Alt+Gray+		Adds to the selection all files that have the same extension as the currently focused item		33058
	Ctrl+Alt+Gray-		Removes from the selection all files that have the same extension as the currently focused item		33059
	Ctrl+Alt+Shift+		Selects all items of the current group of		33106


Menu Item	Shortcut	Button	Remarks		ID
	Gray+		items		
	Ctrl+Alt+Shift+Gray-		Unselects all items of the entire current group of items		33107



Main screen menu: Edit






Menu Item	Shortcut	Button	Remarks		ID
- (none)	Ctrl+Y		Repeat the last menu command		
Cut	Ctrl+X		Cut the selection and put it on the Clipboard		57635
Copy	Ctrl+C		Copy the selection and put it on the Clipboard		57634
Copy to...	F5		Copy selection to opposite pane or desired location.		32793
	Ctrl+F5		Copy selection to opposite pane without dialog box		
	Alt+F5		Copy the selection to last target without dialog box		
Move to...	F6		Move selection to opposite pane or desired location.		
	Ctrl+F6		Move selection to opposite pane without dialog box		
	Alt+F6		Move the selection to last target without dialog box		
Queue status			Examine and organize the queued robust transfer tasks. (Tooltip: Queue)	P	33060
Paste	Ctrl+V		Insert Clipboard contents		57637
Paste Link			Create shortcuts to the items held in clipboard		32797
Paste special > Hard link	Ctrl+Alt+H		Create hard links for the items held in the clipboard (NTFS only)		32799


Menu Item	Shortcut	Button	Remarks		ID
Paste special > Folder structure			Paste this folder with all subfolders, without any files they contain.		32913
Paste special > Structured scrap clips			Paste items (sourced from a scrap pane) recreating the structure of the original subfolders.	P	32914
Paste special > Multi paste			Pastes the clipboard contents into selected multiple folders	P	33101
Paste special > Folder junction > paste			Pastes a folder junction		33114
Paste special > Folder junction > Delete			Deletes a folder junction		33115
Duplicate			Creates a copy of the selected items in the same folder.		33045
Copy names	Alt+C		Copy the full names of the selected items to the clipboard.		32786
	Alt+Shift+ C		Copy the names of the selected items in 8.3 format (also called “DOS names”) to the clipboard.		
	Ctrl+Alt+C		Copy the full names of the selected items to the clipboard in comma-separated list format.		
	Ctrl+Alt+Shift+ C		Copy names of the selected items in 8.3 format (“DOS names”) to the clipboard in comma-separated list format.		
Copy preview			Copy the item’s preview image as bitmap.		32790
Copy columns	Ctrl+P		Copy the selected items’ column text (as it appears in the folder pane) to the clipboard.		32909
	Ctrl+Alt+P		Copy the selected items’ column text to the clipboard; but only from the column that is used for the primary sorting.		

Main screen menu: View





Menu Item	Shortcut	Button	Remarks	ID
Dual pane	Ctrl+O		Toggles between single- and dual-pane modes	32840
(None)	Ctrl+E		Toggles the display between equalized panes and maximized active pane modes	33032
Quick viewer	Ctrl+Q		Toggles the Quick Previewer pane On/Off.	32934
Lock Viewer			Stops the QuickViewer from following the active item (toggles On/Off)	33121
Tool Bars> Drive Bar			Toggles the Drive Bar On/Off	
Tool Bars> Address Bar			Toggles the Address Bar On/Off	
Tool Bars > Tool Bar			Toggles the Tool Bar On/Off	
Tool Bars > All Tool Bars			Show or hide (toggle) the container of all Tool Bars	59392
Tool Bars > Status Bar			Toggles the Status Bar On/Off	59393
Tool Bars > Info Bar			Toggles the detailed information Bars (which are attached to both folder panes) On/Off	33054
Details Pane			Toggles the Details Pane on/off.	33205
Pane style	Ctrl+Alt+V		Displays a list of different styles as shown below (Select any one):	32988
Select columns...	Alt+K		Select which columns are to be displayed in the folder pane; and decide the order of their appearance. (Tooltip: Columns)	32890
Arrange by			Has the following menu options (select any one):	
Arrange by > Name	Ctrl+Alt+N		Sort by name.	32892



Menu Item	Shortcut	Button	Remarks		ID
Arrange by > Size	Ctrl+Alt+S		Sort by size		32893
Arrange by > Date	Ctrl+Alt+D		Sort by modified date.		32894
Arrange by > Type	Ctrl+Alt+T		Sort by type (not by extension)		32895
Arrange by > Other			Sort by a non-standard column.		32898
Arrange by > Unsorted	Ctrl+Alt+U		Do not sort; show the items in the order they are read from the disk.		32896
Arrange by > Ascending	Ctrl+Alt+A		Toggles the sort order (ascending/descending)		32899
(None)	Ctrl+Shift+UpArrow		Move the focused item up in the listing (override the sort order)		33104
	Ctrl+Shift+DownArrow		Move the focused item down in the listing (override the sort order)		33103
Arrange by > Show in groups			Re-arrange all items in groups.		33102
Arrange by > Custom groups...	Ctrl+Alt+G		View items in customized groups	P	33116
Autosize columns (to fit items)	Ctrl+Gray+		Adjust column width to all items		32963
Autosize columns (to fit headers)	Ctrl+Shft+Gray+		Adjust column width to all headers		
Refresh	Ctrl+R		Refresh the contents of the active pane		59395
Hold auto-refresh	Ctrl+Alt+R		Temporarily suspend the active folder's auto-refresh feature		32946

Menu Item	Shortcut	Button	Remarks		ID
Raw contents			Browse a folder exactly as it is (bypass explorer)	P	32981
Show Tree	Ctrl+T		Toggles the Tree Pane On/Off		32808
Locate in tree	Alt+T		Locate the browsed folder in the folder hierarchy, in the tree pane . (Tooltip: Tree sync)		32806
Mini scrap			Toggles the mini scrap pane on/off	P	33128
Visual filter > Wildcard	Ctrl+H		Hide the items that do not match the wildcard filter criteria		32848
Visual filter > Rule-based	Alt+H		Show only those items whose properties match a defined set of complex rules. (Tooltip: Filter)	P	33033
Visual filter > Auto-Filter			Show only the selected file type in the pane, and hide all the other file types. Folders are not affected.		33049
Visual filter... > On/Off	Ctrl+J		Toggle the wildcard filter or Rule-based filters On/Off.		32804
Visual filter... > Hide folders	Alt+J		Hide all folders from the active pane (toggle)		32947
Visual filter... > Selected only	Ctrl+Alt+J		Hide all items that are not selected.		32984
Visual filter... > Same filter	Ctrl+Alt+M		Force the same visual filter(s) to the inactive pane. (Note: This command applies only the Wildcard and Rule-based filters to the inactive pane. The Hide folders and Selected only filters are not applied with this command.)		33034
Show all			Cancel all visual filter modes.		32985






Menu Item	Shortcut	Button	Remarks		ID
None	CTRL+ALT+SHF T+H		<p>Toggle the visibility of the files that have the “Hidden” attribute set.</p> <p>When items are hidden, the Status Bar shows  to alert you that some items may be hidden.</p>		33163





Main screen menu: Actions

Menu Item	Shortcut	Button	Remarks		ID
New file	F7		Create a new (empty) file (remember to enter an extension)		32795
New Folder	F8		Create a new folder		32796
Set comment	Alt + Z		<p>Enter (or edit) comments attached to an item.</p> <p>(Tooltip: Comment)</p>		32944
ADS			Gives the following 3 options related to ADS (Alternate Data Stream). Select any one:		
ADS View streams			View ADS contents attached to the file		33051
ADS Split streams			Extracts secondary streams in separate files		33135
ADS Bundle to go			Pack all selected files and their ADS contents in a bundle for transferring to a non-NTFS disk		33052
ADS Unpack bundle			Restore the files and their ADS contents from a bundle		33053
Change attributes	Shft+F12		<p>Pops up a dialog box to change the item’s DOS attribute(s) and created/modified dates (Tooltip: Attributes)</p> <p>(Note: Also see the File Properties... menu option, F12)</p>		32810
Sync-Touch			Match modification dates of items from active pane to inactive pane.		32983




Menu Item	Shortcut	Button	Remarks		ID
Split file			Split the selected file into smaller chunks.		32821
Merge files			Combine the selected items into a single file (in the order displayed in the pane)		32822
Shred			Total annihilation of the selected items. Once these items are shredded, they cannot be recovered.		32800
Save settings now			Immediately saves all the current settings		32907
Export settings			Save settings as a .reg file. Transfer this file to another PC to replicate all settings there.		33055
Folder settings>Save			Save all settings for this folder; including pane style, columns and sorting order	P	32966
Folder settings>Clear			Clear all settings for this folder (revert to the default settings)	P	32967
Folder settings>Suspended			Temporarily suspend the custom folder settings for this folder sheet (toggles).	P	33048

Main screen menu: Tools

Menu Item	Shortcut	Button	Remarks		ID
Run command			Start any Windows (GUI) program		32828
DOS command	F10		Run a command that requires the DOS interpreter (dir, ren, etc)		32829
Run History...	Ctrl+F10		Select a command from the history list		32856
Repeat command	Alt+F10		Quick-repeat of the last command executed		32844
Command script...	Ctrl+B		Creates a script (batch file), applying a command template on each selected item (Tooltip: Script)		32853
Find files...	Ctrl+F		the command: Search for files and folders that match the specified filter condition(s)		32885

Check duplicates			Launches an empty scrap container in which you can add items and then search for duplicates.		32964
Compare subfolders			Compare folders loaded in the opposite folder panes, including their subfolders		33056
Free space	Ctrl+Alt+Space		Check the free space in the disk(s) being browsed; refresh views if necessary (Tooltip: Space)		32901
Subfolder size	Ctrl+D		Display size against folders (works only in details style) (The displayed size includes all subfolders) (Tooltip: Measure)		32915
Folder statistics	Alt+D		Display statistics for this folder and its subfolders (Tooltip: Stats)	P	33028
Options...			Set program options and this window		32974

Main screen menu: [Window](#)

Menu Item	Shortcut	Button	Remarks		ID
Scrap container			Launch a new scrap container	P	32809
List...	Ctrl+W		List all windows controlled by x ² ; and optionally switch amongst them.		32905
Administrator			Allows you to work in Admin mode in Windows-controlled areas, such as C:\Program files		
Close Tab	Ctrl+F4		Closes the active tab (in the active folder pane only)		33043
Close all tabs	Ctrl+Shft+F4		Closes all tabs except the active tab (in the active folder pane only)		33044
Clone	Ctrl+N		Open another explorer window like this one		32773
Save layout			Store the present window layout and its history settings		32776



Menu Item	Shortcut	Button	Remarks		ID
Organize...			Delete window layouts or assign shortcut keys		33005
More layouts			Choose a window from another saved layout		33007


Main screen menu: [Customize](#)

Menu Item	Shortcut	Button	Remarks		ID
Tool Bars>Add new			Add an extra Tool Bar	P	32996
Tool Bars>Organize			Rename or delete additional Tool Bars (will not affect the default Tool Bar)	P	32997
Column sets>Add current			Add the current column set to the list	P	32998
Column sets>Organize			Rename, delete or reorder column sets; or assign shortcut keys	P	32999
Column sets>More...			Pick a column set from a complete list	P	33000
User commands>Add new			Add a command template to the user menu	P	33001
User commands>Organize			Rename, delete or reorder user commands; or assign shortcut keys	P	33002
User commands>More...			Pick a user command from a complete list	P	33003
Folder groups>Add current			Add the current set of tabs to the user menu	P	33040
Folder Groups>Organize			Rename, delete or reorder folder groups (tab groups); or assign shortcut keys	P	33041

Menu Item	Shortcut	Button	Remarks		ID
Folder Groups > More...			Pick a tab group (folder group) from a complete list	P	33042
Custom groups> Add current					
Custom groups> Organize					
Custom groups> <list>					
Custom groups> More...					
Keyboard...			Customize keyboard shortcuts	P	33133
Keyboard use...			View the assigned and available keyboard shortcuts	P	33008
Color coding...			Customize item's appearance according to filetype	P	33122

Main screen menu: [Help](#)

Menu Item	Shortcut	Button	Remarks		ID
Quick start			Shows a small help file in your browser. Launches your browser if necessary. (For more detailed help, press F1.)		32863
Contents...	F1		Launch the User Manual (this pdf file).		32864
Tip of the day...			Launch the “Tip of the day” window. The window has a built-in setting to disable its popping up every time you start x ² .		32979
Register program			Upgrade and/or obtain a license to use the “Pro” version without restrictions		33018

Menu Item	Shortcut	Button	Remarks		ID
Check for updates			Launch web browser if required and loads the home page of the x ² website. You have to manually find out if there is an update available there.		32904
Online support			Send email to customer support center		33020
English Translation			Change the menu language (toggles between English and any other language)		
Last error			A popup window describes the last error in the current session of x ² and also provides interpretation.		33029
Crash Information			Locates the minidump file (for the last crash) and emails to support center.		
About xplorer ² ...			Display program information, version number and copyright		57664
License agreement...			Shows the terms and conditions of the license agreement.		
What's new?			Shows changes.txt located in x ² 's installation folder. (History of changes in past versions of x ²)		32866
Tell a friend			Not a help item, really: If you are happy with x ² , use this menu to spread the word among your friends!		

Main screen- Commands outside the menu system

The following commands are required so frequently that it does not make sense to access them through the menus: They are more easily available through keyboard shortcuts or mouse-actions.

Note that a few such commands are included in the menu tables above because they are very closely related to the menu commands. Strictly speaking, they should have been listed here.

General

CTRL+ALT+F10 repeats the last used context menu command on the current selection.

Tree pane

Keyboard Shortcut/ Mouse action	Remarks
UpArrow	Go to the next node displayed above the current node. <ul style="list-style-type: none">➤ It does not affect any collapsed nodes.
DownArrow	Go to the next node displayed below the current node. <ul style="list-style-type: none">➤ It does not affect any collapsed nodes.
LeftArrow	<ul style="list-style-type: none">➤ If the current node is expanded or exploded, LeftArrow collapses it. The focus remains on the same node.➤ If the current node is already collapsed (or does not have any subnodes), then the focus jumps to current node's parent node.
RightArrow	<ul style="list-style-type: none">➤ If the current node is collapsed, the RightArrow expands it by one level. The focus remains on the same node.➤ If the current node is expanded or exploded, RightArrow goes one level down in the first branch.
PageUp	Jump upwards by a screenful
PageDown	Jump downwards by a screenful
Home	Jump to the top of the tree (usually the Desktop node)
End	Jump to the last node of the tree (usually the Recycle Bin node)

Keyboard Shortcut/ Mouse action	Remarks
Click on a [-]	Close the node (All subnodes disappear)
Click on a [+]	Open the node to show its next-level subnodes
Click on a node	Loads the folder in the active pane
Alt+Click on a node	Loads the folder in the inactive pane
Ctrl+Click on a node	Launches another instance of x ² and loads the folder in the active folder pane.
ALT+PageUp	Scrolls the current row to the top of window

Quickviewer

Keyboard Shortcut/ Mouse action	Remarks
Ctrl+C	Copy the selection or image to clipboard
Ctrl+A	Select all text
Ctrl+F	Search for specified string (text)
F3	Find next occurrence of highlighted text
F2	Toggles word wrap
Ctrl+UpArrow	Load the next file from the active pane
Ctrl+DownArrow	Load the previous file from the active pane
Alt+Q	Toggle between the Draft and Native tabs of QuickViewer

Tab Bar

Keyboard Shortcut/ Mouse action	Remarks
D-click on a tab Click on the x button	Close tab
D-click in blank area	Open a new tab

Moving within folder pane, selecting (and focusing on-) items

Keyboard Shortcut/ Mouse action	Remarks
Ctrl+Alt+LeftArrow Ctrl+Alt+WinKey+LeftArrow	Switch to the left-side tab
Ctrl+Alt+RightArrow Ctrl+Alt+WinKey+RightArrow	Switch to the right-side tab
Alt+ UpArrow	Shift focus to previous selected item
Alt+DownArrow	Shift focus to next selected item
UpArrow	Move (scroll) up by one line at a time
DownArrow	Move (scroll) down by one line at a time
PageUp	Jump to the top of currently displayed list of items on the screen (the pane may have a long list that spans several screens)
PageDown	Jump to the bottom of currently displayed list of items on the screen (the pane may have a long list that spans several screens)
Home	Jump to the top of the pane
End	Jump to the bottom of the pane
Ctrl+Alt+UpArrow	Jump to the previous group
Ctrl+Alt+DownArrow	Jump to the next group
Enter any string	Jump to the first item whose name begins with the string (see incremental search)
Shft+Enter any string	Jump to the first file whose extension begins with the string (see incremental search)
Alt+RightArrow	Go forwards in “recently visited folders” list (history navigation chain)
Alt+LeftArrow	Go backwards in “recently visited folders” list (history navigation chain)

Keyboard Shortcut/ Mouse action	Remarks
<ul style="list-style-type: none"> ➤ Click on the item. ➤ Move the cursor to the item with the arrow keys ➤ Press the Space Bar (the selection toggles on/off) ➤ Hover the mouse over the item* 	Select a single item
Draw a lasso around some items	Select multiple adjacent items
<ul style="list-style-type: none"> ➤ Shft+select items with lasso ➤ Shft+Click ➤ Shft+hover the mouse over items* 	Add multiple adjacent items to the existing selection
<ul style="list-style-type: none"> ➤ Ctrl+select items with lasso ➤ Ctrl+Click ➤ Ctrl+hover the mouse over items* 	Add multiple nonadjacent items to the existing selection
Ins	Toggle the selection state (select if unselected and vice-versa) of the item under the (focus) cursor and move down
Ctrl + Space	Toggle selection as Ins (see above), but does not move the focus
Click with MMB on the item	Toggle the selection state of the item (select if unselected and vice-versa) without disturbing the selection state of the other items in the pane. (Does not work when Hover selection program option is on.)
Space	In sticky selection mode, Space on its own behaves like Ctrl+Space mentioned above

* When the hover selection **program option** is selected, a click is replaced with a hover action.

Movement between various panes

Keyboard Shortcut/ Mouse action	Remarks
Tab	Switch between folder panes
Ctrl+Tab	Jump to Tree pane first, and then toggle between Address Bar and Tree Pane.
Shift+Tab	Jump to Address Bar first, and then toggle the focus between Address Bar and Tree Pane.
Shift+Ctrl+Tab	Depending upon your current focus, toggles focus within a pair of panes: <ul style="list-style-type: none">➤ Active Folder pane and QuickViewer, OR➤ Address Bar and Tree Pane
Alt+Ctrl+Tab	Switches focus between Address Bar, Tree pane and mini-scrap pane.

Other actions






Keyboard Shortcut/ Mouse action	Remarks
F1	Path autocompletion in Address Bar
Shift+Drag Tool Bar buttons	Shift buttons to new locations (within the Tool Bar)
Ctrl+Enter	Copy focused file name in Address Bar
Shift+R-click	Get extended context menu for focused file
D-click on blank portion of pane header	Go to the parent folder
D-click in the background area in the pane	Go to the parent folder
Click on a subpath in pane header	Load that folder in the folder pane (go upwards in the folder hierarchy)
Click on column-header	Sort on the column (Click again to reverse the sorting order). <ul style="list-style-type: none">➤ If nested sorting is already in effect, this action resets it.

Keyboard Shortcut/ Mouse action	Remarks
Shft+Click on column-header	Sort the pane using this column for secondary (nested) sorting (Shft+Click again to reverse the sorting order)

For Scrap Containers

The scrap containers are available only in the PRO version. Hence the following part of the appendix describes features available only in the PRO version.


Scrap Container Menu: File

Menu Item	Shortcut	Button	Remarks	ID
Open	Enter		Opens the selected file (If the selected item is a folder, ^{x2} opens it in a pop-up explorer window)	32814
Browse	Ctrl+Enter		Load the item in the active folder pane.	32815
View	F3		View file contents as text	32788
Edit	F4		Edit file contents as text	32789
Properties	F12		Displays the shell properties of the selected items (Also see Actions Change attributes... menu option) (Shft+F12)	32811
Rename	F2		Rename the selected item in place	32792
Change type	Ctrl+F2		Edit the name of the selected item and also extension if it is a file.	32902
Mass rename...	F2		Change selected file names in bulk, using name templates.	32975
Remove	Del		Remove the selected items from this pane (the real items are not affected)	32816
Delete	Ctrl+Del		Send selected items to the recycle bin (Note: The prompt in the message bar shows Del as shortcut. Ignore it.)	32791
Trash	Shft+Ctrl+Del		Delete selection permanently (bypass recycle bin) (Note: The prompt in the message bar shows SHFT+Del as shortcut. Ignore it.)	
Close			Close this window (other copies of ^{x2} will keep	57602






			running)	
Exit	Alt+X		Quit the application (all windows of ^{x2} will be closed)	57665

Scrap Container Menu: Mark

Menu Item	Shortcut	Button	Remarks	ID
Select All	Ctrl+A		Select all the items in the active pane	32787
Unselect all	Alt+A		Unselect all (previously selected) items in the active pane	32803
All folders	Ctrl+Alt+Q		Mark all items that are assumed folders (including drives)	33009
Sticky selection	Alt+S		Toggles sticky selection mode (the selection is unaffected by clicks or pressing of keys) (Tooltip: Sticky)	32802
Select group...	Gray +		Select items that match a filter. It automatically adds asterisks (*) as wildcards on both sides of the string.	32845
(None)	Alt+Gray+		Same as above, but re-uses the search string entered earlier (there is no dialog box)	
Unselect group...	Gray -		Unselect items that match a filter. It automatically adds asterisks (*) as wildcards on both sides of the string.	32846
(None)	Alt+Gray-		Same as above, but re-uses the search string entered earlier (there is no dialog box)	
Invert selection	Gray *		Toggles the selection status of each item (selected ↔ unselected)	32847
Select range...			Select a number of items below the active item	32891
Total size...			Selects items whose combined size equals the specified size (approximately)	33105
Synchronize panes	F9		Select items that differ among the panes, using Modified Date information. (Tooltip: Compare)	32843
Sync wizard...	Ctrl+F9		Synchronize panes using tailor-made options.	32886



Menu Item	Shortcut	Button	Remarks	ID
Containing text...	Ctrl+G		Select files that contain some specified string (Tooltip: Find text)	32855
Matching a rule...	Alt+G		Select items whose properties match a specified complex rule	32932
Quick search	Ctrl+Alt+G		Mark files with text in file name, columns or contents	33108
Selection > Store	Ctrl+F11		Remember the selected items for later use	32910
Selection > Select	F11		Select all items stored earlier in the selection clipboard; in addition to the current selection.	32911
Selection > Unselect	Alt+F11		Unselect all items stored earlier in the selection clipboard	32912
Selection > Combine	Shift+F11		Items common between the existing and saved selections will be selected.	32982
Selection> Show	Ctrl+Shift+F11		Brings as many of the selected items in view as possible (can also be used for "scroll to top" of the selection)	33132
(None)	Shift+Alt+Gray+		Adds to the selection all files that have the same base name as the currently focused item	33123
	Shift+Alt+Gray-		Removes from the selection all files that have the same base name as the currently focused item	33124
	Ctrl+Alt+Gray+		Adds to the selection all files that have the same extension as the currently focused item	33058
	Ctrl+Alt+Gray-		Removes from the selection all files that have the same extension as the currently focused item	33059
	Ctrl+Alt+Shift+Gray+		Selects all items of the current group of items	
	Ctrl+Alt+Shift+Gray-		Unselects all items of the entire current group of items	




Scrap Container Menu: Edit




Menu Item	Shortcut	Button	Remarks	ID
Cut	Ctrl+X		Cut the selection and put it on the Clipboard	57635
Copy	Ctrl+C		Copy the selection and put it on the Clipboard	57634
Copy to...	F5		Copy the selection to another folder	32793
	Ctrl+F5		Copy the selection to the last target	
Move to...	F6		Move selection to another folder	32794
	Ctrl+F6		Move the selection to the last target	
Queue status			Examine and organize the queued robust transfer tasks.	33060
Paste	Ctrl+V		Insert Clipboard contents	57637
Sync-o-paste			Enforce deep-synchronization results, copying selected items to their respective target folder	32854
Multipaste			Pastes the clipboard contents into selected multiple folders	33101
Copy names	Alt+C		Copy the full names of the selected items to the clipboard.	32786
	Alt+Shift+ C		Copy the names of the selected items in 8.3 format (also called “DOS names”) to the clipboard.	
	Ctrl+Alt+C		Copy the full names of the selected items to the clipboard, in comma-separated list format.	
	Ctrl+Alt+ Shift+C		Copy the names of the selected items in 8.3 format (“DOS names”) to the clipboard, in comma-separated list format.	
Copy preview			Copy the item’s preview image as bitmap.	32790
Copy columns	Ctrl+P		Copy the selected items’ column text to the clipboard (as it appears in the folder pane).	32909

Menu Item	Shortcut	Button	Remarks	ID
	Ctrl+Alt+P		Copy the selected items' column text to the clipboard; but only from the column that is used for the primary sorting.	

Scrap Container Menu: view






Menu Item	Shortcut	Button	Remarks	ID
Dual pane	Ctrl+O		Toggles between single- and dual-pane modes	32840
(None)	Ctrl+E		Toggles the display between equalize panes and maximize the active pane modes	33032
Quick viewer	Ctrl+Q		Toggles the Quick Reviewer pane On/Off.	32934
Lock Viewer			Stops the QuickViewer from following the active item (toggles On/Off)	
Tool Bar > Address Bar			Toggles the Address Bar On/Off	
Tool Bar > Tool Bar			Toggles the Tool Bar On/Off	
Tool Bar > All Tool Bars			Show or hide (toggle) the container of all Tool Bars	59392
Tool Bar > Status Bar			Toggles the Status Bar On/Off	59393
Tool Bar > Info Bar			Toggles the detailed information Bars (which are attached to both folder panes) On/Off	33054
Pane style	Ctrl+Alt+V		Displays a list of different styles as shown below. Select the style you want.	
Pane style > Large icons			Displays items using large icons	32780
Pane style > Small icons			Displays items using small icons	32781
Pane style > List			Displays items in a list	32782
Pane style >			Displays detailed information for each item	32783


Menu Item	Shortcut	Button	Remarks	ID
Details				
Pane style > Thumbnails			Displays thumbnails of each item	32784
Pane style > Mini thumbs			Displays mini-thumbnails of each item	32785
Select columns...	Alt+K		Select which columns are to be displayed in the folder pane; and decide the order of their appearance. (Tooltip: Columns)	32890
Arrange by			Displays various sorting options as follows (select any one):	
Arrange by > Name	Ctrl+Alt+N		Sort by name.	32892
Arrange by > Size	Ctrl+Alt+S		Sort by size	32893
Arrange by > Date	Ctrl+Alt+D		Sort by modified date.	32894
Arrange by > Type	Ctrl+Alt+T		Sort by type (not by extension)	32895
Arrange by > Path			Sort by path of the parent folder of the items.	32897
Arrange by > Other			Sort by a non-standard column.	32898
Arrange by > Unsorted	Ctrl+Alt+U		Do not sort; show the items in the order they are read from the disk.	32896
Arrange by > Ascending	Ctrl+Alt+A		Toggles the sort order (ascending/descending)	32899
Arrange by > Show in groups				33102

Menu Item	Shortcut	Button	Remarks	ID
			Re-arranges all items in groups.	
Arrange by> Custom Groups...	Ctrl+Alt+G		Display items in customized groups	33116
Autosize columns (to fit items)	CTRL+Gray +		Adjust column width to all items	32963
(None)	Ctrl+Shift+ UpArrow		Move the focused item up in the listing (override the sort order)	33104
	Ctrl+Shift+ DownArrow		Move the focused item down in the listing (override the sort order)	33013
Autosize columns (to fit headers)	Ctrl+Shft+ Gray+		Adjust column width to all headers	32963
Refresh	Ctrl+R		Refresh pane contents	59395
Hold auto- refresh	Ctrl+Alt+R		Temporarily suspend the active folder's auto-refresh feature	32946
Visual filter > Wildcard	Ctrl+H		Hide the items that do not match the wildcard filter criteria	32848
Visual filter > Rule-based	Alt+H		Show only those items whose properties match a defined set of complex rules (Tooltin: Filter)	33033
Visual filter > Auto-Filter			Show only the selected file type in the pane, and hide all the other file types. Folders are not affected.	
Visual filter... > On/Off	Ctrl+J		Toggle the wildcard filter or Rule-based filters On/Off.	32804
Visual filter... > Hide folders	Alt+J		Hide all folders from the active pane (toggle)	32947
Visual filter... > Selected only	Ctrl+Alt+J		Hide all items that are not selected.	32984
Visual filter... > Same filter	Ctrl+Alt+M		Force the same visual filter(s) to the inactive pane. (Note: This command applies only the Wildcard and Rule-based filters to the inactive pane. The Hide	33034









Menu Item	Shortcut	Button	Remarks	ID
			folders and Selected only filters are not applied with this command.)	
Show all			Cancel all visual filter modes.	32985

Scrap Container Menu: Actions



Menu Item	Shortcut	Button	Remarks	ID
Flatten path			Extract the contents of a folder and all its subfolders here. (Note: Ignore the prompt appearing in the Status Bar -- this command cannot open a CIDA file.) To open a CIDA file, use the Load contents menu option (explained below).	32827
	Alt+Enter		Flattens the selection in the opposite pane	32777
Change attributes			Pops up a dialog box to change the item's DOS attribute(s) and created/modified dates (Tooltip: Attributes)	32810
Set comment	Alt + Z		Enter (or edit) comments attached to an item. (Tooltip: Comment)	32944
ADS			Gives the following 3 options related to ADS (Alternate Data Stream). Select any one:	
ADS View streams			View ADS contents attached to the selected file	33051
ADS Bundle to go			Pack all selected files and their ADS contents in a bundle for transferring to a non-NTFS disk	33052
Split file			Split the selected file into smaller chunks.	32821
Merge files			Combine the selected items into a single file (in the order displayed in the pane)	32822
Shred			Total annihilation of the selected items. Once these items are shredded, they cannot be recovered.	32800
Load contents			Open a content (CIDA) file saved earlier (Tooltip: Open)	32826

Menu Item	Shortcut	Button	Remarks	ID
Write contents	Ctrl+S		Save the contents of the current pane into a CIDA file (for later retrieval) (Tooltip: Save)	32825
Recent files <List>			Shows the CIDA files used in the current session (the list gets reset when you close x²)	33100
Import clipboard			Insert items in scrap pane from the Clipboard (only paths accepted; there must be one path per line—not a comma-separated list.)	33035

Scrap Container Menu: Tools

Menu Item	Shortcut	Button	Remarks	ID
Run command			Start any Windows (GUI) program	32828
DOS command	F10		Run a command that requires the DOS interpreter (dir, ren, etc)	32829
Run History...	Ctrl+F10		Select a command from the history list	32856
Repeat command	Alt+F10		Quick-repeat of the last command executed	32844
Command script...	Ctrl+B		Creates a script (batch file), applying a command template on each selected item (Tooltip: Script)	32853
Subfolder size	Ctrl+D		Display size against folders (works only in details style) (size includes all subfolders) (Tooltip: Measure)	32915
Find target(s)	Ctrl+L		Find target item pointed to by this shortcut file or folder junction (i.e., resolve this link)	32798
Find files...	Ctrl+F		Look for files and folders that match a filter	32885
Search status...			View the log of an ongoing or a past find files command.	32978
Check duplicates...			Examine contained items for possible duplicates (hides unique items and regroups the duplicates) (Tooltip: Duplicates)	32964
Reveal unique...			Reveal items hidden as a result of a duplicate check	32973
Options...			Set options for the program and this window	32974

Scrap Container Menu: Window




Menu Item	Shortcut	Button	Remarks	ID
New Scrap Container			Launch a new scrap container	32809
List...	Ctrl+W		List all windows controlled by x ² ; and optionally switch amongst them.	32905
Mirror scrolling	Ctrl+M		Automatically scroll the inactive pane to reveal matching items.	32933

Scrap Container Menu: Customize

Menu Item	Shortcut	Button	Remarks	ID
Tool Bars>Add new			Add an extra Tool Bar	32996
Tool Bars>Organize			Rename or delete additional Tool Bars (will not affect the default Tool Bar)	32997
Column sets>Add current			Add the current column set to the list	32998
Column sets>Organize			Rename, delete or reorder column sets; or assign shortcut keys	32999
Column sets>More...			Pick a column set from a complete list	33000
User commands>Add new			Add a command template to the user menu	33001
User commands>Organize			Rename, delete or reorder user commands; or assign shortcut keys	33002
User commands>More...			Pick a user command from a complete list	33003
Keyboard...			Customize keyboard shortcuts	33133
Keyboard use...			View the assigned and available keyboard shortcuts	33008

Scrap Container Menu: Help

Menu Item	Shortcut	Button	Remarks	ID
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Quick start			Shows a small help file in your browser. Launches your browser if necessary. For more detailed help, press F1.	32863
Contents...	F1		Shows the help file (this pdf file).	32864
Tip of the day...			Launches the “Tip of the day” window. The window has a built-in setting if you don’t want this window to pop up every time you start x ² .	32979
Register program			Upgrade and/or obtain a license to use the “Pro” version without restrictions	33018
Check for updates			Launches web browser if required and loads the home page of the x ² website. You have to manually find out if there is an update available there.	32904
Online support			Get connected to the online customer support center	33020
Last error			A pop window describes the last error in the current session of x ² and also provides interpretation.	33029
About xplorer ² ...			Display program information, version number and copyright	57664
License agreement...			Shows the terms and conditions of the license agreement.	
What's new?			Shows changes.txt located in x ² 's installation folder. (History of changes in past versions of x ²)	32866

Scrap Container- Commands outside the menu system

The following commands are required so frequently that it does not make sense to access them through the menus: They are more easily available through keyboard shortcuts or mouse-actions.

Note that a few such commands are included in the menu tables above because they are very closely related to the menu commands. Strictly speaking, they should have been listed here.

General:

CTRL+ALT+F10 repeats the last used context menu command on the current selection.

Quickviewer:

Keyboard Shortcut/ Mouse action	Remarks
Ctrl+C	Copy the selection or image to clipboard
Ctrl+A	Copy all text
Ctrl+F	Search for specified string (text)
F3	Find next occurrence of highlighted text
F2	Toggles word wrap
Ctrl+UpArrow	Load the next file from the active pane
Ctrl+DownArrow	Load the previous file from the active pane
Alt+Q	Toggle between the Draft and Normal tabs of QuickViewer

Moving within a scrap pane, selecting (and focusing on-) items

Keyboard Shortcut/ Mouse action	Remarks
Alt+ UpArrow	Shift focus to previous selected item
Alt+DownArrow	Shift focus to next selected item
UpArrow	Move (scroll) up by one line at a time
DownArrow	Move (scroll) down by one line at a time
PageUp	Jump to the top of currently displayed list of items on the screen (the pane may have a long list that spans several screens)
PageDown	Jump to the bottom of currently displayed list of items on the screen (the pane may have a long list that spans several screens)
Home	Jump to the top of the pane
End	Jump to the bottom of the pane
Ctrl+Alt+UpArrow	Jump to the previous group
Ctrl+Alt+DownArrow	Jump to the next group

Keyboard Shortcut/ Mouse action	Remarks
Enter any string	Jump to the first item whose name begins with the string (see incremental search)
Shift+Enter any string	Jump to the first file whose extension begins with the string (see incremental search)
<ul style="list-style-type: none"> ➤ Click on the item. ➤ Move the cursor to the item with the arrow keys ➤ Press the Space Bar (the selection toggles on/off) ➤ Hover the mouse over the item* 	Select a single item
Draw a lasso around some items	Select multiple adjacent items
<ul style="list-style-type: none"> ➤ Shift+select items with lasso ➤ Shift+Click ➤ Shift+hover the mouse over items* 	Add multiple adjacent items to the existing selection
<ul style="list-style-type: none"> ➤ Ctrl+select items with lasso ➤ Ctrl+Click ➤ Ctrl+hover the mouse over items* 	Add multiple nonadjacent items to the existing selection
Ins	Toggle the selection state (select if unselected and vice-versa) of the item under the (focus) cursor and move down
Ctrl + Space	Toggles selection as Ins, but does not move the focus
Space	In sticky selection mode, Space on its own behaves like Ctrl+Space mentioned above
ALT+PageUp	Scrolls the current row to the top of the window

* When the hover selection **program option** is selected, a click is replaced with a hover action.

Movement between panes of scrap container

Keyboard Shortcut/ Mouse action	Remarks
Tab	Switch between scrap panes
Ctrl+Tab Shift+Tab	Toggle the focus between Address Bar and the active Scrap Pane.
CTRL+Enter	Moves the focus from a scrap container to the last opened folder pane <ul style="list-style-type: none">➤ If your initial focus is on a file in the scrap pane, its parent folder is loaded in the active folder pane, and the file is highlighted. The focus shifts from the scrap pane to the active folder pane in x²'s main window.➤ If your initial focus is on a folder in the scrap pane, this folder itself is loaded in the active folder pane, and the file is highlighted.

Other actions

Keyboard Shortcut/ Mouse action	Remarks
F1	Path autocompletion in Address Bar
Shift+Drag Tool Bar buttons	Shift buttons to new locations (within the Tool Bar)
Shift+R-click	Get extended context menu for focused file
Click on column-header	Sort on the column (Click again to reverse the sorting order). <ul style="list-style-type: none">➤ If nested sorting is already in effect, this action resets it.
Shift+Click on column-header	Sort the pane using this column for secondary (nested) sorting (Shift+Click again to reverse the sorting order)

9E. Columns available in x²

The following table shows the columns as they appear in the **Column Organizer**.

x² has three different types of columns: Text, number and date. These are handled differently, as explained in **Appendix 9O**.

Column	Remarks	Type
Name	Displays name of the file/folder, with an icon for quick recognition of the item.	Text
Full name	Actual file name. It can contain spaces. (compare that with DOS name, which is truncated to a length of 8 characters, and cannot contain spaces)	Text
Extension	file name extension (doc, pdf, xls, odt, etc)	Text
Attributes	File Attributes.	Text
Modified	The date on which the item was last modified Note: The modification date of folders (in NTFS only) will tell you the last time some of its immediate contents was modified by copying, creating or renaming. The date will not change if you merely edit an existing file or if you change contents in deep subfolders.	Date
Created	The date on which the item was created Note: The creation date of files can be newer than the last modified date! When you create a new copy of a file, its creation date is updated whereas the modification (last edit) date remains unchanged. You can compare the creation and modification date columns to figure out special situations like these.	Date
Accessed	The date on which the item was last accessed	Date

Column	Remarks	Type
Type	File type. The terms Type and extension are related, but yet distinct: while extensions are 2-3 character long, types are known after the file's association with a program. So, for the same extension, if you change the file's association, the file type will be changed. For example, a file with "zip" extension can have its type as "Winzip document" or "UltimateZip document", depending upon which program is associated with it.	Text
Path	Full path of container (folder) <ul style="list-style-type: none"> This field is useful in scrap containers, where items from different location could be thrown together. Paths can be used to tell them apart. 	Text
Version	Executable program or DLL version	Text
Links	Number of hard links, if any	Number
Checksum	Simple checksum of contents	Number
Medium	Data medium information	Text
8.3 Name	DOS 8.3 Name (you get DOS name by truncating the full name to a length of 8 characters; plus the 3-character extension.)	Text
Size	File size	Number
Size on disk	Actual size occupied on disk (including compressed/sparse files). This is usually larger than Size due to the way hard disks are organized. However for compressed files, size on disk will be smaller!	Number
Comment	(If comments are supported) user keywords associated with the file	Text
Contents	(Applies to folders only) Number of files contained in the folder. Use this column to search for empty folders, or for a quick summary of contained files.	Number

Column	Remarks	Type
Keywords	Keywords entered in the documents' Properties dialog.	Text
Streams	Number of ADS streams associated with each file.	Number
Company	Company that owns the binary file	Text
Description	Module extended information.	Text
Shortcut to	In case of *.lnk files, shows the target (URI) of the link file. In case of *.url files, shows the target Internet URL.	Text
Infotip information	An Infotip provides several details about each item. Note that you can get the same information by checking several other columns. So the advantage of this column is that it provides a concise summary in one place.	Text
Authenticode	Digital signature for executable files downloaded from the internet	Text
Selection Information	Provides information about the selection in the Folder pane: How many files selected, what is the total size.	Text

In addition, in Windows XP, the following **EXIF** tags are available as stock columns: Width, Height, and Date picture taken. (These are the most often used columns. To use other EXIF columns in x², install **PixVue**.)

Note: An [S] symbol after a column's name indicates that this column is generated within x². Other columns are generated by Windows and used by x². In general, you should use the "stock" columns since they are faster to display.

x² will also show all the columns supported by your windows explorer (from windows 2000 onwards)

The **ALT+K** command offers you a lot of columns to select from. You can have even more columns by installing specialized programs. See **chapter 8** for details. (Once you install these programs, the ALT+K command of x² will offer you more columns. The programs themselves do not have a separate **GUI**- they work in the background.).

9F. Context menus

When you **make a selection** of a few items, the next logical thing to do is to issue a command to do something with these items. x²x² provides the most logical commands in any situation in context menus. These menus are available when you right-click in different parts of the x² **GUI** after making your selection. These are called “context menus” because they change depending upon what you have selected and where in the GUI you have right-clicked.

Once you have issued a context menu command, you can make another selection and repeat that command by pressing **CTRL+ALT+F10** (Command ID: 33125).

Note: Most of the following context menu commands are also available through menu and/or keyboard shortcuts. The command IDs for these are not mentioned here. But some of the context menu commands do not have an equivalent menu command. Their command ID's are mentioned in this section, so that you can use them in scripts.

In x² screen

Where to right-click	Function	What it does-
Window Bar	Topmost (note: The context menu has other options also. The utility PowerMenu also adds a few options to the context menu.)	Keep this window always on top of other windows, even if you switch to other applications.
Background in Tree Pane	Sort by name Sort by date	Select any one option to sort the tree by names or modified date.
Tool Bar	Drive Bar	Toggles the Drive Bar on/off
	Address Bar	Toggles the Address Bar on/off
	Tool Bar	Toggles the Tool Bar on/off
	Text labels	Toggles the labels on buttons on/off
	Lock Tool Bar (Command ID: 33126)	Freezes the size and location of the Tool Bars (toggle control).
	Customize...	Customizes the Tool Bar
Address Bar	Undo	Undo the last operation

Where to right-click	Function	What it does-
	Cut	Cut the string to clipboard
	Copy	Copy the string to clipboard
	Paste	Paste from clipboard
	Delete	Clears the entry from the Address Bar. Does not affect the actual folder represented by the path.
	Select all	Selects the entire path of the current address in the address Bar
QuickViewer	The QuickViewer is a common feature in both the main window and the scrap containers. Therefore, its context menu is separately explained .	
Column headers	Select columns (Alt+K)	Pops up a dialog box for selecting columns for the folder pane.
Title Bar (anywhere except the icon on the left)	Go to a recently visited folder (History)	<p>Pops up a list of folders recently browsed in this pane. Select a folder from this list to load it in the pane.</p> <p>If you right-click and release the button, the list stays on screen. Then you can read the locations and select where to go. You can also select the location with a single click: just slide down the list without releasing the right mouse button and then release the right button on your selected location.</p> <p>If you hold SHFT while r-clicking you'll get all the subpaths in a menu, in case some are cropped due to available width restrictions.</p>
Title Bar (on the icon)	Same as the context menu for the “ background ”area of a folder pane.	
Title Bar, with SHFT pressed down	Shows a list of all parent folders in the path, till the root.	
Folder panes (r-click on any item or a selection of	Open	Opens the item with its default application
	Send to list of applications and	You can open the item with these

Where to right-click	Function	What it does-
multiple items; but not in the “ background ” area)	folder locations	“favorite” applications; or copy the item to a listed location (typically, to the floppy drive or the Desktop)
	Edit	Opens the file in its associated application.
	Print	Opens the file in the associates application and then prints the file.
	Cut	Cuts the item/selection to clipboard
	Copy	Copies the item/selection to clipboard
	Create shortcut	Creates a shortcut to the item/selection, and places it in the same folder
	Delete	Sends the item/selection to recycle bin
	Rename	(This option is available only for a single-item selection, not for a multiple-item selection) Allows you to Renaming the item
	Properties	See the properties of the item/selection
	< Additional menu options list>	When you install new software, it may add options in the context menu. For example, compressed archiver applications (e.g. Winzip), antivirus (e.g. McAfee), etc.
Folder panes (r-click in the “ background ” area)	New file	Create a new (empty) file (remember to enter an extension).
	New folder	Create a new folder
	Paste (Ctrl+V)	Paste from clipboard
	Paste link	Create shortcuts to the items held in clipboard
	Paste special > Hard link	Create hard links for the items held in

Where to right-click	Function	What it does-
		the clipboard (NTFS only)
	Paste special > Folder structure	Paste this folder with all subfolders, without any files they contain.
	Paste special > Structured scrap clips	Paste items (sourced from a scrap pane) recreating the structure of the original subfolders.
	Pane style	Gives the following submenu options (select any one):
	Pane style > Large icons	Displays items using large icons
	Pane style > Small icons	Displays items using small icons
	Pane style > List	Displays items in a list
	Pane style > Details	Displays detailed information for each item
	Pane style > Thumbnails	Displays thumbnails of each item
	Pane style > Mini thumbs	Displays mini thumbnails of each item
	Arrange by > Name	Sort by name.
	Arrange by > Size	Sort by size
	Arrange by > Date	Sort by modified date.
	Arrange by > Type	Sort by type (not by extension)
	Arrange by > Other	Sort by a non-standard column (i.e., a column not listed above)
	Arrange by > Unsorted	Do not sort; show the items in the order they are read from the disk.
	Arrange by > Ascending	Toggles the sort order (ascending/descending)
	Arrange by > Show in groups	Shows the items in groups (only in Windows XP and later)

Where to right-click	Function	What it does-
	Shell New... > Folder	Launches a new folder.
	Shell New... > Shortcut	Creates a new shortcut. You will have to enter the target file in the dialog box that pops up.
	Shell New... > <Office file types>	Creates a new Microsoft Office file (i.e., a file with extension such as doc, xls, ppt, txt, wav, mpp, zip, etc.)
	Explorer ►	Explorer options
Tabs (in Tab Bar)	Left	Moves the tab to its left, by one position
	Right	Moves the tab to its right, by one position
	Rename	Label the tab temporarily
	Copy all paths (Command ID: 33134)	Copy paths of all tabs into clipboard
Info Bars	Select columns	Lets you select the columns displayed in the Info Bar.
	Autosize columns	Adjusts the column width to the information currently displayed in the Info Bar.

In scrap panes

Where	Function	What it does-
Window Bar	Topmost (note: The context menu has other options also. The utility PowerMenu also adds a few options to the context menu.)	Keep this window always on top of other windows, even if you switch to other applications.
Tool Bar	Drive Bar	Toggles the Drive Bar on/off
	Address Bar	Toggles the Address Bar on/off
	Tool Bar	Toggles the Tool Bar on/off

	Text labels	Toggles the labels on buttons on/off
	Lock Tool Bar	Freezes the size and location of the Tool Bars (toggle control).
	Customize...	Customizes the Tool Bar
QuickViewer	The QuickViewer is a common feature in both the main x ² window and the scrap containers. Therefore, its context menu is separately explained .	
Address Bar	Undo	Undo the last operation
	Cut	Cut to clipboard
	Copy	Copy to clipboard
	Paste	Paste from clipboard
	Delete	Delete the entry in Address Bar (but this does not affect the actual item)
	Select all	Selects the entire path of the current address in the address Bar
Scrap pane (r-click in the “ background ” area) (Note: The mini-scrap pane also has these context menu options)	Open (Enter)	Open the selected item
	Browse (CTRL+Enter)	Load the item in the active folder pane.
	Copy (CTRL+C)	Copy the selection and put it on the Clipboard
	Paste (CTRL+V)	Paste from clipboard
	Remove (Del)	Remove the selected items from this pane (the real items are not affected)
	Pane style	Displays the following submenu options (select any one):
	Pane style > Large icons	Displays items using large icons
	Pane style > Small icons	Displays items using small icons
	Pane style > List	Displays items in a list

	Pane style > Details	Displays detailed information for each item
	Pane style > Thumbnails	Displays thumbnails of each item
	Pane style > Mini thumbs	Displays mini thumbnails of each item
	Arrange by > Name	Sort by name.
	Arrange by > Size	Sort by size
	Arrange by > Date	Sort by modified date.
	Arrange by > Type	Sort by type (not by extension)
	Arrange by > Other	Sort by a non-standard column (i.e., a column not listed above)
	Arrange by > Unsorted	Do not sort; show the items in the order they are read from the disk.
	Arrange by > Ascending	Toggles the sort order (ascending/descending)
	Clear (Command ID: 33130)	Remove all items from scrap pane (but not delete them from the disk)
	Load contents	Load a CIDA file
	Write contents	Save the contents as a CIDA file
	Save as... (Command ID: 32824)	Creates a new CIDA file with the specified name and saves the contents in it. After this, this new CIDA file is used.
	Recent file <list> (This option is available in the mini scrap pane only; not in the scrap containers).	The CIDA files used in the scrap panes are listed here. (This list is shared across all scrap panes). Select any one file to load it in the pane.
Scrap pane (r-click on	Items in the Folder panes and Scrap panes have some common context	

any item or a selection of multiple items; but not in the “background” area)	<p>menu (see page 341 above).</p> <p>In addition, the scrap pane has the following options:</p> <ol style="list-style-type: none"> 1.Open file location (opens the containing folder in the current folder pane) 2.Removed from pane (removes the item from the scrap pane, but does not delete it from the disk)
--	---

In QuickViewer (Draft Preview Tab)

Function	What it does-
Copy	Copies the highlighted text or graphic into clipboard
Select All	Selects all text
Search	Search for a given string
Find Next	Search for next occurrence of the string
Word Wrap	Toggles the text-wrapping On/Off
Set font...	Set the font of the display
Encoding	<p>Select the encoding (Options: Windows, OEM, UTF-8, Unicode). Useful for text files that don't have a Byte Order Mask (BOM).</p> <p>For example, if some file appears in hex and you know it is text, it is probably Unicode without a BOM. In such a case, you should be able to view it properly by forcing Unicode encoding.</p>
Text only	Locks the QV in text mode (without graphics or sounds). Useful for viewing raw HTML contents or binary data of graphics
Next	Load the next file in the active pane. You can click in the QuickViewer and press CTRL+DownArrow to quickly load the next file.
Previous	Load the previous file in the active pane. You can click in the QuickViewer and press CTRL+UpArrow to quickly load the previous file.

Notes:

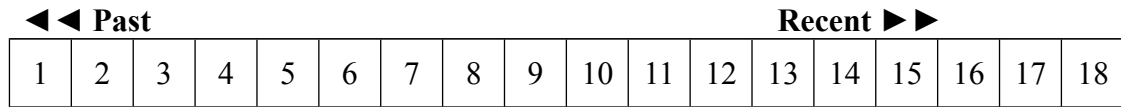
1. The Draft Preview tab of QuickViewer shows only first nnnn bytes at the beginning of the file. So, all options here will work within these first nnnn bytes. They will not work in the entire file.

You can change the value of nnnn by using the Tools | Options... menu option. Open the Window tab and enter the new size in the Text preview size (bytes) field.

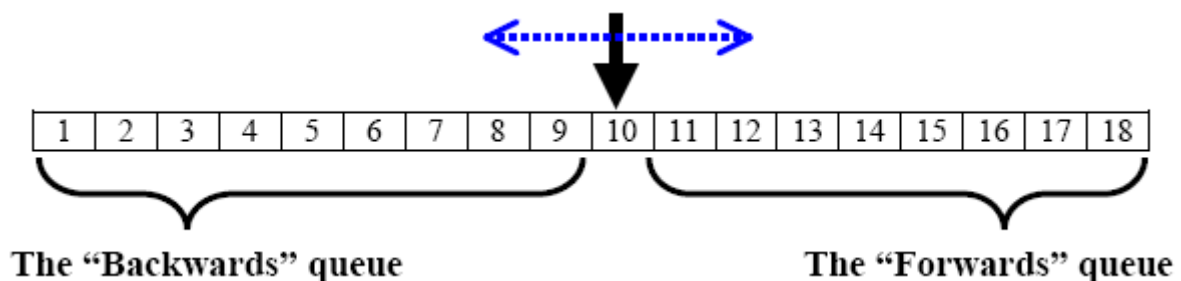
2. The Native tab of the QuickViewer has document-specific context menu. For example, while displaying a Microsoft Word document, it will have a context menu from Word.

9G. History navigation chain

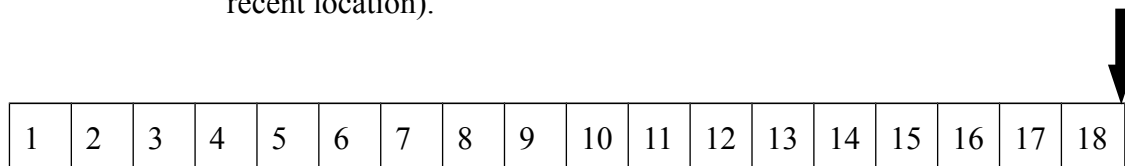
The chain has all locations visited in the past. More recently visited locations are on the right.



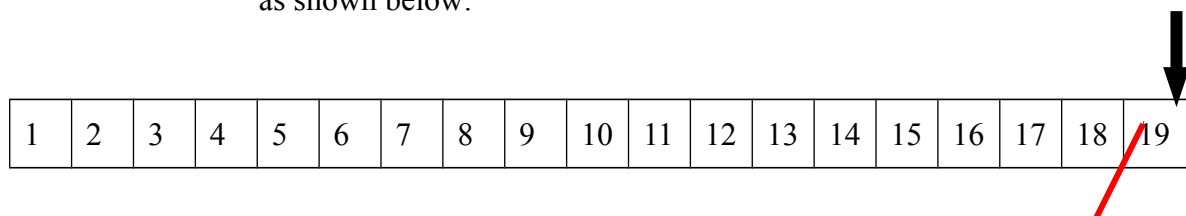
This can be compared to a rosary (or a stack with a movable “current location” pointer). When the user goes up/down the stack, the order of the locations does not change (only the current location pointer shifts as shown with the blue dotted line, below.) Note that the current location is neither in the “Forwards” queue nor in the “Backwards” queue.



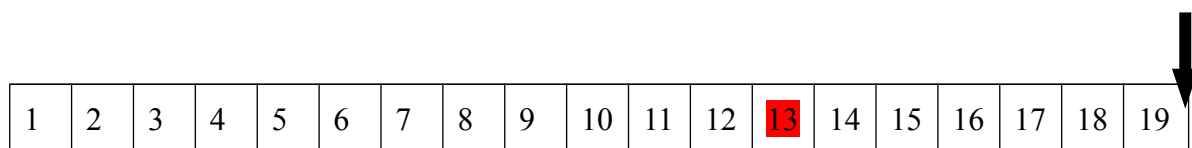
Normally, the location pointer is at the end of the chain (I.e., at the most recent location).



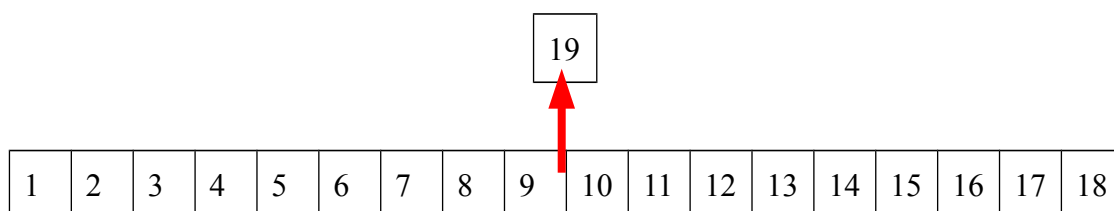
So, if the user clicks on any new folder, it will get added to the end of the chain, and the pointer will shift to the new end of the now-extended chain, as shown below:



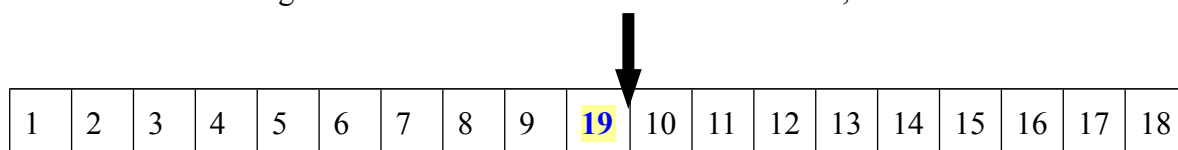
The chain always has a unique list of locations: all duplicate locations are removed. While removing duplicates, x² always retains the most recent copy of the location. For example, if the user visits the same folder that is registered in location 13, then this folder is re-registered as location#19, and the location#13 is deleted from the chain.



If the user is somewhere at the middle of the chain, and if he jumps to a new location, the new location is inserted in the chain. Again, duplicate locations (if any) are removed. For example, see the following figure: the navigation chain has 18 locations. The user is currently at location#9, and he jumps to a new location that is not listed in the chain (say, location # 19).



Immediately, the chain gets modified to include the location # 19 on the right-hand side of the location #9 in the chain, as shown below:

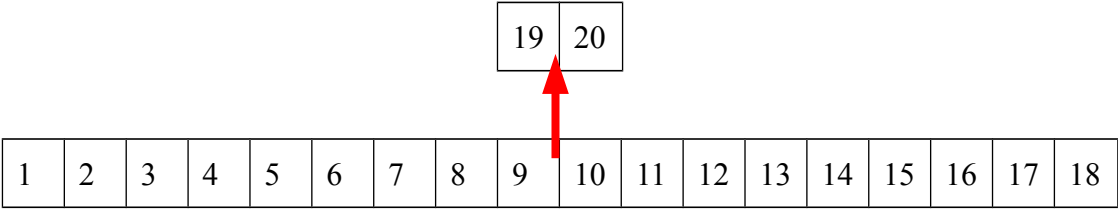


Note the following:

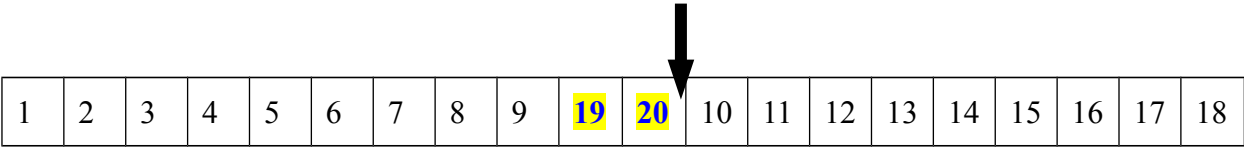
- The location is #19 is the current location now.
- When the user goes backwards, he will see location # 9 (from which he jumped to location # 19)

From this point onwards, when the user goes up/down the chain, he will see this extra location.

In case the user visits multiple locations in quick succession, all of them get added to the chain in the same sequence. (Duplicate locations will be removed.) For example, the user goes from Location 9 to two new locations 19 and 20, like this:



As a result, the history chain gets modified as follows:



9H. Search modes in x²

x² can search the domain in two different modes: *depth-first* and *width-first*. The following figures explain how the same tree is scanned differently in these two modes:

Depth-first mode

In this mode, x² scans the folders in alphanumerically *descending* order, and it prefers scanning subfolders before scanning peer folders.

Tree	Scanning sequence	Explanation
	Trial Trial\5	x^2 checks whether the Trial folder has any subfolders (it has). Then x^2 jumps to the last subfolder (i.e., folder 5)
	Trial\5\53	In folder 5, x^2 checks for subfolders and jumps to the last subfolder (53).
	Trial\5\53\535 Trial\5\53\534 Trial\5\53\533 Trial\5\53\532 Trial\5\53\531	In folder 53, x^2 checks for subfolders and jumps to the last subfolder (535). Since folder 535 does not have subfolders, x^2 scans all its peers in descending order. (If they <i>had</i> any subfolders, x^2 would have scanned them first.)
	Trial\5\52 Trial\5\51	After finishing 53 and all its subfolders, x^2 scans the next folder in descending order (52). Since folder 52 does not have any subfolders, x^2 goes upwards to 51.
	Trial\5\51\512 Trial\5\51\512\5123 Trial\5\51\512\5122 Trial\5\51\512\5121	In 51, x^2 finds subfolder 512, which in turn has subfolders. x^2 scans them in descending order (5123 to 5121). After finishing all subfolders of 512, x^2 turns to its peer, 511.
	Trial\5\51\511 Trial\5\51\511\5112 Trial\5\51\511\5111	In 511, x^2 finds two subfolders, which it scans in descending order. At this point, x^2 has finished all subfolders of folder 5. So it moves on to its peer, folder 4.
	Trial\4 Trial\4\42 Trial\4\42\422 Trial\4\42\421	In folder 4, x^2 finds two subfolders, so it jumps to the last subfolder (42). There it finds two subfolders and scans them in descending order (422, 421). Since there are no more subfolders, x^2 goes to 41, which is a peer of 42.
	Trial\4\41 Trial\4\41\412 Trial\4\41\411 Trial\3	In 41, x^2 finds subfolders 422 and 411. With that, all subfolders of folder 4 are finished. So, x^2 moves to folder 3, which is the peer of folder 4.
	Trial\3\32 Trial\3\32\322 Trial\3\32\321 Trial\3\31 Trial\2 Trial\2\25 Trial\2\24 Trial\2\23 Trial\2\23\232 Trial\2\23\231 Trial\2\22 Trial\2\21 Trial\1 Trial\1\12 Trial\1\11	This cycle is repeated for folders 3, 2 and 1 (and all their subfolders).

Now suppose you want to search for a file, and it is in folder 12. Although it is at the top of the tree, it is scanned almost at the end! On the other hand, if it were in folder 53, x^2 would find it immediately, because a depth-first search begins with the last folder in the domain!

Keep this factor in mind while searching.

For faster search results, break up your search domain in smaller groups and specify them as comma-separated list of folders in the **Look in...** field of search box. If you suspect that you will find the search item in a certain folder, specify it first in the list.

Breadth-first mode

In this mode, x^2 scans the directory “layer-by-layer”. (Just imagine that the tree is sliced vertically into strips, and then x^2 scans each strip separately). In each layer, it scans the folders in alphanumerically *ascending* order.

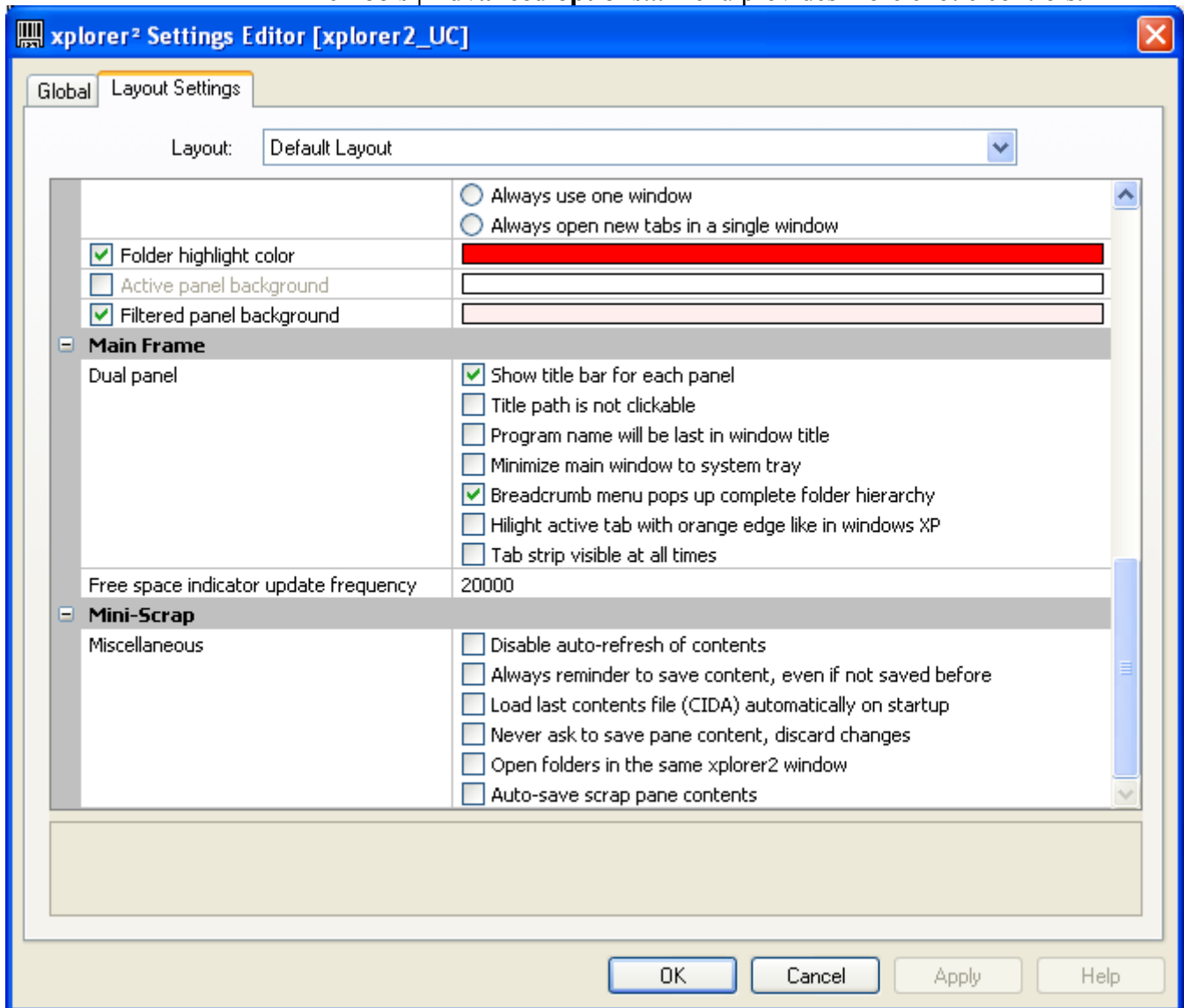
Tree	Scanning sequence	Explanation
	Trial	x^2 scans the top folder (Trial). This is the end of the top layer.
	Trial\1 Trial\2 Trial\3 Trial\4 Trial\5	x^2 finds 5 folders (1,2,...5) in layer-2. x^2 scans them in ascending order.
	Trial\1\11 Trial\1\12 Trial\2\21 Trial\2\22 Trial\2\23 Trial\2\24 Trial\2\25 Trial\3\31 Trial\3\32 Trial\4\41 Trial\4\42 Trial\5\51 Trial\5\52 Trial\5\53	x^2 finds 14 folders in layer-3, and scans them in ascending order. Note that these subfolders belong to different branches of the tree. It means that x^2 has to jump across different branches in order to scan these folders.
	Trial\2\23\231 Trial\2\23\232 Trial\3\32\321 Trial\3\32\322 Trial\4\41\411 Trial\4\41\412 Trial\4\42\421 Trial\4\42\422 Trial\5\51\511 Trial\5\51\512 Trial\5\53\531 Trial\5\53\532 Trial\5\53\533 Trial\5\53\534 Trial\5\53\535	x^2 finds 15 folders in layer-4, and scans them in ascending order. Note that these subfolders belong to different branches of the tree. It means that x^2 has to jump across different branches in order to scan these folders. Also note that folder 1 does not have subfolders at this level, so x^2 skips folder 1.
	Trial\5\51\511\5111 Trial\5\51\511\5112 Trial\5\51\512\5121 Trial\5\51\512\5122 Trial\5\51\512\5123	x^2 finds 5 folders in layer-5, and scans them in ascending order. Note that folders 1, 2, 3 and 4 do not have subfolders at this level, so x^2 skips them.

If your search item is located near the top (not deep down, like folder 5122), then use this mode: you will find it faster as compared to depth-first mode.

Keep in mind that if you use a comma-separated list in the **Look in...** field of search box, x² will finish scanning *all* layers of each listed folder before taking up the next folder. So, although the search item is near the top, x² may take longer to find it because it is forced to go deeper in previously listed folders. Therefore, it may be faster to specify one area at a time in *width-first* mode; rather than specifying a comma-separated list.

9I. Tweaking the Registry

The **Tools | Advanced options...** menu provides more exotic controls.



But editing the registry directly gives you even more choices.

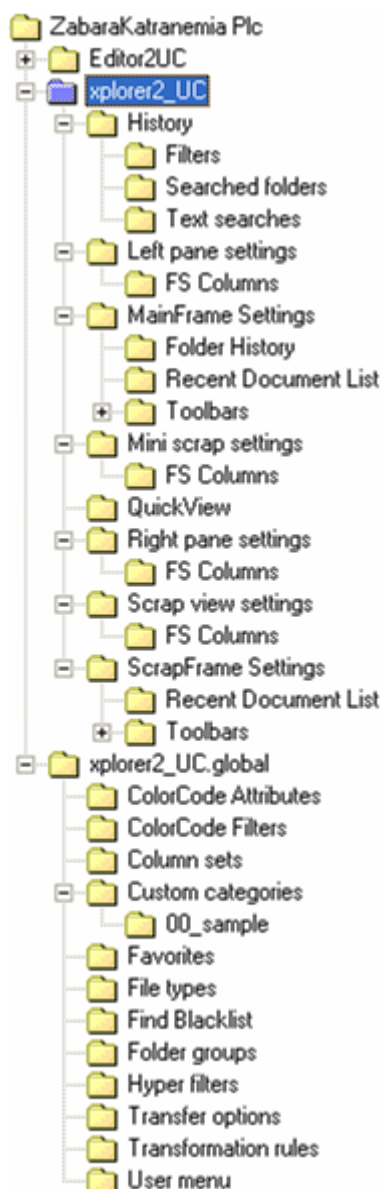


Warning: Editing the registry can render your computer unusable. Unless you are 100% certain you know what you are doing, you are advised not to modify it in any way.

Don't let that warning scare you off! With the right tools (e.g. Window's built-in tool **Reged32** or **Resplendent Registrar**), and a cautious approach, it is very easy and safe to tweak the registry.

Please read this appendix thoroughly *before* you start tweaking.

The registry tree for x² is shown below.¹



In the following sections, we will see how to change these settings.

First, understand the **registry**; so that you can edit it correctly:

- The structure of the Registry tree has a striking similarity to the **folder tree**:

¹ Note that the editor has listed the nodes in alphabetical order; not based on their function or in the order the elements appear in x²'s GUI. (In fact, depending on the utility you are using, your display *may* look different.)

- ◆ It has *keys* (analogous to the folders) and *data* (analogous to the files). The keys hold other sub-keys and data (just like how a folder holds sub-folders and files).
 - ◆ To change something, you have to open the corresponding key (and sub-key, as required), locate the correct data, and change its value. In some cases, you will have to even add a few data elements, and *then* set their values.
- Most items have self-descriptive names: it is easy to imagine the effect of each variable from its name.
- The data can be of the following types:
- ◆ Names starting with ‘n’ imply a *number*, and those with ‘sz’ are *strings*.
 - ◆ Names that begin with ‘b’ (e.g. **bUnderline**) refer to *binary* (on/off) type of settings. To turn the option off, set its value to 0. Any other value *enables* it.
 - ◆ Names that start with “bin” imply values that are made up as the sum of individual bits; where each bit represents a particular option. Select all the options you want, and then sum up all the numbers representing those options. Enter this total number in the “bin” value.
 - ◆ Values that correspond to time intervals are measured in milliseconds. For example, if you want to set a value to 2 seconds, set it as 2000.
- You can change the default color of some screen elements. See **Appendix 9S** to see how to set colors.

Whenever you want to change a value, follow these steps:

1. Close all the running instances and all windows of x^2 (*If you leave any x^2 window running, the change will not take effect!*)
2. Start **Resplendent Registrar Lite** (or an equivalent registry-editor utility).

(You can enter Windows' own **Regedit** command from the PC's **Start** | **Run** menu).

3. Locate the main key where x^2 keeps its settings
4. Double-click on an entry to change its value.
5. Whenever you want to reset a value, just delete it altogether.
6. If you are using **RegEdit**, make sure you switch to decimal

(not hex) input mode while changing the values. All the color values are in *Hex*, though.

Now we will see how to change the x² settings by editing the registry:

A. How to make x² your default folder application

As part of the installation process, x² adds "open with xplorer2" in the context menu for file system folders.

If you want to have this the default action (so that folders always open in x² when you click on them) then make sure this is the default verb, either using **Folder Options** ("file folder" type) or editing the registry:

```
[HKEY_CLASSES_ROOT\Directory\shell]
```

```
@="open_x2"
```

If you want some slightly different **command line options**, you can add any of the supported options by editing the following registry key:

```
[HKEY_CLASSES_ROOT\Directory\shell\open\command]
```

```
@="C:\Program files\zabkat\xplorer2\xplorer2_UC.exe" /T /1 "%1"
```

Notes:

1. Please check your installation folder first: Your installation path may be different. Secondly, your executable may be called **xplorer2.exe**, if it is the non-Unicode version.
2. Note that "%1" is required (*including* the quotation marks), and is replaced by the folder path you are trying to open.
3. The /T switch causes no tabs to be restored and the /1 switch puts x² in *single pane* mode. (You do not have to use these switches, but they make sense).

B. Tweaking advanced settings for x²


As the screenshot shows, the *Registry* is hierarchical, just like the folder tree. All entries of x² can be found under a main node (key), which is one of the following:

- **HKEY_CURRENT_USER\Software\ZaBar aKatranemia Plc\xplorer2**
(for the non-Unicode version).
- **HKEY_CURRENT_USER\Software\ZaBar aKatranemia Plc\xplorer2_UC**
(For the Unicode version)²

[xplorer2.global_UC] (or [xplorer2.global])

This key contains options that are shared among *all* registry keys, like the user commands you save.

2 If you install the PRO version and if you are using a windows platform that supports Unicode (NT4, 2000 or XP), you get the Unicode version of x².

SzAudioExtList	Comma-separated list of extensions for “exotic” audio files, e.g. “foo, Bar, wm4”. QV will add them to its default list, and will try to play them.
szVideoExtList	Comma-separated list of extensions for “exotic” video files, e.g. “ogg, Bar, wmdd4”. QV will add them to its default list, and will try to play them.
Find Blacklist	Full paths to folders you want excluded from being searched by “Find files” — they won’t be flattened either. You can add extra trouble-making folders as necessary. If you remove any folders, please make sure the remaining list has consecutive folder numbering (in other words, the folder numbers must <i>not</i> have a gap). The easiest solution is to rename(re-number) the last folder to take the place of the folder you deleted.
Transformation rules	If you want more default rules for Mark Check build , please add them here.
bin1OffNotify	Controls whether to suppress the warnings (reset it to 0 to get <i>all</i> warnings)
binFileOpFlags	Controls confirmations for file operations initiated by drag-drop or Paste. This is extremely useful in suppressing the numerous confirmation dialogs that you get in some commands.
szAltBrowser	Set path for browser executable other than the default Internet Explorer for reading the HTML help file (which pops up when you use the  button in any dialog box).
nCustMenuIcons	Number of bookmarks, user commands etc that can be placed on Tool Bars (range: 5-100)
nMenuBreak = n	If the menus are too long (e.g. list of bookmarks), x ² will split the list and display every n items into separate columns.
nMaxTButWidth	Sets the maximum width for the text-enabled Tool Bar buttons

File types	<p>Sometimes, you may like to use a command on files of interrelated types. For example, playing <i>all</i> types of audio files (wav, mp3, wma, cda, snd, aif and ogg); or viewing <i>all</i> types of pictures (bmp, ico, jpg, gif, img, pcx, png and tif); or reading <i>all</i> documents (pdf, doc, odt, chm, ppt, rtf, etc)</p> <p>x² allows to define your own groups using this registry key. x² comes with some predefined groups, but you can edit them to add/delete file types in any group. You can also add new groups or delete an existing group.</p> <p>Once defined, these groups appear in the auto-filter command's list. These groups can also be entered in Named field of multiple commands listed in Appendix 90.</p>																
binMiscOptions	<p>This entry controls the <i>global</i> miscellaneous options for x². Its default value is 0. To change its value, just select any options from the list below and add up their values; and enter that value in registry.</p> <table border="1"> <thead> <tr> <th>Name</th><th>Description</th></tr> </thead> <tbody> <tr> <td>GAOPT_NOBGTHUMBS =64</td><td>No background threading for thumbnails, saves custom DLL GPFs</td></tr> <tr> <td>GAOPT_TREENONETENUM =128</td><td>If you use the "locate in tree" command for a NN folder, the tree will <u>not</u> show all the <i>other</i> PCs on the NN. This reduces clutter in tree (and also avoids the delay in displaying all NN PCs in the tree.)</td></tr> <tr> <td>GAOPT_NOCUSTOMICONS =256</td><td>x² stops extracting custom drive icons.</td></tr> <tr> <td>GAOPT_THREADEDPDF =512</td><td>Avoids loading of x² while viewing pdf files in <i>Draft</i> tab of QV (text from the previewed pdf file is extracted in a <i>background</i> thread) (Requires Adobe Reader 7+)</td></tr> <tr> <td>GAOPT_NOVISTAGLASS =1,024</td><td>Disables fancy selection Bars etc in Windows Vista, to make it look like Windows XP.</td></tr> <tr> <td>GAOPT_VISTADDICONES =2,048</td><td>Show images of items during D&D (default = OFF because it crashes in Vista)</td></tr> <tr> <td>GAOPT_FOLLOWJUNCTI</td><td>Treat junctions as normal folders for</td></tr> </tbody> </table>	Name	Description	GAOPT_NOBGTHUMBS =64	No background threading for thumbnails, saves custom DLL GPFs	GAOPT_TREENONETENUM =128	If you use the " locate in tree " command for a NN folder, the tree will <u>not</u> show all the <i>other</i> PCs on the NN. This reduces clutter in tree (and also avoids the delay in displaying all NN PCs in the tree.)	GAOPT_NOCUSTOMICONS =256	x ² stops extracting custom drive icons.	GAOPT_THREADEDPDF =512	Avoids loading of x ² while viewing pdf files in <i>Draft</i> tab of QV (text from the previewed pdf file is extracted in a <i>background</i> thread) (Requires Adobe Reader 7+)	GAOPT_NOVISTAGLASS =1,024	Disables fancy selection Bars etc in Windows Vista, to make it look like Windows XP.	GAOPT_VISTADDICONES =2,048	Show images of items during D&D (default = OFF because it crashes in Vista)	GAOPT_FOLLOWJUNCTI	Treat junctions as normal folders for
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	ONS =4,096	search, flatten etc
	GAOPT_COLCALWAYS =8,192	file name color coding is applied on inactive panes also.
	GAOPT_NOMINIDUMP =16,384	Do NOT install crash handler. (no minidump will be generated).
	GAOPT_NOCASCADEFR W =32,768	Do not open new frame windows cascaded (displaced bottom/right)
	GAOPT_IGNOREADSERR =65,536	Robust copy operations won't complain about file stream loss - Use this option at own risk!
	GAOPT_NOROBUSTDEL =1,048,576	Disable robust delete (items are deleted using Windows Explorer)
	GAOPT_SAVEUNICODET XT =8,388,608	When you paste text in a Folder pane, the file is saved as Unicode file, not as a plain txt file.
	GAOPT_NOX2SHCMENU =33,554,432	Remove x ² 's own options from the context menu in the standard shell


[xplorer2_UC] (or [xplorer2])


This is the main registry key. You can have extensions (variants) in the format *xplorer2.other*, where “other” is the “layout” name you assign from **Windows** menu of x². All these registry keys have a similar structure.

Name	Default value	Description
nKBSIZEDecimals	1	How many decimals to show for compressed mode sizes, eg 1.01kb vs 1.006kb
bSortZipAsFiles	1	0: as folders: zips are bunched together with other (real) folders. 1: as files (when zipfolders are supported).
nFocusTimeoutMS	500	Timeout (in milliseconds) affecting the QuickViewer and tree auto-updates. The default is to wait 0.5 sec before e.g loading a file's preview, giving you time to scroll without loading previews for each file you come across.

Name	Default value	Description
nHoverTimeoutMS	1000	The time you have to hover on a tab or tree node while dragging, before x ² automatically opens the tab or tree node.
nRefreshTimeoutMS		Controls how long panels delay till they refresh themselves after receiving a file system change notification.
RgbFolderLinkcol	-1	When you hover mouse over a sub-path in the active pane's title Bar, the sub-path will be displayed in this color. The default color is dark blue. For a more eye-catching color, try 000000FF (bright red) .
rgbActiveBgcol	-1	Color that will replace the white background of the active Folder Pane and also the Tree Pane.
rgbFilterBgcol	-1	<p>You can set a different background color for the active pane when a filter is turned ON (it is an easy indication that some items are hidden). Try the value 00EEEEFF (light pink)</p> <p>Note that this setting applies only to the <i>active</i> pane: the background color of the <i>inactive</i> pane does <u>not</u> change even if a filter is active in it.</p>
nToolFont100	90	Percent increase (e.g. 110) or decrease (e.g. 90) for Tool Bar font size. For most systems, the default value is fine. If it turns out too small, try a value like 100.
nThumbMini100	60	Controls how much % smaller (or larger) is the Variable-size Thumbnail as compared to the Standard Thumbnail.
szEditor2Path		Path for Editor ² , the preferred viewer association (automatically set by x ²)
szNewFileExt		<p>Text entered here will be used as extension of the new file created by the Create a new file (F7) command; you do not have to enter the dot (.) and the extension.</p> <p>(e.g. Enter txt to create text files by default.)</p>
SzExtFindFiles		<p>Path for external program for finding files [default is Windows Explorer]</p> <p>e.g. <code>c:\tools\finder "%s"</code></p> <p>The string "%s" (<i>with</i> the double quotation marks) should be included; the current folder path is passed as an argument there (this option is only available for the Lite version)</p>

Name	Default value	Description						
nThumbSpacing	3	Controls the spacing between the thumbnails in thumbnail view						
BsantasLittleHelper	1	This controls whether x ² uses a background thread to do time-consuming tasks like thumbnail extraction etc.						
		0	Turn it off (not recommended).					
		1	Run at the same priority level as the main program.					
		2	Uses the background thread but running at a lower priority so as not to interfere with the main program. But the columns may take a long time to fill up (especially when other programs are running)					
bSingleWindow	0	Controls whether a new window will be launched or a tab, when-						
		1.You use the Window clone menu option,						
		2.You launch a new instance of x 2 (from the Quick Launch Bar or Window’s START menu)						
		3.Windows detects a new folder						
		(e.g. when you insert a CD, DVD or a USB pen drive in the drive.)						
		There are 3 possible settings, as shown below:						
		<table><tr><th>Value</th><th>Behavior</th></tr><tr><td>0</td><td>(Default). A new window is launched when you clone or launch a new instance of x².</td></tr><tr><td>1</td><td>Only one window is used for all folders, even when you launch/clone a separate instance of x²</td></tr><tr><td>2</td><td>A new tab will be opened</td></tr></table>	Value	Behavior	0	(Default). A new window is launched when you clone or launch a new instance of x ² .	1	Only one window is used for all folders, even when you launch/clone a separate instance of x ²
Value	Behavior							
0	(Default). A new window is launched when you clone or launch a new instance of x ² .							
1	Only one window is used for all folders, even when you launch/clone a separate instance of x ²							
2	A new tab will be opened							
(Tip: You can use the x2SettingsEditor.exe utility to set this.)								
nCopyThrottleMS	0	A delay (milliseconds) in robust transfers so that your system resources aren't drained (but the transfer speed drops!)						

Name	Default value	Description
binMiscOptions	10485984	This entry controls miscellaneous options for x ² .
		GLOPT_NOED209 = 1 Don't use Editor ² at all
		GLOPT_ALTAREFRESH = 4 Back up autorefresh mechanism
		GLOPT_SAVEF5DIRS = 16 When you select "copy to opposite pane" option in F5 (and F6) , the paths of the inactive pane will be added to the pull-down list of these dialogs.
		GLOPT_SHOWALLHIDDEN=256 Show all items, even if their Hidden attribute is set.
		GLOPT_NOKEYSENDMS=1024 Stop CTRL+S from sending items to mini-scrap pane
		GLOPT_NOPOSHREFRESH = 4096 Turn off the modern refresh system.
		GLOPT_ADDRBar ENDOK=8192 The moment you select a line from the combo history (e.g. with mouse), it gets executed. You don't have to press Enter (or click on the  button) separately. (But then you can't edit the newly selected path before executing it, either!)
		GLOPT_DIREXTENSIONS=16384 Enables file name "extensions" for folders (past the dot).
		GLOPT_ROBUSTPASTE = 131072 Implement the Edit Paste command through robust transfer , not through Windows Explorer
		GLOPT_CACHETHUMBS=524288 Forces items to cache their bitmaps (NOT recommended!)

Name	Default value	Description	
		GIOPT_NOLEFTDND = 4194304	Disable LEFT drag-drop to avoid move accidents (right-drag still works)
		GIOPT_NOCOLCACHE = 16777216	Don't cache column information (for CVS users)
		GIOPT_RENFULLNAME = 33554432	F2 selects the entire file name, including the extension
		GIOPT_PROTECT1SEL=65536	Protects even a single item selection under <i>Eat the first click</i> policy. (If this flag is not set, and if a pane has a single item selected in it, as soon as you click inside the pane, x ² will drop the earlier selection and select the item under the mouse pointer.)
		GIOPT_NODIRTHUMBS=134217728	Stops extracting folder thumbnails in Windows XP
		GIOPT_QSNOFCONTENT=268435456	Stops quick search from looking in file contents (x ² will only scan text in columns/details shown)
		GIOPT_PACKEDTHUMBS=536870912	Tight vertical bunching of the thumbnails.
		Tip: To add these numbers easily, you can use Windows Calculator utility. Select the Start Run... menu. In the dialog that pops up, enter calc and press OK . Do not forget to use it in <i>decimal</i> mode.	

[xplorer2/ MainFrame Settings]

Name	Default value	Description	
msFreeSpaceUpdateInterval	20000	Shows the Free Space status update interval in milliseconds. If you want to have the disk free space shown on the Status Bar, set this to a non-zero value. For example, 5000 means “check the free space every 5 seconds”. Set to 0 to omit the indicator altogether	
binTreeOptions	3	Controls how the Folder Tree behaves:	
		Value	Behavior
		FTCOPT_SORTBYDATE=32	All nodes are sorted on Modified date, instead of Name
		FTCOPT_OPENSUBFOLDERS=64	When synchronizing with Folder pane, always expand the subtree of the active node. You can readily see the full structure of the current folder.
binDualPaneFlags	9	FTCOPT_AUTOCOLLAPSE=256	Collapses open branches before opening new ones - so that you don't end up with too many open branches during browsing
		DPF_SHOWHEADERS=8	Show title Bar for each view pane
		DPF_NOHEADERSUBPATHS=128	The title Bars exist but will not be clickable.
		DPF_X2TITLETRAIL=4096	In the main window's title Bar, “xplorer ² ” is displayed last.
		DPF_MINIMIZE2TRAY=8192	Forces the x ² main

			window to system tray when minimized.
		DPF_CASCADECRUMBS=16384	Puts all folder hierarchy in breadcrumbs in cascading submenus
		DPF_XPTABHILITE=32768	Displays the active tab with an orange edge, as in Windows XP.
		DPF_SHOW1TAB=65536	Forces tab strip visibility even when only one tab is available in the pane
		DPF_NOMIDDLECLOSE=131072	In folder pane, clicking MMB or d-click on a tab won't close the tab.

[**xplorer2/** xxx pane settings] (where xxx is the left or right folder pane/scrap pane, or the mini-scrap pane)

Name	Description	
binMiscOptions	Add up the values for the desired options:	
	CLVOPT_DISABLEAUTOREFRE SH = 1	Patch/efficiency improvement for multi-folder views
	CLVOPT_NAGGINGSCRAP = 64	Scrap frames will always ask you to save contents
	CLVOPT_ARROWTABPANE = 256	Use left/right arrows to switch panes in detailed view
	CLVOPT_MINIVNONAGS=8192	Never prompt user to save changes.
	CLVOPT_AUTOSAVESCRAP=32 768	Automatically save contents in CIDA file, even without file name

[xplorer2/ CommandFrame Settings]

This setting is for the console used for DOS command execution, if enabled.

Name	Description
NConsoleMaxChars	Sets the upper limit on characters displayed in the console. If this limit is reached, some of the older data in the window will disappear.

[xplorer2/ QuickView]

Name	Default value	Description
binRELangOptions	-1	<p>If you find that the text previewer gets its fonts mixed up or misbehaves (especially in East European countries), try setting this value to 0.</p> <p>You can also use any of the richedit IMF_xxx constants.</p> <p>If you make things worse you can always set it back to the default [-1].</p>

9J. Running x² under special circumstances

This appendix discusses the following special cases:

1. Running x² from command line (with optional arguments)
2. Launching x² with different preset options
3. Running x² with Administrator privileges when you are using a Limited User Account
4. Running x² from a USB drive

Let us see each case in detail.

Running x² from command line

You can launch x² from the command line.

The command has a number of optional arguments that control some aspects of the program. The syntax of the complete command line is:

```
xplorer2_UC.exe /F:n /M /P /I /W /R:<rootFolder> /S:<registryKey>  
/L:<searchFromFolder> /X <leftArgument> <rightArgument>
```

The arguments are explained in the table below. They are alternately shown in blue/red color only to separate them from each other in this list.

Please note the following:

- If you are using a non-Unicode version of x², use xplorer2.exe in place of xplorer2_UC.exe in your command. (If you are not sure, just open your installation folder and check the name of the x² executable, and use the same name in the command.)
- All arguments are optional.
- The arguments are separated with space (not comma)
- You can enter the arguments in any order.
- The / and : characters are literal (in your command, enter them exactly as shown).
- Arguments enclosed in < > are dummy names. In actual commands, you have to replace them with the paths of the files/folders, or key name, as applicable. For example, D:\Utilities and E:\homework\physics.cida. The < > brackets are not to be entered in the actual commands.

Argument	Explanation
/F:n	<p>Defines the starting window type, where n= 0 or 1.</p> <ul style="list-style-type: none"> By default, a normal browser window is opened, equivalent to /F:0.\ If you want to start with a scrap container, use the value /F:1
/M	Do not allow the x ² window to open in minimized mode on startup
/P	By default, x ² runs in a system resource-friendly single process mode, even when you launch separate instances. To force new instances to open as separate processes, enter the /P argument.
/I	Forces x ² to use the alternative settings file (called <i>settings.reg</i>). It is best to place this file in the same folder as the executable. (This is useful if you are using x ² in a portable mode (i.e., from a pen drive or plug-in hard disk, etc.).
/W	Allows writing to registry even in portable mode
/R:<rootFolder>	<p>Specifies the folder that is taken as the root, instead of the desktop.</p> <p>In other words, the specified folder becomes the highest node till which the user can go. x² will not allow the user to reach other parts of the namespace: The user can go downwards within the specified root folder. (This is useful in protecting some directories, by preventing the users from going there.)</p> <p>For example, the command <code>xplorer2_UC.exe /R:C:\winnt</code> will force both the tree and view panes to treat C:\winnt as root. Users can reach subfolders of the C:\winnt folder, such as C:\winnt\system. But he cannot go upwards from this folder (i.e., to C:\). Similarly, all other drives (including removable drives) such as D:\ will be off-limits.</p>

Argument	Explanation
/S:<registryKey>	<p>Specifies the registry key extension for storing program options.</p> <p>The default key is HKCU\Software\ZaBar aKatanemia Plc\explorer2_UC but you can use multiple extensions to store different sets of options.</p> <p>For example, the command explorer2_UC.exe /S:preview will load options from the key ...\ZaBar aKatanemia Plc\explorer2_UC.preview</p> <p>Note that this switch changes only the extension; the base key remains the same.</p> <p>Once you start x², you can change the extensions dynamically, by using the Window Save layout menu option.</p>
/L:<searchFromFolder>	<p>Causes a scrap container window to issue a Omni-Finder command when it first comes up. The search is conducted in the specified folder.</p> <p>This switch can be used only if the x² is launched as a scrap container (not with normal browser window). In other words, it can only be used in conjunction with the /F:1 argument.</p>
/T	Prevents x ² from restoring the folder tabs on startup (by default, you get all tabs reopened, just as you left them at last use)
/N	On startup, x ² will not read network and other folders that are slow or unavailable. (Thus x ² will not appear to hang on startup)
/X	<p>Forces x² to launch in dual/single pane mode, where X= 1 or 2.</p> <p>(/1 forces single pane mode, and /2 forces dual pane mode)</p> <p>For example, explorer2_UC.exe /1 launches x² in single-pane mode.</p>

Argument	Explanation						
<leftArgument>	<p>Specifies what will be opened in the left/top pane when x² launches.</p> <p>Actually this depends on the value of the /F switch, as follows:</p> <table> <tr> <th>Value of the /F switch</th><th>Value of <leftArgument></th></tr> <tr> <td>/F:0</td><td> <ul style="list-style-type: none"> ➤ A path for a folder, OR ➤ The name of a folder group (all the tabs will be opened in the left/top pane). </td></tr> <tr> <td>/F:1</td><td>A path for a CIDA file (The CIDA file will be loaded in the left/top scrap pane)</td></tr> </table>	Value of the /F switch	Value of <leftArgument>	/F:0	<ul style="list-style-type: none"> ➤ A path for a folder, OR ➤ The name of a folder group (all the tabs will be opened in the left/top pane). 	/F:1	A path for a CIDA file (The CIDA file will be loaded in the left/top scrap pane)
Value of the /F switch	Value of <leftArgument>						
/F:0	<ul style="list-style-type: none"> ➤ A path for a folder, OR ➤ The name of a folder group (all the tabs will be opened in the left/top pane). 						
/F:1	A path for a CIDA file (The CIDA file will be loaded in the left/top scrap pane)						
<rightArgument>	<p>Same as above, but for the right/bottom pane.</p> <p>Note that this argument is identical to the <leftArgument>argument. In fact, when there are two paths in the command, x² takes the first as the <leftArgument> and the second as the <rightArgument>.</p> <p>Note: If x² is launched in single-pane mode (with the / 1 argument), this argument will be ignored.</p>						

Notes:

1. If x²'s installation folder is not added to Window's Path environment, then you will have to issue the command with the whole path. (e.g. instead of xplorer2_UC.exe, you have to enter D:\Utilities\x²\xplorer2_UC.exe)
 2. If a path contains spaces, you will have to enclose the path in double quotes. (e.g. "D:\Utilities\x² beta\xplorer2_UC.exe"). This applies to paths in the arguments also.
- Note that if such a path is used with a switch, then the switch must be put inside the double quotes; otherwise the path will be ignored. (see the last example in the table below)

Let us see some practical examples:

Command	Effect
xplorer2_UC.exe /F:0 D:\Utilities C:\	Start x ² with browser windows (by default, in dual-pane mode), load D:\Utilities in the left/top pane and C:\ in the right/bottom pane.
xplorer2_UC.exe /1 /F:1 D:\songs.cida	Start x ² in single-pane mode. Launch it as a scrap container (not as a normal browser window) and load the CIDA file D:\songs.cida in it.
xplorer2_UC.exe /F:0 Daily D:\Utilities	Start x ² with browser windows (by default, in dual-pane mode), load the folder group named “Daily” in the left/top pane and folder D:\Utilities in the right/bottom pane.
xplorer2_UC.exe /F:1 “/L:D:\knowledge base”	<p>Start x² as a scrap container (not as a normal browser window). Also launch the Omni-Finder command, and enter the D:\knowledge base folder in its Look in field. You have to enter the other entries in the dialog, and launch the command. The search results (if any) will be put in the scrap pane.</p> <p>Note the use of double quotes (“ ”) around the the path. This is necessary because the path contains a space.</p> <p>Note also that the switch itself (/L:) must be put inside the quotes. If you do not include the switch inside the double quotes, the search command will ignore this path completely: Then it will search in the folder(s) specified in the last search command!</p>


Handling UAC issues

Windows restricts the privileges of all users to protect the computer against malware. The essence of **UAC** is that *nobody* is allowed to run with full administrator privileges unless he explicitly requests so.

Even administrators are given reduced privileges so they cannot modify 'protected' folders.

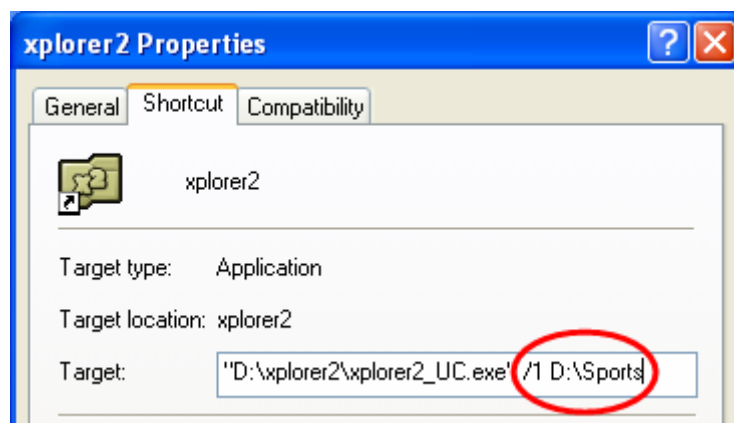
All programs are affected by **UAC** in Vista and later, including x². When you start x² normally, it is running with reduced privileges so it cannot delete files in C:\windows and similar folders.

Here's what you can do to work around this limitation:

Method	Details
Run elevated	<p>Use Window > Administrator menu command from within x², or click on the  button. x² launches another window where you have full administrative privileges (you can do everything everywhere on the computer). You may have to provide an administrator password to complete the operation.</p> <p>You can also r-click on x²'s desktop icon, and from the context menu that appears, select the Run as administrator option.</p>
Disable UAC	You can disable UAC altogether from control panel, but this is <i>not recommended</i> .
Miscellaneous	<p>You can copy files into protected folders without running as Admin, provided that you use drag-n-drop instead of using Robust Copy command.</p> <p>To delete or rename a protected file, use the shell context menu (r-click on the file) instead of x² own menu commands (delete or shred). See this demo.</p>

Launching x² with different preset options

Normally you launch x² from the Quick Launch Bar (or the Desktop) without specifying any additional options. In that case, x² gets launched exactly as it was when it was closed in the last session. However, to launch x² with specific preset options, you can enter the corresponding command line arguments in the Properties dialog, as shown below:



Note that the Target field contains the same command line that was explained in this appendix.

To get this dialog, r-click on the x²'s shortcut in the Quick Launch Bar (or Desktop), and select the Properties option from the menu that appears.

Tip: You can create several shortcuts to x², and then edit the property of



each to have a different set of arguments. This is useful if you regularly use x² for different specific jobs. (Rename each shortcut after the job it does.)

Running x² as Administrator under Limited User Account (LUA)

It is not safe to use your PC with full administrator privileges. (That allows virus and other malicious programs to infect your PC.) Therefore, for normal uses, you should use an account that has limited access privileges (such an account is called “Limited User Account”, or “LUA” in short.)

For certain tasks, you will have to temporarily switch over to your Administrator account. (For example, to install an application.)

One way to do this is to use the Windows's **Start | Log off | Switch user** menu to switch to your Administrator account. (Once the task is over, you should switch back to your LUA to avoid risks.)

Another way is to create a shortcut that allows you to manage files with higher privileges. This method (applicable to Windows 2000 and later only) is described below:

1. First of all switch to your account that has administrative privileges. This account must have a password.

OR

Close all instances of x² and start x² newly with the context (right click) menu **RunAs...** Place the credentials of the admin account into the dialog that pops up.

2. Using the menu option **Window | Save Layout...** save your current layout as "admin" (you can use any other name, but this name is suggestive of what you are trying to do)
3. Use the Windows menu option **Start | Run...**, and in the window that opens, enter regedit (or Reged32) and press **OK**. (This will run the Registry editor.) Open the following key:
HKEY_CURRENT_USER\Software\ZaBar aKatranemia
Plc\explorer2_UC.admin

Note the following:

- The key ends with ".admin" (or any other name you chose in step 1).
 - If your x² is non-Unicode, the last part of the key will not have “_UC” in it.
4. Find the binMiscOptions value (or create it) and turn on GIOPT_ALTAREFRESH option in it. This will enable alternative auto-refresh mechanism for x² running with higher privileges.

You may skip this step, but in that case x² won't auto-refresh the pane contents.

5. Locate the explorer2_UC.exe file (in the installation folder), and

create a shortcut for this file somewhere (e.g. Desktop, any folder, etc).

6. Now select the shortcut and right-click. From the context menu, select the Properties option. In the dialog box that pops up, switch to Shortcut tab.
7. Click in the *Target* field. (It shows the path of the x² executable file). At the end of that path, add a space and then "/P /M /S:admin" (without the quotes).

Your target will now look like this:

"C:\Program Files\zabkat\explorer2\explorer2_UC.exe" /P /M /S:admin

If you had used another name in step-1 (instead of admin), you have to use the same name at the end of this string.

Note that we have used three **switches** here:

Switch	What it does
/P	Force new x ² instances to open as separate processes (this is critical for our purpose)
/M	Do not allow the application window to open in minimized mode on startup (you may omit this switch)
/S:admin	Switch to layout named "admin" (if you had chosen another name in step-1, use that name here instead of admin. This is critical for switching to the correct user.)

8. Click Advanced button. In the dialog box that pops up, select Run with different credentials option. Click **OK**. The pop-up window closes.
9. In the Properties dialog, click **OK**.

Now whenever you click on this shortcut, Windows will ask you to provide a user name. Enter (or select) a user that has Administrator privileges. Windows will run a new x² instance with that user's privileges.

Using x² from removable drives (portable version only)

The portable version of x² runs from a removable drive (a USB pen drive or pluggable hard disk, for example). The advantage of this method is that you can run x² from unlimited number of PCs, without having to install it anywhere. A typical application is where you have to use a client's PCs.

By default, x² will save its setting in the registry of each PC. Since you would change the settings in each PC while working, each PC has a

different setting (as if you are using a separate copy of x² in each PC). However, if you want to have the same setting in all PCs, you have to keep the registry settings in the portable drive (along with the x² executable).

9K. Program options

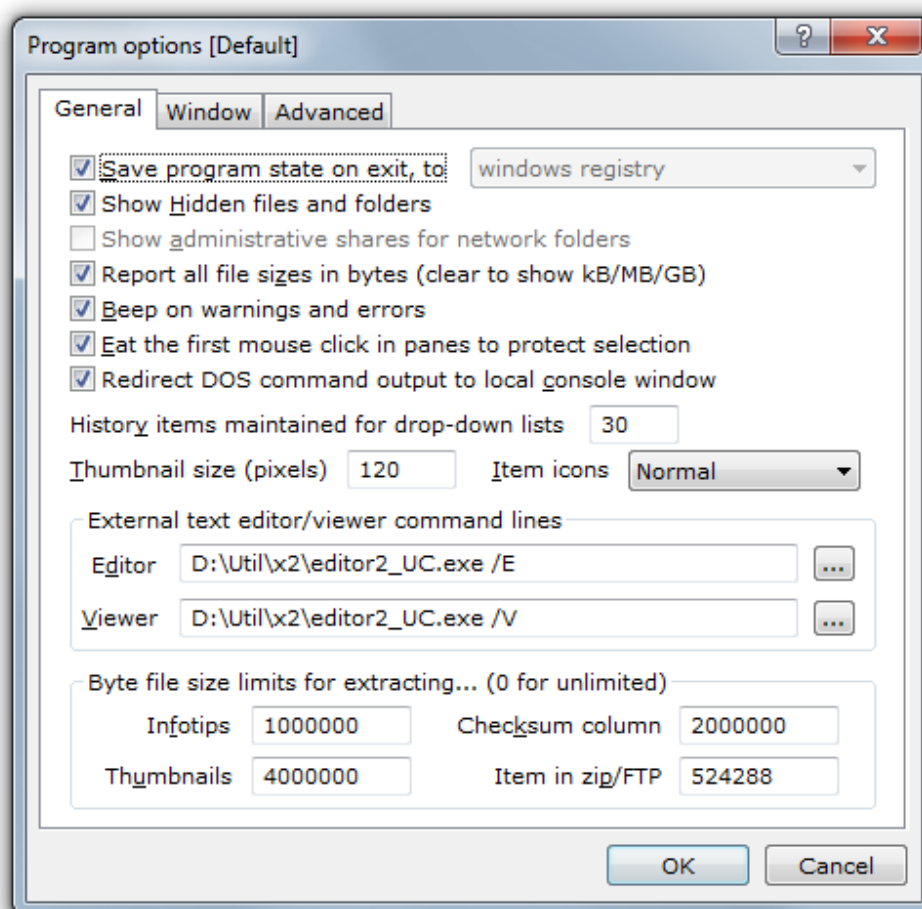
x² offers two different levels of program options:

1. For normal users (accessible from **Tools | Options** menu).
2. For power users (accessible from **Tools | Advanced Options** menu)

All the program options are explained here.

Normal options



When the **Tools | Options** menu is used, the following window pops up:




This window contains three tabs:


1. General (options that are applicable through the application)
2. Window (options related to the GUI)
3. Advanced (generally new users will not need these options)

All options are explained below:

Option	Remarks
Save program state on exit	Saves the layout, folders open in either pane, and settings in search dialog (only check boxes, not the drop-down lists) at the time of exit. The next time you start x ² , it will start with these saved settings.
Show Hidden files and folders 	<p>If this check box is cleared, all items “hidden” attribute set (using F12 or SHFT+F12) will not be visible. In this state, the Status Bar shows  to alert you that some items may be hidden.</p> <p>Caution: <i>x² (and so also the Windows Explorer) will allow you to delete a folder that contains hidden items. So if you clear this option, and have a lot of hidden items scattered around your PC, you run a risk of deleting the hidden items without realizing it.</i></p>
Show administrative shares for network folders	If you are an administrator, you may want to see special hidden shares (like C\$ etc) on remote machines. Check this option to enable it, but note that searching for shares may take a long time
Report all file sizes in bytes	Clear the check box to show the size in kB/MB/GB
Beep on warnings and errors	To silence the beeps upon error, clear this check box. The visual indications will continue.

Option	Remarks
Eat the first mouse click in panes to protect selection	<p>To shift the focus to a folder pane, you can use TAB, SHIFT+TAB, CTRL+TAB etc. These methods don't disturb the selection existing in the folder pane. However, you can also switch the focus by clicking in the folder pane, which does destroy the previous selection if the sticky selection mode is not turned on.</p> <p>To avoid this problem, put a tick in this check box.</p> <p>But if you use TAB to change focus (and never use a mouse click for the purpose), you don't need this feature.</p>
Redirect DOS command output to local console window	<ul style="list-style-type: none"> ➤ When the check box is ticked, uses x²'s own console window to capture output from DOS commands (using \$ syntax in the Address Bar). This console is more user-friendly: you can easily copy and search for text. ➤ When the check box is cleared, each DOS command executed will open a new (standard Windows) console window to show output.
History items maintained for drop-down lists	<p>Affects the size of list remembered by x² for the Address Bar and history in folder panes, and also in all combos in other dialog boxes (e.g. robust transfer).</p> <p>Note that you will be comfortable with a history of 10 or less. Longer lists will be unmanageable. Default value: 30</p>
Thumbnail size (pixels)	<p>Sets the size of thumbnails (displayed in the folder panes when it is set in Thumbnails style) Default size: 120 pixels</p> <p>Tip: In Windows XP/2000, you should set the size to 96 pixels to accelerate the generation of thumbnails (uses the thumbs.db system cache)</p>

Option	Remarks										
Item icons	<p>Choose from the following options:</p> <ol style="list-style-type: none"> 1. Normal 2. Simple (x² can display them faster) 3. Plain. (x² can display them fastest, but the icon overlay symbols used for shortcut, shared, TSVN, etc. are not displayed in the icons.) 										
External text editor/viewer command lines	<p>While the built-in Editor² is sufficient for most text viewing/editing jobs, you may want an editor with extra features, such as spell checker, syntax highlighting for C++, Java, etc. These options allow you to specify an external program (such as Notepad++) for the viewing/editing. Press the  button to browse and locate the desired application. (You can also paste the executable's path in the address Bar.)</p> <p>Now you can open the selected item with the alternative editor by pressing CTRL+F3. Note that pressing F3 or F4 will still use the default Editor².</p>										
Byte file size limits for extracting...	<p>x² extracts certain information from each file and displays it in different columns of the folder pane (e.g. checksum). However, this additional consumes CPU resources and slows down other operations.</p> <p>To make the operation more efficient, x² has a provision that it will display the information only if the file-size is below a threshold value. The default values are shown below.</p> <table border="1"> <thead> <tr> <th>Item</th><th>Default (bytes)</th></tr> </thead> <tbody> <tr> <td>Infotips</td><td>1000000</td></tr> <tr> <td>Checksum column</td><td>2000000</td></tr> <tr> <td>Thumbnails</td><td>2000000</td></tr> <tr> <td>Item in zip/FTP</td><td>524288</td></tr> </tbody> </table>	Item	Default (bytes)	Infotips	1000000	Checksum column	2000000	Thumbnails	2000000	Item in zip/FTP	524288
Item	Default (bytes)										
Infotips	1000000										
Checksum column	2000000										
Thumbnails	2000000										
Item in zip/FTP	524288										

Option	Remarks
	<p>By entering a higher value, you can force x^2 to extract the information for larger files also. In the extreme case, enter “0” to remove all such limits: x^2 will now display the information for all files, regardless of their size.</p> <p>Keep in mind that the extraction will slow down considerably.</p> <p>Tip: If this information is not really required, you should turn off these extra columns (use the ALT+K command)</p>


Option	Remarks
View panes	
Single click activation	When this option is selected, you do not need to d-click on an item to activate it.
Grid lines in detailed mode	Controls whether the folder panes will show grid lines (only when it is in Details style: in other styles, the grid is turned off.)
Infotips for items	Infotips are the yellow boxes that appear when you hover the mouse over any item. They provide you with some basic information. Clear the check box to hide the infotips.
Full row selection	<p>If you tick this check box, you will be able to select the row by clicking anywhere in the row.</p> <p>If you clear it, you will have to click on the Name field to select the row. Only this field is “active: The other fields behave as if they are part of “background”.</p>
Allow slow double-click to rename items	<p>When this check box is ticked, you can rename a file/folder by clicking on it twice (“a slow d-click”).</p> <p>If this check box is cleared (default), you can use the context menu of the file/folder or press F2 (default is cleared because most often you end up trying to d-click a file and trigger the rename function instead, because the second click was too late)</p>

Option	Remarks
Hover selection	<p>When you hover your mouse over an item, it gets selected. There is no need to click on the item.</p> <ul style="list-style-type: none"> ➤ In all commands that use a mouse click and a modifier key, a hovering action replaces the click. For example, instead of CTRL+click, you have to CTRL+hover. Instead of SHFT+click, you have to SHFT+hover, and so on. ➤ Since lassoing requires an l-click to start, it cannot be simulated with a hovering action alone. So, you still need to click and drag the mouse across.
Automatically re-sort contents after moving/copying etc.	<p>Some applications like downloaders may be adding new items in the folder you are currently viewing. By default, the newly added items place themselves in their logical sorting order. However, this may interfere with your viewing.</p> <p>You can turn off the auto-sorting feature by clearing this check box.</p> <p>To turn it on again, put a tick in the check box.</p>
Highlight primary sort column (XP only)	<ul style="list-style-type: none"> ➤ When ticked, shows the sort column in a different color. ➤ Clear it to show all columns in the same color.
Max list column width	<p>In the List view mode, the folder pane display can get out of shape if there are a few items with very long names. This value poses an upper pixel width limit to protect against such mishaps.</p>


Option	Remarks
Folders sorted	<p>During sorting, folders are treated according to what mode you choose here.</p> <p>Choose from the following modes:</p> <ul style="list-style-type: none"> ➤ As files: Folders treated like files; and intermingle with files ➤ Separately: Folders and files sorted in separate groups ➤ Mixed mode: When sorted on name or extension, folders and files are sorted in separate groups. For all other sorting, they are intermingled.
Dual pane alignment (tiling)	<p>Choose from the following modes:</p> <ul style="list-style-type: none"> ➤ Horizontal ➤ Vertical
Tree	
Single click to change folder & “hands-free” activation	If cleared, you need to double-click to load a folder in the active pane, or press Enter. If set, you only need a single click or just leave the focus on a folder for half a second (as you browse using the up/down arrow keys)
Automatically shift focus to view after activation	When this feature is turned on, you do not have to click in the folder pane to shift focus there: the focus automatically jumps from the Tree pane to the folder pane.
Automatic branch expansion when hovering on a node	Selecting this feature activates automatic branch expansion for drag-n-drop operations to the tree pane. When you hover the mouse on a node while dragging a selection, the node opens up automatically. You can drill down multiple levels down in this way to find the subfolder you want for your drop target.

Option	Remarks
Keep synchronized with folder in active view pane	The folder pane can be synchronized with the tree any time by pressing ALT+T. However, when you turn on automatic synchronization, the tree remains synchronized at all times (manual synchronization is not required).
Quick viewer	
Text preview size (bytes)	<p>By default, the QuickViewer shows only the first 4096 bytes from a file. You can change this value to show more/less bytes from the beginning.</p> <p>➤ If the file is larger than the threshold, the text ‘(...more...)’ will be displayed at the bottom of the QuickViewer window.</p>





Option	Remarks
Tab width	Specifies how many spaces are shown for each TAB in a text file (Default:3 spaces)
Start playing media files immediately	<p>If this check box is ticked, the QuickViewer will start playing an audio/video file as soon as you focus on it.</p> <p>But if you intend to play the file with a player/jukebox, then you may like to disable the autoplay option (clear the check box). To play the file, you will have to press the “Play” button in the QuickViewer.</p>
No hex preview	<p>To hide the Hex code in QuickViewer, tick this check box.</p> <p>Preview of several file types (zip, doc, etc) will be blanked out.</p>
Others	
Plain menus	Only the frequently used menu options are shown. All other menu options are hidden to reduce clutter. The keyboard shortcuts are removed from view too – although they still work!
Dialog balloon help	Multi-line help text is displayed inside a balloon-shape when you hover your mouse over any input field of a dialog box. This has more detailed information than the standard “tooltip” type of help. If you want to have this “balloon” help, tick this check box.
Main font...	Select font for the main screen, including the tree, views and Address Bar.



Option	Remarks
Inactive background (color) 	<p>Click on the button with the colored rectangle. A window pops up, offering you a palette of colors. Select a new color and press OK. The background color of the inactive pane is changed to this new color.</p> <p>Tip: You may not see the new color in the inactive pane immediately: the new color will appear when you switch panes. There is no need to restart x² for the new setting to take effect.</p>

Advanced Tab

Option	Remarks
Status Bar panes	
Show total folder size	When no items are selected in the active folder pane, the status Bar shows the total size of the folder that is loaded in the active folder pane.
Show disk free space	The status Bar shows free space on the disk currently loaded in the active folder pane. Finding the free space on a continuous basis takes up system resources and slows down x ² . Unselect this check box to free those resources, and make x ² work faster.
Show active item information	<p>The Status Bar shows the file size and modified date of the active item (i.e., the item in the active folder pane on which you have the focus). Finding this information consumes system resources, and slows down x². Unselect this check box to free those resources, and make x² work faster.</p> <p></p> <p>Tip: When you are using Info Bars, the same information would be displayed there. Similarly, when you use Detailed style in the folder pane, you would most probably use size and modified date columns. In such cases, you should turn off this option to save system resources.</p>
Others	

Option	Remarks
Folder tabs on top	By default, the Tab Bar is displayed at bottom of each folder pane. If you want to move the Tab Bar to the top of the folder pane, select this option.
Hilight active pane's titleBar as in 2xElorer	<p>By default, x² uses different background colors for active and inactive panes, so that you do not mix up these panes and make a mistake in issuing commands.</p> <p>Some users prefer to see an even greater contrast between the active and the inactive pane. A highlighted title Bar for the active pane serves this purpose. (This method was used in 2xExplorer, the predecessor of x²). This option lets you highlight the active pane's title Bar.</p>
Natural number sort (XP only)	<p>When a pane is set in Details style, you can sort the pane on any column. By default, this sorting is in lexicographic order (e.g. file1, file10, file2, file20 file3...).</p> <p>But if you select this option, x² will sort the items in numerical order (Windows XP-style) (e.g. file1, file2, file3,,file10, file11,...,file20)</p>

Option	Remarks
<p>Calculate subfolder size automatically</p>  	<p>The option turns the one-time command CTRL+D into a toggle-able mode.</p> <ul style="list-style-type: none"> ➤ If this option is unchecked, the CTRL+D command works one-time. ➤ If this option is checked, then the subfolders' sizes are calculated and displayed when you go to a new folder. <ul style="list-style-type: none"> ○ In this mode, CTRL+D acts as a switch to turn the mode on/off. <p>Tip: To know what is the current status of this mode, place the  button in your Tool Bar. When the mode is on, it will show the button “pressed” .</p> <ul style="list-style-type: none"> ○ When you are in root (D:\ etc), x² turns off the mode automatically to conserve resources. To turn it on again in the root directory, press CTRL+D twice. <p>Caution: Note that this mode is a resource-hogger: It slows down all other x² operations, including display updates. Use it only if necessary!</p> <p>Note the following limitations of this mode:</p> <ol style="list-style-type: none"> 1. x² calculates the sizes of subfolders only once after you go to a folder. After that, it does not calculate the size again till you refresh the display by pressing CTRL+R (menu option View Refresh). If the subfolder size changes (for example, if some files are being downloaded into one of the subfolders), then x² will not show this change. 2. Even if the pane is sorted on the column, x² does not sort the subfolders by size: You will have to manually sort the items.

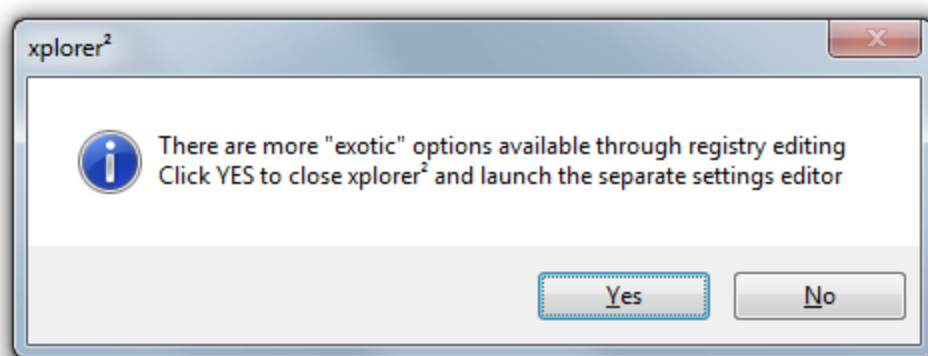
Option	Remarks
Extract custom icon overlays	<ul style="list-style-type: none"> ➤ If you put a tick in this option, x² will display the overlays applied to the icons of files/folders by external applications. ➤ If the option is cleared, such overlays will not be displayed in x². (To see them, you will have to use the original application that applies the overlays.) <p>Note: Overlays are additional symbols superimposed on the regular icons of the items. You have already seen two examples of overlays:  to indicate shortcuts and  to indicate the undetermined items during synchronization. Some applications like Tortoise CVS use overlays to indicate the status of different items. You can allow these additional overlays to be displayed in x².</p>
QuickView docked to the right side.	Normally the QV is docked to the bottom of the folder tree pane . But when you select this option, both the folder tree and the QV will occupy the whole height of the screen, and the QV will dock at the far right of the screen. This is useful when you want to maximize the QV (and/or the folder tree).
Explorer style path autocompletion in Address Bar	Normally you can enter a partial path in the Address Bar and then press F1 to autocomplete the path . But when you select this option, the autocompletion is done as in MicroSoft Explorer:
User friendly date column information	Normally the date column shows the exact dates. But if this option is selected, x ² will show the date in more humanized (but vague) terms; such as Today, Yesterday, This month, Last month, Last year, Long ago, etc.
Close old window after cloning a new layout	Select this option if you want to permanently switch to a new layout, and simultaneously get rid of the starting window. (If you leave this box unchecked, your starting window will remain open.)
Show column header for all view styles (Vista or later)	Allows you to see the column headers for all view styles . (Windows Vista or later only)

Option	Remarks
Automatically resize Name column in details view	When this option is selected, you will not have to adjust the column width to accommodate varying name lengths.
Undo explorer replacement	While installing x ² , the installer offers you with an option to associate x ² with folders. If you had selected that option, and if you want to associate folders with Windows Explorer again, use this option.

Advanced Options

When the Tools | Advanced options menu is used,

Initially the following window pops up:

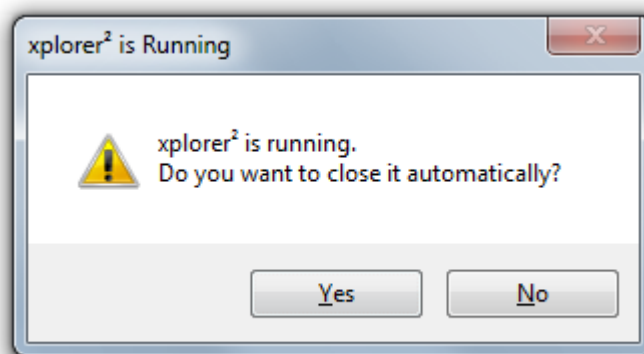


If you are a beginner and started this menu by mistake, this is your chance to abort.

But if you are a power user, go ahead and press Yes.

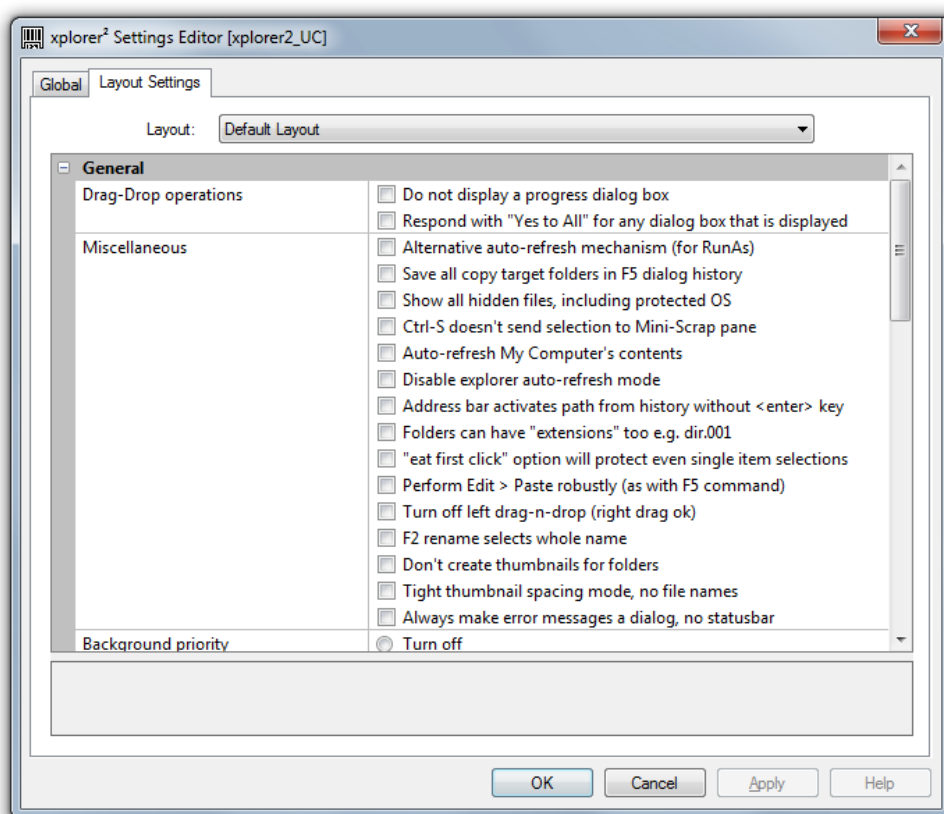
Now x² needs to close itself and launch another tool called x²SettingsEditor. (As long as x² is running, any changes in the Registry will not take effect.)

The following window pops up:



Again, check if you have any pending tasks (such as searches or analysis of free space on a disk). If not, go ahead and select Yes.

Now the registry settings Editor pops up, and presents easy-to-read display of x²-related data in the Registry.



The layout is simple: There are two tabs. Each tab provides check boxes and other controls. You can use them to change the options.

All options are explained below:

Option	Remarks

9L. Boolean multi-strings

Many input fields in x² accept comma-separated lists instead of a single string. For example:

- Instead of a single wildcard like *.cpp, you can have a visual filter that comprises many of them, separated by commas, e.g. *.cpp, *.h, *.rc.
- Instead of searching for a single keyword in a file (using **Mark | Containing text**), you can search for many keywords separating them by commas.

In such fields the comma character is “reserved” and has special meaning, separating the list elements. Later we’ll see how you can escape this default behaviour, e.g. when you want to search for a comma verbatim.

There are more special characters supplying a “Boolean” meaning to individual list items:

Leading +	The item is compulsory (AND); All such items must be present; otherwise the match fails
Leading –	The item must not exist (NOT); Even if a single negative item is present, it is enough to fail the match

In this sense, list items without any leading + or – are considered optional, i.e. in the Boolean “OR” sense. Note that the characters + and – have this special meaning only if they are in a leading position, e.g. immediately following a separator comma character. When they are found in other positions they have no special meaning and are considered literally.

Let’s see an example. If you specify *.cpp , -a* as a visual filter, it will select all items that have the cpp extension, except (notice the leading – in the second substring) those that start with the letter a. So file.cpp is ok whereas another.cpp is out!

Boolean multi-strings are very useful in text **hyperfilter rules**. For example you can search for files that have the Archive attribute and not the Hidden attribute by specifying an attribute rule like “+A,–H”. They can also be used to search for multiple keywords in comments etc.

What if you want to search for a comma? Simply use two commas in a row like “,”.

9M. EXIF data

Digital cameras save JPEG (jpg) files with EXIF (Exchangeable Image File) data such as camera settings and scene information. You can also attach EXIF data to scanned images.

When this data is displayed in x² columns, you can search for a particular condition(s), identify the photos and decide what to do (e.g. whether to delete them or edit them with GIMP, etc). This is also a great learning tool for amateur photographers: You can compare the parameters of different photos and their effect on the photos.

Some EXIF tags are explained below (the tag names have been simplified). The actual field names may vary, depending on your EXIF column handler software. Also, depending upon your EXIF column handler, you may not be able to see some of the EXIF tags

Camera/Software information

EXIF tag	Description	Comments
Make	Name of the manufacturer of camera	If your folder contains photos taken with multiple cameras, you can identify the camera for a given photo.
Model	Camera model	
Max Aperture	Maximum aperture possible with the camera	

Notes: This information is useful for identifying the camera with which a photo was taken.

Shooting conditions

EXIF tag	Description	Comments
Subject distance	Distance between the camera and the subject, given in meters.	Values: Actual distance in meters/ unknown/ infinity
Subject area	The location and area of the main subject in the overall scene.	Expressed in one of the following ways: <ul style="list-style-type: none">➤ Coordinates (x, y)➤ Circular area (center coordinates, diameter).➤ Rectangular area (center coordinates, area dimensions)

Light source	Type of source of light available for the photo	Values: Daylight, Fluorescent, Tungsten (incandescent light), Flash, Fine weather, Cloudy weather, Shade, Daylight fluorescent (D 5700 – 7100K), Day white fluorescent (N 4600 – 5400K), Cool white fluorescent (W 3900 – 4500K), White fluorescent (WW 3200 – 3700K), Standard light A/B/C, ISO studio tungsten, etc
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Note: You can search for specific shooting conditions, and then apply correction to the photos. For example, removing a particular color tinge caused by ambient light.

Camera settings for the shot

EXIF tag	Description	Comments
Speed	Shutter speed (seconds) =Exposure time	Either a fraction of a second (like 1/250) or a number of seconds (e.g. 2)
Aperture value	F-stop for the image	The value is expressed as a fraction of the focal length of the lens (e.g. 4 means the aperture was F/4)
ISO speed	Sensitivity of the camera's sensor (ref: ISO 12232)	Some cameras use proprietary format for this setting. Similar to film sensitivity in a still camera.
Focal Length	Focal length of the lens	The value is in millimeters. ➤ The value is not converted to 35mm equivalence ➤ For zoom lenses, this is the focal length used for the current image.
EV	Exposure Value =Exposure Bias	Correction applied by the user to the exposure selected by the camera. Measured in EV. Examples: ➤ +0.5 = half step brighter, ➤ -1 = one step darker. ➤ "None" = no correction applied
Program	Determines how the camera chooses the exposure	Values: Program, Aperture Priority, Shutter Priority, Manual, Normal program, Creative program (biased toward depth of field), Action program (biased toward fast shutter speed), Portrait mode (for close-up photos with the background out of focus), Landscape mode (for

		<p>landscape photos with the background in focus)</p> <p>Note: Some cameras call this feature “Modes”.</p>
Metering	Metering mode (Which part of the frame is used to measure the exposure)	Values: Average, Center-weighted average, spot, multi-spot, pattern, partial, etc.
Flash	Combines information about flash mode and firing status in separate bits of a tag.	<p>Modes: Auto/On/Off/Red-eye/Slow Sync, etc.</p> <p>Actual flash-firing status: Fired /Not fired.</p>
White balance	<p>White Balance setting</p> <p>=Color mode</p> <p>=Light source type</p> <p>=Color temperature</p>	<p>Some cameras use proprietary format for this setting.</p> <p>Analogous to the type of film used (daylight, incandescent, etc).</p>
Digital zoom ratio	Digital zoom ratio when the image was shot.	<p>0 means no digital zoom was used.</p> <p>Remember that a digital zoom degrades the picture quality; so photos with higher digital zoom ratios may require some touch up. (Some may be even so bad that they are useful only as thumbnails or for displaying on a monitor: you can’t take a print!)</p>

Information about the image

EXIF tag	Description	Comments
Date/Time	Date and time the image was recorded	In YYYY:MM:DD HH:MM:SS format
Time Shot	Time when the picture was shot	
Time digitized	Time when the picture was digitized	
Description	Image description	
User Comment	Comment recorded by user	EXIF supports user comments in many character sets.
Artist	Text	Camera owner, photographer and/or creator of image. This information is useful if you have collected photos taken by many people.
Copyright	Text	
File Source	File source	Options: Blank/“digital camera”
Scene Type	Used to distinguish between original and scanned/processed image.	Options: Blank/ “photographed” (“Photographed” means “as photographed”.)
Screen capture type	Type of scene that was shot.	Values: Standard/ Landscape / Portrait/ Night scene
Height	Image height	Measured in pixels
Width	Image width	
Resolution Unit	Unit in which X and Y resolution are measured	Options: inch/cm
X-resolution	X Resolution	Measured in pixels per Resolution Unit
Y-resolution	Y Resolution	

Note:

1. Be aware that your camera may not be capable of handling all EXIF tags correctly.
2. Some cameras use proprietary formats for some EXIF tags, which may not be handled properly by your EXIF column handler.

9N. Handling file-transfers that get aborted repeatedly

Sometimes, you have a folder that just can't be copied/moved easily: Windows reports some errors, and the file transfer is aborted halfway.

You may like to skip the problematic files that cause these errors and transfer the rest. You may also like to get these problematic files short-listed (so that you can investigate them and find a solution if possible).

With Windows Explorer, there is no direct or indirect way to do this. You have to manually compare the two directories, which is an extremely difficult (if not impossible) task.

With x² PRO, the **robust file transfer** command takes care of all problematic files: it can skip all problematic files, and keep a log of all such files; so that you can check on these files after your file transfer is over.

However, the robust file transfer function is not available in the Lite version. Even then, you can transfer problematic files without any errors and with far less effort, as described below:

The following procedure describes steps to be taken for copying a folder. Later we will see small changes in that procedure when we have to move a folder (rather than copying it):

1. You will need two windows simultaneously: one x² and one scrap container. Set them up as follows:
 - In x², load the source folder and the destination folder in the opposite folder panes.
 - **Flatten** the source directory in a scrap container. Resize and move this scrap container window so that you can see the destination folder pane in x²'s window. Then make this scrap container "Stay on top" (using PowerMenu).

Now you are ready for action!

2. In the scrap pane, select a batch of files and press **CTRL+C**. Then r-click in the destination folder in x² window, and select **Paste special | Structured scrap clips**. (This action will automatically shift the focus to the x² window.)
 - If all the selected items are OK, x² will paste them in the destination directory. (It will first duplicate the source folder's hierarchy in the destination folder, and then place the items in their correct subfolders.)
 - If the batch has a problematic file, the file transfer will stop in the middle of the batch, and an error window will pop up. The rest of the files are not transferred, even if they are perfectly OK. Close the error window and continue with the file transfer.

- We will deal with files that did not get across in the next step. However, you can try to transfer the last batch again; by breaking it up into a few smaller batches. In case some of these files are already copied to destination folder, x² will ask you if they are to be overwritten. Respond with **Yes to all**.

The advantage of transferring files in small batches is when a problem occurs, only that small batch is aborted. Most of the batches will get across without any problem.

3. Once all the batches are transferred, then it's time to check which files did not get across, and which of them are indeed problematic.
 - To **flatten** the destination folder in the empty pane of the scrap container, click in the empty pane of the scrap container and select the **Actions | Flatten path...** menu option. Now the scrap container has the source and the destination directories (both flattened) in opposite panes.
 - Compare the two flattened directories with **CTRL+F9** command (select Unique and File contents options in the dialog box). Look at the "source" pane: All files that were not transferred will be highlighted. We want to concentrate on these files only; so press **ALT+CTRL+J** to hide the rest. Press **ALT+A** to unselect all.
4. We know that most of these files are not problematic (they were stopped merely because Windows found a problem with a preceding file). So we will try again to transfer these files. But there will be a much higher proportion of problematic files here, so repeat step-2 with a much smaller batch size.

Once you cover all files, repeat step-3 again; so that your "pending" list gets shortened.

5. You may have to repeat step-4 a few times till you feel that your "pending" list consists mainly of problematic files only; (i.e., most of the "good" files are already transferred).
6. Now you are ready for the final step: checking out the "potentially problematic" files. Try to open each file with its default application.
 - If a file can be opened, it may not be corrupted. Try to copy it across.
 - If it can't be opened, you have located a faulty file! You will have to either discard it or replace it with a good one.

Some variations:

1. The first two steps of the procedure are applicable only when you are trying to copy a problematic folder from scratch. If you already have copied the folder partially, then follow the procedure described

above from step-3 onwards.

2. For moving the directory across (rather than copying it), the procedure is slightly different:
 - In step-2, press **CTRL+X** instead of **CTRL+C**
 - Skip step-3, because when you successfully move a file, it will disappear from the “source” pane. So all you have to do is make small batches and try moving them to x²’s destination pane. Finally, what is left in the “source” pane is problematic!

90. Hyperfilters

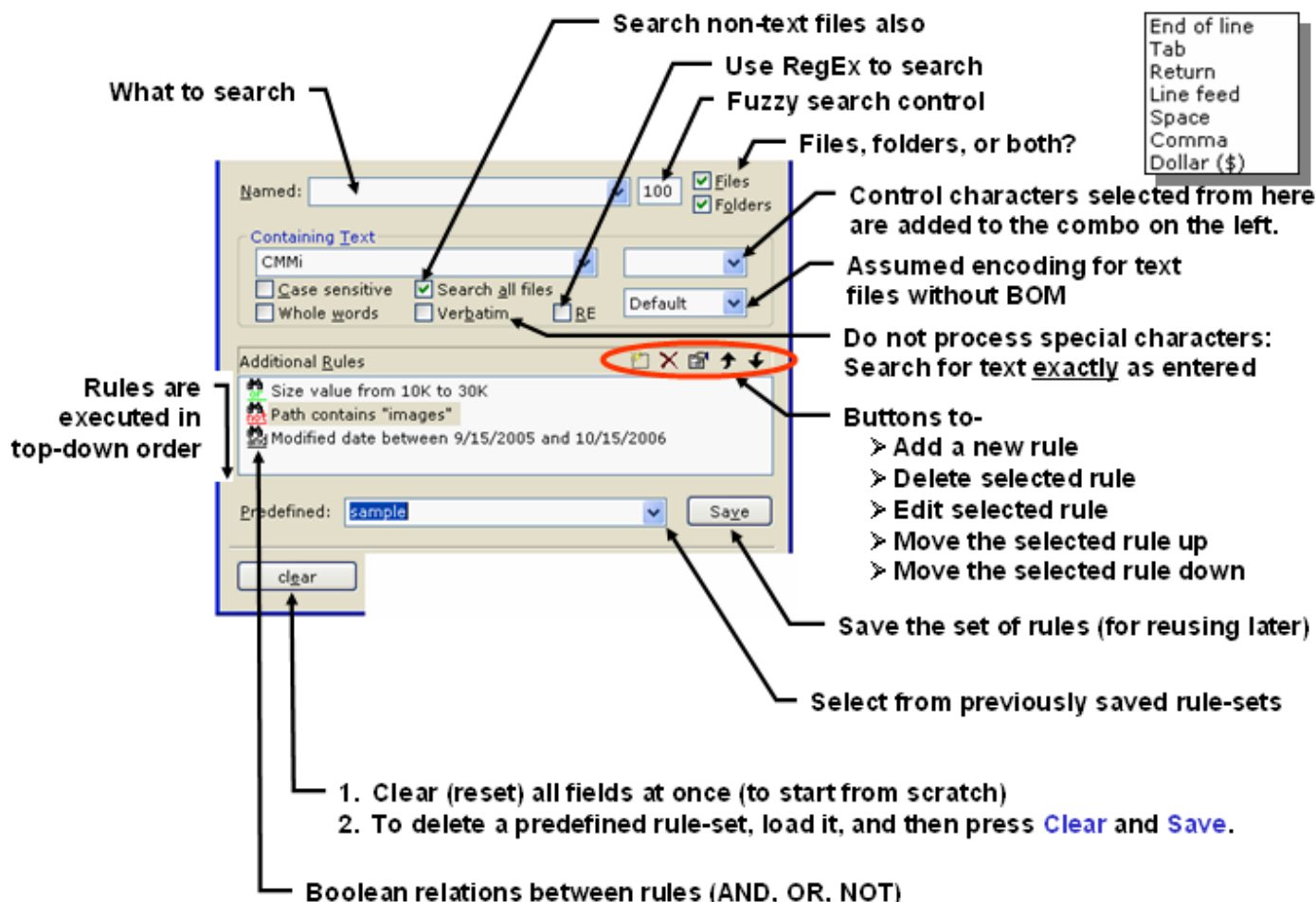
A Hyperfilter is a set of conditions that make use of various attributes of the item (name, path, dates, size, etc.).

Once a Hyperfilter is created, it can be saved and used in different commands (see the list below).

Sl	Command	Description
1	ALT+G	Mark (mass-select) all items that match a complex rule
2	ALT+H	Show all items that match a complex rule
		Omni-Finder: Find files, folders and computers on the network
4	F5 or F6	Robust transfer commands
5	-	Color coding filetypes
6	CTRL+ALT+G	Viewing items in customized groups

In fact, all these commands have a common interface that can create a new Hyperfilter, edit an existing Hyperfilter, or reuse a saved Hyperfilter.

This common Hyperfilter interface looks like this:



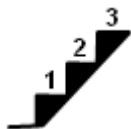
The Hyperfilter controls are arranged in four logical groups:

Group	Function
Named	<ul style="list-style-type: none"> ➤ Specify names or file types ➤ Specify the degree of exactness (%) in the search. ➤ Select what to find: Files, folders or both ➤ You can use RegEx pattern in this field. (but for this to work, first set Fuzzy Control to 0)
Containing text	<p>Specify text to search for.</p> <ul style="list-style-type: none"> ➤ Specify the text string with the main combo box. Add control characters (e.g. end of line, tab, etc.) using the drop-down list at the right. ➤ You can use ? and * wildcard characters (the ? represents one character, and * represents multiple characters) ➤ The Case-sensitive option looks for exact match. For example, if you are looking for <i>Able</i>, it will ignore <i>ABLE</i> and <i>able</i>. ➤ The whole words option will cause x² to ignore an item if the search string is part of a longer word in its name. For example, if you want to search for the word <i>top</i> in this mode, x² will ignore items that contain the words <i>stop</i>, <i>topple</i>, <i>unstoppable</i>, etc. ➤ The verbatim option allows you to search for special characters as normal characters. If this option is unselected, then x² will interpret all control characters such as , and \$. ➤ The Search all files option allows you to search non-text files also, such as doc, pdf, etc. ➤ A drop-down list allows you to assume an encoding type for a text file that has no BOM. <p>Note that x² automatically detects Unicode and UTF8 files even without a BOM.</p> <ul style="list-style-type: none"> ➤ The RE check box allows you to search with Regular Expressions (also called RegEx or RegExp). When you select this option, the other selections in this section become redundant.
Additional rules	<p>Each line in this “rule-stack” is an independent rule. You can define multiple rules and set Boolean relationship</p>

Group	Function
	(AND, OR, NOT) between them.
Predefined	<ul style="list-style-type: none"> ➤ Save a set of all current conditions, to reuse it later. (Once saved, the set is available in all the three commands.) ➤ Select a set of conditions from previously saved sets and reuse it. Before using the set, you can add new conditions, remove some of the conditions or edit the conditions.

These sections are explained below in more details.


1. In the **Named...** field, enter the names (or phrases) you want to match. Separate the entries with commas.



Depending upon what is entered, x² behaves differently.

Searching for-	Rules
Single word	<p>Matches names that contain the specified word:</p> <ol style="list-style-type: none"> 1. There is no need to pad the word with asterisks (*) on both sides: x² does that automatically for you. For example, if you enter dog, then x² will search for *dog*. 2. x² searches in extensions also. For example, to search for pdf files, you can enter simply pdf; not *.pdf (although that also works). 3. If you pad the search-word only on one side (e.g. *dog or dog*), then x² will not pad it further with asterisks. Rather, it will find a match for the entered condition (e.g. *dog tells x² look for the word dog only at the end of the name; where as dog* tells x² to look for the word dog only at the beginning of the name.)
Multiple words (find any one of the listed words)	<p>Enter all words separated with commas. When entering multiple words, you have to insert asterisks manually: x² does not pad the individual words with asterisks.</p> <p>For example, *house*,*cat*,*dog* will search for items having house, cat or dog in their names.</p> <p>Each individual word will follow the rules for single word entry (see above). For example, if you enter cat*,*dog as your search string, x² will report names beginning with the word cat (e.g. Cat food), but it will ignore all the files where the word cat appears in the middle/end. In addition,</p>

	<p>x^2 will also report all items where the word dog appears at the end; but ignore all the items where it appears in the beginning/middle.</p> <p>You can enter the words in any sequence: The sequence does not affect the result.</p> <p>x^2 will report an item as soon as it finds any one of the specified words in its name (it will not search further to see if the name contains other words also).</p>
Multiple words (Find all the listed words)	<p>If you want to find items that has all the specified words, but not in any specific sequence, then you will have to enter each word separately in the Additional Rules section described later. You cannot enter them in the Named field, either as a phrase or in a comma-separated list.</p>
Single phrase (find all the listed words in the specified sequence)	<p>Just enter the phrase as it is. x^2 will treat all the words as a single entry, so long as the phrase does not contain a comma (,).</p> <ol style="list-style-type: none"> 1. If there is a comma in your phrase, then x^2 will treat the comma as separator, and look for both parts of the phrase separately. As a result, it will report a lot of items that you do not want. To avoid this, simply enter two commas consecutively in place of that single comma. The first comma acts as escape character (it tells x^2 to look for an exact match for the second comma. e.g. To search for the phrase Girl,interrupted enter Girl,,interrupted. 2. Do not use quotes (“ ”) around the phrase (as you do in Google), because x^2 looks for all characters, including quotes and spaces, exactly as entered. 3. If you are entering a single phrase, there is no need to pad it with asterisks (*), because x^2 does it automatically for you. However, if you enter an asterisk at the beginning or end of the phrase, then x^2 will not pad the phrase further. Rather, it will look for the phrase at the beginning/end of the name. 4. x^2 will report an item only if all the words in the phrase are found in the exact specified sequence.

	<p>The item will not be reported if-</p> <ul style="list-style-type: none"> ➤ Only a part of the phrase is found in its name. ➤ Its name contains all the words of the phrase but in a different sequence. ➤ Its name contains additional words inside the phrase. <p>For example, if you are searching for the phrase cost estimation methods, then x² will not report the following items:</p> <p>Ten cost estimation techniques.doc Ten methods for cost estimation.pdf Costs and estimation methods.rtf Cost-estimation methods.rtf</p> <p>(The examples show the matching parts in blue, and the mismatching parts in red.)</p> <p>5. Be careful while entering spaces. Although they are invisible to the naked eye, they are visible to x²; and therefore they can cause your search to fail. Therefore, omit spaces when in doubt.</p> <ul style="list-style-type: none"> ➤ Spaces at the beginning of a single word (or the entire phrase) are ignored; but spaces at the end of the word/phrase (i.e. just before a comma) are not ignored. ➤ Similarly, if you enter multiple spaces inside a phrase by mistake, x² will look for exact match for those spaces. For x², the strings <i>career management</i> and <i>career management</i> are not the same, because the first string has an extra space between the words.
<p>Combination of multiple words and phrases</p>	<p>Separate each entry with a comma. Follow the rules applicable to each word/phrase, as described above.</p>
<p>custom-made group of file type</p>	<p>x² can also search for your user-defined groups of file types.</p> <p>There are multiple ways to enter the predefined groups:</p> <ol style="list-style-type: none"> 1. Click on the pull-down arrow. The predefined groups appear at the top of the pull-down list.

	<p>(The names appear enclosed in curly braces { }). Click on any group.</p> <p>2. Just enter the group's name enclosed in curly braces { } in the Named field.</p> <p>For example, assume that you have already defined a group named “documents” as *.doc,*.pdf,*.rtf. To search for all these file types at once, just enter {documents} in the Named field.</p> <p>3. Use x²'s autocompletion feature: Just type a few letters from the group's name (there is no need to enter the curly braces) and then press UpArrow. In the example given above, just type <i>doc</i> and press UpArrow. x² will complete the entry to {<i>documents</i>}.</p> <p>Note that when you press UpArrow, you may see items whose names contain the word documents. In that case, just keep pressing UpArrow a few more times till you see the group {documents}.</p> <p>4. If you do not remember the groups' names, you can see all available groups by entering just { and then pressing the UpArrow key. Now the drop-down list is limited to only the predefined groups. Select any one group.</p> <p>You can enter multiple user-defined filetypes in a comma-separated list.</p> <p>This entry can be combined with other words and phrases in a comma-separated list.</p>
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- The fuzziness control is useful when you are not sure of the exact spelling (e.g. foreign/technical words).

Let us see some examples:

- Many non-English languages use **accent marks**, which are difficult to match. For example, if a file name contains the word Müller (with an Umlaut), then you cannot locate that file by searching for the word Mueller (although this is the accepted equivalent). Searching for Muller will also not yield any results. The only way to locate that file is to search for the word Muller (without the Umlaut, or an additional “e”) and lower the fuzziness value. x² will find the correct word. Similarly, to find the word café, enter the word cafe and lower the fuzziness value.
- Even when writing in English, people around the world use slightly **different spellings**, as shown below:

Difference	Example
-our/-or	color/colour, humor/humour
-ize/-ise	realize/realise
-er/-re	center/centre
-yze/-yse	analyze/analyse
-e/-ae-	encyclopedia/encyclopaedia

So if you have downloaded documents from the Internet (or if you work with people from various countries), you will have to handle such **differences in spellings**. You may not know the exact spelling for the desired files. Worse, you may not be allowed to change the file names to suit your taste. You can easily handle such uncertainty in spelling by lowering the fuzzy control value.

- You are not sure about the spelling of a technical word (e.g. trachea, trachia or traccia). Even if you are sure, the items may be named wrongly by someone else.

Rather than searching for these alternatives through trial and error, just enter any one of the words, and then lower the exactness of the search; so that x^2 can find nearly matching items also.

Although this control is called fuzziness, it is better to think of it as exactness control:

- If it is set at 100%, x^2 looks for an exact (100%) match.
- If its value is lowered, x^2 will start searching for nearly matching words (in addition to the exact matches). The lower this value, the greater the tolerance in the search. x^2 alters the search string in various ways and then looks for a match (e.g. add/remove letters, transpose letters, remove **accent marks**, etc.)

For example, if your search string is *file*, x^2 will look for the original word file; and also search for fie, field, fill, life, etc.

For even lower values of the exactness, x^2 will even find names where whole words of search string are transposed.

Note that values lower than 30 are seldom useful, because then x^2 will report many irrelevant matches.

In the **Containing text...** field, enter your desired text.

- You can look for multiple text strings simultaneously. Enter all entries at once, separated with commas.
- Do not try to pad your entries with asterisks (*); because x^2 will look

for those asterisks also! (In other words, this field does not treat * as a wildcard, but as a literal character to search for.)

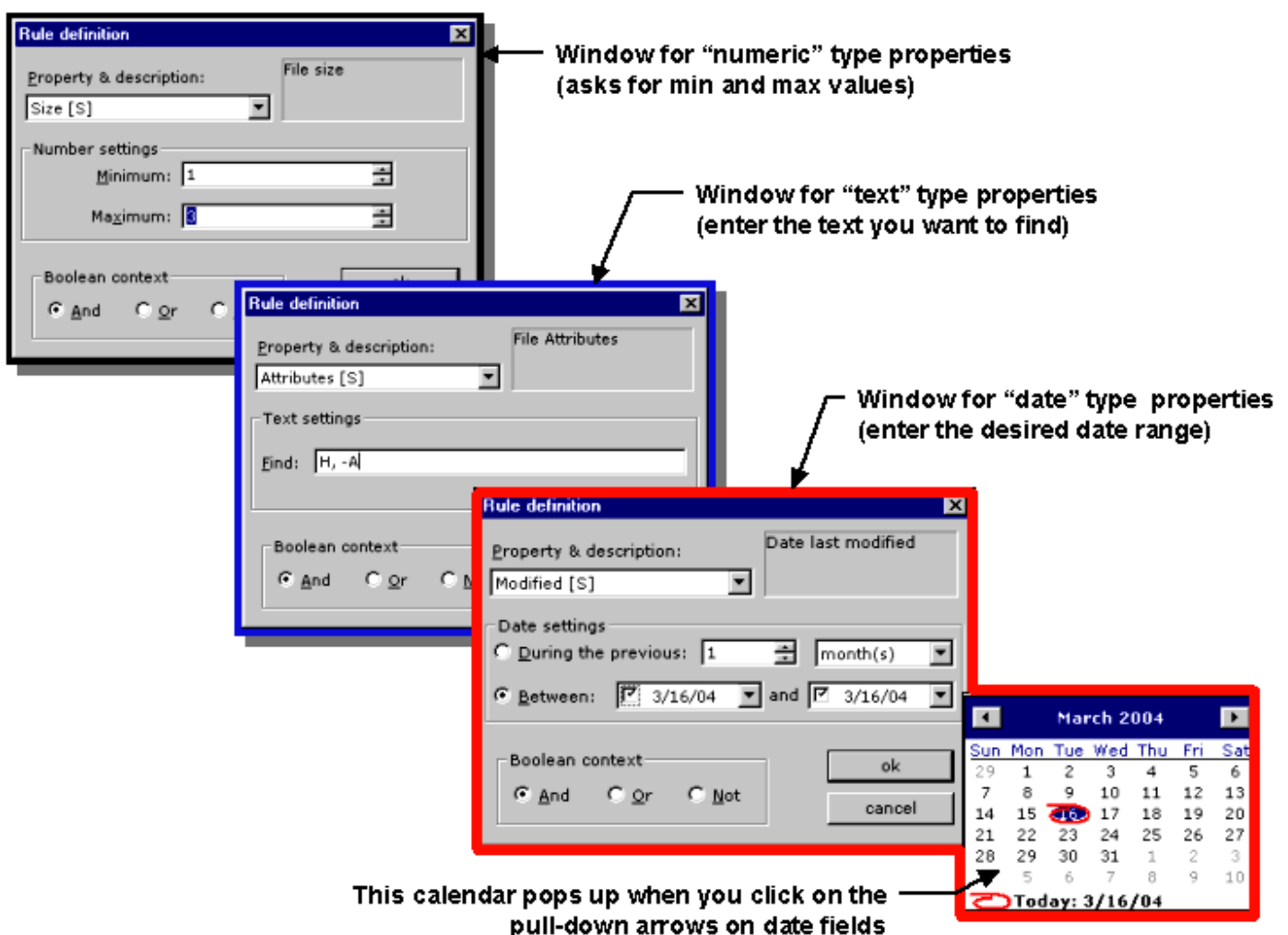
- If you have selected the RE check box, you will have to enter a RegEx pattern in this field. **Appendix 9T** explains RegEx syntax.

The **Additional Rules** section is very powerful: It allows you to define rules (conditions) involving different properties of the files and folders. This section also allows you to combine these individual rules to form a complex rule. For example, the figure above shows this additional rule: Find items that have size between 3000 and 10000, or whose path contains the word “image”, but were not modified within last 1 month.

All the properties of files and folders fall in 3 main categories:

1. Numbers (size, size on disk, links, checksum)
2. Text (attributes, type, path, version, medium, 8.3 name, comments)
3. Date (created, modified, last accessed)

x² has a **Rule-definition** window that takes three different forms to handle these 3 categories, as shown below:



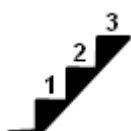
The window is composed of three sections, as described below. Only the middle section changes according to the property selected: The top and


bottom sections are common in all windows.

Section	Remarks
Property and description	<p>Provides a drop-down list of all available properties. Each Window has a default list of properties, which can be extended by using certain extensions. See Chapter 8 for details.</p> <p>This field has autocompletion feature: Type a partial name and press UpArrow to find a list of matching names. After that, press UpArrow and DownArrow to cycle through this list.</p>
Settings	Set the conditions using controls provided here.
Boolean context	Select the Boolean context (AND, NOT, OR) of the current rule vis-à-vis other rules.

Composing a new Additional Rule

To compose a new additional rule, follow this procedure:



1. Click on the  button (or d-click inside the stack pane). A window pops up.
2. In each window, a short description about the selected property is displayed in the right-hand top corner. Using that as your guide, select a property. Immediately, x^2 senses the type of the selected property and changes its middle section accordingly.
 - You can abandon the entries made in the current window at any time, and select another property (of any type) from the pull-down list.
1. Enter the conditions for this property using the controls provided in the middle section of the window. The controls for all types of properties are explained below:
 - In number type window, you may skip either Min or Max: It is not necessary to define both. On the other hand, if you want to search for an exact number, enter the same number in both Min and Max fields.
 - Apart from the Min and Max combo fields, the number type window also has a combo box to specify the multiplier: 1, kilo, Mega and Giga. For example, to specify 1 MB (sorry-no decimals!), you can enter 1 in the combo and select the Mega from the drop-down list.
 - Tip: Both numbers share the same unit; so if you want to specify two widely different limits (say, one limit in kB and the other in MB), then you will have to convert the figures suitably.

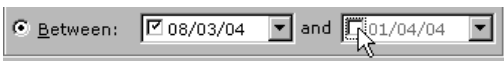



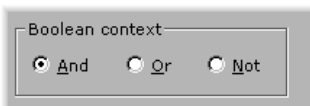
In text type window, a + sign before the text means, “this text must be there positively in the item”; where as a – sign before a text means, “this text

must not be there in the item”.

- To search for non-printable characters, use their ASCII code, in the \$xx format.
- The Attributes are treated as “text”. (The **attribute column** is a string that contains letters A, H, S, R etc.). So, use + and - to assign the Boolean context for AND and NOT respectively. For example, searching for +A, -H within file attributes will match files that have the Archive but not the Hidden attribute.

In date type window, the between field is provided so that you can search for an item that is created/modified/accessed between the specified two dates. The left date is the lower limit, whereas the right date is the upper limit in the range. By removing one of these limits, you can search for an item that is created/modified/accessed before (or after-) a specified date. To do this, simply disable the other date field by un-checking its check box (see the figure below).


Setting	What it means
 The second date is unchecked (disabled)	After 3rd August 2004
 The first date is unchecked (disabled)	Before 4th January 2004






Use the bottom section of the window to define how this rule would be related to the other rules in the “stack”. Select one of the three relationships, and press OK.

- x^2 interprets the rules as follows:
 1. All AND rules must be satisfied
 2. At least one of the OR rules must be satisfied.
 3. None of the NOT rules must be satisfied.
- If you are not familiar with Boolean algebra, just leave the default And button checked.

Repeat steps 1-4 to set other individual rules.

1. Once all individual rules are set, review the set for the last time. If required, edit the set:
 - To edit a rule, d-click on the rule (or select it and click on the  button). The rule opens in its window.

Edit the values and press OK to save the changes.

- To delete a rule, select it and press DEL (or click on the  button).
- To change the sequence of the individual rules in the stack, select any rule and press the  and  buttons (to move it up and down, respectively) till the sequence is set correctly.

1. This completes the setting of common interface. Complete the other settings of the respective command, and then launch the command.



Warning: *Take extra care to avoid subtle error conditions. x^2 will try its best to validate rules but it is not fool-proof. For instance, it will allow you to set two contradicting rules (e.g. size less than 1k and size greater than 2k) resulting in a filter that will never be satisfied.*

Operations with Hyperfilters

Hyperfilters can be used as follows:

To do this...	Follow these steps
Save a new Hyperfilter	Compose all conditions as explained above. Now type a new name in the Predefined field, and then click on the Save button. From now on, this newly defined Hyperfilter is available in all the six commands .
Reuse a Hyperfilter	Using the drop-down list of the Predefined field, select the desired Hyperfilter. All the conditions for that Hyperfilter will be loaded in the respective fields. Press OK to run the search. ➤ Before launching the command, you can edit the search conditions. This editing will not affect the original Hyperfilter.
Edit a Hyperfilter and save it	Select a Hyperfilter from the drop-down list of the Predefined field. All the conditions of that Hyperfilter will be loaded in the GUI. Edit them as required, and click on the Save button.
Edit a Hyperfilter and save it as a new one	Select a Hyperfilter from the drop-down list of the Predefined field. All the conditions will be loaded in the GUI. Edit them as required, and then enter a new name in the Predefined field. Now click on the Save button.
Delete a Hyperfilter	Select it from the drop-down list of the Predefined field. Click on the Clear button, which will clear (reset) all fields. Now click on the Save button. This effectively deletes the Hyperfilter: It is no longer available from the

To do this...	Follow these steps
	pull-down list of the Predefined field.

9P. How the Structured scrap clips command works

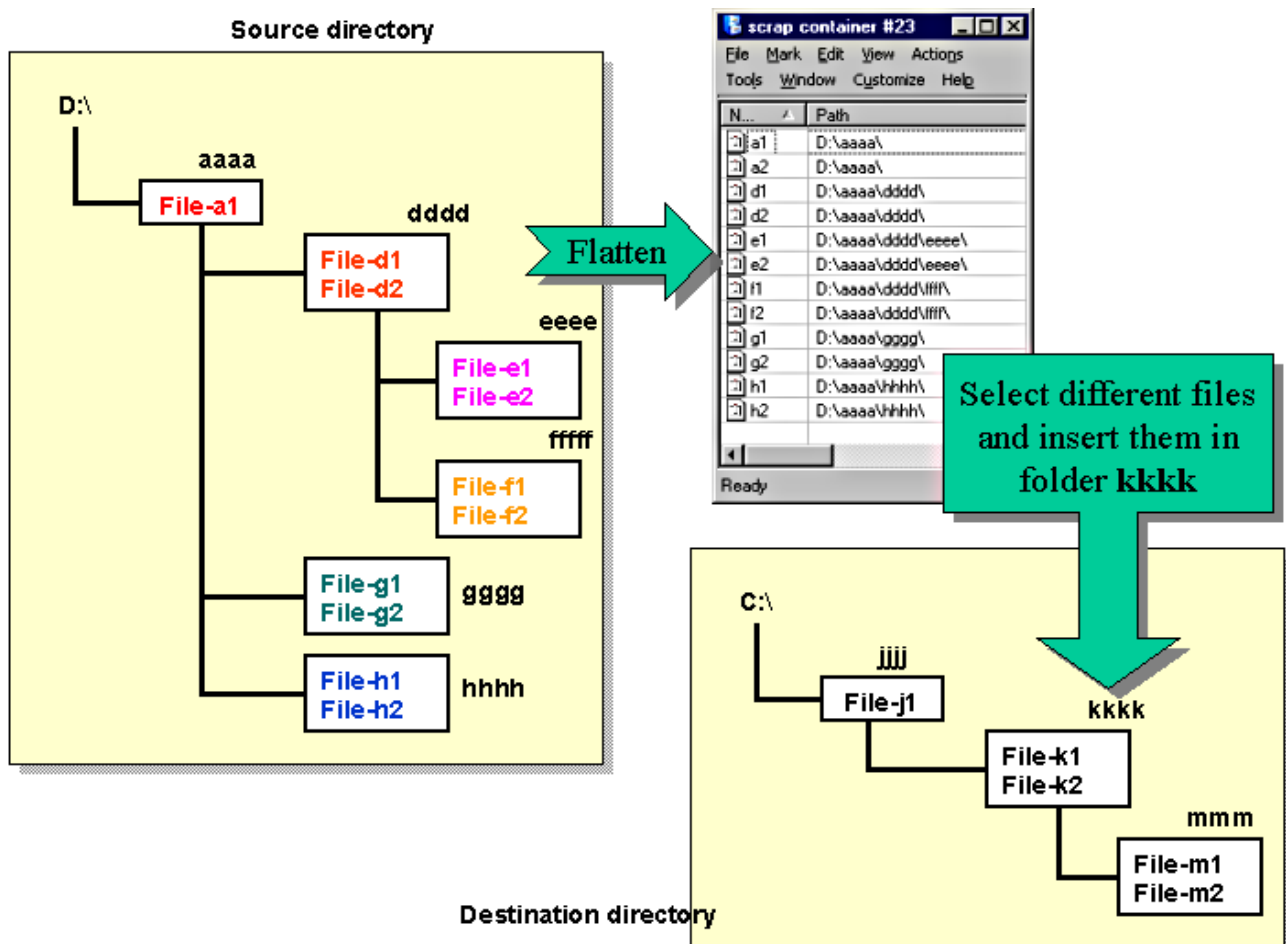
The Structured scrap clip command creates a mirror directory structure according to the following rule:

- If the files belong to different folders of the source directory, all such branches are traced upwards till a common “ancestor” folder is found. Each of these branches is copied into the target folder. The common ancestor folder itself is not copied.
- Once the folder structure is duplicated, the selected files are copied in their mirror positions.
 - If the selection contains any files from the common ancestor folder, they are placed in the target folder directly.

The functioning of the command is explained below with an example.

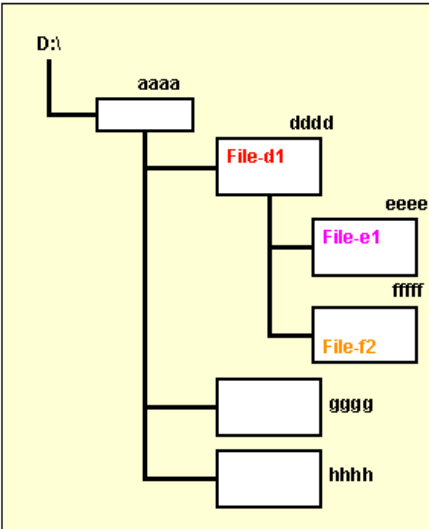
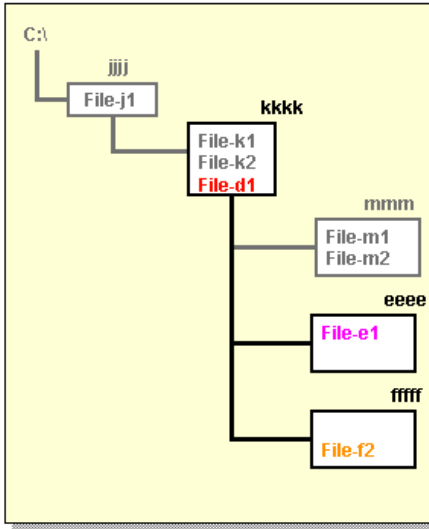
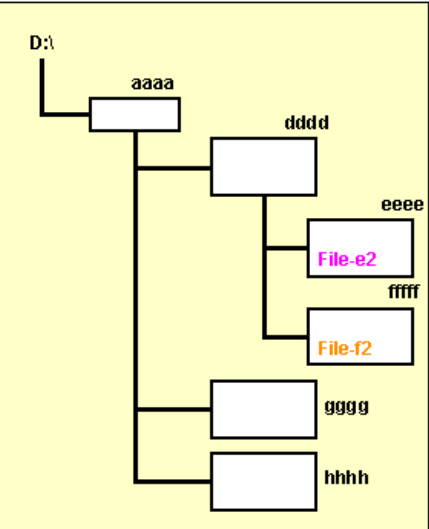
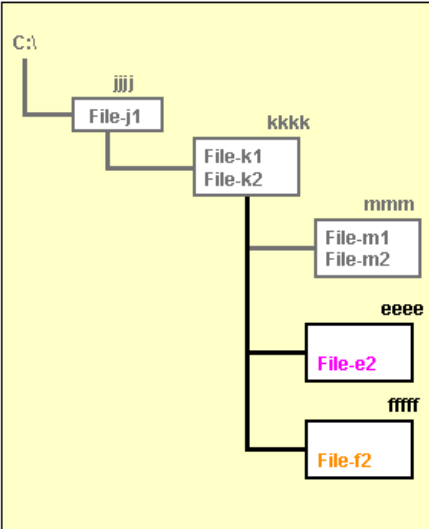
As shown in the following figure, we have a source directory (folder aaaa). We will **flatten** it into a scrap pane. We will select different combinations of files from this scrap pane, copy the selection into clipboard and paste them in the destination folder (kkkk) using the structured scrap clips command.

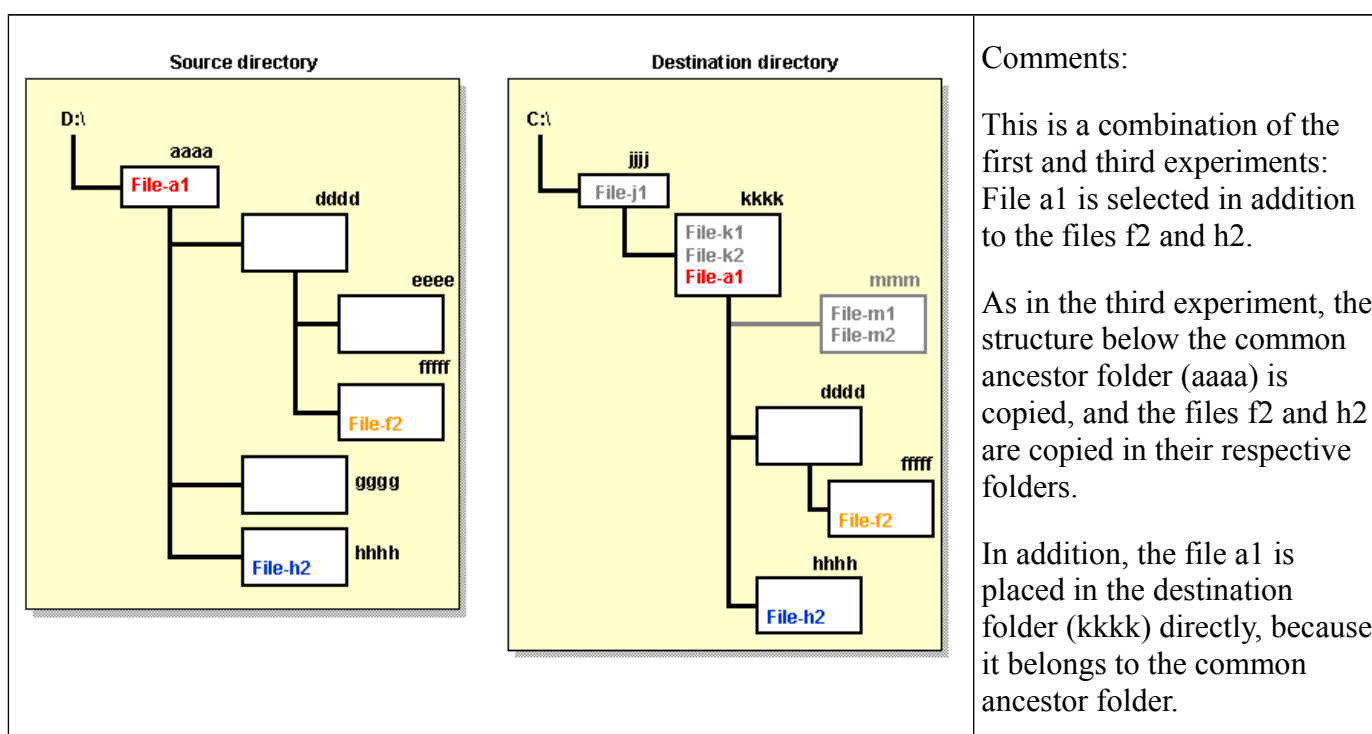
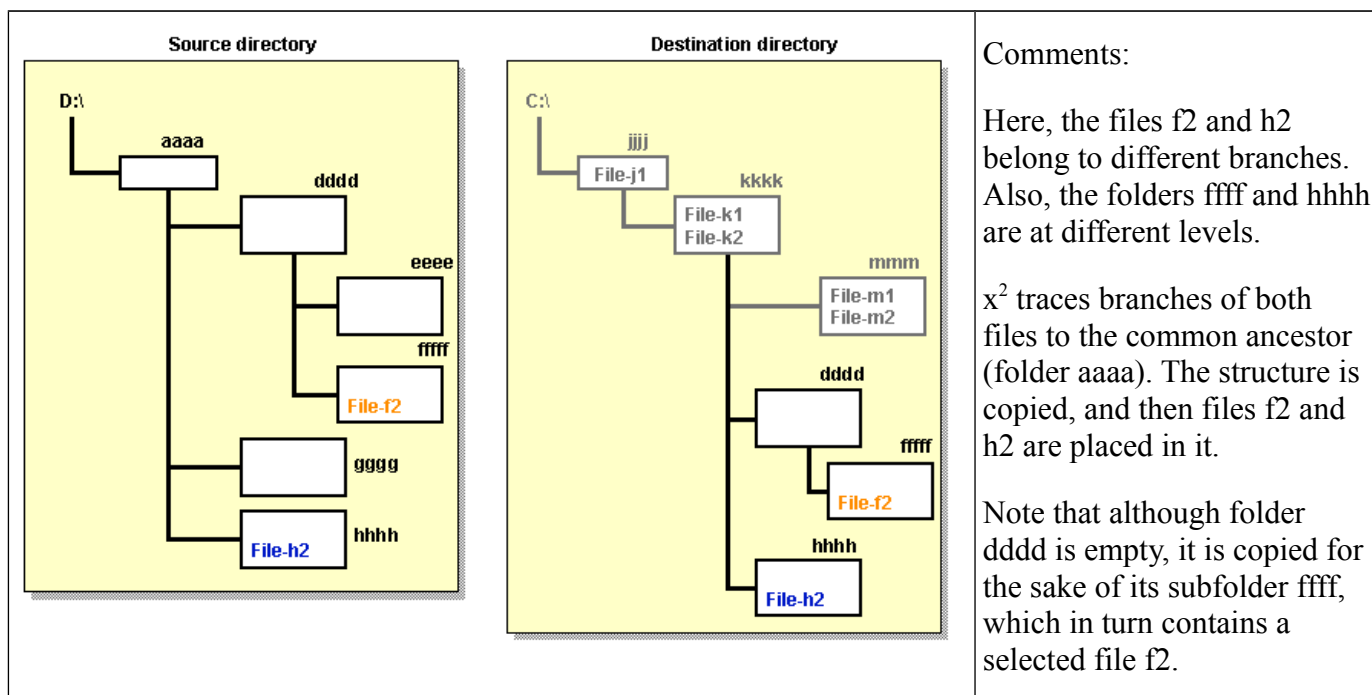
Our aim is to see how this command responds when the selected files have different relative positions.



In the figure, folders are represented with rectangles, and their names are written beside the rectangles (e.g. aaaa). The file names (a1, e2 etc.) are derived from folder names, for ease of understanding.

We will conduct four separate experiments (see the figures on next page). In each figure, only the files selected for copying are shown in the source directory: The rest are not shown. Similarly, in the destination directory, the original structure is grayed out, so you can focus on the structural changes caused by the structured scrap clips command.

<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Source directory</p>  </div> <div style="text-align: center;"> <p>Destination directory</p>  </div> </div>	<p>Comments:</p> <p>The common ancestor is folder dddd. So the directory structure below this point is copied, but this folder itself is not copied. The file d1 belongs to this common ancestor, so it is placed in the target folder (kkkk) directly. The other files are placed in their respective folders.</p> <p>Since files e2 and f1 were not selected, they are not copied. Similarly, folders aaaa, gggg and hhhh are not copied.</p>
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Source directory</p>  </div> <div style="text-align: center;"> <p>Destination directory</p>  </div> </div>	<p>Comments:</p> <p>This experiment is similar, except that file d1 is not copied.</p> <p>The structure below dddd is copied, and then the selected files (e2 and f2) are placed in these folders, as before.</p>



Note that in the source directory, the command totally ignores the directory structure above the common ancestor folder. For example, imagine that the source directory (which starts with the folder aaaa) is located four levels down (In other words, its new address is D:\xxxx\yyyy\zzzz\aaaa). Even in that case, the result would have been exactly the same in all the examples above.

If your selection contains files from different drives, they would not have a common ancestor folder. In such cases, x^2 reports that the relative folder structure is ambiguous and aborts the paste operation. In such cases, the best you can do is select files from one drive at a time and use the structured scrap clips command. Check the resultant directory structure, though: It may

not be what you expected!

9Q. Using Editor²

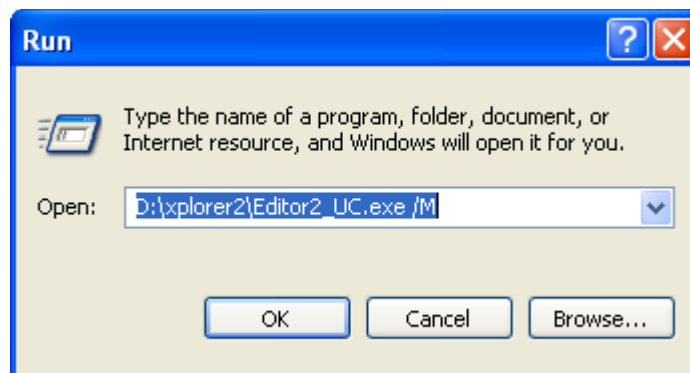
Editor² is the companion product for x², and is included in the installer. It is fully integrated with x².

It is a general-purpose text editor with some nifty features, such as handling HTML/XML tags.

Launching Editor²

To launch Editor² directly from x², just select a file and press **F3** (read-only mode) or **F4** (edit mode). x² launches Editor² and loads the file in it.

- While you are using Editor², you can toggle the mode between read only and edit by pressing **F6**.
- You can also use the Editor² independently: The installer has an option to install its start button in the Quick Launch Bar. You can also launch it from your PC's **Start | xplorer² Pro** menu (if you are using x² Lite, then this is available in **Start | xplorer² Lite** menu).
- Editor² can be launched from Window's **Start | Run** menu (i.e., command line) also. Just enter the complete path of Editor² in the window that pops up (see the example below).



- The /M flag launches the Editor² window in maximized state.
- If the path contains one or more spaces, enclose it in quotes, like this- "D:\xplorer2\Editor2_UC.exe" /M

Launching Editor² with INI file option

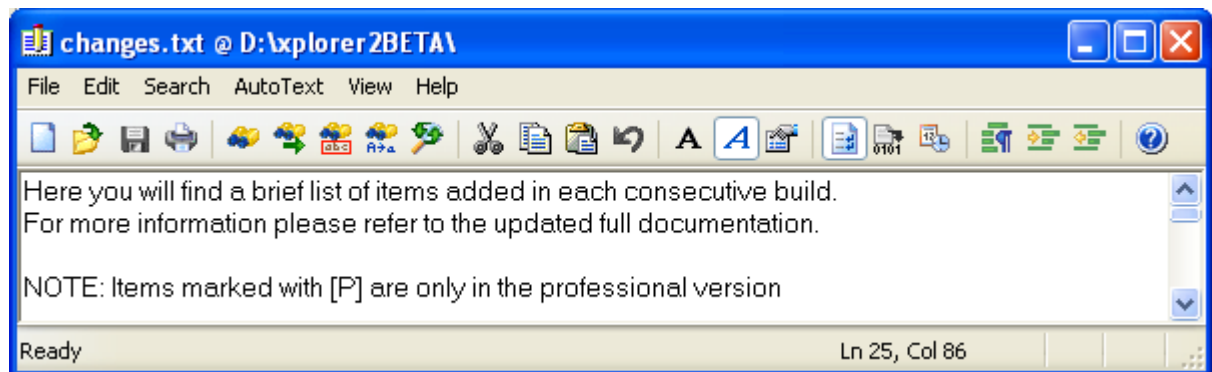
You can also launch Editor² with a /I switch, and an INI file name. Now Editor² will store all its settings in this file instead of Registry.

For example -

"D:\xplorer2\Editor2_UC.exe" /I editor2settings.INI

Editor² interface

The Editor² interface is shown below (I have reduced its height to accommodate the screenshot here):



Note that the name of the opened file is shown in the windows title Bar, along with its complete path. When the file is changed, an asterisk (*) appears before its name in the title Bar. (The asterisk disappears when the file is saved.)

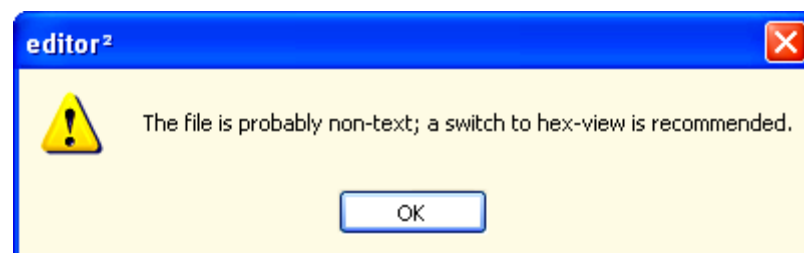
The task button of Editor² (at the bottom of your screen) also shows the asterisk for a changed file.

The Status Bar at the bottom serves five different purposes:

1. It shows the current status (“Ready” in this example)
2. When you hold the mouse over any menu option, its prompt message is shown here.
3. The right-side shows the location of the cursor (line number, column number)
4. The edit mode (Insert/Overwrite) is indicated. (The mode can be toggled with the Ins key.)
5. The coding style (Unicode, Unix, etc) is shown in extreme right corner

Using Editor²

When the program is launched, it checks if the document is non-text; and prompts the user to view it in Hexadecimal mode.







It also understands **code pages**.




The following pages explain its Tool Bar buttons and menu options. Using



Editor² is so intuitive that further instructions are not required.

File menu (Editor²)






Option		Shortcut	Function
New		CTRL+N	Create a new document in a new frame
Open		CTRL+O	Open an existing document
Insert file		CTRL+I	Insert a text file at the insertion point
Refresh		F5	Refresh the display (read the file again from the disk)
Clone		CTRL+D	Open the current document in a new window
Save		CTRL+S	Save the active document
Save as...			Save the active document with a new name. It also allows you to change the text coding to OEM, UTF8, UNICODE-16 or Unix (LF).
Print		CTRL+P	Print the active document
Page setup...			Change the printing options (see figure)
Recent file (list)			Shows a list of recently opened documents. Click on any one to reopen it.
Close		ESC	Close this window. If the document is changed, a prompt will appear to save it.
Exit		ALT+X	Quit the application (close all windows)


Edit Menu (Editor²)

Option		Shortcut	Function
Undo		CTRL+Z	Undo the last action
Redo		CTRL+Y	Redo the last undone action
Select all		CTRL+A	Select the entire document
Cut		CTRL+X	Cut the selection and paste it into clipboard
Copy		CTRL+C	Cut the selection and paste it into clipboard

Option		Shortcut	Function
Paste		CTRL+V	Paste the clipboard contents at the cursor
Overwrite		Ins	Toggles between insert and overwrite modes
Delete line		CTRL+L	Delete the whole line under the cursor
Insert date			Insert current date and time at the cursor position
Case			Provides the following choices (select any one):
Case Upper		CTRL+SHIFT+U	Change selection to uppercase
Case Lower		CTRL+U	Change selection to lowercase
Comment			Inserts the user-specified commenting string at the beginning of each selected line.
Uncomment			Removes the user-specified commenting string at the beginning of each selected line.
Insert Tag			Inserts a pair of tags with the user-supplied text. (e.g. and). This is useful for creating pairs of HTML/XML tags.

Search menu (Editor²)

Option		Shortcut	Function
Find		CTRL+F	Find the specified text
Find next	 	F3	Repeat the last search action. Tip: If you search for some text in x ² using CTRL+F , CTRL+G , ALT+G or ALT+H commands, that text is shared with Editor ² instantly. You can continue searching for it in Editor ² using F3 .
		SHIFT+F3	Repeat the last search action in upward direction
Whole word			Searches for the whole word (ignores if the text is found to be a part of a bigger word)
Case-sensitive			Search in case-sensitive mode
Find selection		CTRL+F3	Find another occurrence of the selection (if there is no

			selection, then Editor ² looks for the word under the cursor)
Hide highlights			The “ Find all ” option of the Find command highlights all matching strings. This command cancels those highlights.
Replace		CTRL+R	(Find and-) replace specific text with different text
Match brace		CTRL+B	Locate the brace that matches the selected one (see note-2 below)
		CTRL+SHIFT+T	Locate the brace that matches the selected one and select the text enclosed in that pair of braces (see note-2 below)
Match tag		CTRL+T	Locate the tag that matches the selected tag
		CTRL+SHIFT+B	Locate the tag that matches the selected one and select the text enclosed in that pair of tags.
Goto line		CTRL+G	Jump to the line with specified number
Set bookmark		CTRL+F8	Stores the current cursor position (for returning later to it)
Goto bookmark		F8	Jump to a previously bookmarked position

Notes:

1. The **Whole word** and **Case-sensitive** commands are not there in the menu options: They exist only in the Tool Bar buttons. Despite that, they are shown in this table because the other menu options are closely related to them.
2. Editor² expects braces to be in complementary pairs, never alone. Further, it expects each pair to consist of an opening brace and a closing brace, as shown below:

Opening brace	Closing brace
()
{	}
[]
<	>

Further, it knows that within a pair, the opening brace comes before the closing brace.

- If you place the cursor on an opening brace, it will find






the matching closing brace; and vice versa.




- If you have a pair of braces like) (, then Editor² will treat both braces as belonging to different pairs.
- If you have selected a closing brace such as >, then Editor² looks backwards for its matching (opening) brace, <.
- Editor² handles nested braces also, such as (())

Autotext menu (Editor²)


Option		Shortcut	Function
Mnemonics			Show/hide the “Tool Bar” that shows all stored mnemonics
<list>			List of auto-text blocks (select any one to insert it at the cursor position)

View menu (Editor²)

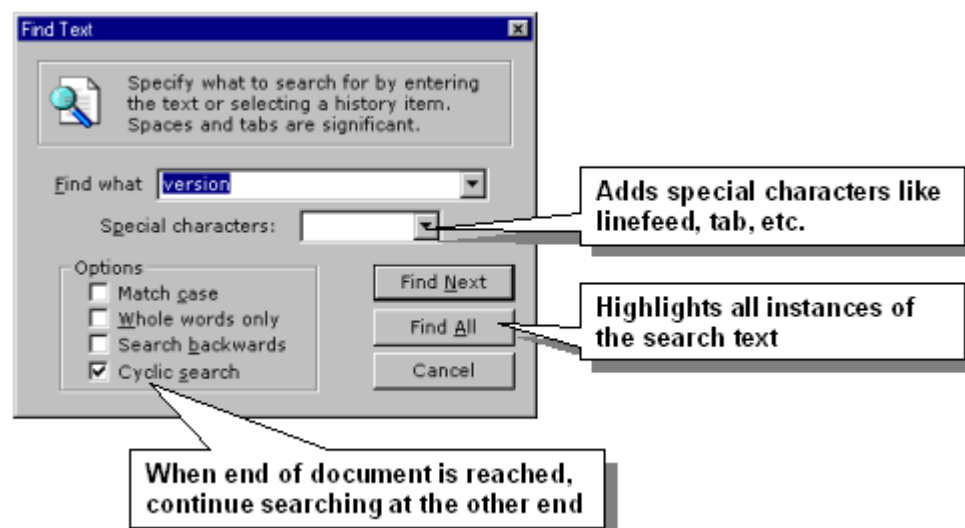
Option		Shortcut	Function
Tool Bar			Toggles the Tool Bar on/off
Status Bar			Toggles the Status Bar (at the bottom) on/off
Windows...		CTRL+W	Shows a list of all Editor ² windows. Switch between them by clicking or pressing the number shown against each window.
Word wrap		F2	Toggles word-wrap feature on/off.
Hexadecimal		F4	View data in Hexadecimal format. In this mode, you cannot edit the file (read-only).
Read only		F6	Toggles between read-only and editable modes
Auto-indent		F7	Toggles automatic indentation of new lines with respect to the previous lines.
Indent			Change indent of the current line. Select one of the following options:
Indent Increase		ALT+RightArrow	Increase the indent by one level (to the right)
Indent Decrease		ALT+LeftArrow	Decrease the indent by one level (to the left)

Option		Shortcut	Function
View Code page...			Lets you select another code page .
View Use nnnn		ALT+C	Toggles between the default and alternative code pages. (“nnnn” is the actual code page number used.)
Font			Change the default fonts using one of the following options:
Font Fixed		ALT+F1	Use the default fixed-pitch font
Font Proportional		ALT+F2	Use the default proportional font
Options...			Change program options for Editor ² . (These are not accessible from x ² 's Program Options)
External viewer		F12	Open the document in an external viewer
(None)		ALT+PageUp	Scrolls the current row to the top of the window

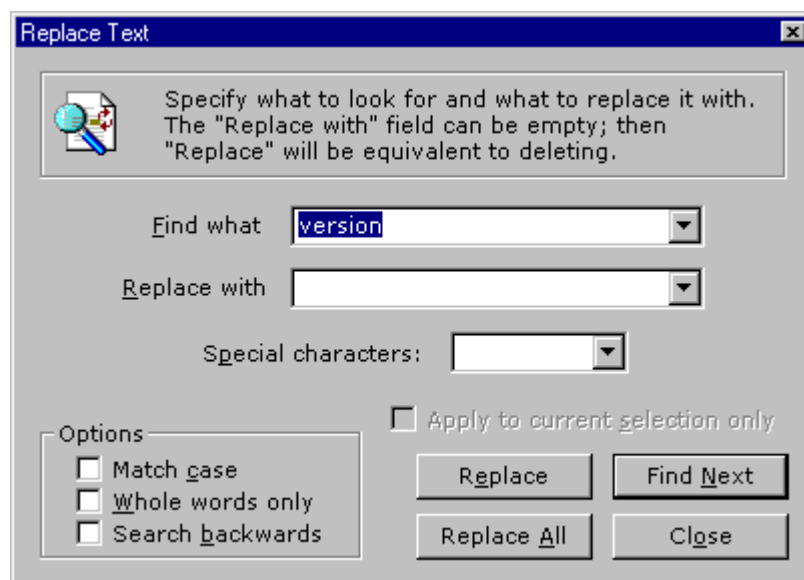
Help menu (Editor²)

Option		Shortcut	Function
Statistics			Shows the statistical summary of the current document
Information...			Shows a quick help file.
About Editor ²			Shows program version, author, website, etc

Find

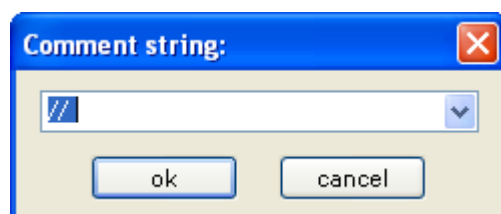


Find and replace

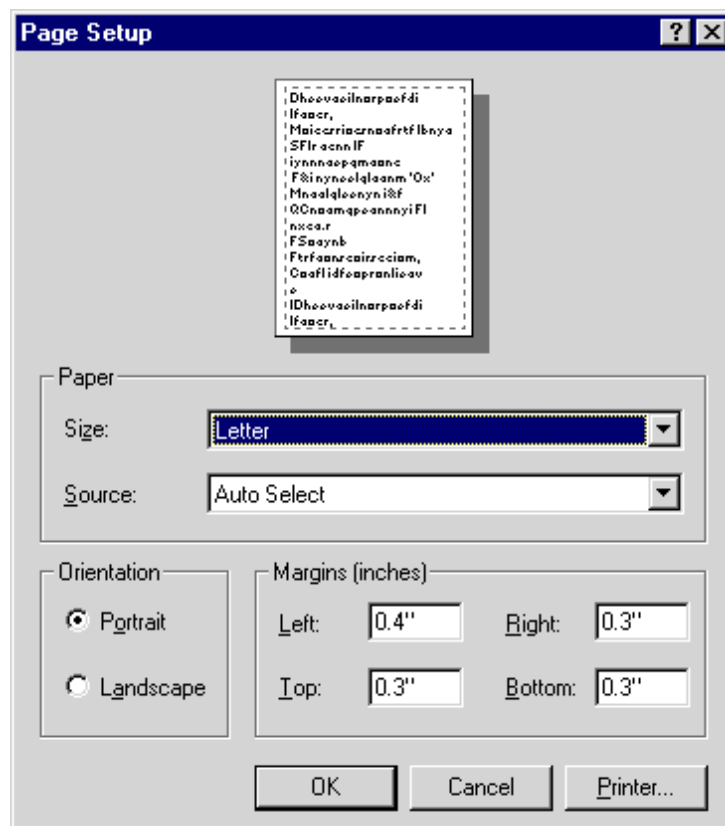


Comment

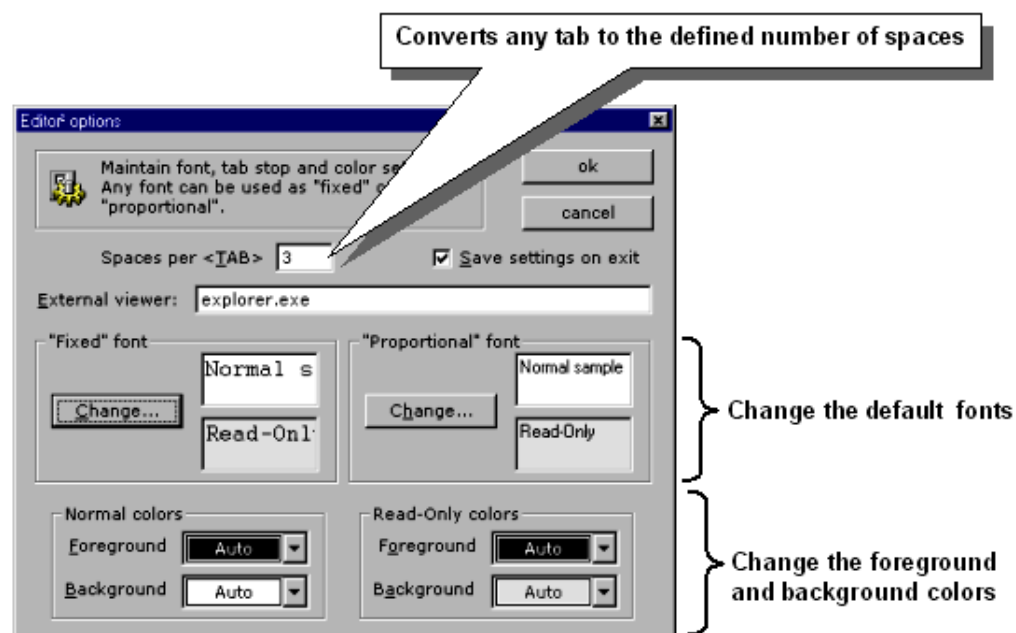
Uncomment



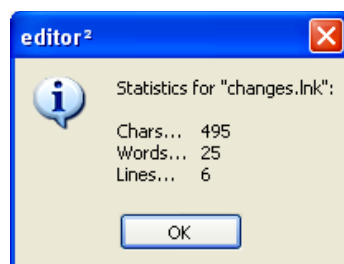
Page setup



Program options



Statistics

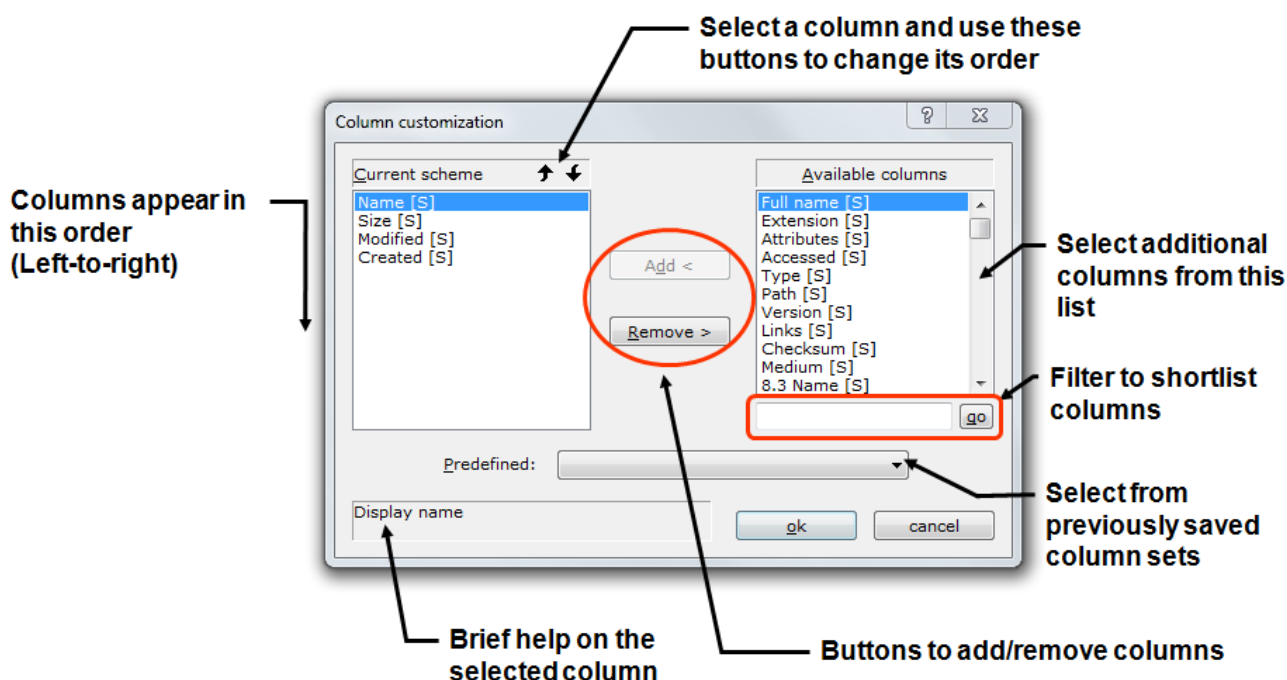


9R. Column Organizer

The Column Organizer is used to add, remove and re-order the **available columns** in **Folder Panes**, **Scrap panes** and **Info Bars**.

The organizer is launched by pressing **ALT+K**.

The organizer has a window as shown below:

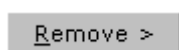


Use this organizer as follows:

1. To add a column, select an additional column in the right-hand pane and then press the **Add** button. (Instead of pressing the **Add** button, you can also d-click on the selected column's entry to add it directly.)

- This button gets activated only when you select a column in the right pane.
- Only one column can be added at a time.

2. To delete a column, select an existing column in the left-hand pane and then press the **Remove** button. (Instead of pressing the **Remove** button, you can also d-click on the selected column's entry to remove it directly.)



- This button gets activated only when you select a column in the right pane.
- Only one column can be removed at a time.



3. To change the order of the columns, select a column and either drag-n-drop it to the desired position; or press the **UP** and **Down** buttons at the top of the organizer window till the column settles at the desired position.
 - Only one column can be moved at a time.
4. When you have finished, press **OK**. The new column arrangement takes effect immediately.

9S. Setting colors in panes

You can set x^2 to change the color of folder panes and scrap panes when a **filter** is hiding some items. You can also customize the color of the active panes. Both these settings are done through registry settings (not from the Tools | Options menu). This appendix will help you set the exact desired color.

While specifying color, keep in mind the following points:

1. Universally, it is normal to specify a color in “RRGGBB” format, where each color is specified as a 2-digit Hexadecimal value (e.g. FF0000=red, 00FF00=green, 0000FF=blue). The combination of these three primary colors gives any desired colors (e.g. FFFF00=yellow, 000000=black, FFFFFFFF=white).

But on Intel systems, you have to enter the colors in the reverse order (i.e., Blue-Green-Red). For example, if you want to enter an RGB color value of **ABCDEF**, then set the color value to **EFCDAE**. (Note that the two digits representing each color are not reversed, like this: **FEDCBA**).

(This example is color-coded only to illustrate which digit sets which color.)

2. Further, the registry values are specified in 8 digits, where as the color-settings need only 6 digits. As a result, there are two extra hex digits at the beginning. You *must* set these first two bits to **00**; otherwise the color settings will not take effect. For example, to set a color to **red**, enter the value **000000FF**.
3. The chart on the next page shows some colors. It shows the color values in the Intel format (**00BBGGRR**). Enter these values in the registry *exactly as shown*.
4. The table shows only sample colors. You can change the values to create your own colors. Experiment!
 - Changing **RR**, **GG** or **BB** will change the shade.
 - Changing all the three colors simultaneously *by the same amount* will not change the shade: It will only lighten or darken the color. To lighten a color, reduce its RR, GG and BB numbers by the same amount. To darken the color, increase the RR, GG and BB numbers by the same amount.

Note that once any of the RR, GG or BB values reaches 00, you cannot darken the color any more. Similarly, if any of these values reaches FF, you cannot lighten it any more.

Tip: It is not easy to calculate in *Hex* mode. You can use the Windows



utility **Calculator** for this. To start the calculator, use Windows **Start | Run...** menu. In the window that pops up, enter **calc** and press **Enter**. Set the calculator in *Scientific* mode. Select *Hex* mode and then calculate.

- Grays are produced by keeping RR, GG and BB at the same value. The two ends of the gray-scale are black (00000000) and white (00FFFFFF). Examples of other grays: 00333333 is a dark gray, 00666666 is a medium gray, and 00AAAAAA is a light gray.
- You can search the Internet for ready-made color charts (such as [this](#)). Some websites also provide interactive selection (such as [this](#) or [this](#)). These charts are typically shown in **RRGGBB** format, so you will have to change their order when entering the value in the Registry, and also add the **00** in front.

Color	Code	Color	Code	Color	Code	Color	Code
	00000000		00696969		000BB886		00D7EBFA
	00800000		00CD5A6A		00D3BA55		00E6F0FA
	008B0000		00238E6B		008FBC8F		00D2FAFA
	00CD0000		00908070		006BBDB7		00E6F5FD
	00FF0000		00998877		00C0C0C0		000000FF
	00006400		00EE687B		0085C715		00FF00FF
	00008000		0000FF7F		005CCD5C		00FF00FF
	00808000		00D4FF7F		003FCD85		009314FF
	008B8B00		00000080		001ED269		000045FF
	00FFBF00		00800080		008CD2B4		004763FF
	00D1CE00		00008080		00D3D3D3		00B469FF
	009AFA00		00808080		00D8D8BF		00507FFF
	0000FF00		00EBCE87		00D6DA70		00008CFF
	007FFF00		00FACE87		0020DAA5		007AA0FF
	00FFFF00		00E22B8A		0093DB70		0000A5FF
	00FFFF00		0000008B		003CDC14		00C1B6FF
	00901604		008B008B		00DCDCDC		00CBC0FF
	00701919		0013458B		00DDDDA0		0000D7FF
	00FF901E		008FBC8F		0087DEB8		00B9DAFF
	00AAB220		0090EE90		00FFE0FF		00ADDEFF
	00228B22		00DB7093		00FAE6E6		00C4E4FF
	00578B2E		00D30094		007AE996		00E1E4FF
	004F4F2F		0098FB98		00EEEE82		00CDEBFF
	0032CD32		00CC3299		00AAEEE8		00D5EFFF
	0071B33C		0032CD9A		0080F080		00F5F0FF
	00D0E040		002D52A0		008CF0E6		00EEF5FF
	00B48246		0000CEA0		00F0F0FF		00DCF8FF

	008B3D48		002A2AA5		00FFF0FF		00CDFAFF
	00CCD148		00A9A9A9		0060F4A4		00F0FAFF
	00B2004B		00E6D8AD		00B3F5DE		00FAFAFF
	002F6B55		002FFFAD		00DCF5F5		0000FFFF
	00A09E5F		00EEEEAF		00F5F5F5		00E0FFFF
	00ED9564		00DEC4B0		00FAF5FF		00F0FFFF
	00AACD66		00E6E0B0		00FFF8F8		00FFFFFF
			002222B2		0072FA80		

9T. Regular Expressions (*RegExp* or *RegEx*)

Regular expressions (“RegEx” in short) are used to find text that meets complex search conditions. You can use regular expressions to search text files and those *non-text* files for which **Ifilters** are installed on your PC. (We will use a common term, “*text*”, to mean the contents of all such files.)

In RegEx mode, x² searches the text for the search string *as entered* (just like in the “normal search” mode). This is called *literal matching*. But the real power of RegEx lies in its ability to specify complex search conditions. All these conditions are added to the search string itself (you do not need separate check boxes to specify conditions like “whole words”, “case-sensitive”, etc.) To define these conditions, RegEx has its own syntax (grammar). The RegEx search strings are called *RegEx strings* or *patterns*.

To compose these special conditions in the RegEx strings, Windows borrows the characters **\$. ^ { [() * + ? ** from the English script and attaches special meaning to them. These characters are called *metacharacters*. (The prefix *meta* means ‘of higher order/level’)

Whenever x² sees a metacharacter in a RegEx string, it *interprets this metacharacter*, rather than looking for its exact match. But these characters are also commonly used in the English text; and so we may have to find a literal match for them. Now this poses a problem: How to enter the same character in a RegEx string, sometimes as a metacharacter and sometimes as a “normal” character, and yet be clear which is which? RegEx has a simple answer: In its plain form, a metacharacter is *always* interpreted, and when the metacharacter is preceded by a ****, it is treated as a “normal” character. (That’s why **** is called “*the escape character*”.)

For example, the period (.) is a metacharacter, which means “any single character” in a RegEx pattern. But we also use the period at the end of a sentence. So, to search for a literal match with the period itself, use **\.** in the RegEx pattern.

Note that the **** plays the reverse role also: Certain “normal” characters are turned into *abbreviations* when **** is attached in front of them. Each abbreviation represents a *class of characters*. For example, **\w** means “a word character”, and **\a** means “an alphanumeric character”. We will see more of this **later**.

The rest of this appendix explains how different Regular Expressions work.

Keep in mind the following:

1. RegEx strings are case-sensitive by default. Therefore, the words *cat*, *Cat*, *cAt*, *CAT* and *caT* are not equivalent.
2. The RegEx syntax differs somewhat across different languages and operating systems. So, if you are used to a different flavor (e.g. PERL) of RegEx, you will have to adjust to the Windows flavor (in general it has a smaller set; and some metacharacters are interpreted differently). The following table explains the generic RegEx syntax, and then shows how the Windows version differs.

Note: In the following examples, the patterns themselves are shown in **orange**. Pay special attention to the text marked in **blue** and **red** color: The **blue** part gives you a clue why the text matches the RegEx pattern, while the **red** part gives you a clue why it does *not* match the RegEx pattern.

Metacharacters can be functionally divided in several groups, as described below:

Metacharacters that represent a single character

Meta-character	Pronunciation and Meaning	Example
.	<i>Dot</i> or <i>period</i> . Matches any single character A, B, C...Z, a, b, c...z, 0, 1, 2...9	c.t will match cat , cbt , cct , clt , c2t , cAt , cBt , etc.

Character classes (“character sets”) and ranges

These match only one out of several characters.

Meta-character	Pronunciation and Meaning	Example
[]	<i>Square brackets</i> . Indicates a character class. Matches any <i>one</i> (and <i>only</i> one) character in the brackets. The order of the characters inside the brackets does not matter: The results are identical.	b[aiu]t matches bat , bit or but ; but not bot or bait . b[aiu]t is same as b[uia]t , b[iua]t and b[aiu]t .
-	<i>Hyphen</i> . In a character class, indicates a <i>range</i> of characters.	[0-9] matches any <i>one</i> digit, from 0 through 9 [A-Z] matches any <i>one</i> character, from A to Z [2-5] matches any <i>one</i> digit, from 2 , 3 , 4 or 5 .

Note: You can also combine the two techniques shown above in a single class. For example, the RegEx **[D-Qc-f1-5]** matches any one character in the range **D** to **Q** or any one character in the range **c** to **f** or any digit in the range **1** to **5**. Note that all the options are simply entered next to each other; *without* any separators, such as commas or spaces.

Metacharacters that represent the same expression repeated multiple times

Many a times, the RegEx string has to repeat the same expression multiple times. For example, to search for a 3-digit number (i.e., any number from 100 to 999), we can use the RegEx string **[1-9][0-9][0-9]**. But that is not a very efficient method. RegEx uses *quantifiers* to search for “n-times repetition of a given expression”, as shown below:

Meta-character	Pronunciation and Meaning	Example
?	Question mark. Indicates that the preceding expression is optional: It repeats once or not at all	Colou?r matches Color and Colour . A[0-9]?4 matches A4 and A24 , but not A254 .
*	Asterisk. The preceding expression is repeated zero or more times; making it optional (compare * with ?)	6[2-4]* matches 6 , 62 , 622 , 624 , 632 , 644424 , etc. But it will <i>not</i> match 8 , 22 , 24 , 65 , 6134 , etc
+	Plus. The preceding expression is repeated one or more times	[0-9]+ matches 1 , 13 , 666 , 93615 and so on. [A-Za-z]+ matches a word of any length; provided it does not contain any digit.
??, +?, *?	The ?, +, and * metacharacters are greedy : They match as <i>much</i> as possible. When ? is added to them, they become non-greedy, and match as <i>little</i> as possible.	Assume that the searched file contains the text <abc> Hello world! <def> . Then- ➤ <.*?> will match <abc> , where as- ➤ <.*> will match <abc> Hello world! <def>

Meta-character	Pronunciation and Meaning	Example
{m,n}	<p>Interval. Repeats the preceding expression <i>m</i> to <i>n</i> times.</p> <ul style="list-style-type: none"> ➤ <i>m</i> is the lower limit (minimum); and <i>n</i> is the upper limit (maximum) for the repetition. ➤ You may omit any <i>one</i> limit (either <i>m</i> or <i>n</i>), but <i>not both</i>. 	<p>[0-9]{3,5} matches any number that has 3 to 5 digits (Any one number from 000, 001, 123, ... 999, 1000...99999.)</p> <ul style="list-style-type: none"> ➤ [0-9]{2,} will match a number with 2 or more digits ➤ [0-9]{,4} will match a number with 4 or less digits. <p>Note: The ?, + and * metacharacters are special cases of the interval: They are equivalent to {0,1}, {1,} and {0,} respectively.</p>

Note: The *interval* is described here for completeness' sake only: Windows does not support intervals.

Miscellaneous metacharacters

Here are some metacharacters that do not belong to any particular group.

Meta-character	Pronunciation and Meaning	Example
^	<p>Caret. When placed at the start of a character class, it <i>negates</i> the entire character class. (The “<i>anything but these</i>” operator)</p> <p>Note that ^ is placed <i>inside</i> the brackets.</p>	<p>b[^ait] matches all the 3-letter words beginning with b and ending with t; and a middle letter that is <u>not</u> a or i.</p> <p>So this pattern will match words such as but, bet, bet, etc.; but will <i>not</i> match bat or bit. It will also <i>not</i> match longer words such as bait or belt.</p>
()	<p>Parentheses. Groups a sub-expression (as in a mathematical equation).</p> <p>It allows you to apply a quantifier to the entire group (and not just to the character preceding it).</p> <p>It also makes the expression more readable.</p>	<p>(\d+)*\d+ matches a list of numbers separated by commas; such as 1 or 1,23,456.</p> <p>Note that the * applies to the entire subexpression enclosed in the ().</p> <p>In many RegEx flavors, putting () around a subexpression also generates a <i>backreference</i> for it (explained below); but in</p>

		Windows flavor of RegEx, <i>curly braces</i> {} are used to generate backreference.
--	--	---

Backreference

A RegEx string may contain one or more sub-expressions that are repeated multiple times. In that case, you can ask Windows to remember the matching text for each sub-expression, by enclosing it in curly braces {}.

Windows can remember matches for 10 different sub-expressions by their *backreference*; which is in the form \n, where *n* refers to the (n-1)th sub-expression in the string. (In other words, \0 refers to the *first* sub-expression; \4 refers to the *fifth* sub-expression, and so on.) Instead of typing the sub-expression again and again, just enter its backreference in the RegEx string.

Apart from saving labor, the backreferences are also used for the following purposes:

Purpose	Example with explanation
To detect a repeated word	{[A-Za-z]+\0} The expression enclosed in curly braces matches with a word; and its backreference \0 looks for a repeat of that matched word. The entire expression will return a match only when a word is repeated.
To find a matching opening/closing tag (in HTML, XML, etc.)	<[hH][1-6]>.*?<\0> The angular brackets < and the forward slash / are literals. The subexpression inside the curly brackets {} matches with tags like h1 , h2 , etc (or their ALLCAPS equivalent, like H1 , H2 , etc). The .* matches all characters enclosed by the pair of tags in <i>non-greedy</i> mode. The backreference \0 represents the text that matched with the subexpression in enclosed in {}. Effectively, this RegEx string will return text enclosed in matching pairs of tags <i>and</i> the tags themselves.

Anchors

Certain metacharacters are used to specify a certain *position* in the text (e.g. “at the beginning” or “at the end”). In other words, they do *not* represent any character. They are called “anchors” because they “anchor” (=attach) the RegEx at a particular position in the text. Only after anchoring can you start the comparison between the text and the RegEx (to check if they match).

Note that when you find a match for the anchor, it is a zero-length match. (The text does *not* have any character that matches the anchor.)

Meta-character	Pronunciation and Meaning	Example
^	Caret. If ^ is placed at the beginning of the RegEx, x ² tries to match the RegEx with the <i>beginning</i> of the string.	<p>^[abc] will only match strings that begin with a, b, or c.</p> <p>^bat will match strings that begin with bat.</p> <p>^[^BC] will only match strings that do <i>not</i> begin with B or C.</p> <p>Note that in the last example, we used ^ twice: The first as an anchor, and the second as “anything but” operator.</p>
\$	Dollar (sign). If \$ is placed at the end of a RegEx, it matches with the text at the end of the string.	<p>[2-4]\$ matches a single digit in the range 2 to 4, <i>if</i> it is located <i>at the end</i> of the searched text.</p> <p>Keep in mind almost all files would have a period (or a question mark or an exclamation mark) at the end of the text. You must include this notation in your RegEx pattern, otherwise x² will not find the pattern (because technically it is not at the end of the file.)</p> <p>Also, keep in mind that some files may have tabs, spaces, line feeds, etc at the end. Your RegEx pattern must include them as well.</p>
	<p>Word boundary **</p> <p>It can be used at <i>any one</i> or <i>both</i> end(s) of the word.</p> <p>When used at <i>both</i> ends of the word together, it is equivalent to the “whole words” search condition.</p>	<p>\bthe matches the and their; but <i>not</i> father or bathe.</p> <p>the\b matches the and bathe, but not father or their.</p> <p>\bthe\b matches <i>only the</i>; <i>not</i> father, their or bathe.</p>

** Four different positions qualify as *word boundaries*:

1. Before the first character in the string, if the first character is a word character.
2. After the last character in the string, if the last character is a word character.
3. Between a word character and a non-word character that follows it.

4. Between a non-word character and a word character that follows it.

Logical operators

These metacharacters are logical (Boolean) operators used on RegEx sub-expressions.

Meta-character	Pronunciation and Meaning	Example
	Alternation (logical OR) operator: It separates two expressions, <i>exactly</i> one of which matches	T the matches The or the , but will <i>not</i> match he or she . ca ut matches either cat or cut , but will <i>not</i> match cot .
!	Exclamation mark. Negation operator: RegEx will match with a text only if the text does <i>not</i> contain the expression that follows ! .	a!b matches a <i>not</i> followed by b . For example, it will match ac and ad , but will <i>not</i> match ab .

Some special metacharacters are listed below:

White space metacharacters

White space metacharacters are invisible to the naked eye, and we ignore them while reading the file. However, while searching for text, x² cannot ignore them. Therefore, while composing your search string, you have to account for them. If you do not include these metacharacters in the search string, x² may miss the file(s) you wanted.

Metacharacter	Description
\f	Form feed
\n	Line feed
\r	Carriage return
\t	Tab
\v	Vertical tab

Abbreviations

You can also use the following abbreviations in the RegEx, to simplify the expression.

Abbreviation	Matches	Equivalent to-
\a	Any alphanumeric character	([a-zA-Z0-9])
\b	White space (blank)	([\t])

Abbreviation	Matches	Equivalent to-
\c	Any alphabetic character	([a-zA-Z])
\d	Any decimal digit	([0-9])
\h	Any hexadecimal digit	([0-9a-fA-F])
\n	Newline	(\r (\r?\n))
\q	A quoted string	(\"[^\"]*\") ('['']*')
\s	White space (either a space or a tab)	[\t]
\w	A single word character	([a-zA-Z])
\z	An integer	([0-9]+)

Note: \W, \S and \D negate their lowercase version: \W means *not* a word character; \S means *not* a white space and \D means *not* a decimal digit.

Note a special case: \B matches at any position between two word characters as well as at any position between two *non*-word characters.

RegEx Modes

Modes of RegEx change the behavior of the search, just like “switches” in a DOS command. Typically, expressions such as /i (case-insensitive mode) and /m (multi-line mode) are used. However, there is a wide variation amongst different RegEx flavors.

Windows does not support modes, with the exception of greedy and non-greedy (also known as “lazy”) modes explained below.

The Greedy and non-greedy (“lazy”) modes of RegEx

Let us understand the greedy mode of search with an example: Suppose some people are standing in a queue, and we are asked to select people wearing white shirt and black pants. In this example, the *shirt* is analogous to the *beginning part of the RegEx string*, and the *pants* are analogous to the *trailing end of the RegEx string*. We don’t have any search conditions for what comes in between, such as necktie, belt, etc. This is analogous to the .* or .*? inserted in the RegEx string.

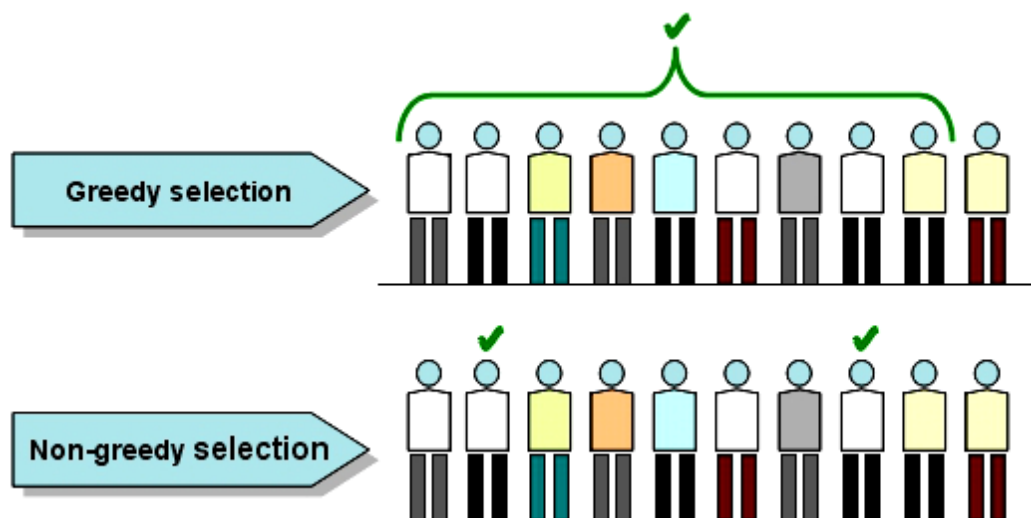
- In *greedy* mode, we will start with the first person with white shirt, and continue our selection till we find the *last* person in the queue wearing black pants.
 - The two persons we selected may not be wearing the full set

of *white-shirt-and-black-pants*.

- All the persons standing between these two persons are selected, *regardless of what they are wearing!*

As a result, we can end up selecting a few people even if *none* of them is wearing the full set of *white-shirt-and-black-pants*.

- In *non-greedy* mode, we will pick only those persons who are wearing a white shirt *and* black pants. (If more than one persons meet this requirement, we will pick all of them.)



Naturally, the *non-greedy* mode picks up more meaningful matches.

How x² behaves differently from a true RegEx engine

As a file manager, x² differs from a true RegEx search engine in the following ways:

1. Many RegEx patterns represent multiple values. For example, `\d+` represents a number with one or more digits. A true RegEx engine will search the entire file and highlight all strings that match such a RegEx pattern. But x² looks only for a *single* match for the RegEx pattern. As soon as it finds the *first* match, it will stop searching the current file, list the file in the search results and move on to check the next file. (For a file manager, this logic is correct.)
2. If you view this file with **QV**, all instances of the “found” string will be highlighted. However, the other possible values that your RegEx pattern can take are ignored.
3. In QV, only the *first* match follows the RegEx rules exactly. However, the subsequent matches do NOT follow those rules. For example, if you have searched for the RegEx `/bthe/b`, x² will find the first match correctly, with breaks (spaces) on both sides. However, when you view the file in the QV, it will *also* highlight the words **The**, **the**, **there**, **Them**, **nevertheless**, etc.



Caution: *When you have used RegEx in your search, do not expect QV to show all the matching strings accurately.*

9U. Changes in this version of the User Manual

In the table below, four terms provide a hint about the nature of change--whether the change is in the x² product or only in the manual:

- “New” means a new feature is introduced in the product; whereas “Added” means there was no change in x² (Either the description of an exiting feature is added to this version of the User Manual, or the additional material is not directly related to x²).
- “Modified” means an existing feature in x² is modified, whereas “Corrected” means an error in the manual is corrected in this version.
- A [P] mark means the feature is for Professional version (not for the Lite) version. A [U] mark means the feature is in the Ultimate version only (not in Professional or Lite versions). The Ultimate version contains all features of the Professional version.

Page	Change
-	The earlier versions of this manual were designed to be printed. But the sheer number of links in this manual makes that goal impractical. Therefore, from this version, the manual is designed only for on-screen reading. Consequently, the Index is removed from the end of the manual. (You can still search for any terms by pressing CTRL+F!)
13	Corrected: Lifetime upgrade policy (and its impact on past customers) clarified.
28	New: The Help > Activate with key menu provided to activate xplorer ² [P]
36	New: A Details Pane that shows more details for the item under focus
38	New: All view panes (tree, quickviewer, scrap pane, Help, etc) are dockable. [P]
41	New: Link icon overlays are displayed in thumbnail view mode also
49	New: /I command line option for PORTABLE edition can take a standard INI
49	New: You can have large Tool Bar icons (up to 48x48 pixels)
50	New: Option for using large icons in folder tree
50	New: Option to lock the viewer panes
52	New: Option to apply the folder settings to all subfolders also [P]
52	New: Infobars can display a Selection Information column

Page	Change
60	New: Drive Bar supports right click context menu [P]
61	New: Folder can be deleted from the Folder tree (no locking)
77	New: Autofilters can now show folders only (and hide all files away)
81	New: File > New tab opens all the selected items/folders in separate tabs
81	New: Control to lock a tab (toggle).
87	Modified: Native tab in QV utilizes the windows vista/7 preview handlers
87	New: Native preview automatically resizes images and text to match pane size
130	New: Dual bookmarks remember a pair of tabs in opposite panes
138	New: Robust delete dialog uses a check box to activate last filter used (if any) [P]
143	New: Searches can be aborted with ESC
151	New: Robust transfer dialog uses a check box to activate last filter used (if any) [P]
152	New: Robust copy option to preserve all file/folder dates (<i>created</i> etc). [P]
234	New: Tool Bar can switch between small or large icons (requires XL skin)
208	New: Paste text and images in folder command avoids name-conflict
209	New: Command to extract plain unformatted text from documents
251	New: Custom submenu in the context menu of folder pane/scraps pane [P]
284	New: Token \$> to pass selected file names through a text file.
312	New: Keyboard only command to toggle show/hide hidden files
314	New: Administrator mode to run x ² with elevated rights
317	New: Help > Online support and Crash information send emails to customer support
317	New: Help > Tell a friend menu to spread the word on x ² :)
339	New: New column for Authenticode digital signature [P]
339	New: Infotip information available as a stock column [P]

Page	Change
361	New: Registry tweak to break up long menus to split in columns every n items [P]
362	New: Option to expand tree only partially when displaying network folders
363	New: Registry tweak to stop x ² 's custom menu items in the standard shell context menu
363	New: Registry option to save the text pasted in Folder/Scrap pane as a Unicode file
366	New: Registry option to force items to cache their bitmaps (not recommended!)
366	New: Registry tweak to always show hidden files (Win 7 and later)
375	Added: How to handle UAC issues
382	New: Program option for fast thumbnail-generation in windows XP/2000
383	New: Option to set icons to plain mode (but overlay symbols are stripped off)
406	New: x ² automatically detects Unicode and UTF8 files even without a BOM
406	New: Text rules in filters accept ? and * wildcard characters [P]
406	New: The Named field in Hyperfilter accepts RegEx expressions [P]
413	New: Additional rules definition box has autocompletion feature [P]
421	New: editor ² optionally saves settings in a user-specified INI file Instead of Registry
424	New: Edit > Insert tag menu command added to editor ² for HTML/XML tags
425	New: editor ² can search for (and within-) matching HTML tags
431	New: Column-organizer has a filter box for easier selection

Notes:

- Only significant changes (which affect the users) are mentioned in this table: Correction for typographical errors and rephrasing to make the manual more comprehensible are not mentioned.
- To jump to any changed part, click on the page number (in the left column of the table)