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Abstract

Efficient and effective use of E-communications drives the way we use our computers. Gone are the days when the big three (word-processing, spreadsheets, and database packages) dominated the E-presentation of business/education and research material. Off-the-shelf software has become very sophisticated integrating data and graphical objects in many different forms, across many different platforms. Computer users therefore must develop generic skills to cope in this multi-media environment. Primarily this paper is written for those wishing to upgrade their E-presentation/display knowledge and skills. This is the first in a series of three discussions/lectures on the advantages of developing graphical presentation skills. This paper identifies the generic skills associated with managing computerized text and graphical objects. The second focuses on how to transfer these generic skills to the E-publishing domain. The third concentrates on the conceptual nature of E-presentations.

The author has extensive experience in both the education and business sectors devising instructional programmes, which involved the use of early electric typewriters to present day high-end personal computers. While lecturing in Business Computing at an Australian university for over a decade, it has become necessary for her to devise this series of academic papers to raise awareness of the need for computer users to develop a sound knowledge of the skills required to survive the graphical user interface (GUI).

“Getting started” often presents special circumstances with human-computer interaction (HCI), which if not handled with enough sensitivity for some, may end with catastrophic results and may even bring on a phobic condition (Kneller, 1986), (McKay, 1999). Consequently it is recommended that a novice-graphics user should begin with simple tasks that are fun to do; thereby increasing the likelihood of further exploration into more difficult technological territory later.

The paper is written in four sections that represent a desktop publishing (DTP) skills building overview. It is written primarily for novice-graphics users and assumes the reader has no prior experience with DTP. The first section covers survival type skills to encourage the novice to experiment with achievable tasks that introduce simple Clipart manipulation. The second section deals with broader issues relating to the GUI elements of Lotus Freelance and Adobe PageMaker 6.5, to encourage competent navigation of both packages. The third section involves the management of text and graphical elements in PageMaker 6.5, requiring the basic skills gained in the first two sections. The fourth and final section presents a brief description of the customized template feature, to complete the knowledge and skills necessary to work effectively producing PageMaker publications.

Survival GUI Skills

From the outset, it is worth noting that taking a lighter approach to the instructional strategies, which involve the complexity of HCI is worthwhile (McKay, 2000). Consequently, learning new computer concepts within a play-type context serves to encourage those normally intimidated by a more traditional type of computer training session, where emphasis is placed on working through set exercises.
In any given computer related work/play session, there are a number of basic computing activities, which occur with almost regular monotony. Therefore, before a graphical-novice ventures into the fast lane, it is recommended that these basic survival tasks be conquered (figure 1). Students enrolled in an undergraduate business subject at an Australian university, are expected to master these tasks in 3-weeks. This listing usually generates interest, however for novice-graphics users, it represents a steep learning curve. Learners are encouraged to participate in easy task related activities from this listing.

To alleviate the perception amongst the students that learning how to manage textual and graphical objects is difficult, the author has found that including some comical analogy (see do handstands underwater! etc in figure 1) helps to somewhat lessen their anxiety. At this time the graphical object is identified. A novice-graphics user must know how to activate graphical objects in order to learn how to deal with them in many different contexts. Once mastery of these skills is achieved, even the most hesitant learner moves more easily into the more difficult graphical territory.

The sequence of learning tasks is very important. While it is essential to provide a novice-graphics user with the larger picture of their instructional context (McKay, 2000b), it is equally exigent that graphical skills development reflects a continuum. The user commences with the learning of the most basic rules (working with the graphical tools – mouse and key-board), to learning how to apply newly learned concepts in a completely new context (Gagne, 1985).

**Scrolling Around Windows**

After the basic rules are mastered, students are introduced to activities that require high levels of eye-hand coordination. This means using the mouse/special keystrokes to move graphical objects around a screen/page (figure 2). Once again using comical analogies (see can you pirouette etc in figure 2) highlights everyday tasks that rely on some measure of coordination. In fact the suggestion that patting your head and giving your tummy a rub is a common axiom used to indicate the need for opposing movements. Furthermore many people master playing the piano, requiring a number of different (eye/hand) tasks that require concurrent concentration and muscular movements.
There are many ways in which students can be encouraged to work in this manner. It is recommended however, to introduce a novice-graphics user to these coordination tasks using the Lotus Freelance package. This software is very easy to use, and enables finer manipulation of graphic objects than other products on the market. Furthermore, it should be noted here that introducing a novice to these tasks within a textual environment (dedicated word processing/publishing software product) is not advisable as complications can arise, in which some novice-learners are ill equipped to deal with.

**Graphical Software Tools**

Generally across several software products, these tools perform the same tasks, although getting to know how they differ from one environment to another can become a little difficult. Even the task of finding the Toolbox can be difficult for some. In this case, a refresh of the options in the Main-editing menu, can pay dividends at this point. Unfortunately like their everyday (garage) cousins, software Toolboxes seemingly develop the habit of hiding when it is least expected. This is of course very off-putting for new users. Not only should the graphical software user know how to work the cursor around the screen in new ways, they also need to know how to recover their computer when a catastrophe occurs (figure 3).

**Figure 3: System Tool Kits**

Experimentation is therefore a vital key when establishing a kindly approach to disaster.
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recovery. Unfortunately along with experimentation, goes the inevitable glitch that may need a computer scientist’s intervention. Another trap for the unwary!

Selecting Handles

Once selected, the behaviour of graphical objects is largely generic across many packages. In this part of the graphical skills development, learners are advised to inspect the differing faces a cursor may display (figure 4). For instance: when a cursor in PageMaker turns into a very small page icon, a novice user becomes accustomed to the graphical behaviour of the cursor as an import/placement tool.

Figure 4: Manipulation Techniques

Once again it is recommended to introduce the novice-graphics user to these features using Lotus Freelance. At this point learners appreciate activities, which encourage using the keys as well as the mouse. There are a number of different methods for selecting textual/graphical objects. First a simple click on the screen display area where it is thought an object may exist. Figure 5 represents this method.

Figure 5: Activate Object

Figures 6 and 7 demonstrate the stretching task required to select an object. While the selection process works well using the mouse, the keyboard can also be useful.
A novice-learner will need to be shown how to move a graphical object with keyboard arrow keys, as well as the mouse. The reason for this is because many of the finer shifting activities require a key-press rather than mouse movement. Figures 6 and 7 demonstrate this method.

Due to the high level of experimentation (the recommended instructional strategy to adopt), it is also important to learn how to use the keys to input and output from the Clipboard. All students need to know that as long as you remain in the Windows environment, the contents of the Clipboard usually remains intact. This knowledge provides a calming effect when a novice realizes that all is not lost when the outcome of a piece of their work is messy. This is especially so when they realize the difference between the DEL-key (data is gone forever) and the Scissors-icon (data contained in the computer memory – Clipboard)!

**Resize Objects**

Once the above tasks are mastered the novice-graphics learner is ready to work with graphical objects in a more advanced manner. This means customizing existing Clip-art, or inventing their own (figure 8).
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provided in figures 9, 10, and 11. This is typical of the type of play-like activities that improve a novice-graphics user’s eye-hand coordination.

**Figure 9: Relative Resizing**

**Figure 10: Sideway Resize**

**Figure 11: Height Reduction**

Relative resizing is a useful technique to master, as it can include a textual object. If an object contains text, a resize operation can have a dramatic effect. In this case the relative resizing changes both graphics and text together.

**Cutting up an Object**

Most software products provide Clipart. However it is very rewarding to design new creations. In learning how to make new Clipart, it is very effective to build on various existing graphical elements. For instance: changing the colour of eyes, hands etc. Figure 12 shows the group/ungroup technique, which can throw a whole new meaning to the use of Clipart objects.

**Figure 12: Ungrouping and Object**

The reasons for group/ungroup are many. Apart from the more obvious one whereby a user can dissect existing material, it is very useful to group all objects (both text and graphical) to maintain screen integrity. At times, movement may occur which affects the alignment of text and graphical objects.

**Printers**

Up until now work has progressed without the need (or complication) of needing to print (figure 13a). Strangely enough, it is rare for this topic to be covered adequately by
instruction manuals. A reason may well arise from the proliferation of individual system configurations. In other words, printers are very sophisticated these days, and can be thought of as autonomous computing equipment in their own right. Suffice to add that a novice-graphics user should be conversant with their own system configuration to the extent that their knowledge of the printer menu covers every aspect from Page Set Up, Paper Sizing, selecting data to Print, and Preview options (figure 13b).

**Figure 13a: Printing**

**Figure 13b: Default Printing Menu**

Gaining experience with changing Printer Drivers is considered an advanced skill. Actually this is a very easy task, however knowledge of which drivers work best on which printers requires an expert’s touch! A novice is best to accept the default, and call for technical assistance when things go wrong.

We have now worked through enough examples of how to develop a novice-learner’s appreciation for the GUI. At this point, a learner should be able to discriminate between concepts in new environments (like knowing how to deal with the changing behaviour/display face of the cursor). Furthermore, given a particular process (like creating a new Clipart logo) in Lotus Freelance, a novice-graphics user should be able to transfer this logo to a word processing package.

**Generic GUI Interaction**

Armed with the basic knowledge and skill for graphical editing/manipulation, we turn to a sequence of learning tasks where successful transfer of those skills into a new software environment is important.
However, before moving on to PageMaker (upon which the next paper in this series concentrates), we need to look more carefully at the Lotus Freelance Window. This backtracking is necessary to understand that most of these powerful packages allow a user a number of different ways (or views) a user may work with data/objects. Once again the tasks will be introduced from simple to more complex (figure 14).

### Figure 14: Skills Transfer

![Skills Transfer](image)

### Screen Scrolling

Recall the prior instructional activity whereby the novice-graphics user played with Lotus Freelance tools to scroll our view (or screen display). This time we will make comparisons with the same techniques using two different graphical packages (figures 15 and 16).

### Figure 15: Screen Grid – Lotus Freelance

![Screen Grid](image)

While we may have been satisfied with guessing where to position objects in previous activities using Freelance, the more sophisticated nature of the PageMaker requires a more thorough approach; this product is a more reliable page layout specialist. For instance: in figure 15 see the X:Y grid where in Freelance, unless a novice-graphics user chooses to display the screen grid (which clutters up the user’s view), they will have to be content making considered guesses as to screen location/position. On the other hand, PageMaker operates using a zero point marker (figure 16). Positioning the cursor (incidentally called pointer in this package). As the pointer is dragged around the PageMaker window (also not called a screen here either), a user is notified of the exact X/Y location through the Control panel (see lower portion of figure 16).

### Freelance Window

Until now we have only used the Current Page view in Freelance (figure 17). The reason...
for this approach is to ensure the experience is uncluttered by introducing more complex processes (like navigating through various screen views). The second view is known as the Page Sorter (figures 18 and 19).

Figure 17: Freelance Current Page View

Figure 18: Freelance Page Sorter View

Below are the examples of the Page Sorter Window, and the Outliner view (figures 19 and 20), although it may be a little difficult to see from this graphic.

Figure 19: Freelance Page Sorter View

Figure 20: Freelance Outliner View

The Page Sorter provides a global or bird’s eye view of the presentation file. It is where a novice-graphics user can go when needing to move pages around, copy complete pages from one location or presentation file to another. The Outliner is where one can work with pure text (unformatted). It is this view a novice-presenter could use to their advantage. For instance: if someone in a work-team were willing to enter the text, leaving the customized graphical presentation to someone else more expert.

PageMaker Window

The Adobe PageMaker 6.5 product is a popular desktop publishing (DTP) package for both Windows and Macintosh platforms. This section will address basic DTP activities including working with: text, multiple pages, graphics, and clipping objects. When creating a page (called a publication) this package opens a blank publication window, which contains an empty page centred on a much larger backdrop. This is a powerful GUI, which combines the publication page and backdrop (called the pasteboard), not unlike the view taken from above.
a workbench or an academic’s study desk.

**PageMaker 6.5: Text Placement**

It is more common for the novice -graphics user to find this application more troublesome than Lotus Freelance. PageMaker is especially designed to manage page layouts for commercial use. As a consequence, one of the most irritating characteristics of PageMaker, for the novice -graphics user, is the range of different methods, which can be adopted to produce the same task/result. For instance: the method for submitting text into a page can be achieved through the Windowshade Text Block (figure 21) as well as the Story Editor, accessed through the regular Menu Bar.

However, one of the more difficult aspects of PageMaker is managing the complexity of the viewing area. A novice -graphics user must learn to constantly differentiate between the DTP task at hand, and how to navigate the actual GUI!

**Figure 21: Windowshade Text Block**

There are many similarities between Freelance and PageMaker; however, one noticeable difference between these software platforms will be found in the terminology. For instance: Freelance generates *presentation pages*, similarly in most word processing contexts one can produce *documents*, while PageMaker delivers *publications*. Working with the latter package may be very awkward for the novice-graphics user initially. However, the author recommends that a novice-graphics user should follow a small well-designed PageMaker case study/mini project. For instance: producing a customized letterhead containing, personal logo (graphical object), lines, and some text (textual object).

Furthermore, a novice-PageMaker user needs to be familiar with the Publication Window
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and the various editing/creation tools by the end of their first encounter with this package. These tools include familiarization with: the Menu Bar, Zero Point Marker, and how to activate the Toolbox.

**PageMaker 6.5: Modifying Text**

This is where novice-graphics user can relax. All the normal text-editing functions are available (and more) in this package. Any trouble may in fact occur because a sensible plan to hold back (often necessary when learning how to use PageMaker) was not followed.

**Figure 22: Normal Text Editing**

Unfortunately the more advanced text manipulation features (known as Plug-ins) associated with things like balancing textual columns are seemingly hidden amongst the options located in the Utilities option on the top Menu bar.

**PageMaker 6.5: Working with Multiple Pages**

The ability to manage multiple-paged publications in a consistent and cohesive manner (Proot, 1998) is where PageMaker can claim to be a leading provider. Text and graphics placed in Master Pages can be recalled to appear on all (or a select few) pages in a given publication. The normal global-viewing options are available in PageMaker similar to the Freelance Page Sorter Window. Due to the sophistication of this context, a novice-graphics user may need extra support, to fully understand how each function operates. For instance: novice-graphics users usually take a while to know how to use the page identification tabs to their best advantage (figure 23).
Advanced users can leverage the quality of their work by quickly applying set attributes to paragraphs, and modify textual styles to completely change appearances throughout their publications.

**PageMaker 6.5: Working with Graphics**

Luckily, working with graphical objects in PageMaker is largely the same as working with textual objects (figure 24). This is where the earlier Freelance lessons can be fulfilled.

**PageMaker 6.5: Cropping Objects**

However, one of the most difficult aspects for a novice-graphics user is to learn how to quickly select the correct tool from the Toolbox. This means a novice-graphics user needs to be aware of the mode of the PageMaker Window section they currently experience. For instance: trying to locate a graphical object while the textual tool is selected.
of instructional programme presented in this paper, sooner or later there is a need for customizing imported images.

Figure 25: Paring Away the Excess

The cropping tool (see identified above in figure 25) is used to adjust the borders of a graphic by eliminating unwanted portions. In Freelance this occurs in the Arrange option on the Main Menu Bar. In using this tool successfully, a novice-graphics user will need advanced eye-hand coordination skills.