

## Competencies

- Compix System Layout
- Loading the Compix System
- Compix Screen Layout & Toolbars
- Compix Operation

## Video Graphics

The topic of graphics for video is vast, and can be as simple as adding a business logo over the top of a video, or as complex as creating a person in a 3D environment and adding that to a video.

There are countless programs used in the video industry for creating graphics. The one you choose to work in will depend on the type of graphics you are trying to build. Some of the industry standard programs used for video graphics are:

Adobe Photoshop – Industry standard program for working with still graphics.

Adobe After Effects or Autodesk Combustion – 2D and limited 3D animation and compositing software.

Autodesk 3DS Max or Autodesk Maya – 3D creation and animation software.

The program we will be working with in this class is Compix Gen CG. This program, and others of its type may not offer some of the features of the programs listed above, however allows us to use graphics in a live production in real time. When used in conjunction with any of these other programs, this can be a powerful combination.

## Compix System Layout

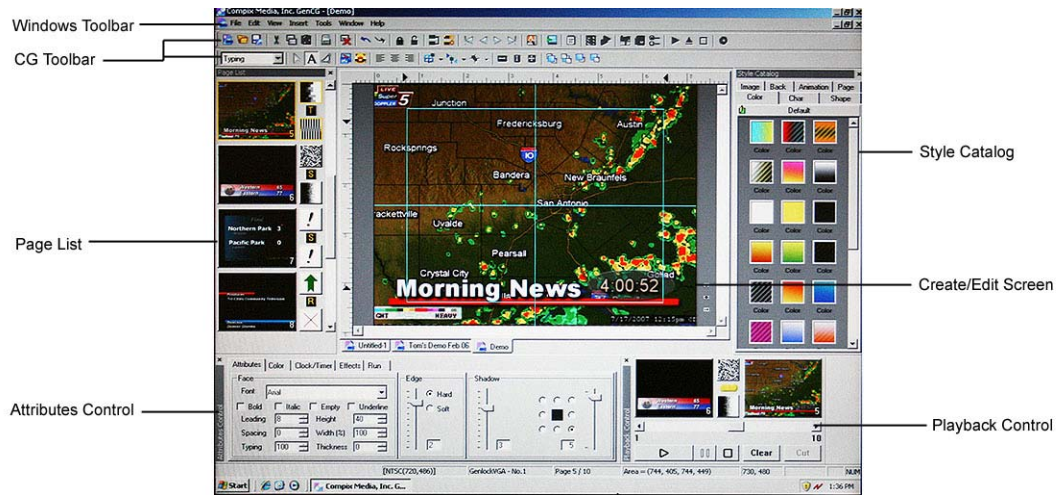
The character generator in the control room is a Compix Computer Systems model 4000R. It is a PC-based computer and is software controlled. Its purpose is to generate and recall high quality graphics in a minimum amount of time.

There are two monitors associated with the CG. The edit monitor, which is above the keyboard, shows exactly what is being typed and the user interface. To type text on the screen click the mouse where the text is needed and the cursor will appear. The color program monitor is located in the rack to the right, which displays the graphic to be used through the switcher. Ignore the [HELP] key; it only gives version specs, etc.

## Loading the System

All of the information needed by the graphics system is stored on the computers 40 gig hard drive located behind the CG edit monitor in the far left rack. If the system needs to be powered-up, press the red power button on front of the computer. Once the icons come-up on the edit monitor, double click the GEN CG icon.

## Complex Screen Layout & Toolbars:



### Windows Toolbar

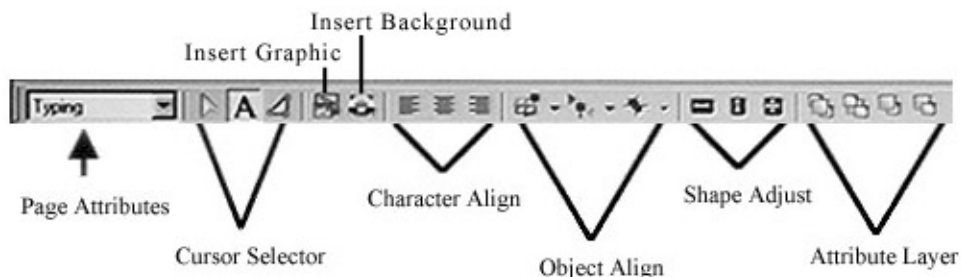
The Windows Tool Bar contains Menus like any other windows program and most have similar functions, such as FILE, EDIT, VIEW, INSERT, WINDOWS, TOOL and HELP. However, let's look a little closer at the 'INSERT' menus, which will be discussed in more detail later.

### Insert

Insert allows the ability to insert any of the following: GenCG Document, File as Text, Template, Image, Background Image, Animation, Clock / Timer, Resident Clock, and New Page. Pressing the right mouse button allows the ability to insert any of the following: Image, Background Image, Animation, Clock / Timer, Replace Image and Distribute Objects.

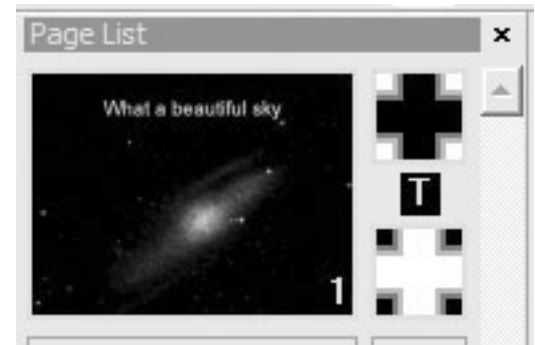
### CG Tool Bar:

There are two CG Tool Bars. The top toolbar contains familiar commands, including: New, Open, Save, Cut, Copy, Paste, Print, Delete, Undo, Redo, etc., but also provides options that allow the user to move to the First Page, Previous Page, Next Page, Last Page and to preview the video. The bottom CG Tool Bar (below) contains options for Page Attribute, Cursor Selector, Insert Graphic, Insert Background, Character Align, Object Align, Shape Adjust and Attribute Layer. Pressing the right mouse button allows you to do the following: Cut, Copy, Paste, Delete, Undo, Redo and Cursor Selector.



## Page List:

On the left side of the screen, you will see the “page list.” This section displays and allows you to scroll up or down to select current editable pages of your project. To create a new page either use Insert or click the mouse below the last page. It also shows the in and out transitions, the page mode and the page number.



## Attribute's Control (Toolbar/Section):

Below the editing screen is the Attributes section. There are five tabs in the Attribute Menu, which allow you to select and manipulate attributes.

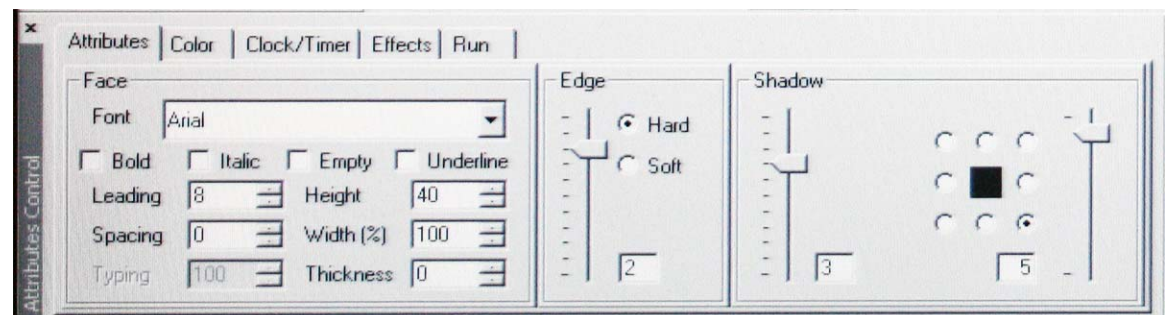
To manipulate text the Cursor Selector in the CG Tool Bar should be on (A).

To manipulate a shape, the Cursor Selector in the CG Tool Bar should be on (■).

Attributes (Character or Shape), Color, Clock/Timer, Effects and/or one of six different Run or playback modes can be selected. The Color, Clock/Timer, Effects and Run tabs are the same in both Character and Shape Attributes sections.

To change values, you can use the up/down arrows, highlight the number and type in the new one or put the mouse in the box you wish to change, hold down the mouse button and drag it side to side.

## Attributes Tab (Character)



### Face Section

The Font box allows you to select a desired font within a font list of over 100.

The “Bold” box allows you to make most of the fonts bold. (However, if the font does not have the capability, you can use the “thickness” mode, which is described below, instead.)

The “Italic” box allows you to italicize the font.

By checking the “Empty” box and making the “thickness” value 2 or more, you can create an “outlined” font.

The “Underline” box allows you to underline the text.

The “Leading” section allows you to select the amount of spacing between the lines of text. You can either type in a number between –100 and +500 or use the up and down arrows until the desired spacing appears.

The “Spacing” allows you to adjust the horizontal spacing between each character in the text. This spacing can be adjusted to any number between –100 and +100 in the same manner as described for the Line Spacing. In addition, you can use “CTRL+H” or “CTRL+L” for narrowing and expanding the character spacing, respectfully.

The “Typing” allows you to adjust the speed of the letter entry in the text. This speed can be adjusted to any number between 1(fastest) to +1000(slowest).

The “Height” section allows you to change the character size on the edit screen. The sizing can be adjusted from 5 to 999, by following the same instructions above, except that “CTRL+I” increases the size and “CTRL+M” minimizes the character size. (Changing the height will change the overall size of the character/s.)

The “Width” section allows you to change the character width by using the previously described methods, with the exceptions that “CTRL+J” decreases the width and “CTRL+K” increases the width. The width can be adjusted from 1 to 1500.

The “Thickness” section allows you to change the thickness of the character from 0 to 10.

#### Edge Section

You can change the edge thickness of the character by sliding the vertical control bar up and down until desired edge thickness appears. The edge thickness can be adjusted from 0 to 10.

You can also choose between “Hard” (conventional) or “Soft” (glowing) edge effect.

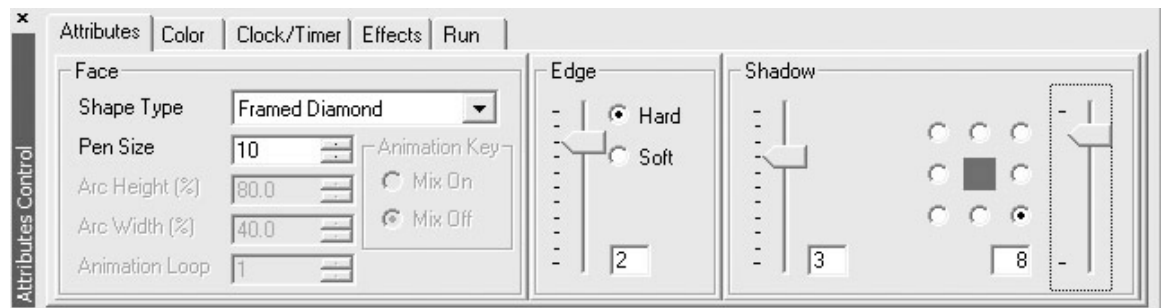
#### Shadow Section

The softness of the shadow can be selected by sliding the first vertical control bar up and down until the desired effect appears. The shadow has 10 levels of softness.

The black box surrounded by eight “radio” buttons allows you to control the angle or direction of a shadow.

The vertical slide bar to the far right controls the distance between the character and the shadow. The shadow distance can be adjusted from 0 to 50.

## Attribute Tab (Shapes)



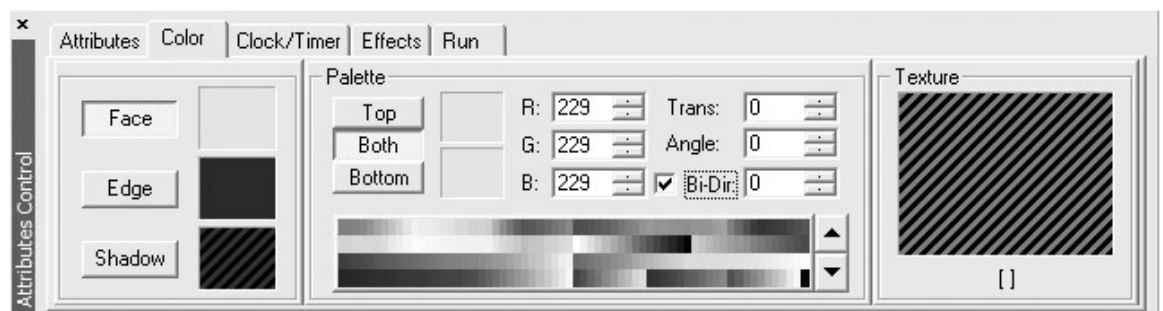
The “Shape Type” section allows you to draw conventional shapes in the form of boxes, circles or diamonds for your pages. You can select these, which are solid or framed outlines. You can also select rounded rectangles, octagons or custom designs. After selecting the shape desired, move the mouse to cursor section of the tool bar and click on the shape icon. Then move the mouse pointer over the create edit screen and left click and select the shape type to open.

The “Pen Size” controls the size of the framed shapes only. Chose the framed box, circle or diamond, and then left click on the pen size window and either type in the desired number or use the up or down arrows to select a pen size. The thickness of the pen can be adjusted from 1 to 200.

The “Arc Height/Arc Width” controls the size of the arc for the rounded rectangle and octagon shapes only. Chose the rounded rectangle or octagon, and then left click on the one of the arc boxes windows and either type in the desired number or use the up or down arrows to select an arc percentage. The percentage of the arcs can be adjusted from 0 to 100.

The “Shape Edge” and “Shadow” sections work the same way as the Character Edge and shadow sections, described above.

## Color Tab



The first section under this tab allows you to select and preview the current color of the face, edge, and shadow, the three parts of the characters. You must select the one you want to change.

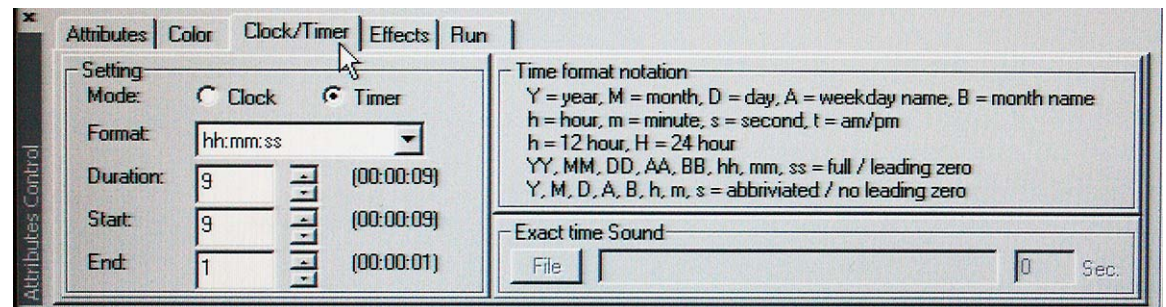
The “Palette” section allows you to select the color variations of the selected face, edge, or shadow. It provides choices of color palettes. When the Top and Bottom buttons are selected different colors can be chosen creating a gradation effect allows one color to

blend into another. The transparency levels and angle of the gradation can also be adjusted.

The “Texture” section allows you to select one of over 50 loaded textures for your characters. You can also use your own textures.

### Clock/Timer Tab

Note: Time only changes on the true output screen, not on the VGA editing screen.



### Clock Function

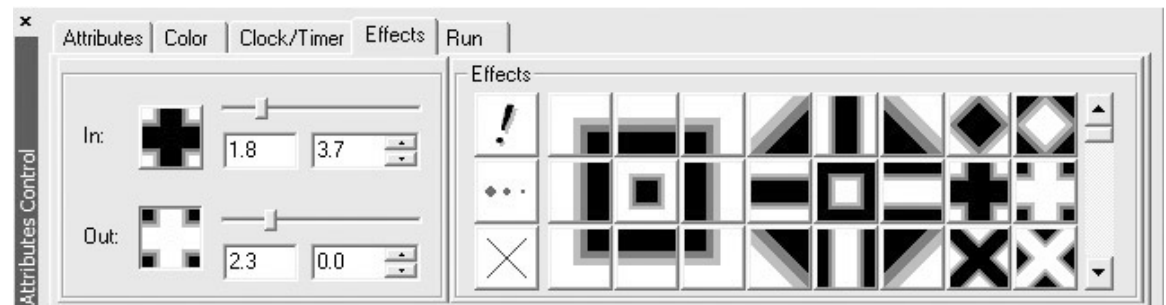
The clock time that appears on the screen is the same time as the computer clock. The Clock/Timer allows the user to change the default view of the clock (hour, minute, second, AM, PM, 12 or 24 hour clock) using the format options panel. These options are explained in the right hand portion of the Clock/Timer Property window. The duration that the clock will display the current time is selected on the duration panel. The 0 setting is the default and means that every time this panel is displayed on-air, the time displayed will be the computer time. To set the clock to display a specific timed sequence from the starting time, set the length of time on the duration panel.

### Timer Function

The Timer function is used for count-down/count-up sequences. For a countdown, set the start time with a higher number in the start panel than in the end panel. For a count-up sequence, set the start time with a lower number than the ending time.

The compose screen will show a zero (0) value through this entire set up process; however, the on-air screen will display information according to your instructions.

### Effects Tab



## Transition Patterns

You can select the in or out transition on the left for each page and then change it by going to the right side of the box and slide the vertical control bar down until the desired effect appears. Once you select the new effect, it will become active. There are over 200 patterns to choose from.

## Transition Speeds

You can change the in or out transition speeds to the right of the transition patterns for each page by sliding the horizontal control bar right until desired speed appears. You can also hold the left mouse button down and drag it side to side. The speed can be adjusted from 0.0(fastest) to 9.9(slowest).

## Page Display Time

Available in the Auto Run Mode only, you can change the in transition display time for each individual page before going to the next page. To the right of the in transition speed you can adjust the setting by using the increase/decrease buttons or you can also hold the left mouse button down and drag it side to side. The speed can be adjusted from 0.0(shortest) to 99.9(longest).

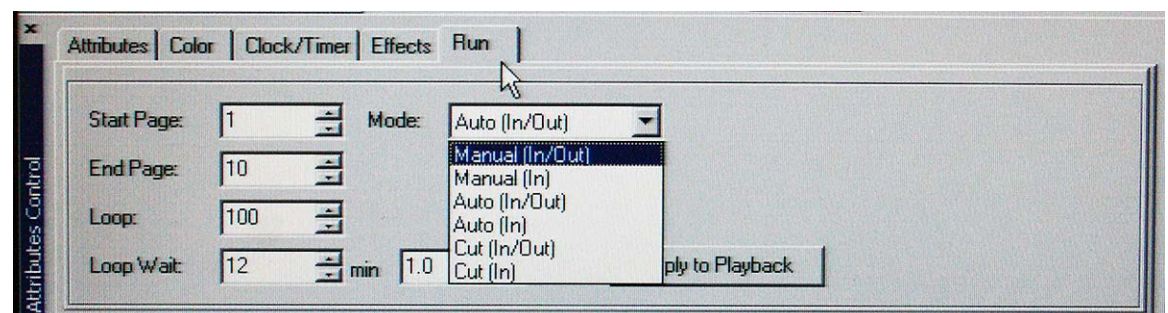
## Page Delay Time

Available in the Auto Run Mode only, you can change the out transition delay time for each individual page before displaying the next page. To the right of the out transition speed you can adjust the setting by using the increase/decrease buttons or you can also hold the left mouse button down and drag it side to side. The speed can be adjusted from 0.0(shortest) to 99.9(longest).

The right portion of the Effects window is made up of a narrow column on the left, which contains the following options:

- ! Applies the Cut Effect, which displays a page and then cuts to the next
- ... Scroll Pass displays selected pages with a roll or crawl without any interruption
- ✕ Direct Transition will display the next page without interruption, despite the Playback mode

## Run Tab



The “Start Page” section allows you to select the appropriate page of a sequenced file to begin displaying on the program output. The default setting usually starts from the first page; however, you can type in another number or adjust the setting using the up/down arrows. Likewise, the “End Page” allows you to select the last page to display on the output in a sequenced file. Again, this is usually the last page, but can be altered.

The “Loop” allows the desired file to loop a certain amount of times before coming off the program output. The loop sequence can be adjusted in the same manner as other options, from 1 to 100, with 100 representing infinity.

“Loop Wait” allows you to set the amount of minutes and/or seconds after each loop before the next sequence begins, but you must first select either of the auto selections in the Mode section before it will allow you to set it.

Finally, the Mode section has six different playback styles available for displaying you pages, which are described below:

- **Manual (In/Out)** applies a page break between pages during its playback sequence. It utilizes the pre-selected transition effects to display each page and each page is triggered manually by an operator.
- **Manual (In)** does not apply any page break between pages during the playback sequence, but it does utilize the pre-selected transition effects to display each page and each page is triggered manually by an operator.
- **Auto (In/Out)** applies a page break between pages during playback and utilizes the pre-selected transition effects to display each page, but each page is triggered to playback automatically.
- **Auto (In)** does not apply a page break between pages during playback, but utilizes the pre-selected transition effects to display each page and each page is triggered to playback automatically.
- **Cut (In/Out)** applies a page break between pages during playback, but disregards the pre-selected transition effects to display each page. Instead, it uses the cut transition to display each page, which must be triggered manually.
- **Cut (In)** does not apply a page break between pages during playback and disregards the pre-selected transition effects to display each page. It uses the cut transition to display each page, which must be triggered manually.

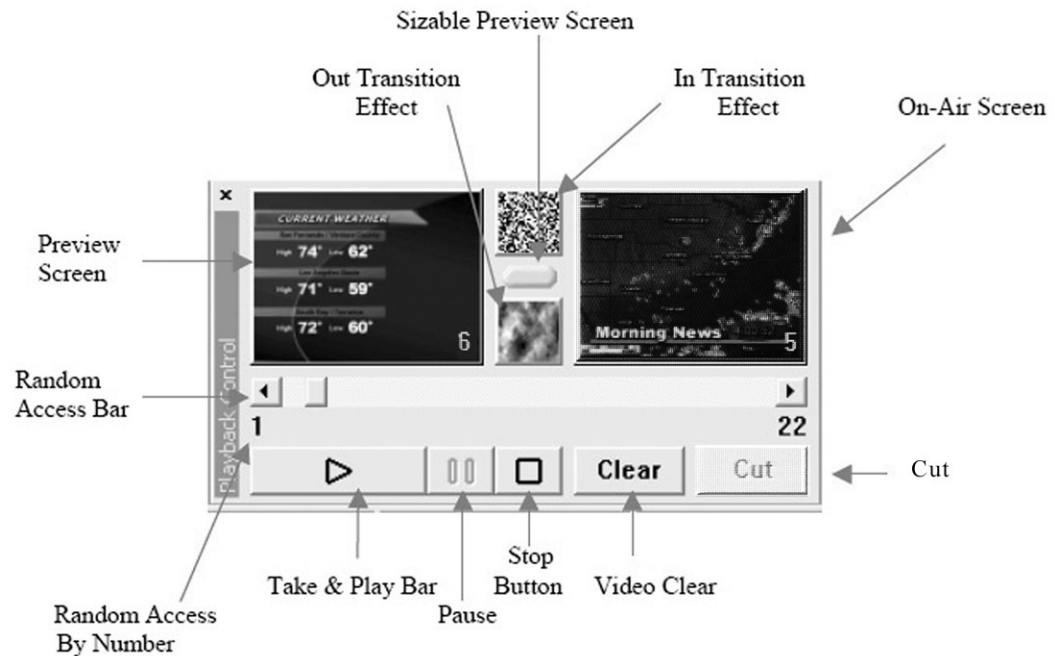
## Style Catalog:

To the right of the edit screen is the “Style Catalog,” which allows you to save colors, characters, images, backgrounds, shapes, pages or animations used to form text, shapes or pages for future use. You can save one of these by left clicking on it and dragging it to the style catalog. You can delete an object from the style catalog by right clicking on it and selecting remove. You can also apply any color or texture in the style catalog by dragging it to the color box or directly onto the text, shape or page on the edit screen.

## Create/Edit Screen:

Center screen with current create/edit input for typing texts, drawing graphics, and importing images.

## Playback Control:



While editing, the left screen in the Playback Control section previews the next page to be sent to the On-Air video monitor, while the right screen displays what is currently on the On-Air video monitor. Between these two screens is the In Transition Pattern (top window) and the Out Transition Pattern (bottom window). Also the Page Attribute can be found between the in and out transition patterns. You can preview any page you want by using the Page Random Access Bar (slide scroll bar to make selection) or the Random Access by Number (type desired number and press enter), below these screens.

The Take and Play Button (▶) will load the first page of the currently running file to the Preview screen. Click it a second time or press the “Enter” key on the numeric pad to send the page on to the VideoCG output.

Pressing the Pause Button (||) or the asterisk (\*) on the numeric pad allows you to stop the motion of the characters in Roll, Crawl or Reveal pages.

The Stop Button (□) allows you to freeze the displayed page and clear preview screen.

Clicking on the “Clear” Button or pressing the dot (.) on the numeric pad will clear the output video screen while a page is on the screen.

Pressing Stop allows the “Cut” button to be used to display the current edit screen.

## Compix Operation

### Numeric Functions and the Keyboard

The numeric portion of the keyboard (key pad) is used for the output functions of the GenCG (Run, Take, Stop). In creating and editing pages, when numbers are required as input, the typewriter portion of the keyboard is used. This logic is used throughout the manual.

### Short Cut Keys

Shortcut Keys	Description
CTRL+N	New File
CTRL+O	Open File
CTRL+S	Save File
CTRL+SHIFT+P	Insert Background Images
ALT+Click Background Image	Select Background Image, then you can delete it by using CTRL+X
CTRL+P	Insert Clip Images
CTRL+I	Increasing Character Size
CTRL+M	Decreasing Character Size
CTRL+K	Increasing Character Width
CTRL+J	Decreasing Character Width
CTRL+X (Shift+Del)	Cut any Object
CTRL+C (CTRL+Insert)	Copy any Object
CTRL+V (Shift Ins)	Paste any Object
CTRL+G	Grouping all Objects
CTRL+U	Ungrouping all Objects
CTRL+H	Decreasing Character Space
CTRL+L	Increasing Character Space
CTRL+SHIFT+X	Cut Page
CTRL+SHIFT+C	Copy Page
CTRL+SHIFT+V	Paste Page
Enter (using Numeric Pad)	Take bar (Changing Pages)
. (using Numeric Pad)	Clear Video Screen
+ (using Numeric Pad)	Increasing Scroll Speed
- (using Numeric Pad)	Decreasing Scroll Speed
* (using Numeric Pad)	Pause Scroll
/ (using Numeric Pad)	Cancel Scroll
Page Up	Move to Previous Page
Page Down	Move to Next Page

### Controlling Each Character Individually

First, place the cursor anywhere on the edit screen and left-click your mouse. Then, type in a sample text to work with. Next, highlight the text you want to modify by holding down the left mouse button while moving across the text (or by holding down the Left Shift key and using the Arrow keys on the keyboard), until desired items are highlighted. Finally, make changes to the selected items using the Attribute Menu.

## Importing/Deleting Background/Clip Art Images

Click on Insert on the Windows Tool Bar and select either “Image” or “Background Image.” (You can also use the short cut keys to get to this point.) Using “Image” allows you to scale your graphic and move it by dragging it anywhere on the page. Choosing “Background Image” will fix the graphic as a full size background. Browse and select an image in a .jpg, .tga, or .bmp file type.

To delete a clip art image, simply by right clicking on it with your mouse and selecting delete or highlight it by right clicking then press Ctrl+X, as shown in the short cut keys table. However, to delete a background image, you cannot just click on a background to highlight it. You must first hold down the Alt key and then right clicking on it with your mouse and selecting delete or hold down the Alt key and left-click on the background. Once it is highlighted, use the Ctrl+X to delete the image.

## Roll/Crawl/Typing/MultiLayer

Click on the drop-down menu arrow in the Page Attribute section of the CG Tool Bar, where the default setting is *still mode*. Then, select *roll* (*characters scrolls from the bottom to the top*), *crawl* (*characters scrolls from the right to the left*), *typing* (*characters appears one letter at a time*) or *multilayer*. Left click your mouse on the edit screen and begin typing. The edit screen will automatically advance as you near the end of the page when using the roll and crawl sequences.

## Adding Text On Top of Existing Shapes or Images

Click on the Character Create icon on the Gen CG Tool Bar and then place the cursor on top of the shape or image. While holding down the right mouse button, click the left mouse button and your blinking cursor that allows you to type text will appear.

## Locking and Unlocking Objects

To lock an object so it can not be moved or resized only, click the lock icon on the toolbar, press “ALT+ L”, or right click on the mouse and choose Object Lock.

To unlock an object so it can be moved again, click the unlock icon on the toolbar, press “ALT+ L”, or right click on the mouse and choose Object Lock.