

# A Review : Clipboard Manager

Kiran Bahaniya<sup>\*1</sup>, Komal Dhote<sup>1</sup>, Laxmi ogale<sup>1</sup>, Prof. Ashish Palandurkar<sup>2</sup>

<sup>1</sup>Students, Department of Computer Science & Engineering, Nagpur institute of technology,  
Nagpur, Maharashtra, India

<sup>2</sup>Professor, Department of Computer Science & Engineering, Nagpur institute of technology,  
Nagpur, Maharashtra, India

## ABSTRACT

The most important characteristic of a clipboard manager is its ability to save time. Clipboard managers allow users to store a history of previously copied content such as text, files, Rigid and images—whereas the built in Windows Clipboard only allows for storage of one item at a time—thus allowing for speedy access of such content. This comes in especially handy when carrying out repetitive data entry tasks such as entering repeat formula as well as storing images in a database for further processing. Other uses include storing common sections of code (for programmers) and storing online form information. Some of us routinely carry out such repetitive tasks given our professions, habits or hobbies and the ability to cut down on the monotony of switching back and forth between desired content is a valuable asset. Users can choose exactly how many clips they want to be stored in the history. There is a choice of how many clips are stored by being made immediately available on the popup menu and, how many are stored out of sight but still remain in the program cache. This is useful, as not all of the clips need to be immediately available for pasting and can be adjusted based on the habits of users. Users can also make certain clips permanently available and store them in different groups. Basic cut and paste gets the job done, but if you are going for speed and efficiency, you will need a clipboard manger to keep your copy-full strong. Keeping all the most frequently used text snippets in the Windows clipboard does make sense.

**Keywords :** Clipboard, Clips, Clipboard manager, Buffer, Copy-Cut-Paste, Logs.

## I. INTRODUCTION

The clipboard is a software facility used for short-term data storage and/or data transfer between documents or applications, via copy and paste operations. It is most commonly a part of a GUI environment and is usually implemented as an anonymous, temporary data buffer that can be accessed from most or all programs within the environment via defined programming interfaces. A typical application accesses clipboard functionality by mapping user input (key bindings, menu selections, etc.) to these interfaces.

The default Windows clipboard has two obvious Limitations: it can store only one item at a time and it is cleared every time the computer restarts. Clipboard replacement utilities will not only solve those problems, they will give you much more power over your clipboard.

These utilities provide a clipboard history and they come with additional features such as built-in text editor, additional information about the clip (date & time, origin, user name), launch actions (such as Google search) and more. Because they replace such a basic system function, clipboard managers have to be simple to use, but that depends on how you use

your computer. There is no one-size-fits-all when it comes to clipboard managers, so I suggest you try some of those freeware products for yourself and find the one that suits you the best.

Here I came up with a list of specifications to evaluate clipboard managers:

- ✓ Simple: Easy to setup and use. It should work as intended right out of the box, without any tweaks.
- ✓ Reliable: It can handle everything the default Windows clipboard can handle. It should be light on resources and fully compatible with the latest versions of Windows.
- ✓ Accessible: Easy to use with cursor-only, keyboard-only or a mix of both. It also needs a nice and clear interface.

**1.1 Clipboard management:** Modern GUIs often provide a clipboard manager, which supports multiple cut, and paste transactions. In this model the clipboard is treated as a stack or scrap book, with new cuts and copies being placed on top of the list of recent transactions. The standard paste operation copies the most recent transaction, while specialized pastes provide access to the other stored transactions. These managers generally also provide a window that displays the transaction history and allows the user to select earlier copies, edit them, change their format and even search amongst them.

Most environments do not save the clipboard contents to any persistent storage - when a user logs out or reboots his or her system the clipboard contents are cleared and forgotten.

**1.2 Operating system-specific clipboards:**

**1.2.1: Microsoft Windows:** In some versions of the Microsoft Windows operating system, the contents of the clipboard can be viewed at any time by using the Clipboard Viewer (Clipbook Viewer in Windows XP and 2000) application (clipbrd.exe). It can be run by pressing Windows key + r and typing clipbrd.exe. Alternatively, the program can be found

at %windir%\system32\clipbrd.exe on such versions of Windows. In older versions of Windows the common practice was to open a copy of the "Notepad" or "WordPad" editor, and paste into that. Often these operations are available from the "Edit" pull down menu and they may be available via a context menu, usually accessible by context-clicking in the window or dialog entry that is to be cut from or pasted into. The standard Windows key bindings are:

- ✓ **Ctrl+C** to copy data onto the clipboard
- ✓ **Ctrl+X** to cut data to the clipboard
- ✓ **Ctrl+V** to paste data from the clipboard

Alternative key bindings derived from the IBM Common User Access are:

- **Ctrl+Ins** is copy
- **↑ Shift+Del** is cut
- **↑ Shift+Ins** is paste

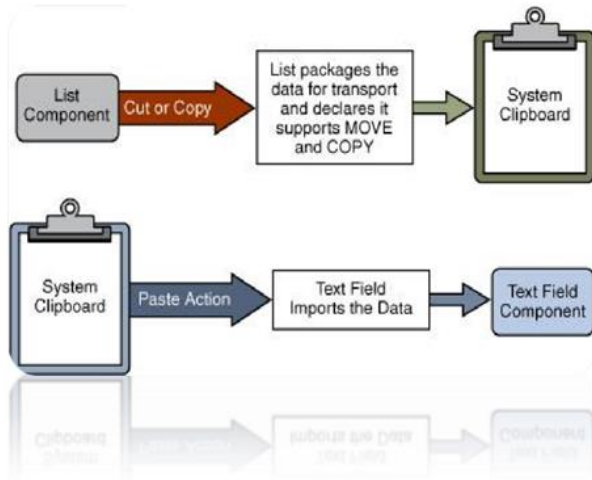
The advantage of the alternative keys is that the fingers can stay close to the arrow and selection keys when one is editing a large body of text. The Clipbook Viewer was removed entirely in Windows Vista.

**II. METHODOLOGY**

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In Windows Clipboard Utility like Clip diary in which it maintain the history of copied files and when user want to paste any files from diary of the

copied files firstly you need to open the diary by pressing the key ctrl+D then it will show you all copied files.



**Figure 1.** Clipboard operations

So, clipboard manager going to overcome this Clipboard operations

limitations by providing Buffer for copy data whatever the user copied data is stored into a buffer with additional features such as built-in text editor, additional information about the clip (Date & time, origin, user name), launch actions (such as Literature Survey: In human-computer interaction, cut and paste and copy and paste are related commands that offer a user interface interaction technique for transferring text, data, files or objects from a source to a destination. Most ubiquitously, users require the ability to cut and paste sections of plain text. The cut command removes the selected data from its original position, while the copy command creates a duplicate; in both cases the selected data is placed in a clipboard. The data in the Clipboard is later inserted in the position where the paste command is issued. This interaction technique has close associations with related techniques in graphical user interfaces that use pointing devices such as a computer mouse (by drag and drop, for example).The capability to replicate information with ease, changing it between contexts and applications, involves privacy concerns because of

the risks of disclosure when handling sensitive information Terms like cloning, copy forward, carry forward, or re-use refer to the dissemination of such information through documents, and may be subject to regulation by administrative bodies The term "cut and paste" comes from the traditional practice in manuscript-editing's whereby people would literally cut paragraphs from a page with scissors and physically paste them onto another page. This practice remained standard into the 1980s. Stationery stores formerly sold "editing scissors" with blades long enough to cut An 8½"-wide page. The advent of photocopiers made the practice easier and more flexible. The act of copying/transferring text from one part of a computer-based document ("buffer") to a different location within the same or different The act of copying/transferring text from one part of a computer-based document ("buffer") to a different location within the same or different Computer-based document was a part of the earliest on-line computer editors. As soon as computer data entry moved from punch cards to online files (in the mid/late 1960s), there were "commands" for accomplishing this operation. This mechanism was often used to transfer frequently used commands or text snippets from additional buffers into the document, as was the case with the QED editor.

The earliest editors, since they were designed for "hardcopy" terminal, provide keyboard command copy "terminals, provided keyboard commands to delineate contiguous regions of text, remove such regions, or move them to some other location in the file. Since moving a region of text required first removing it from its initial location and then inserting it into its new location various schemes had to be invented to allow this multi-step process to be specified by the user.

Often this was done by the provision of a 'move' command, but some text editors required that the text be first put into some temporary location for later retrieval/placement. In 1983, the Apple Lisa

became the first text editing system to call that temporary location "the clipboard".

### III. DATA EXTRACTION PROCESS BY USING CLIPBOARD

The below figure defines stages required for extracting data.

- ✓ First, clipboard can identify the relevant functions
- ✓ Secondly, by according to its functions data can be extracted from those functions.
- ✓ Then data retrieved is classified in different formats and if the required format is found in the clipboard then it is appended.
- ✓ Finally, the identified data is extracted and used depending on applications.

### IV. IMPLEMENTATION

(A) MAIN WINDOW: This is the main window of my project from which you can access all functionality of my project like view logs, Settings, Refresh, Exit etc.

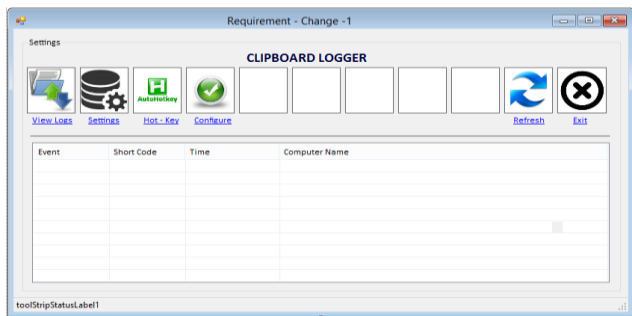


Figure 2. Main Window of my project

(B) Image Buffer Creation for Bitmap Images: Bitmap image means suppose you opened any image inside paint environment and from that image you copy any area of an opened image this image is converted into bitmap or in some application it converted into tiff format so this images is going to stored inside the images buffer Of My Project

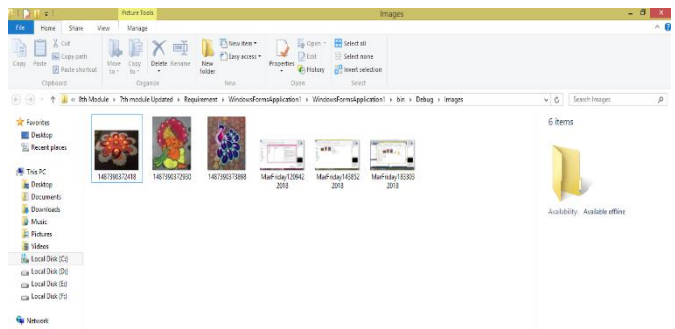


Figure 3. Image buffer Window for bitmap images.

(C) Text Buffer Window: The text buffer, which contains all copied data whatever user copy data copied data, is stored inside the text buffer with copied data log. The log contains date & time, Application name, Path and Login User Name of copied data. Same Buffer I am going to maintain for Images, Audio, Video, Folders etc.



Figure 4. Text Buffer Window

(E) Creation of Hives for data segregation: The Copy data is segregated according to respective application names for that I have created Tree structure. Suppose you copy data from notepad application then data is going to be store inside notepad text buffer.

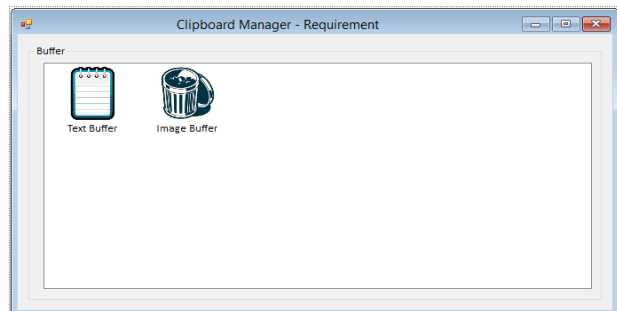


Figure 5. Hives Creation window for segregation of copy data.

## V. CONCLUSION

As detailed in the previous Section, We know very well that Windows Clipboard has limitations that firstly it store only one item at a time and secondly when system turn off it clears memory every time. So my Utility is going to eradicate this limitations and going to extends the functionality of clipboard manager so that it provide better and consistent user interface that save user time and enhance the efficiency.

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