UltraClip - a Clipboard Extender

Function
UltraClip extends the capabilities of the Windows clipboard by storing multiple objects placed on the clipboard. It stores all formats associated with a given object , displays each in a separate window, and provides quick retrieval via cut and paste.

Prerequisites
UltraClip requires Windows 3.1.

Constraints
UltraClip stores all its objects in memory - you'll need sufficient memory to support whatever you wish to store. Large color bitmaps can comsume several megabytes, so beware. UltraClip ignores owner-display formats. If you store several color-rich bitmaps with palettes, the contention for the system palette may produce a rather strange display of colors in the **non-active** windows. Not compatible with the original release of Norton Desktop for Windows 1.0.

Installation
Copy UC.EXE to any suitable directory. Launch it from the Program Manager or your favorite menu system. UC does not have any special path or directory requirements.

The UltraClip Display Window
UC is an MDI application with a button and status bar along the top of the window area, and separate image windows for each clip object.

From left to right the button icons represent:

> Cut to Clipboard - copy currently active window to clipboard , then delete image window
> Copy to Clipboard - copy currently active window to clipboard
> Paste from Clipboard - create new image window from clipboard
> Delete Window - remove image window from UC
> Clear Clipboard - delete current contents of clipboard
> Uniform Tile - tile the image windows in a grid for easy viewing

These buttons duplicate options on the UC menus except for Uniform Tile.

To the right of the buttons is a status display showing ...

> Status of Auto Paste function (P or _)
> Information about currently active object (if any)
>> Size of DIB/BMP stored in memory
>> width*height*resolution/planes of image
>> PICT memory size
>> Text object size
>> Native size if OLE data available
>>> -or-
> A short explanation of active icon if mouse button depressed

In the open area are windows which display thumbnails of the objects currently stored in UltraClip. You can drag these windows around in the display area, iconize them, tile them or use the other options on the Window menu. If you zoom one of the clip windows, the object is displayed full size.

Using UltraClip
Once UC is running, just use the paste icon or menu option to paste the current contents of the clipboard into UC. If there is a graphic on the clipboard, UC makes a copy, creates a window, and displays it - size permitting. You can store as many objects as memory and resources allow.

To restore an object to the clipboard, highlight the window you wish to access, and either click the **Copy** button, choose **Edit/Copy** from the menus, or right-click the window's title bar. This will copy the object to the clipboard, replacing whatever was there before. You can also choose **Edit/Cut** (or the **Cut Button**) to copy the object to the clipboard and delete the UC copy.

To selectively copy one or more formats to the clipboard, right click anywhere in the window area. A dialog box with the available formats will appear. Click on the formats you're interested in, then **OK** to copy the selected formats to the clipboard.

Remember, UltraClip retains a copy of all the fomats until you close the window, or exit the program. If you chose the wrong format the first time, just repeat the copy.

Using AutoPaste - UltraClip has an Auto Paste mode that will automatically paste every new object placed on the clipboard (except those copied from UC). To activate AutoPaste choose the Edit/Start AutoPaste menu option or click the text box with the right mouse button. The status box displays P or _ depending on the current status of AutoPaste.

You can configure UltraClip to start in AutoPaste mode using the File/Configure menu option. Choose the startup mode you desire and it will take effect the next time you start UltraClip.

The Tile Button - Clicking the tile button uniformly sizes the clip windows and arranges them in a grid based on you setup configuration. The default sizes the windows to 125 pixels square and puts them in a 4 by 2 tiling grid. See the configuration section for changing the defaults.

You can clear the current contents of the clipboard using the Edit/Clear menu or the Clear button. This may free up some memory if the clipboard is currently storing a large image.

When you depress an icon button, the status display box temporarily displays a brief explanation of the action.

Configuring UltraClip
You can configure UC by choosing Configure from the file menu, or right-clicking on the title bar with the mouse. In addition to setting the startup AutoPaste mode, you can choose a new thumbnail size and tiling grid.Your choice is written to **uc.ini** and takes effect with the next object pasted into UltraClip. Please note that existing thumbnails are not recalculated, so it is best to change that parameter at the beginning or end of a session.

Clipboard Objects
The clipboard is largely a convention that lets programs share data directly via system memory. When you "copy" to the clipboard, your application formats various blocks of global memory and turns them over to the clipboard (the Windows system) to manage. Any application can retrieve those blocks from the system, make copies, and interpret them as best as it can. An application can use both predefined formats and custom formats when creating the data for the clipboard. Since the various formats usually refer to the same general item , we can collectively call them a clipboard 'object' which has various formats. When you copy to the clipboard or empty it, you remove the existing object and replace it with another.

UltraClip allows you to take a snapshot of the clipboard and preserve the current object. These snapshots are also stored in global memory, just like the original, but have a longer life.

UltraClip and OLE
UltraClip is OLE aware. It does not embed or link to objects but it lets you store OLE data for embedding and linking in other applications. When you copy an OLE object into UC, it captures the OLE data; when you restore an object to the clipboard, it places copies of the original data back on the clipboard in the same order and format. The goal is to transparently restore the state of the clipboard. Of course, if you selectively choose formats to copy to the clipboard, the copy process will not match the original.

The UltraClip Display Windows
Each window displays a thumbnail of the object it is 'storing' - either a graphic or an unformatted dump of text. When you paste an object into UC, it stores all the available formats as well as building a thumbnail image if a graphic format is found.

If both graphic and text formats are found, the display window has an '*' in the title. For these windows, you can click inside the display to toggle between the text and graphic displays.

You'll also notice that the text dump is not a thumbnail - I figure it's hard enough to read full size.

If the object contains no displayable formats, the window displays the program name that put the data on the clipboard, and the formats that are available for copying. You may have to zoom the window to see all the text if there are many formats.

If you **zoom** a clip window, the graphic is redrawn full size. Depending on the size and complexity of the object, this can take a while the first time. The delay is caused by the time needed to create the full image - initially, only the thumbnail is built. The full graphic is cached in memory, though, so you don't need to wait a second time.

Known Peculiarities
Publisher's Paintbrush may fail to render an image to the clipboard if it thinks memory is low - this sometimes results in a error message. Just paste into UC a second time and PubPaintbush will actually deliver up the image to the clipboard. Corel PhotoPaint causes problems with autopaste. If you get an empty window on autopaste, repaste the image manually. Micrografix Designer 3.1 is unhappy with the MGX_... formats as restored by UltraClip, so they are suppressed even if present on the clipboard. It is possible to create metafiles in advanced drawing applications (such as Corel Draw) that are simply too complex for Windows to render. Typically Windows crashes when trying to display these files. One possible workaround is to copy sections of the image to the clipboard and store them in UltraClip. If, for example, Corel warns you that a given image is 'too complex' for the clipboard, do not try to display the clipboard version - rather clear the clipboard and start again.

Copyright
UltraClip and the accompaning source code are a copyrighted work of Doug Overmyer.

Registration
UltraClip is distributed as shareware. If you continue to use UltraClip after a 21 day period, you are expected to register your copy. The registration fee is $5.00 payable to:

Doug Overmyer
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Disclaimer
UltraClip carries no warranties. You use it entirely at your own risk. You must determine its suitability for your system and needs.

Source Code
UltraClip is written in Turbo Pascal for Windows. The source code is distributed with the application. It is included because I have learned much from others' code, and some may find mine useful.

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Problems, Suggestions
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Notes:
Release 1.1 added OLE support, reworked entirely the storage of objects, display of metafiles, improved error recovery.
Release 1.2:implemented thumbnails, reworked owner-draw format , reworked large metafile display code, added various configuration options.
Release 1.3:added zooming of graphics, selective copy of formats, uniform tiling feature & better scrolling.

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