







VCG Users Manual

I.System Requirement and Installation	- 3 -
1-1 PC Hardware suggestion	- 3 -
1-2 VCG Installation	- 3 -
1-3 Blackmagic DeckLink Driver Installation	- 3 -
II.Screen and Features	- 5 -
2-1 TV System selection	- 5 -
2-2 Difference between NTSC and PAL	- 6 -
2-3 Width versus Height - 4:3 or 16:9	- 6 -
2-4 Safety Margin.....	- 7 -
2-5 Files	- 7 -
2-6 Pages	- 7 -
2-7 Objects	- 10 -
2-8 Tools.....	- 11 -
2-9 Layout Tools.....	- 12 -
2-10 Animation Tools	- 12 -
2-11 Parameters Panels.....	- 13 -
2-12 Animation List.....	- 14 -
III.Layout Editing	- 15 -
3-1 Text Editing	- 15 -
(1).Click Text button on the tool bar	- 15 -
(2). Drag the marks around the text object.....	- 16 -
(3). Drag for moving a text object.....	- 16 -
(4). Fine-tune the position of Text Object	- 16 -
(5). Drag for resizing Text Object	- 17 -
(6). Drag for adjusting Gaps between letters.....	- 17 -
(7). Rotate a Text Object	- 17 -
(8).Type for String Objects.....	- 18 -
(9).Type for multi-line Text Objects.....	- 19 -
(10).Type in foreign languages.....	- 20 -
(11).Text Styles.....	- 21 -
(12). Text Parameters Setting	- 22 -
(13).Import text from a text file.....	- 25 -

3-2 Insert a Graphic Bar or a Line.....	- 27 -
3-3 Insert a Rectangle or an Ellipse.....	- 29 -
3-4 Insert an Image.....	- 31 -
3-5 Extra Editing Tools	- 35 -
(1).  Background button	- 35 -
(2).  Grid button.....	- 35 -
(3).  Group button	- 36 -
(4).  Top/ Bottom.....	- 36 -
(5).  Delete	- 36 -
(6).  Undo	- 36 -

IV.Group Move/Zoom - 37 -

V.Group Copy/Cut/Delete - 40 -

VI.Animation Editing..... - 41 -

6-1. Set an Animation Box	- 41 -
6-2. Add a [Display] Animation	- 43 -
6-3. Add a [Wipe] animation	- 46 -
6-4.Add a [Push] animation.....	- 48 -
6-5.Add a [Fade] animation.....	- 48 -

VII.Live CG Editing..... - 48 -

I. System Requirement and Installation

1-1 PC Hardware suggestion

- CPU P4 3.0Ghz or above
- Memory 512MB or above
- Screen Display 1024x768 / 32 bits colors
- OS Windows XP -SP2
- DirectX 9.0c
- Deck Link Card (for NTSC/PAL system)

Note 1: If the system hasn't installed Deck Link Card, The message, "Deck Link Card does not exist" will show up when users start this software program. In this case, please press any key to enter VCG program. Users can execute the program without Deck Link Cards.

Note 2: Users will find a transparent "DataVideoCG" string on TV screen when using the Deck Link Card for output. This string will be always on TV for this evaluation version. There won't be such a string for the released version.

Note 3: The present version is Alpha-0.05. It is not full functional and still contains a certain numbers of bugs.

Note 4: The VCG files from Alpha version are not guaranteed to be compatible to the later versions.

1-2 VCG Installation :

Execute SETUP.EXE in **【VCG Installation CD】** .

Note 1: Some PCs might have problem to install this program. If so, please first copy all of the DLL files in the folder called "Necessary DLL" to C:\Windows\system32. Then install the program again.

Note 2 : Please uninstall the program before your re-installation.

1-3 Blackmagic DeckLink Driver Installation :

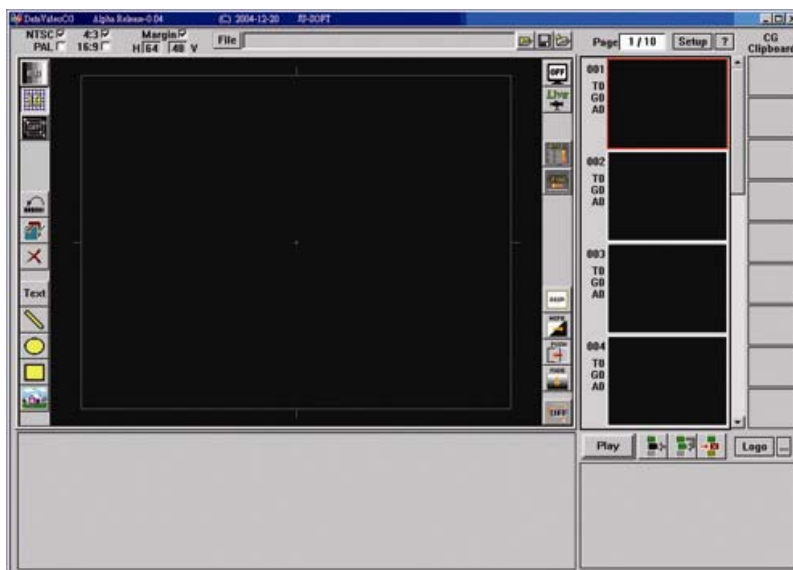
- I. First install the driver in the folder called "DeckLink Pro\Blackmagic DeckLink drivers\Drivers".
- II. Second, install iTunesSetup.exe, the QuickTime 6. This is the necessary

program for DeckLink Utility.

- III. Third, install DeckLink_Windows_v4.7.zip. Remember to restart the OS after its installation. If the installation is complete, users will see the DeckLink icon on Windows XP's Control Panel.
- IV. Right Click on the Windows screen desktop. Select the Properties to go to Display / Content to enable the Dual Screen Option of DeckLink.

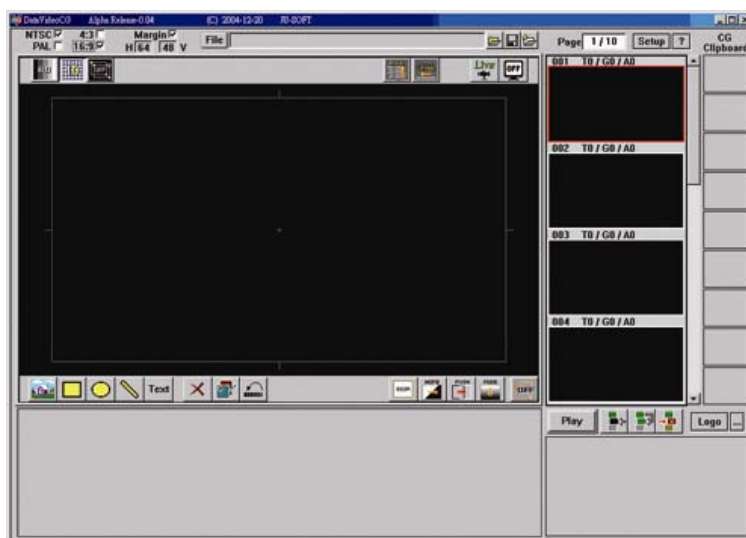
II. Screen and Features

Users will see the following screen for the first time entering VCG.



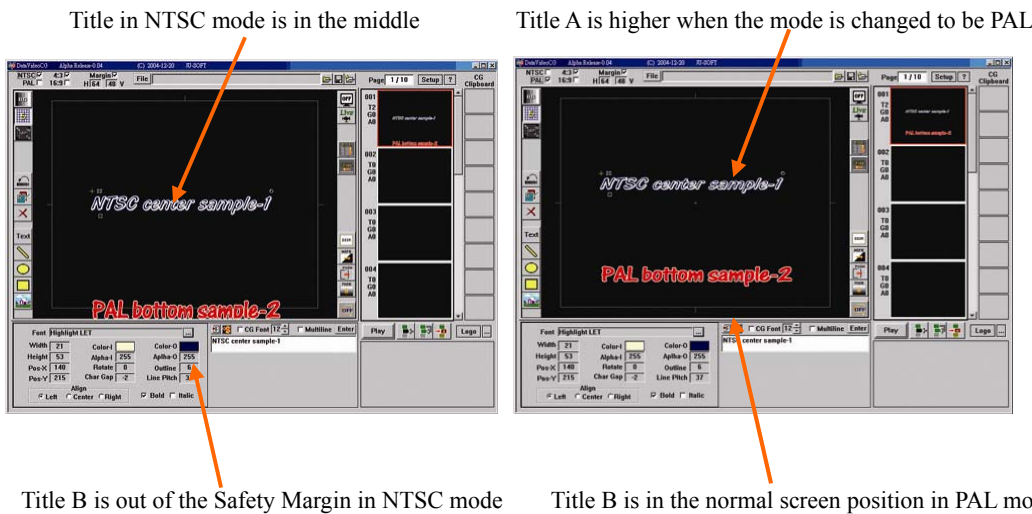
2-1 TV System selection

VCG can be set for either NTSC or PAL. It also can be set as either 4:3 or 16:9. When choosing NTSC, the TV screen resolution is 720 x 486 pixels. When choosing PAL, the resolution will become 720 x 576 pixels. However, on the PC side, there is no difference between PAL and NTSC, the screen W/H is just 4:3 or 16:9. When using VCG. Users must keep in mind that the pixels on PC screen are not the same as on TV. The following picture is how VCG looks when 16:9 is selected.



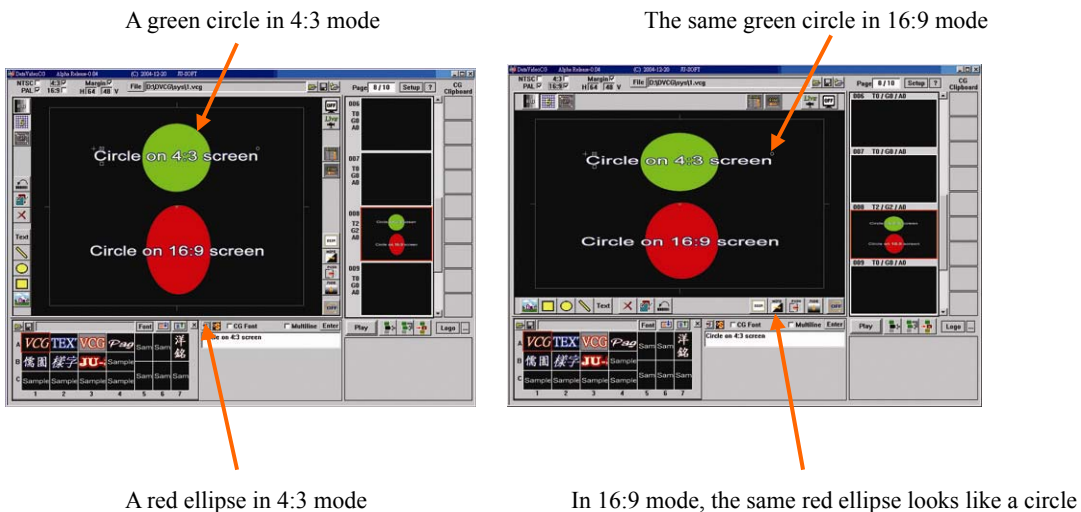
2-2 Difference between NTSC and PAL

Although the resolutions of NTSC and PAL are different, the ratio of its width and height are the same. Users should use the concept of coordinates. If the y-coordinate of Title A is 243, for NTSC, the height of NTSC is 486, Title A is in the middle. But for PAL, the height of PAL is 576. Title A would be placed on a higher position. See the example below. On the other hand, Title B that is placed at the bottom of PAL screen would be lower and might out of the visual screen area when it is changed to the NTSC mode.



2-3 Width versus Height - 4:3 or 16:9

Neither 4:3 nor 16:9 will change the resolution for PC monitor. Therefore, while transferring a circle from 4:3 to 16:9, its shape will be changed from a round circle to an ellipse. Please see the example as below.



2-4 Safety Margin

Tick the [Margin] check box to enable the Safety Margin setting.



Place the cursor inside these two boxes. Hold the left button of the mouse, move to right or left. So that users can set how far from the Safety Margin to the edge. The digits here represent how many thousandths of Screen Width or Height. Just like the above image shows 64 thousandths of horizontal width, which the actual pixels are $640 \times 64 \div 1000 = 30.72$ (pixels NTSC). So as 48 thousandths of vertical height, which the actual pixels are $480 \times 48 \div 1000 = 23.04$ (pixels NTSC).

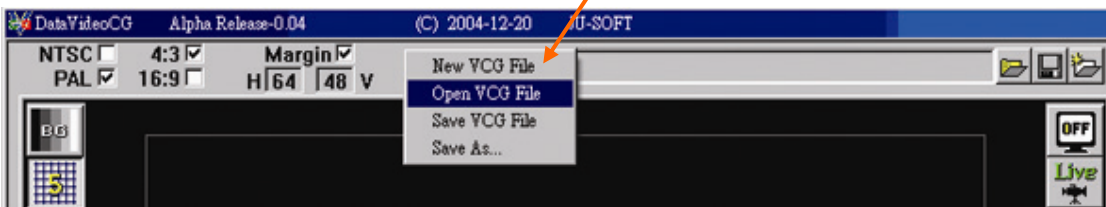
Tick [Margin] checkbox to show the Safety Margin. Note that every side of the margin has a mark on the half way, and there is another mark on the center. Those are the references for alignment.

2-5 Files

The file format for VCG is *.vcg



Click [File] button to select a file on a pop-up dialog.



Users can also use the right side button tools to open, save, or select a new *.vcg file.



File path

Open file

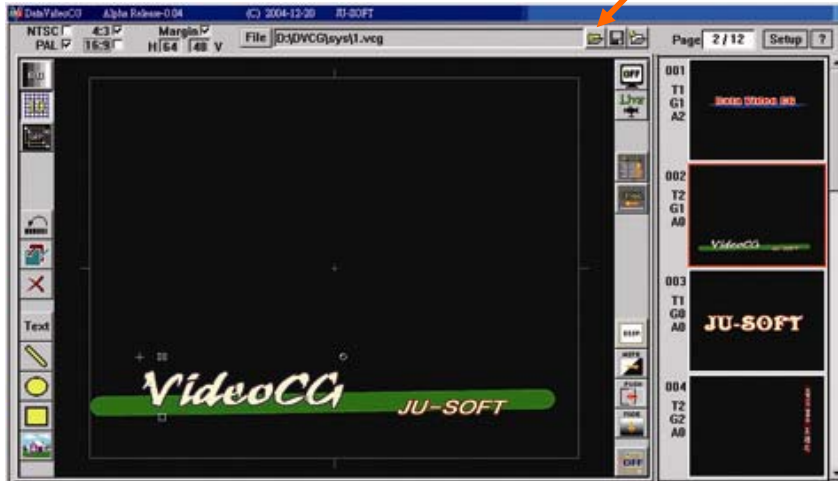
Save file

New file

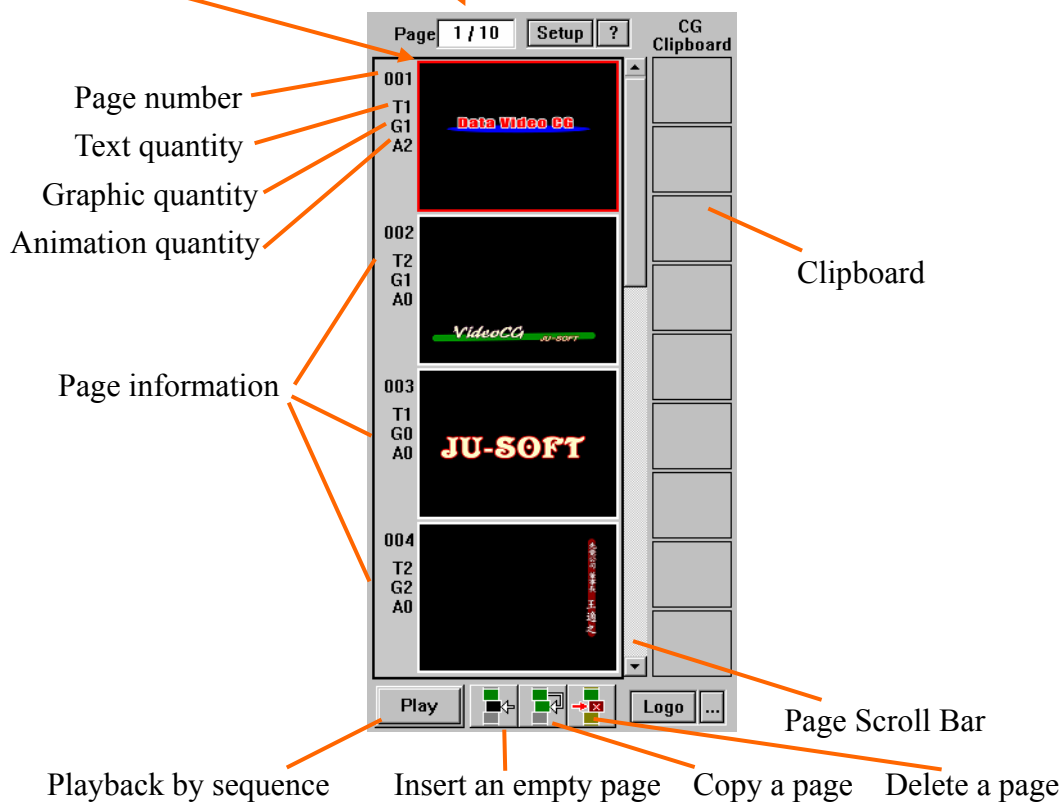
2-6 Pages

Each VCG file includes a lot of "Pages". Every page contains 3 kinds of titling

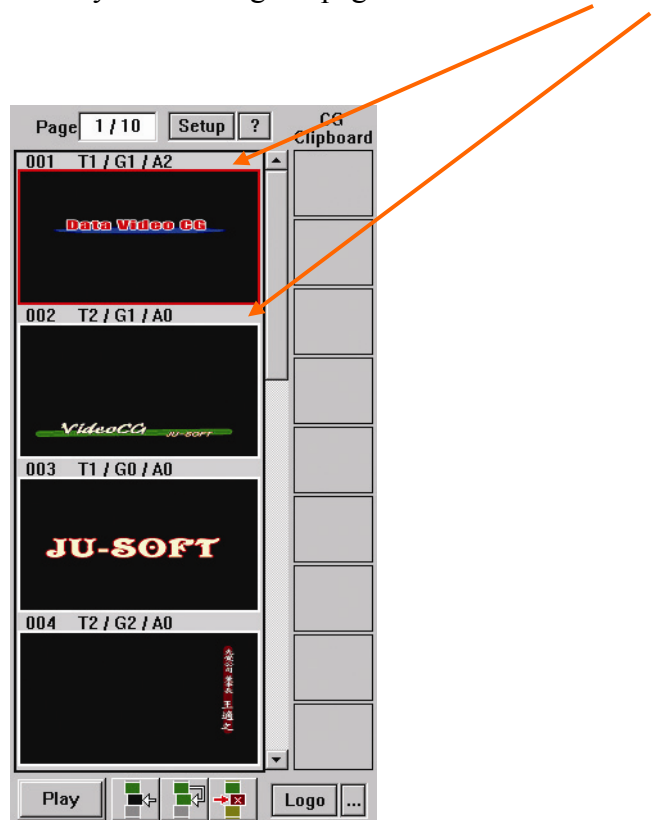
objects: text, graphics and animations. The pages in the same VCG file will be shown on the right side page area. These pages will be drawn correspondent with its W/H setting either 4:3 or 16:9. The following image shows when opening a VCG file, how the first four pages of this file will be shown on the right side:



The current page is the first page and there are ten pages in total. Users will see Red border on Page 001.



There is a different layout showing the page information. It is on the top of the page icon



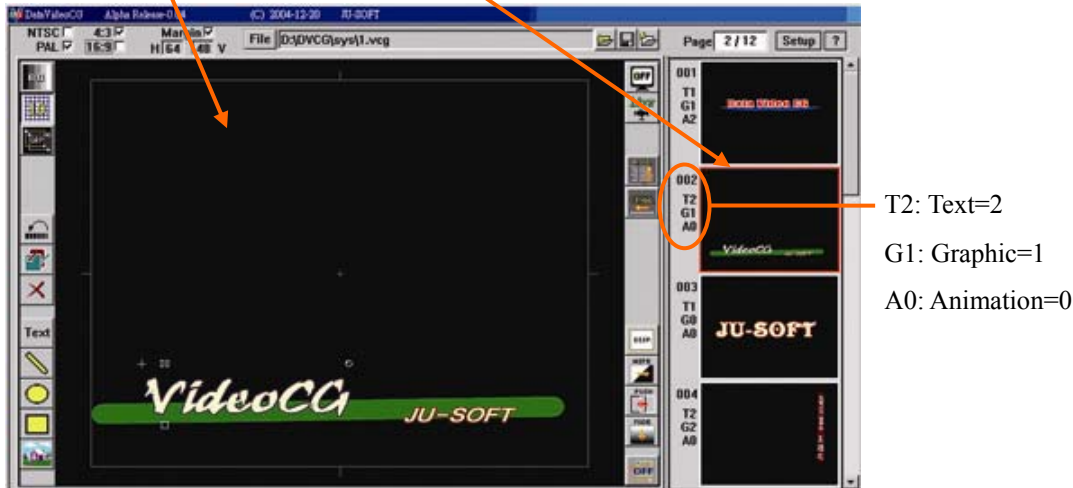
When users create a new VCG file, users will automatically have 10 blank pages on the Page Area. Click to select one page. Users will see a Red-Box-Cursor around the page. The surrounded page is the page what users are currently using.

Users can edit pages by inserting, deleting, copying or pasting the pages into the clipboard. For swapping the pages, just click the target page and drag it to the destination. (Note: the page will be actually moved until users drag it over a half page.)

2-7 Objects

There is Red Border around the current using page that is as same as the one on the working area.

The working area



There are 3 VCG objects on the working area: 2 string objects and a graphic bar.

The 1st string object = "VideoCG"

The 2nd string object = "JU-SOFT"

The 1st graphic = a green bar

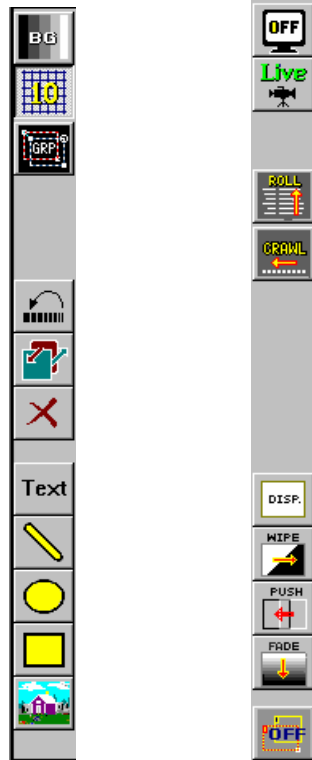
Users may treat VCG editing as sticking stickers on paper. For example, 3 pieces of VCG objects are just like 3 pieces of stickers. Look below to see how simple the way users can do to the objects.

- | | | |
|----------------------------------|---|---------------------------------------|
| Add a new sticker | → | Add a new VCG object |
| Remove the sticker | → | Delete the VCG object |
| Move the sticker | → | Change the position of the VCG object |
| Adjust the order of the stickers | → | Alter the sequence of the VCG objects |
| | | Resize the VCG object |
| | | Edit the VCG text |

2-8 Tools

VCG offers the following editing tools:

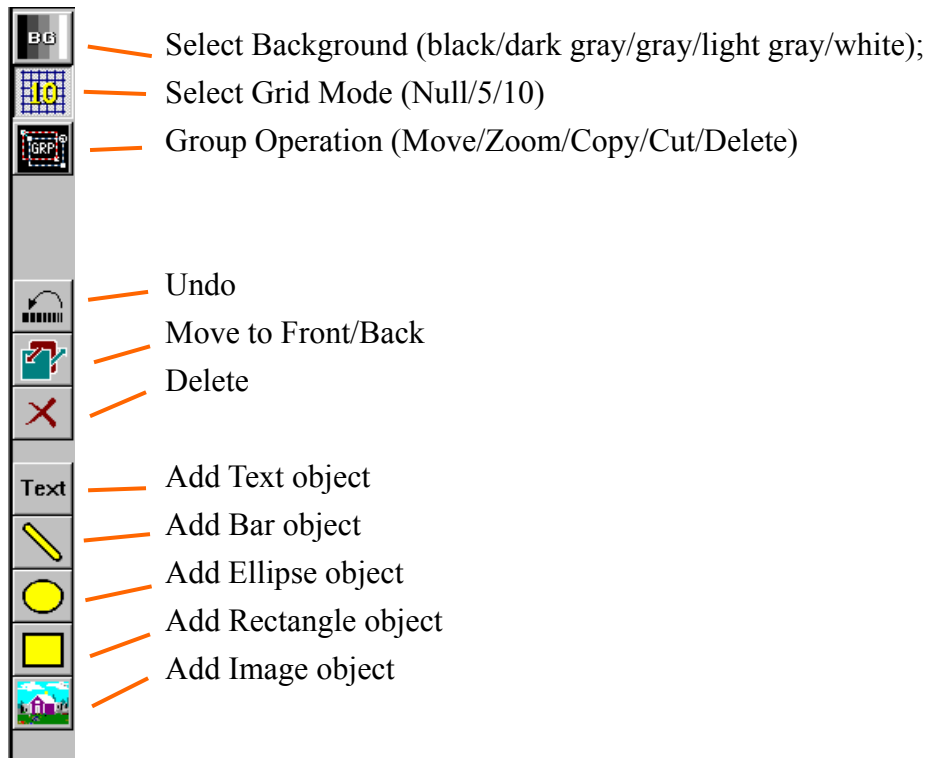
In 4:3 mode, Editing Tool bar and Animations Tool bar look as below:



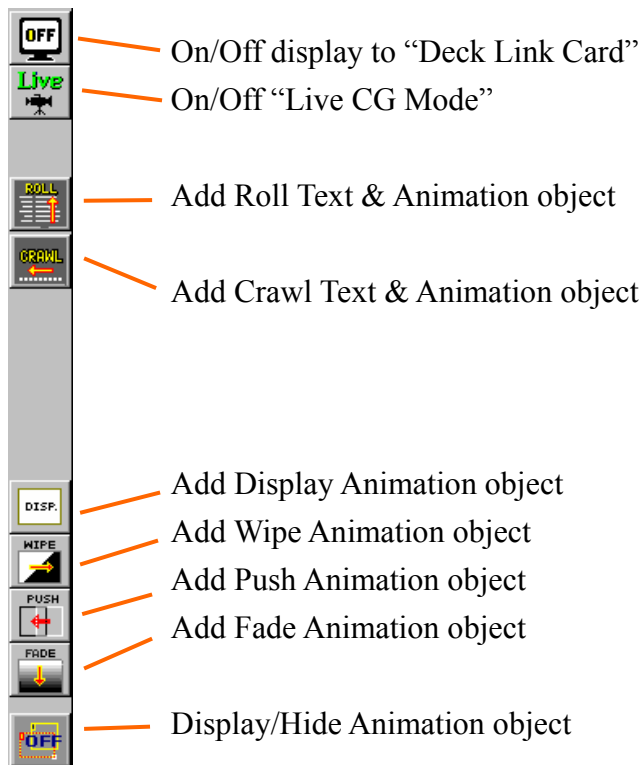
In 16:9 mode, Editing Tool bar and Animations Tool bar look as below:



2-9 Layout Tools

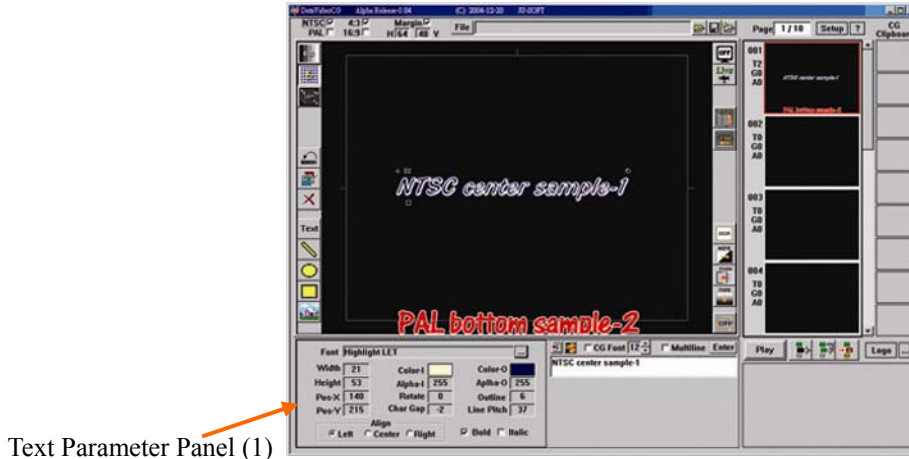


2-10 Animation Tools

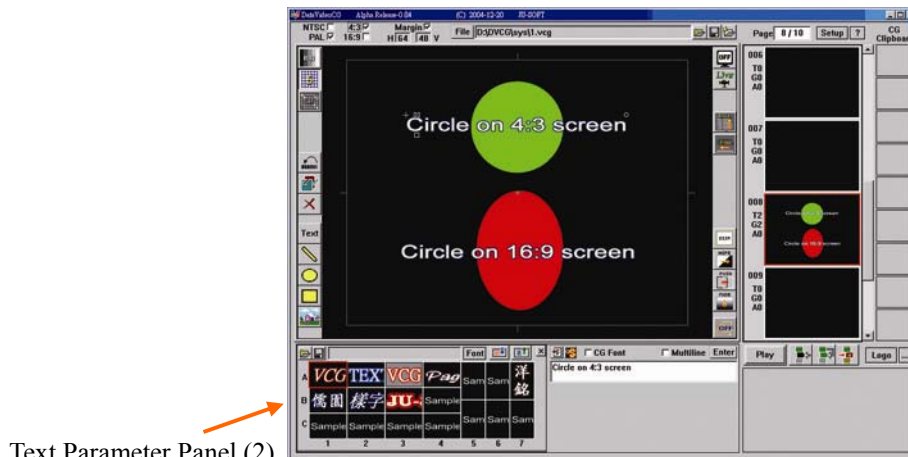


2-11 Parameters Panels

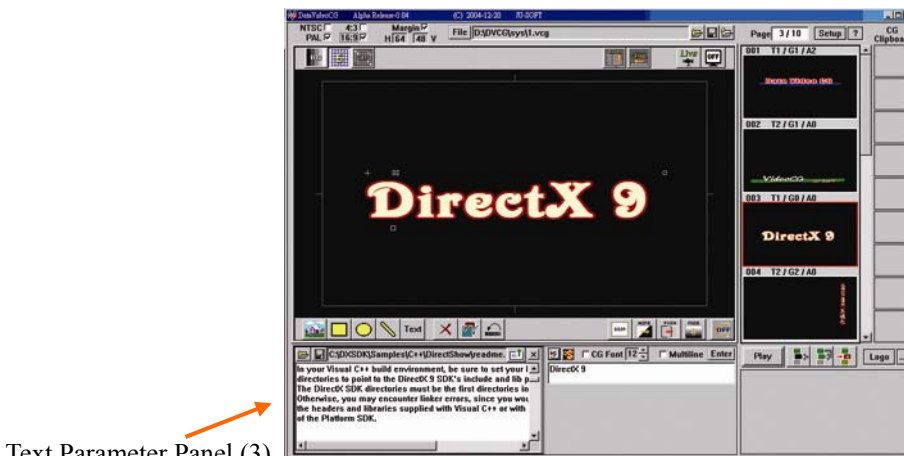
VCG-1.0 provides 5 editing tool-buttons for users to add Text, Bars, Rectangles, Ellipses and Images. Users can go to the Parameters Panels to set the colors of text, the precise positions etc. Please see the following example:



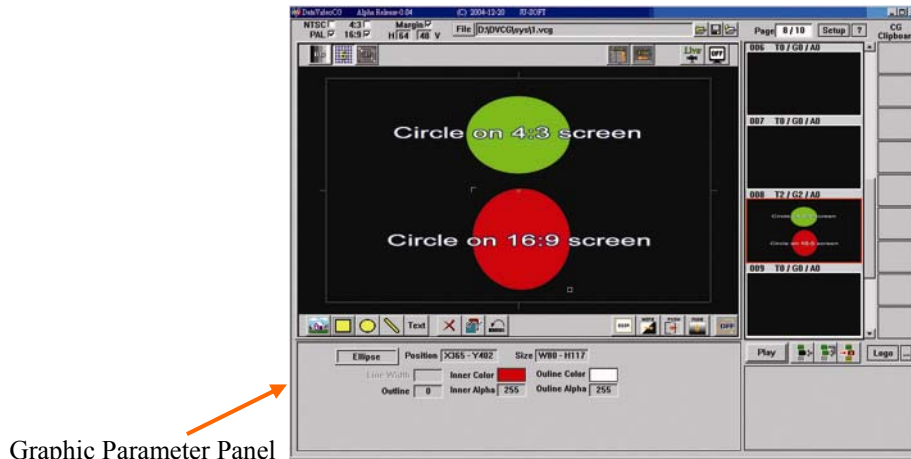
Text Parameter Panel (1)



Text Parameter Panel (2)



Text Parameter Panel (3)



Graphic Parameter Panel

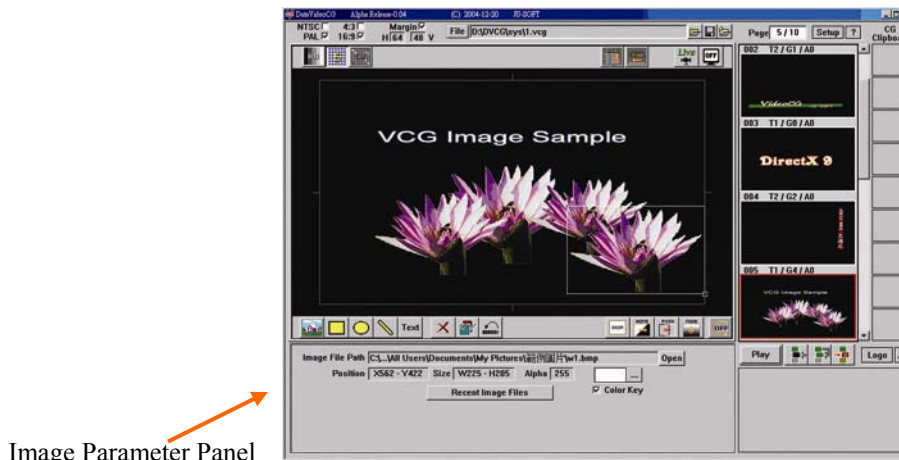
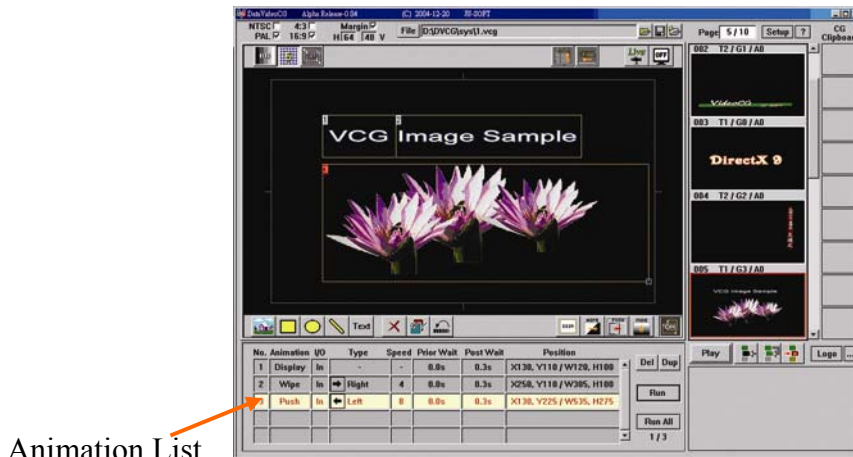


Image Parameter Panel

2-12 Animation List

VCG-1.0 provides 4 kinds of animations. Users can click the buttons to insert Display or Wipe, Push, Fade objects. After inserting the animation objects, users can edit them on the Animation List Editing Panel.



Animation List

III. Layout Editing

The VCG Layout is composed of 5 elements including text, graphic bars, rectangles, ellipses and images. To edit the VCG Layout, one should do the following operations.

- Press one of the buttons on the tool bar to insert a new object.
- Drag the object to a proper place and resize the target object.
- Set parameters on the Parameters Panels.
- If needed, users can do cut, delete, and adjust the sequences among objects and so on.

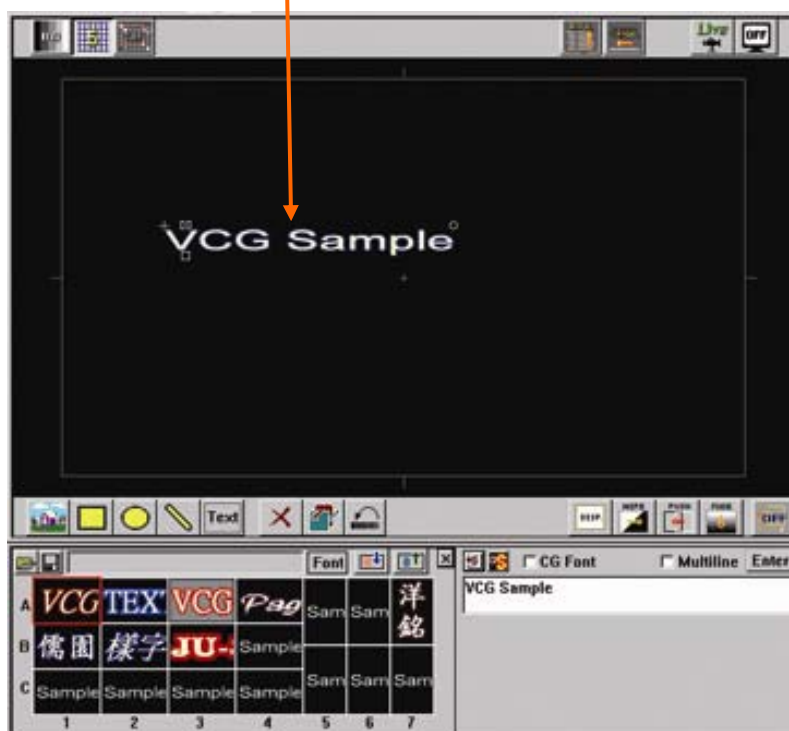
3-1 Text Editing

Following is the way to insert a text object:

(1).Click Text button on the tool bar



Once clicking, a text object will be shown on the working area.



Normally, the text content is as same as the previous one. Otherwise, a default “VCG Sample” will be the one for users’ first insertion.

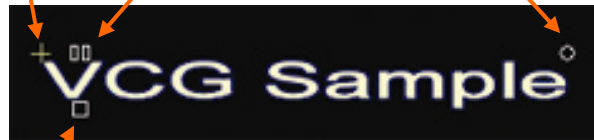
(2). Drag the marks around the text object

The current editing text object will be surrounded by 4 marks:

The Cross represents the datum of the text object.

The Dual-squares is for adjusting the gaps between letters

The Circle is for rotating the text object



The square is for resizing the text object

(3). Drag for moving a text object

Place the cursor on the text object, but do not put the cursor on any of the 4 marks. Press and hold the left button. This will make the cursor become a Drag Symbol, which means the text object is selected and ready for editing. Keep pressing the left button and move the mouse, users can adjust the position of the text object.

When the cursor becomes a Drag Symbol, the text object can be moved to any place.



The selected text object has meshes on the surface. Then users release the left button to complete the moving task. The meshed surface allows users to see other objects through the selected one while it is moving over others.

(4). Fine-tune the position of Text Object

It is hard to move for only a pixel or two by way of dragging a text object. In this case, users can press the [↑][↓][←][→] buttons. Every single press moves the text object one pixel toward the chosen direction.

Note: While typing, the [↑][↓][←][→] buttons are for moving the cursor. If users want the [↑][↓][←][→] buttons for moving the text object, users have to press the buttons right after dragging is finished.

(5). Drag for resizing Text Object

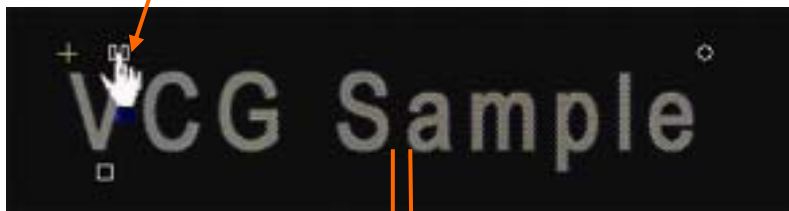


Place the cursor on the Square. This will change the cursor into a hand. While seeing the hand, press left button. Then users are able to resize the text object.

1. Keep pressing left button, move down → increase height of text
2. Keep pressing left button, move up → decrease height of text
3. Keep pressing left button, move right → increase width of text
4. Keep pressing left button, move left → decrease width of text
5. Release left button to end the operation of resizing.

(6). Drag for adjusting Gaps between letters

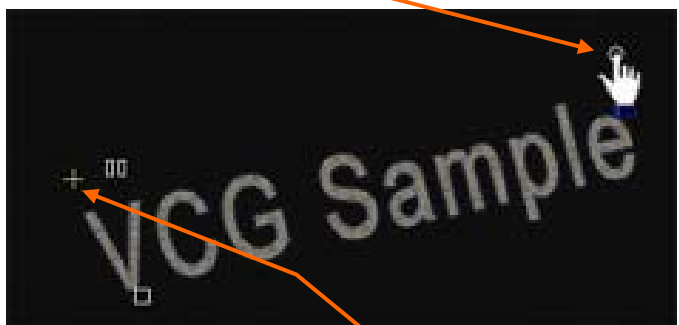
Press dual-squares and move the mouse horizontally, Thus users can adjust the gaps between letters.



→ ← The gap between letters

(7). Rotate a Text Object

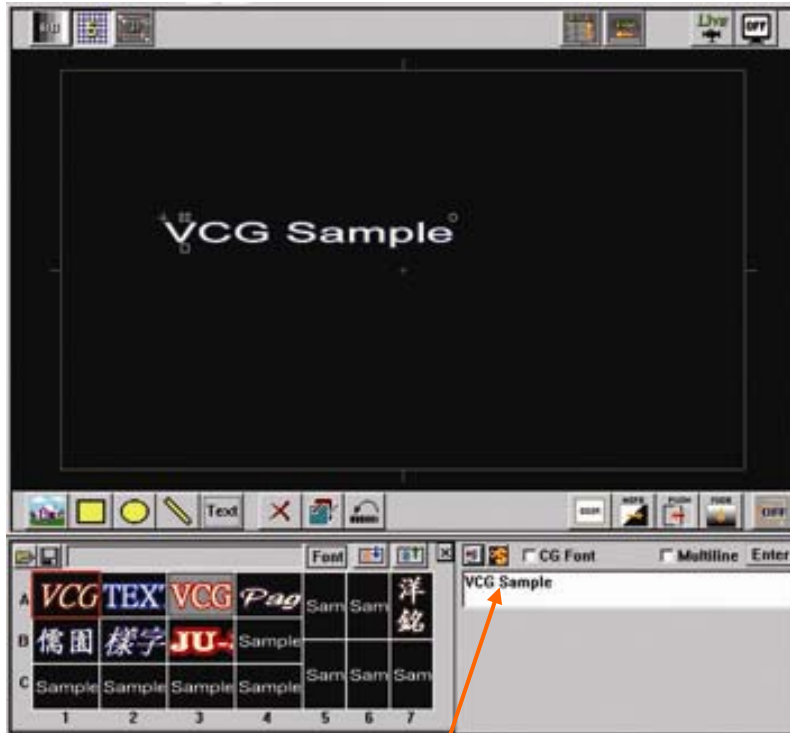
Press the circle and move the mouse vertically, thus users can rotate the text object.



The text object goes around the cross when users rotate it.

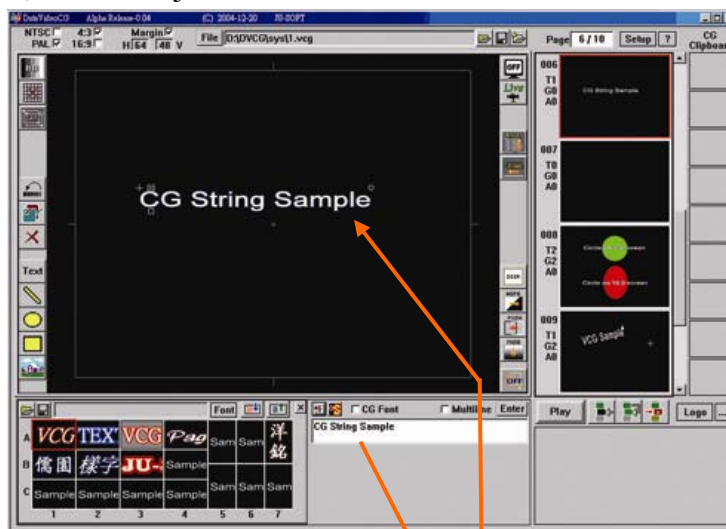
(8).Type for String Objects

Users can type the content of the text objects on the key-in area under the working area.



Type the content here on the typing area

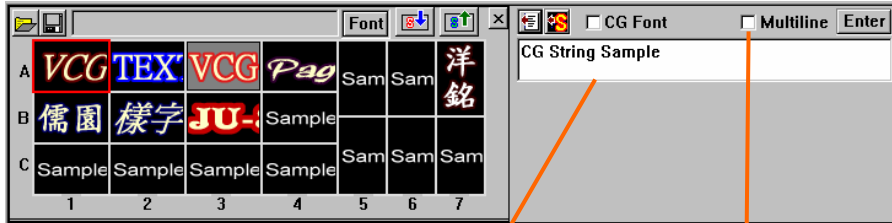
A string object literally means a single-line string. When users finish typing, press [enter] to update the target text object. The above example shows how to change “VCG sample” into “CG String Sample”. After clicking the [Update] button, the text object will be altered like below.



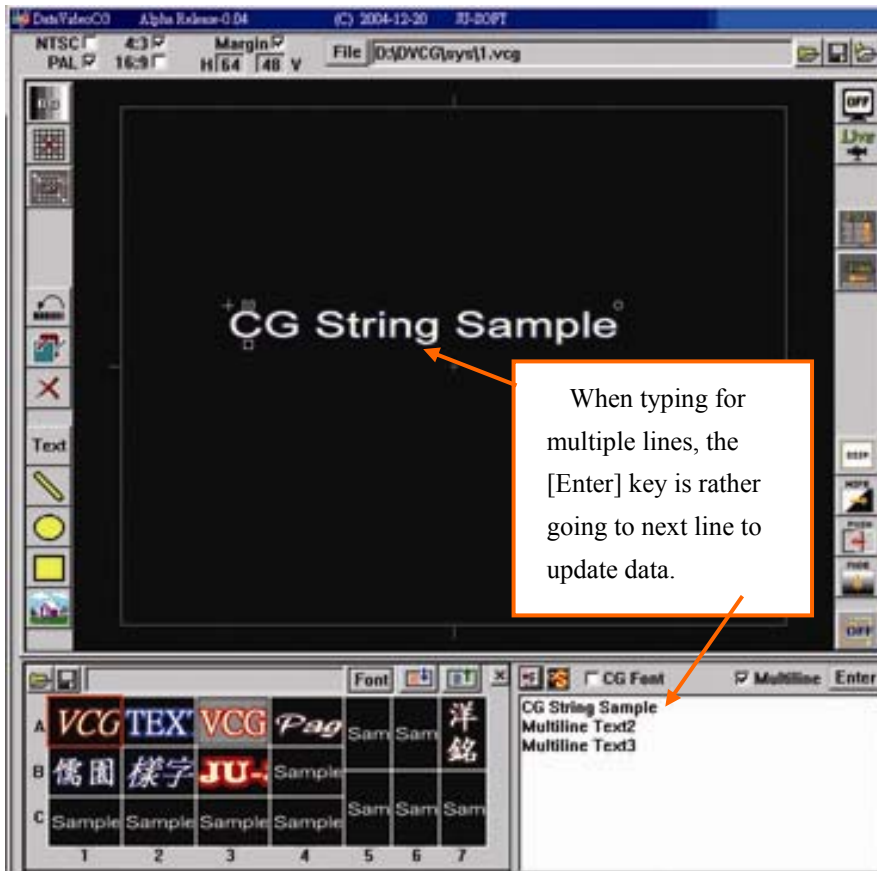
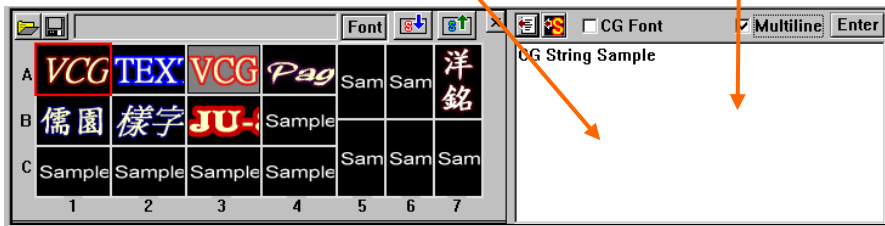
The text object will be updated as soon as clicking [Update].

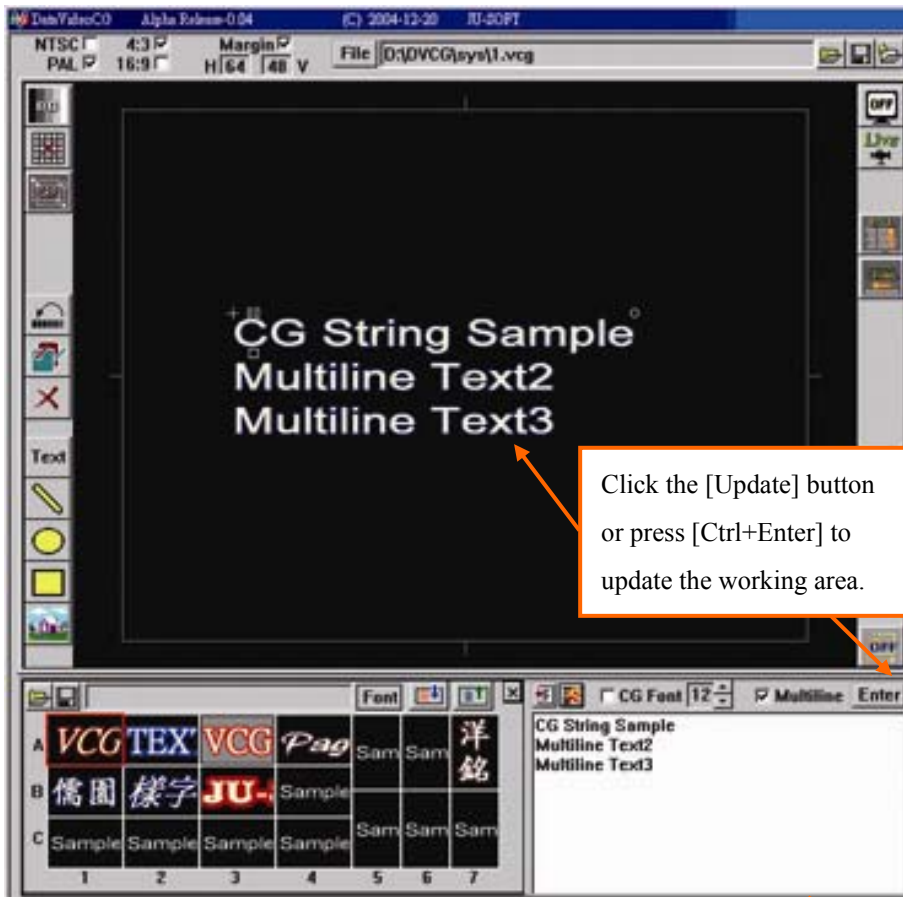
(9).Type for multi-line Text Objects

Users can create a multi-line text object, just like a paragraph. Tick [Multi-line] to enable this function.



Then the typing area will be extended, so that users can type a whole paragraph.

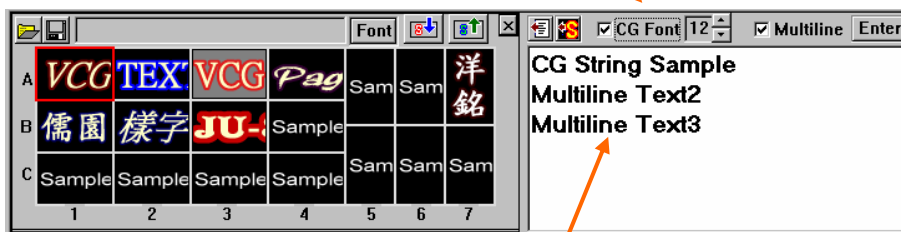




(10).Type in foreign languages

The available languages for the typing area are exactly those for Windows XP. Usually they are the default fonts for Notepad software. However, when users type in a foreign language, users may not see the correct font on the typing area because the default font on this area does not support that kind of language. If typing in foreign languages is needed, users can tick [CG Font] to show the same fonts as it on the working area. In this way, what you type is what you type.

Tick [CG Font] Select the font and siz

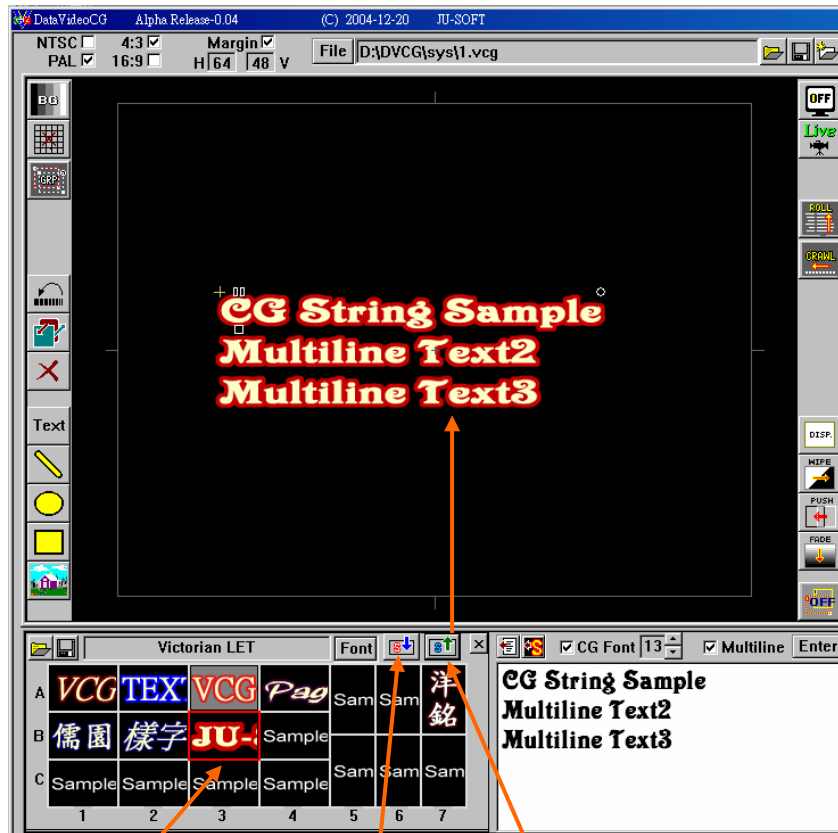


If [CG Font] is selected, when users want to display foreign language, this typing area will adopt the same fonts to display.

Note: Fonts for foreign languages are options. Users have to purchase and install them separately.

(11).Text Styles

Users can apply various styles for text objects. Users can find many styles on the Text Styles Panel.



Click a style.

Click this button to apply the selected style.

The selected style will be surrounded with red border

There is another input button that allows users to store their own design from Working Area to the selected red-bordered position on the style panel.

Open a panel One style

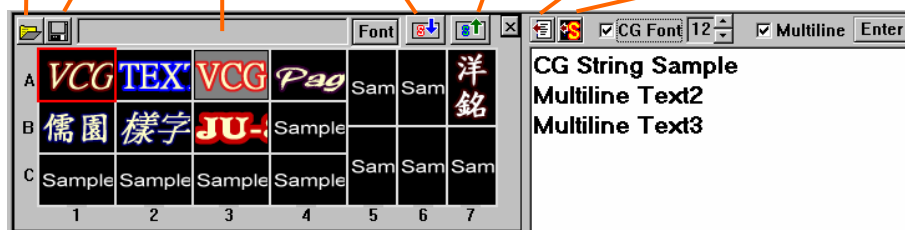
Save a panel

Input a style

Apply a style

Close this window

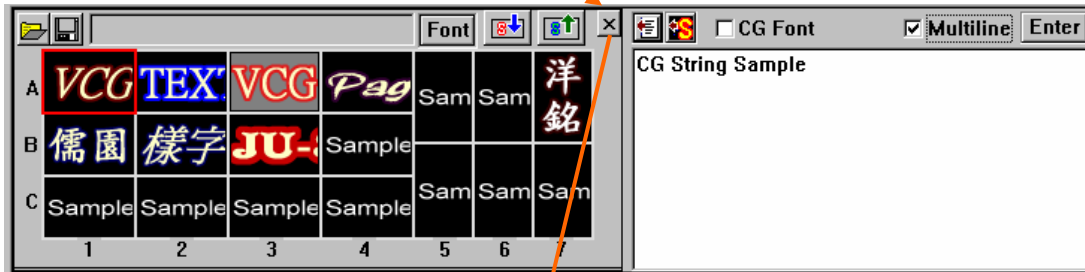
Open this window



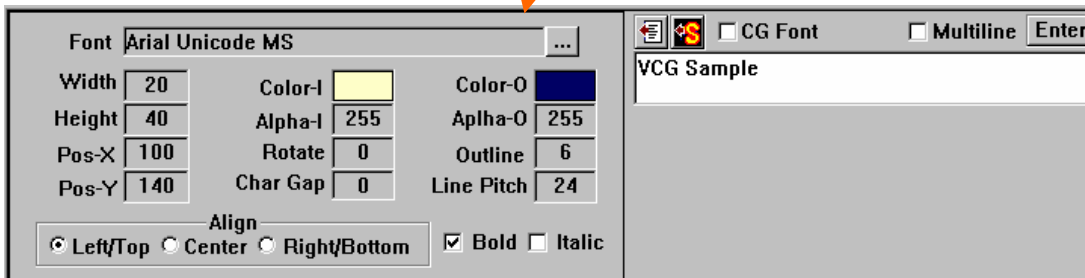
(12). Text Parameters Setting

Users can set the parameters on the Text Parameter Panel.

Click [X] to close the window.



The Text Parameter Panel comes back immediately



The parameters are:

- Font — True Type fonts, click the button to select other fonts.
- Width — The width of letters. Press left button, move the mouse horizontally.
- Height — The height of letters. Press left button, move vertically.
- Pos-X — X field of the text object. Press left button, move horizontally.
- Pos-Y — Y field of the text object. Press left button, move vertically.
- Color-I — The color of its inner part. Click the color to select other colors.
- Alpha-I — The transparency of its inner part. Press left button, move horizontally.
- Rotate — Rotate the text object. Press left button, move horizontally.
- Char Gap — Gaps between letters. Press left button, move horizontally.
- Color-O — The color of its outline. Click the color to select other colors.
- Alpha-O — The transparency of its outline. Press left button, move horizontally.
- Outline — The border of the text object. Press left button, move horizontally.
- Line Space — Only for Multi-line text objects. Press left button, move horizontally.
- Align Left/Top — Set the Axis of the text object (the cross mark) to the left/top.
Words add from left to right, top to the bottom.
- Align Center — Set the Axis of the text object (the cross mark) in the center.

Words go from left to right, top to the bottom.

Align Right/Bottom— Set the Axis of the text object (the cross mark) in the center. Words go from left to right, top to the bottom.

Bold — Tick to make the fonts bold-faced.

Italic — Tick to make the fonts Italic.

Users can set the text objects' parameters in the relative dialog boxes. Tick to select bold-faced fonts or three ways of alignments. Other parameters can be set by way of press left button and move horizontally.

For example, if users want to set the transparency of a text object, follow the steps below:

- Place the cursor on the number box of “Alpha-I” item.
- Press left button to change the shape of the cursor [two-side arrows]
- Press left button and move the mouse horizontally to change the figure of transparency.

Users can see the target object change its transparency immediately on the working area.

Vertical Text Object

For some Asian languages, sometimes text goes vertically. If users want a vertical text object, follow the steps below,

- Open [Font] dialog box. Select the font whose name starts with @.
- Set the parameter of [Rotate] to 270°.

Note: Double click the number box of the [Rotate] item. The program will set the default angles which are as below:

- For the font whose name starts with @, the default angle is 270°.
- For the font whose name does not start with @, the default angle is 0°.

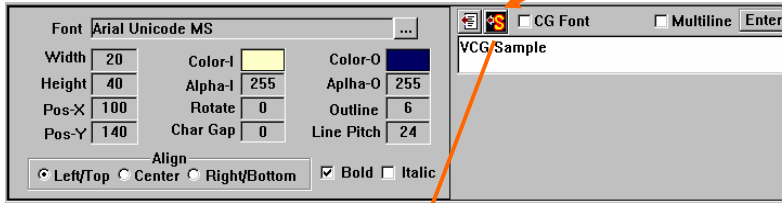
Default width of a letter

The default width of a letter for Windows PC is a half of its default height. If users want to return its default setting, please double click the number boxes of [Width] or [Height] items.

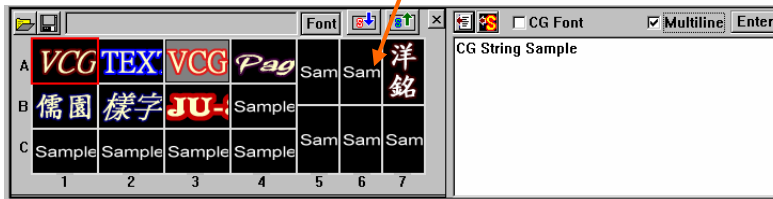
- Double click [Width] item, the width will be 1/2 of its height.
- Double click [Height] item, the height will be 2 times of its width.

Save Text Styles

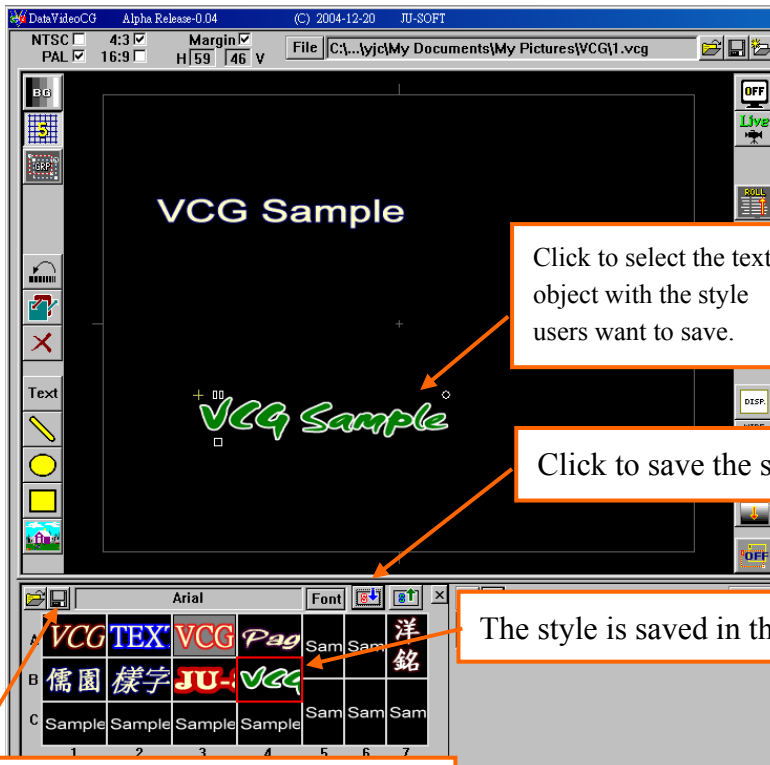
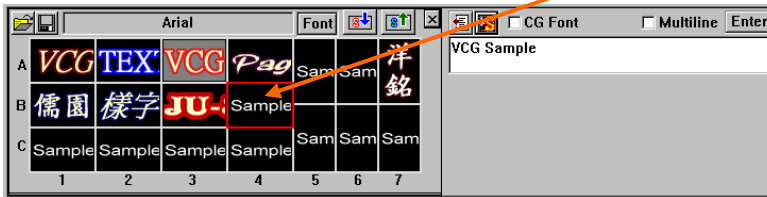
Please use this panel to set the detail of Text Styles. When users create a text object and want to save its style as a sample, just click this button to open the [Text Styles] panel.



The window will immediately prompt out



Click to select one style to make its border red.

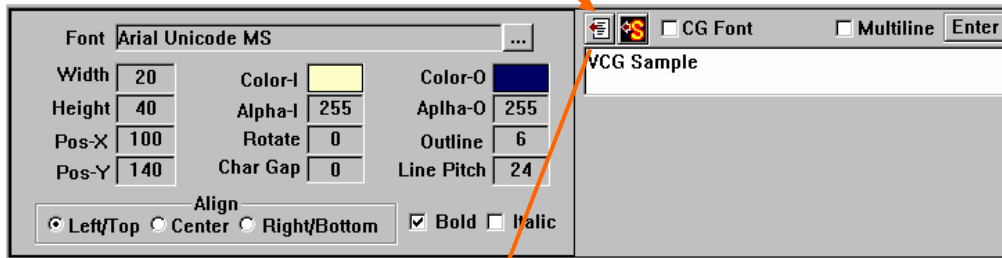


Users can also save the whole panel.

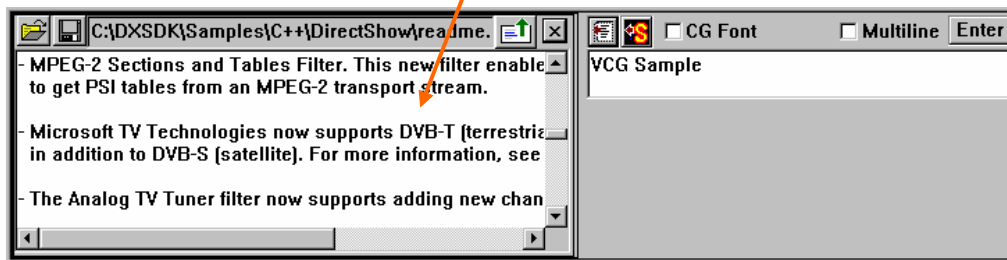
(13). Import text from a text file

If users need a large amount of text or text in foreign languages, do not bother typing, instead, users can import the text from a file. VCG allows users to import text only from a *.txt file.

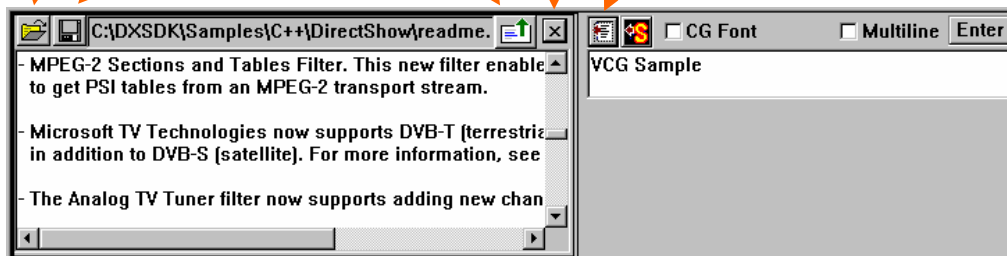
Click this button to import from a *.txt file

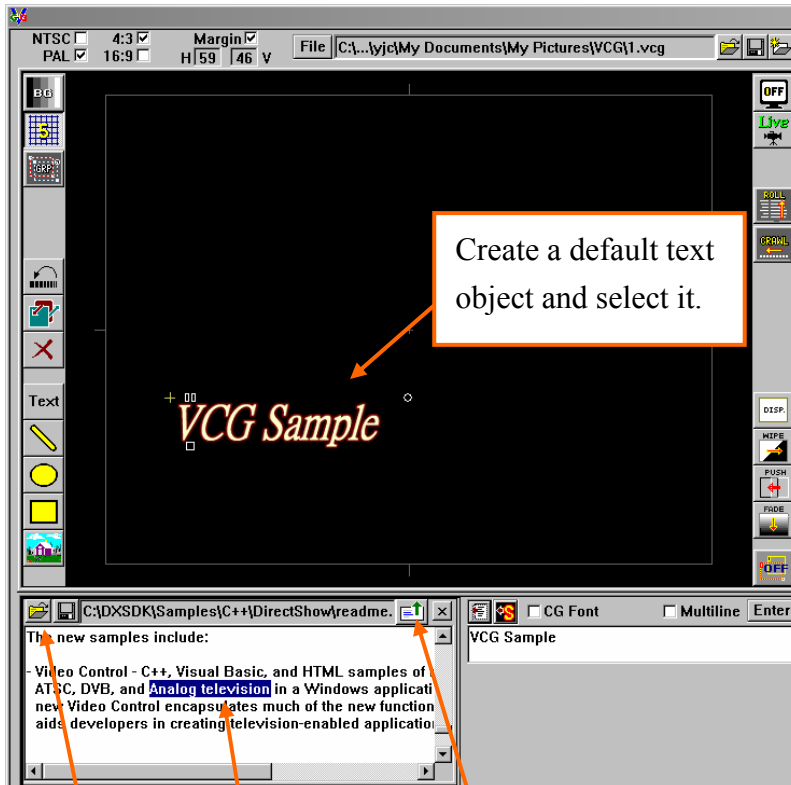


A text file is opened immediately over the parameter panel



Open text file Output the highlight text
Close text file Close the text window
Open the text window



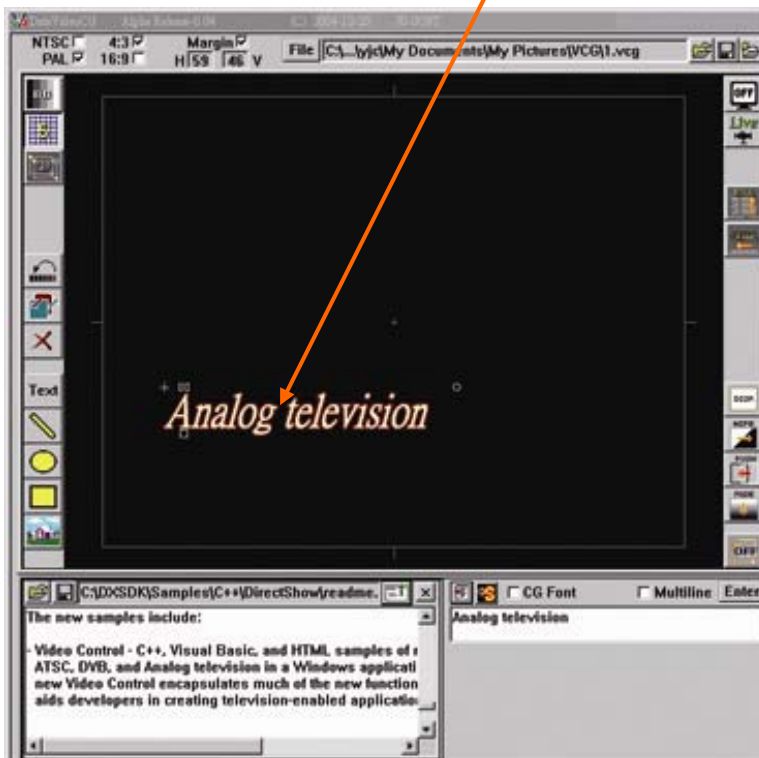


Open a text file,

Highlight the required text

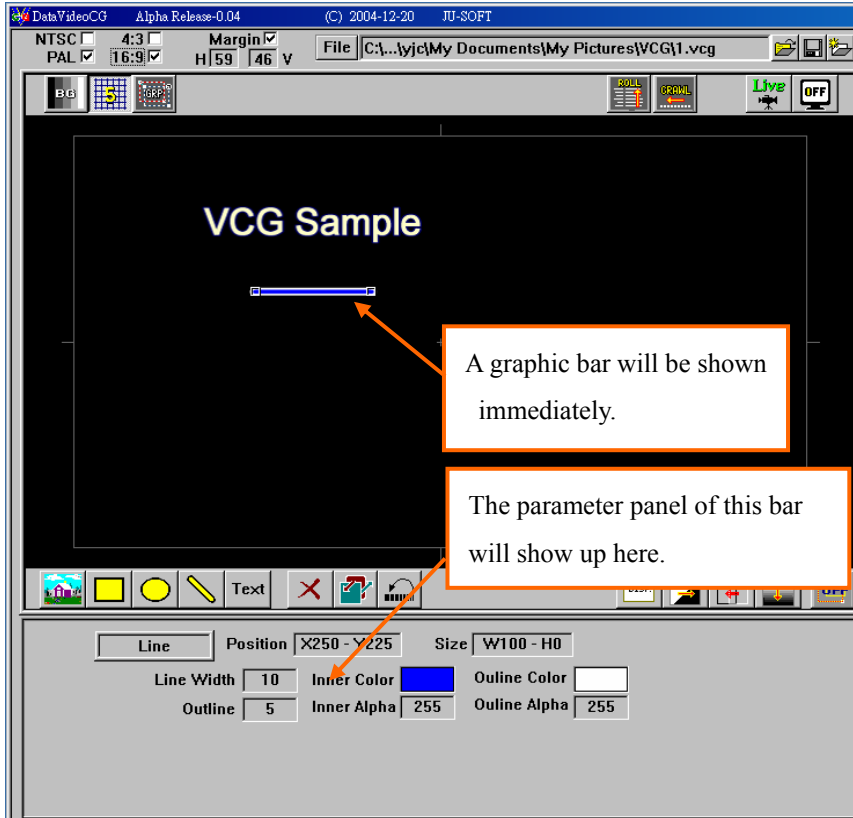
Click this button to output the text

The selected text is applied to the text object



3-2 Insert a Graphic Bar or a Line

Click this button to insert a line, a bar or a line.

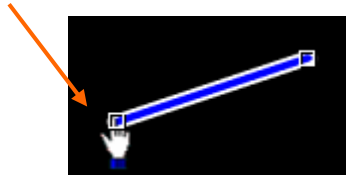


There are 2 square marks on both ends of a graphic bar/ line. Users can hold on either side to alter the bar/ line.

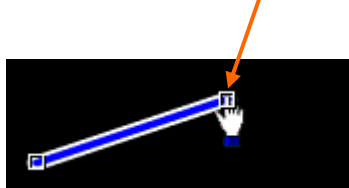
Click one of the squares



Drag the square



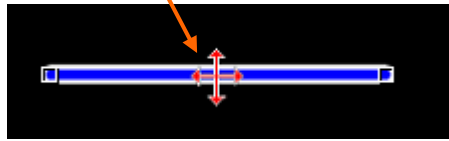
Click the other square



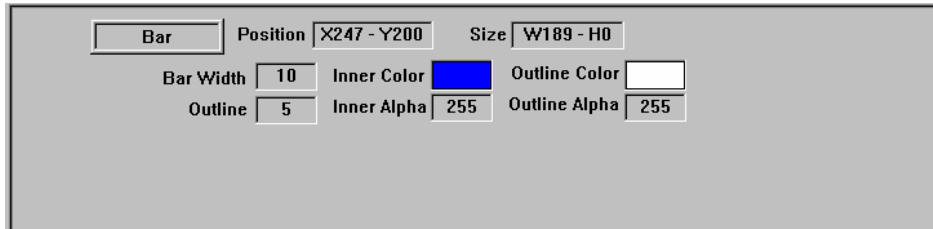
Drag the other square



Hold on the middle of this bar/line then drag it.

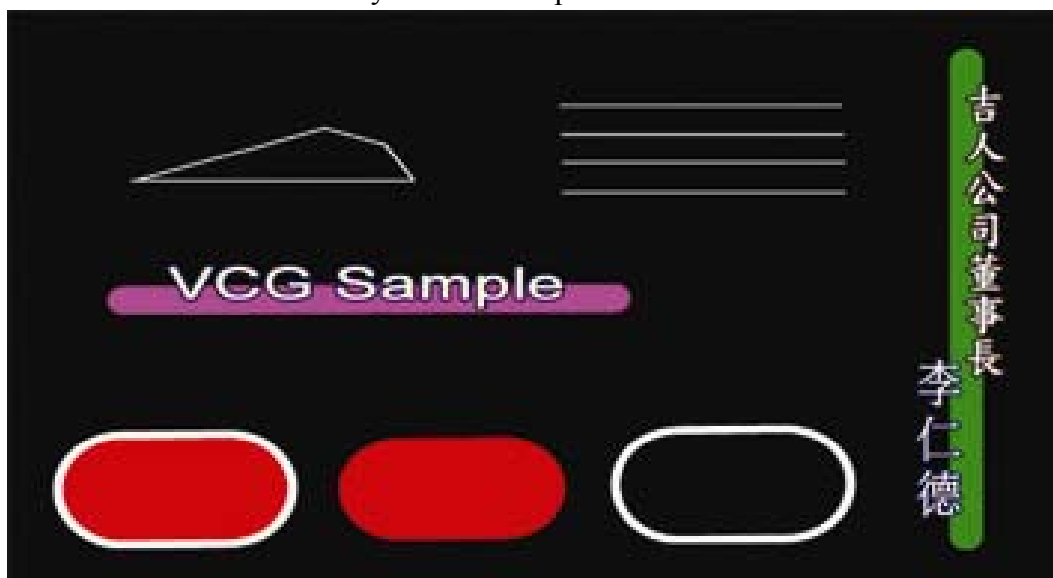


The parameters of the graphic bar/ line can be set on the following panel.



- Bar Width - the width of the graphic bar/ line, press left button and move the mouse horizontally
- Outline - the thick of its outline, press left button and move the mouse horizontally
- Inner Color - the color of the inner part, go to a dialog for further setting
- Outline Color - the color of the outline, go to a dialog for further setting
- Inner Alpha - the transparency of the inner part, press left button and move the mouse horizontally
- Outline Alpha - the transparency of the outline, press left button and move the mouse horizontally

Many kinds of Graphic Bars/ Lines:



3-3 Insert a Rectangle or an Ellipse

Click this button to input a rectangle button.



To move this rectangle, click the inner part then move it.

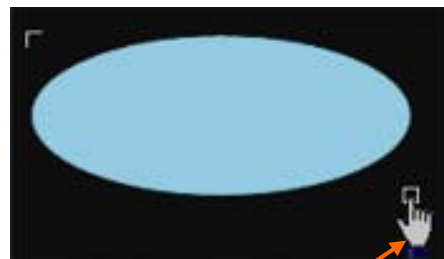
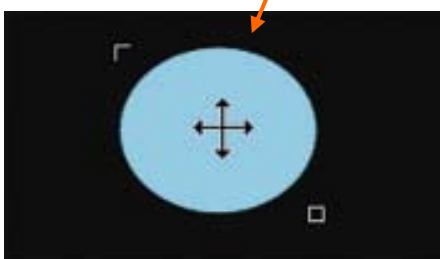


To resize the rectangle, click the square on the right bottom and move it around

Click this button to input an ellipse.





To move this ellipse, click the inner part then move it.



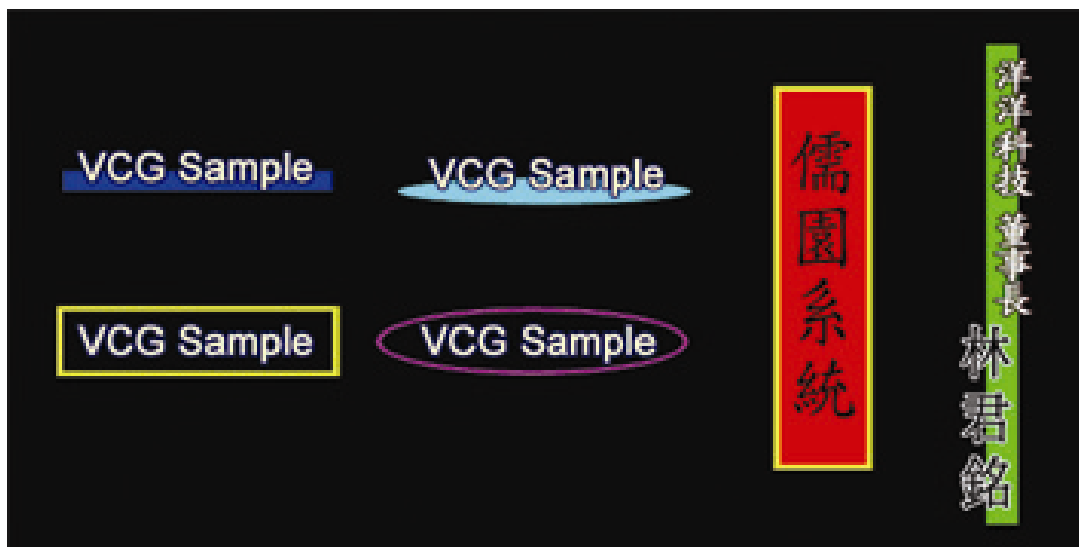
To resize this ellipse, click the square on the bottom right then move it around.

Parameters Panel for rectangles and ellipses.

Ellipse	Position	X195 - Y172	Size	W95 - H47
Bar Width	Inner Color		Outline Color	
Outline	Inner Alpha	255	Outline Alpha	255

- Outline - the thick of its outline, press left button and move the mouse horizontally
- Inner Color - the color of the inner part, go to a dialog for further setting
- Outline Color - the color of the outline, go to a dialog for further setting
- Inner Alpha - the transparency of the inner part, press left button and move the mouse horizontally
- Outline Alpha - the transparency of the outline, press left button and move the mouse horizontally

Many Kinds of Ellipses and Rectangles:



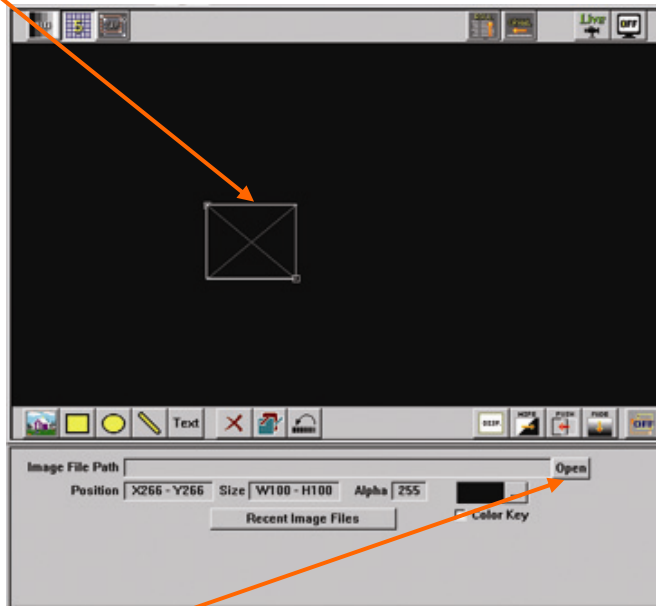
3-4 Insert an Image

VCG can open the Targa 32 bit image with alpha channel and those image file formats that can be opened by Windows XP OS.

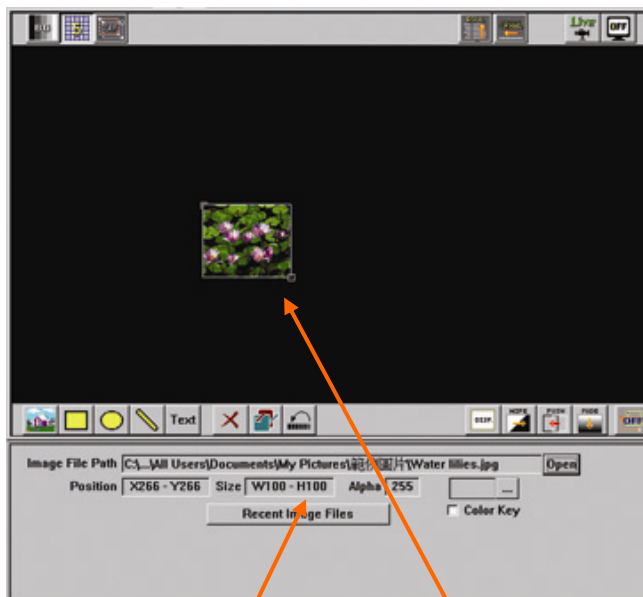
Click this button and insert an image.



An image object needs to include an image file. If the file does not exist, there will be a box on the working area instead.

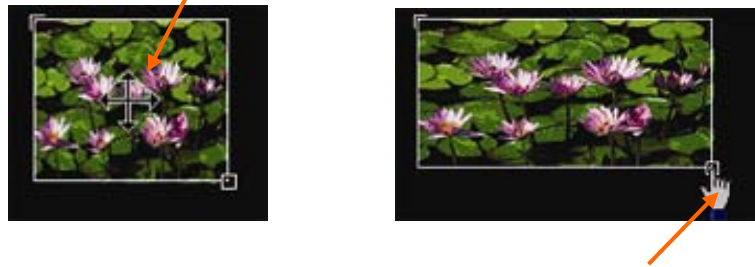


Click this button to select an image file.



Select a correct image file path, the image will be on the working area.

Click the inner part of the image to move the image.



Press the square on the bottom right to resize the image.

The image selecting panel is as below,



- Image File path - shows the path of the image file
- Open - to open a dialog box for image selection
- Position - the position of the image
- Size - the size of the image (pixel by pixel)
- Alpha - the transparency of the image
- Color Key - tick to enable color key function.
- Key Color [...] - to designate a color for keying, which is to set this color totally transparent.

The transparency of an image

When users set the transparency on an image, the setting is applied onto the whole image. The levels of transparency are from 0 to 255. The 0 is fully transparent while the 255 is fully opaque. If the image format is targa 32 bit, then the transparency here will multiply users' setting by its original alpha. (Note: Some applications such as Adobe Photoshop allow users to create targa 32bit image.)

A Targa Image



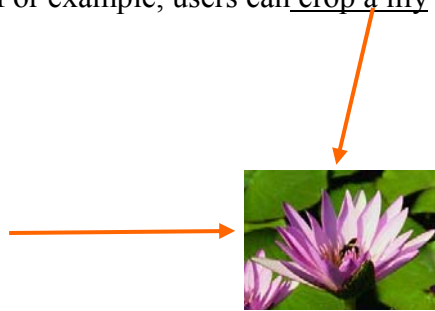
Alpha=255

Alpha=85

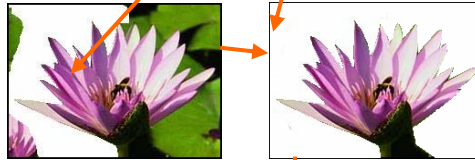


Select a color to be transparent

Windows provides a function to designate a color in an image to be transparent. This will be an ideal way to create a logo image. For example, users can crop a lily from the Water lilies.jpg as below,

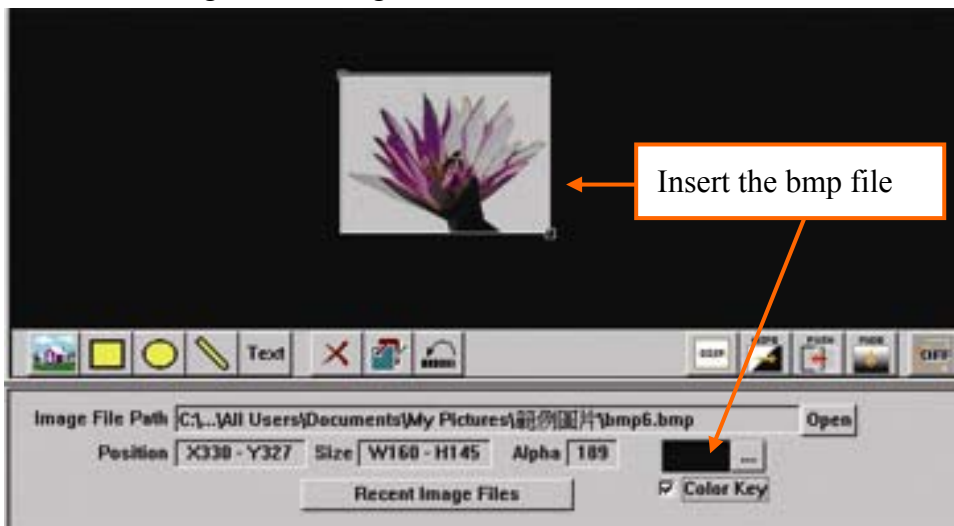


Enlarge the picture in Paint Brush program. Paint the outside of the lily white.

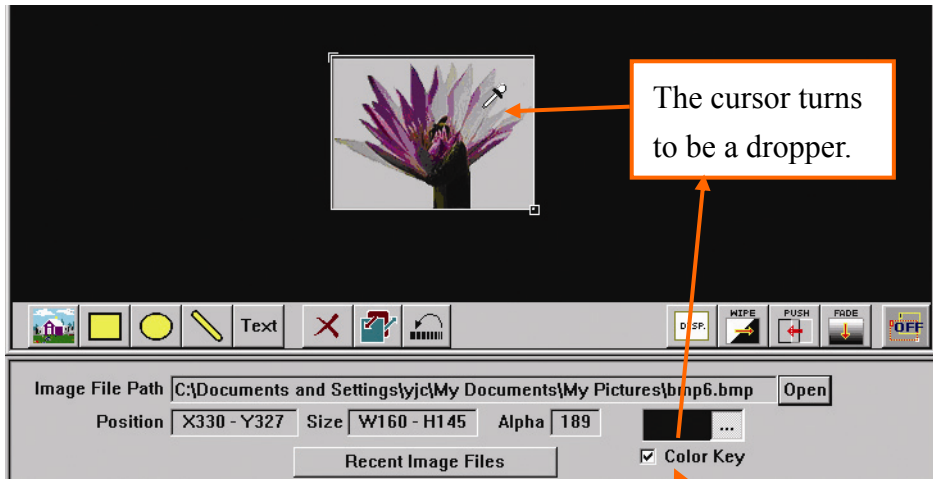


When finished, save it as a *.bmp file.

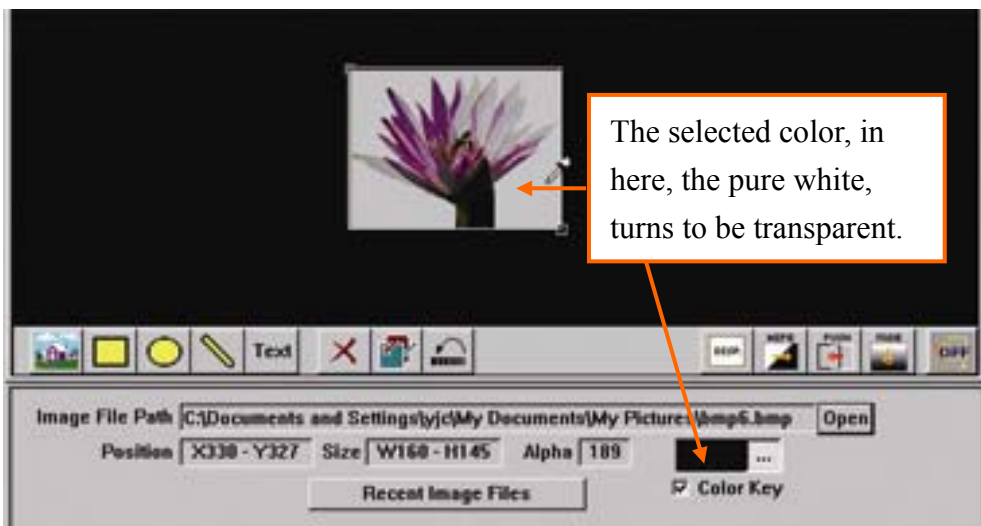
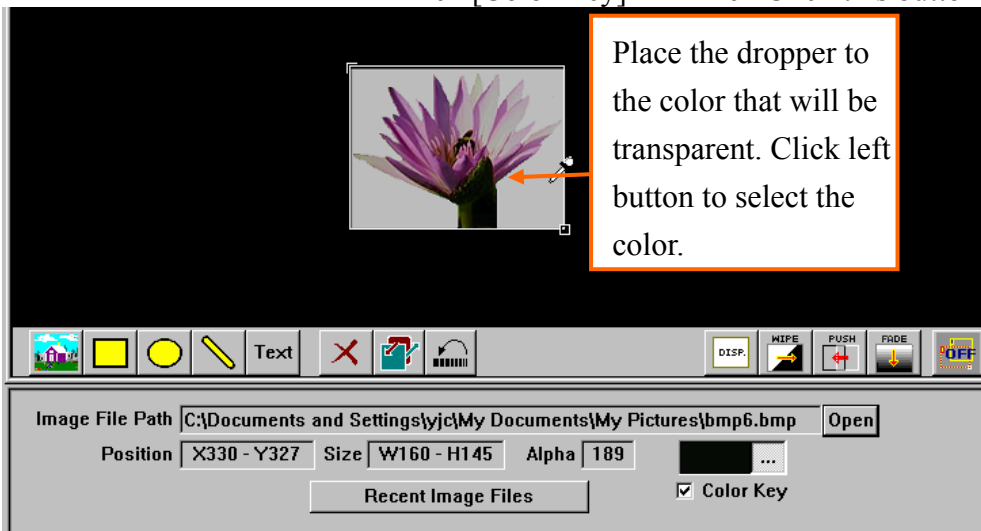
Insert this image on working area of VCG software.



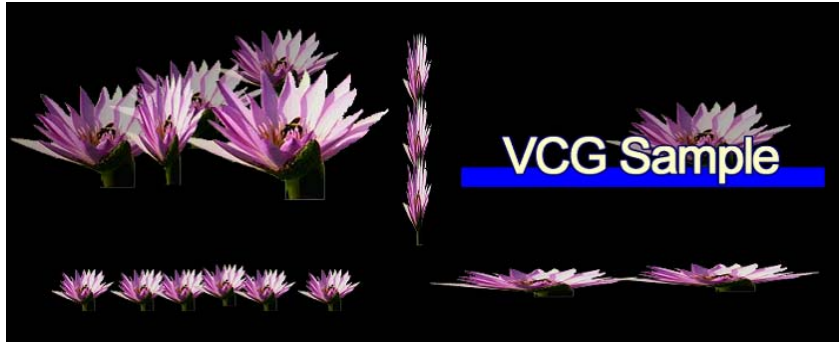
Tick [Color Key]



Tick [Color Key] Then Click this button



Once users create a water lily with transparent background, it is easy to duplicate lots of similar images with different sizes. Please see the example as below,



Note: Do not use a compressed image, like jpg file, for the above process. It is because when the compressed files are decompressed, there is always impurity inside the pure white that can not be removed.




3-5 Extra Editing Tools

VCG provides extra editing tools that make editing more convenient.

(1).  **Background button**

The default background of the working area on VCG is black. What if a title is very dark or the outline has to be black, they can not be seen clearly with the black background. So the [background] button changes the background's color that makes all colors to be shown clearly. When users click the button, the background will be changed from black, dark gray, gray, light gray to white. It goes around as a loop. Please see the following examples:



(2).    **Grid button**

The grid makes objects easy to be aligned. When users click the [grid] button, it goes around as a loop from X→5→10. The [X] means to disable the grid function. And the [5] means the minimum square is 5x5 pixels. The [10] means the minimum square is 10x10 pixels.

(3).  **Group button**

Click the [group] button to go to the group menu for further selection.



(4).  **Top/ Bottom**

The objects on the VCG working area are placed by the order of time sequence. The first insertion is on the bottom and the last one is on the top. It does not matter if there is no overlapping. However, if more than two objects overlap, the front/back button will help users to process the sequence issues.

- Click to select an object on the working area.
- Then click the [Top / Bottom] button.

Every click makes:

The top object to the bottom

The non-top objects go one place upper toward the top side.

Click to select an object. Check if the editing marks have been seen.



Click the [Top / Bottom] button to change the sequence.

(5).  **Delete**

Click [Delete] to delete a selected object.

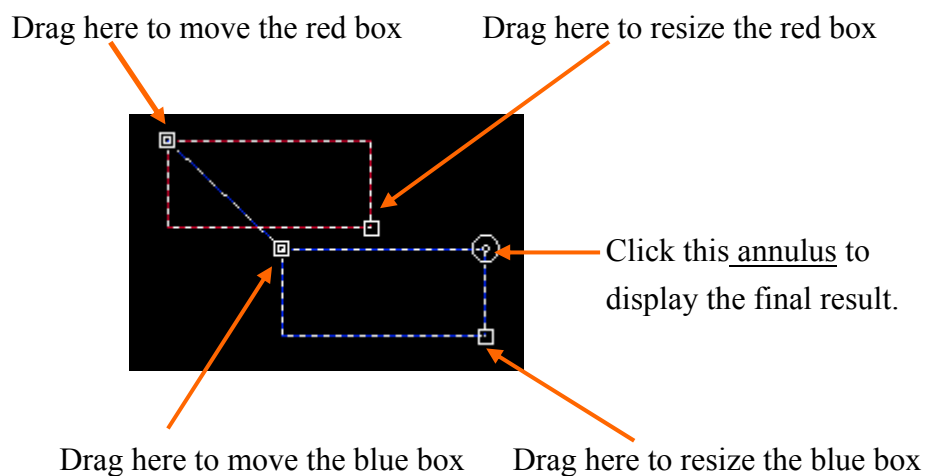
(6).  **Undo**

<Under construction>

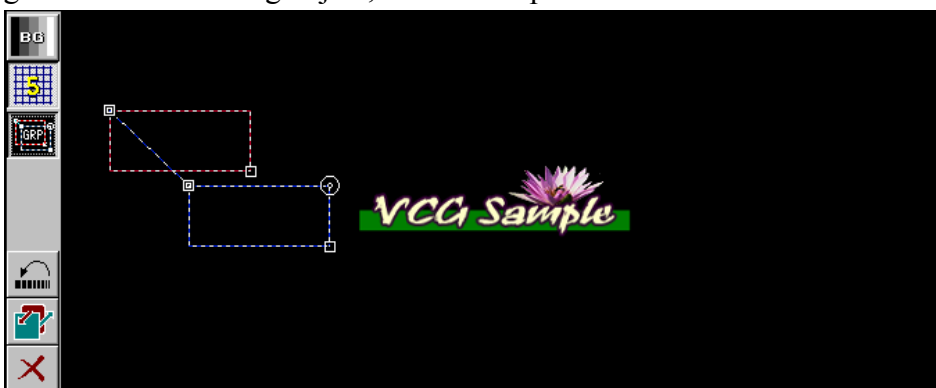
IV. Group Move/Zoom

Click [Group Move/Zoom] button, There will be 2 boxes, the blue one and the red one. The red one, the source box, is to select the source objects which are usually more than one object. The blue one, the destination box, is to place and resize the result. If the red one is as big as the blue one, then the group of objects is just moved to the other place. If the blue box is not equal to the blue one, that means the group of objects will be moved and resized.

To perform this function, users need to place the cursor on the squares on the source box or on the destination box as below,



The following is a group of VCG objects which include a water lily image, a green bar and a string object, “VCG Sample”.



If users want to enlarge the whole group, the steps are as next page,

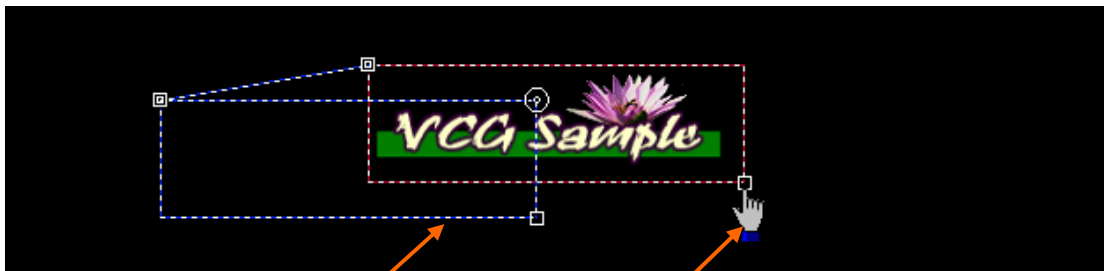
a.) Place the cursor on the top left side. Drag the red box to encompass the objects.



b.) Drag the red FRAME to the top left side of the group of objects.



c.) Place the cursor to the bottom right of the red box. Then resize the box



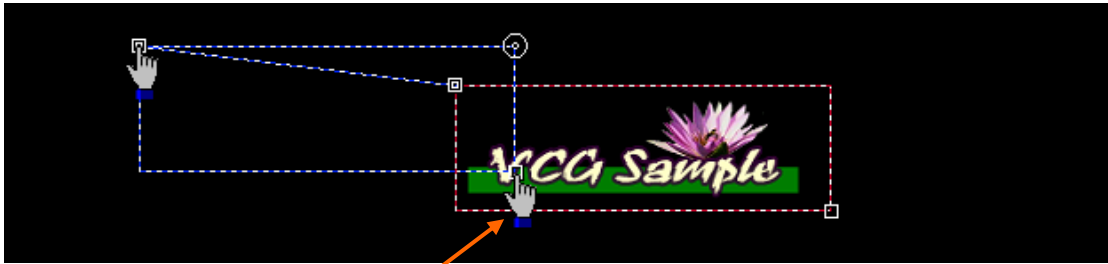
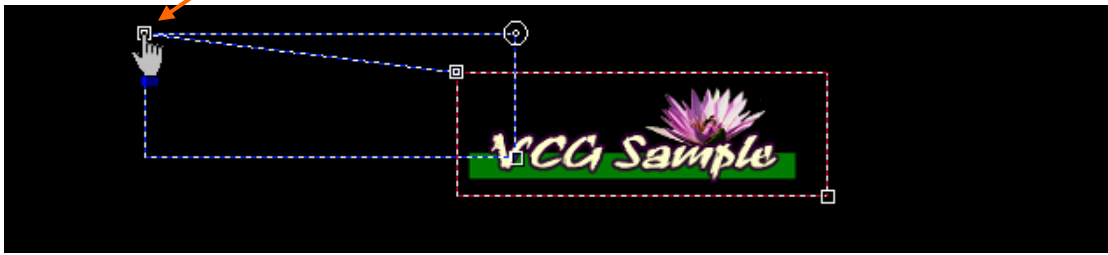
d.) Drag the square to make the red box surrounds all the objects.

e.) The blue box will automatically be as the same size as the red box.

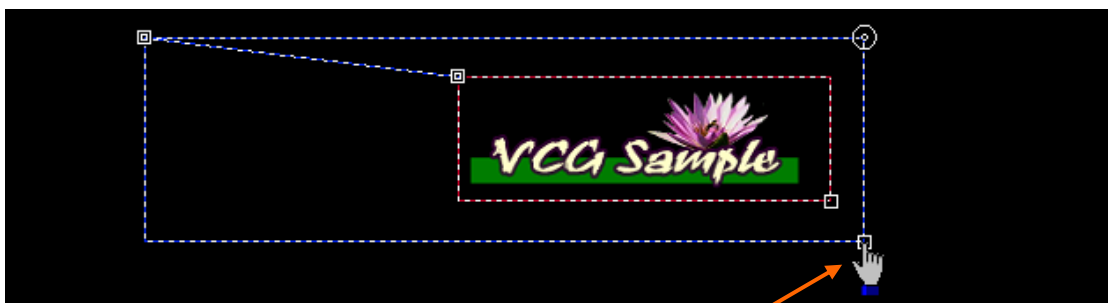
f.) Then place the cursor to the top left side of the blue box.



g.) Drag to move this blue box to the destination.

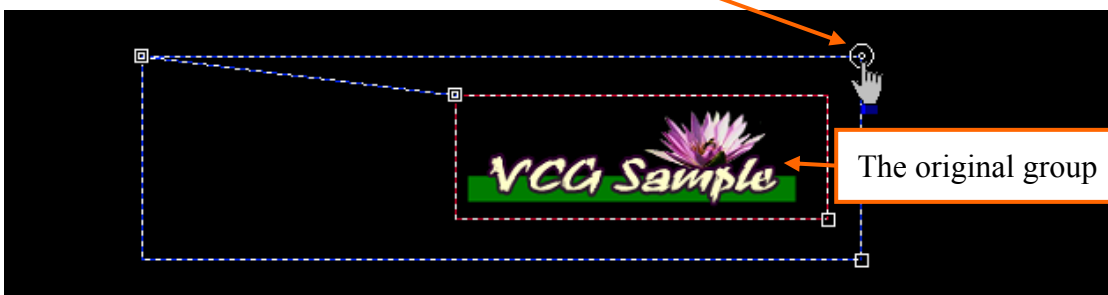


h.) Put the cursor on the bottom right. Get ready to resize the blue box.



i.) Drag to resize the blue box. The size of this blue box represents how big the whole group will be.

j.) When all the adjustments are done, click the annulus to finish and display the result.



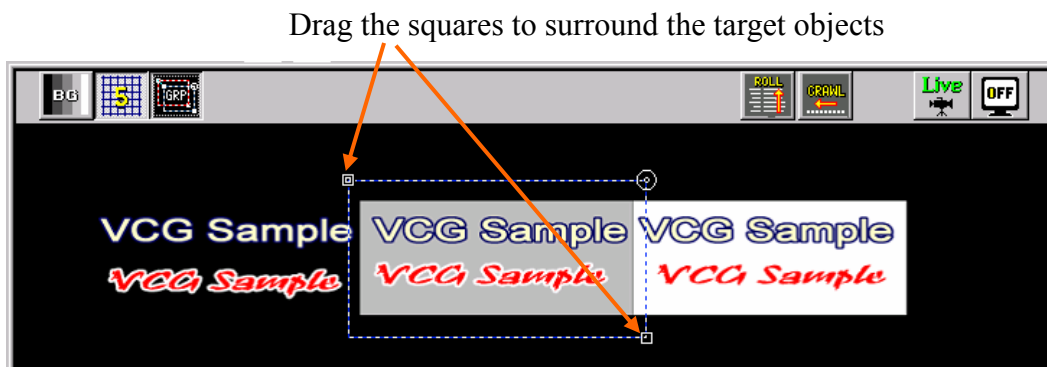
k.) Users will see the whole group has been enlarged as the size of the blue box.



If users want to give up doing this function, just click the [Group Move / Zoom] button again to stop the operation.

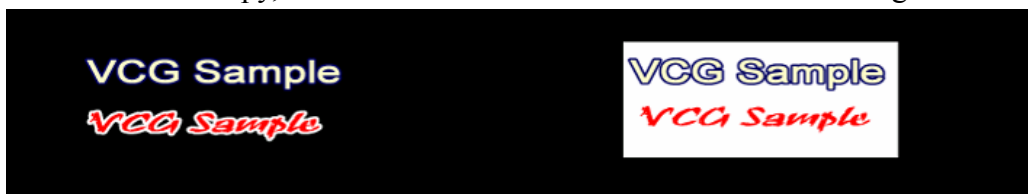
V. Group Copy/Cut/Delete

After clicking the Group button, select one among [Group Copy], [Group Cut] and [Group Delete]. These functions all create a blue and white outlined box on the working area. Place and resize the box to surround the target objects. Then users can copy, cut or delete the objects inside the box.



Unlike to crop an image, VCG will copy, cut or delete the entire object instead of a portion of it. Therefore, when the blue and white box only surrounds a part of an object, VCG will verify whether the center of an object is inside the box. If so, the object is selected. If not, it is not selected.

After the blue and white box surrounds the target objects, click the annulus to start the task of copy, cut or delete. Here under is the result after doing cut/ delete



The copy function allows users to copy the group objects to VCG's clipboard. There will be 10 spaces to store them. If users want to retrieve the group objects, click the clipboards to put the group on the original position on a page.

<The Clipboard function is under construction>

VI. Animation Editing

VCG-V1.00 offers various animations such as single-box ones like Display, Wipe, Push, and Fade; also Roll and Crawl to scroll text like a list.

6-1. Set an Animation Box

Display, Wipe, Push and Fade, each of the four animations has a box and a set of parameters. Users should treat the working area of two dimensions. Select any part of it to do the animations.

There are 4 animation tool buttons for users to insert animation objects.



This button is a toggle to hide or display the animation boxes.

Here is an example with 3 single-box animations:

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position	
1	Display	In	-	-	KB-F12	1.0s	X195, Y330 / W135, H90	Del Dup
2	Wipe	In	→ Right	4	0.0s	0.0s	X330, Y330 / W190, H90	Run
3	Fade	Out	-	16	KB-F12	0.0s	X190, Y325 / W335, H100	Run All
								1 / 3

The 1st animation box – “VCG” is selected and set it as Display-In, waiting for any key to do this animation.

The 2nd animation box – “Sample” is selected and set it as Wipe-In-Right.

The 3rd animation box– “VCG Sample” is selected and set it as Fade Out, waiting for any key to do this animation.

As long as the animation box is put on the working area, the detail of this

animation will be shown on the animation list which is under the working area.

The parameters of the animation list are:

No. - the number of the animation

Animation - Select an animation like Display, Wipe, Push or Fade. Click right button here to select different animations.

I/O - In/Out, means to show or clean the animation. Click right button here to select in or out.

Type - The way animations go. Click right button here to select different movements.

Speed - How fast an animation is. Click right button here to select different speed. The bigger the number the faster the speed is.

Prior Wait - how to wait for an animation. Click right button here to select different ways.

Post Wait - how to connect to next animation after finishing the current one. Click right button here to select different ways.

Position - the x, y coordinates of an animation box. Click right button here to select the animation box.

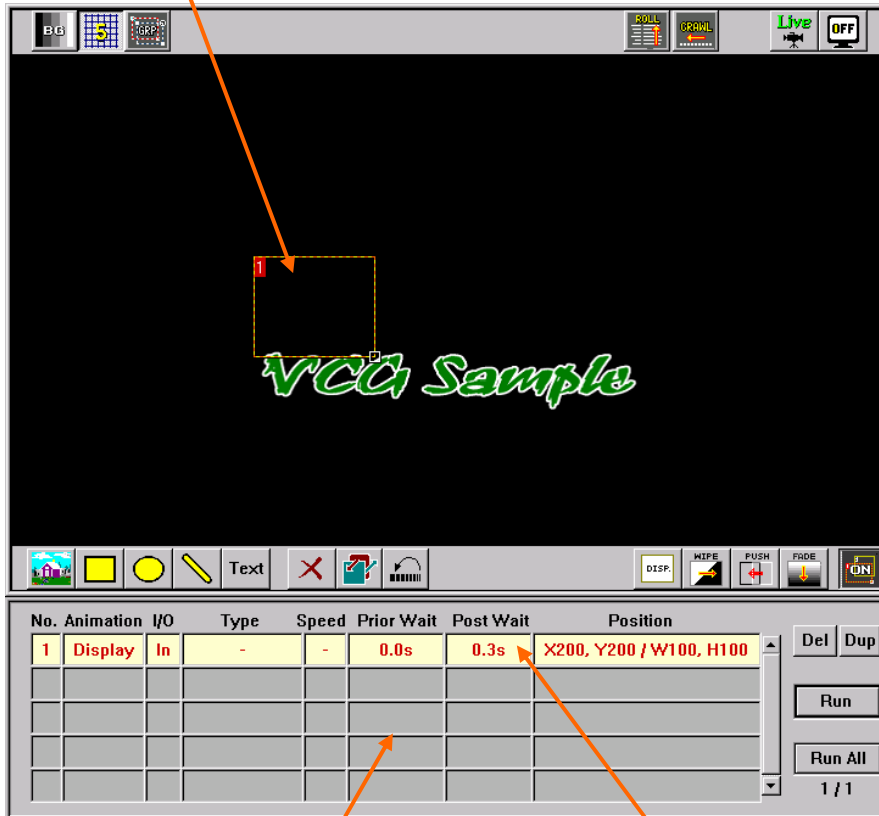
Users can only use one animation a time from the animation list. The current using one on the list is highlighted in yellow with red words. The corresponding animation box is also in red and yellow on its outline.

Users can do the following adjustments:

- Select a kind of animation.
- Drag the animation box on the working area. Make the box surround the VCG objects.
- Place the cursor on any field of the list, then click right button to change its setting.
- Drag a row of the list up or down to change its sequence.
- Press [Del] button to delete the selected animation.
- Press [Dup] button to duplicate the selected animation.
- Press [Run] button to run the selected animation.
- Press [Run All] button to run all the animations on the list.

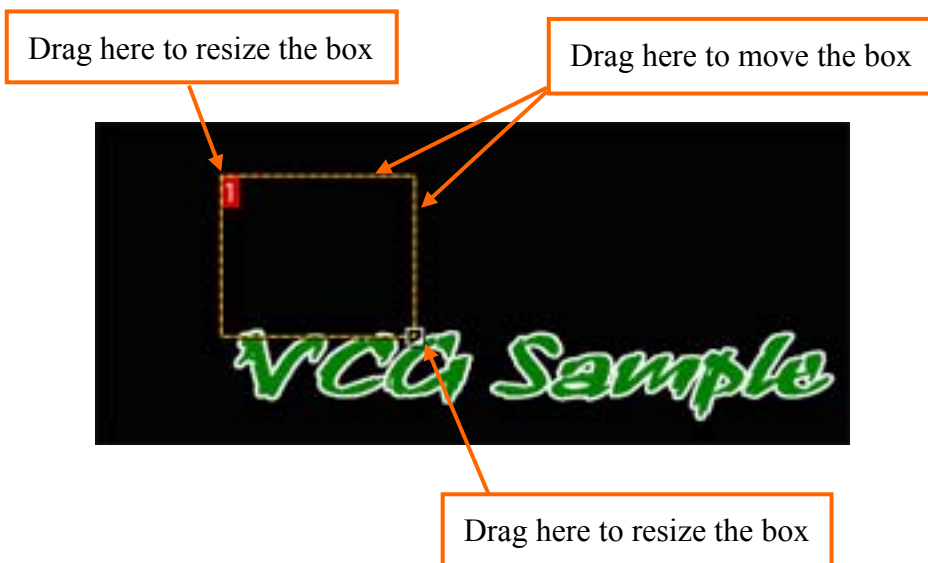
6-2. Add a [Display] Animation

Display is the basic animation. Click [Disp.] button to create a red and yellow outlined animation box on the working area.



There will be a row of the Display animation on the list in the same time as creating an animation.

Then drag the animation box to surround the VCG objects.



Place the box right around the title.



Set the parameters on the list.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position	
1	Display	In	-	-	0.0s	0.3s	X200, Y270 / W135, H85	Del Dup
								Run
								Run All
								1 / 1

Users can select [Display] [In] or [Out]. [In] means to show the area, [Out] means to hide the area. The default setting of display is [Display-In]. Put the cursor on the [In] field and click right button to select [Out] from the pop-up menu as the following picture.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In		-	0.0s	0.3s	X200, Y200 / W100, H100

Select [In] or [Out] to finish the setting.

[Display] does not contain the [Type] or [Speed]. But users have to set the [Prior Wait] and [Post Wait] items. If users tick “Wait to hit key” on the [Prior Wait], it means the animation will not start until users hit any key on the keyboard. To do this, place the cursor on this field and click right button to open the pop-up dialog for setting.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	0.0s		Y200 / W100, H100

In this field [Prior Wait], users can also select to wait seconds before the animation starts.

In here, we choose [Wait Hit Keyboard]. Click [OK] to finish the setting:

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	0.3s	X200, Y200 / W100, H100

[Post Wait] defines how to wait after doing the animation. If we want to wait 1.2 seconds, place the cursor on this field and click right button to open a pop-up dialog as below,

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	0.3s	X200, Y200 / W100, H100

Post Wait

Wait KB-F12

Wait Second(s)

0.3 Sec.

OK

Users can type the digits“1.2” or click the buttons to set the seconds. Click [OK] to finish the setting.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100

Last, click right button on the field of [Position], the cursor will switch to the top left side of the animation box on the working area. So that users can drag to resize the animation box.

6-3. Add a [Wipe] animation

Users can click [Wipe] on the tool bar to create a new Wipe animation box. If there is an existing animation, users can also click [Duplicate] button and then change its parameters to become [Wipe].

Click [Duplicate] button

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100
2	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100

Buttons: Del, Dup, Run, Run All, 2 / 2

To duplicate a row of animation

Place the cursor on this field and click right button to open a pop-up menu.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100
2	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100

Buttons: Del, Dup, Run, Run All, 2 / 2

Select [Wipe] animation.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100
2	Wipe	In	← Left	1	KB-F12	1.2s	X200, Y200 / W100, H100

Buttons: Del, Dup, Run, Run All, 2 / 2

Users need to set [Type] and [Speed] for the wipe animation.

Place the cursor on the field of "Type", click right button to open a pop-up dialog.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100
2	Wipe	In	← Left	1	KB-F12	1.2s	X200, Y200 / W100, H100

Buttons: Del, Dup, Run, Run All, 2 / 2

In the [Wipe Type] dialog box, select a way to wipe. In here we select a right way wipe. When users see the field of Type shows like below, the setting is valid.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100
2	Wipe	In	→ Right	1	KB-F12	1.2s	X200, Y200 / W100, H100

In the [Speed] field, right click to open the pop-up menu.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100
2	Wipe	In	→ Right	1	KB-F12	1.2s	X200, Y200 / W100, H100

1 pixel per fame

2 pixels per fame

4 pixels per fame

8 pixels per fame

16 pixels per fame

32 pixels per fame

Choose a kind of speed. Then the setting is finished.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100
2	Wipe	In	→ Right	4	KB-F12	1.2s	X200, Y200 / W100, H100

There is a way to estimate how long an animation will take. If the animation box is 120 pixels wide and the speed of WIPE is 4 pixels per frame, then it will take 30 frames to run this animation. In NTSC mode, it takes 1.0 second, while in PAL mode, it takes about 1.17 seconds.

Note that the second “Wipe” does not need a “Prior Wait”. Or this “Prior Wait” will be right after the previous “Post Wait”. Then there will be 2 times waiting between the animations. If users want to cancel [Prior Wait], just set the parameter to 0.0 second. If users want to execute next animation in 10 seconds, then select the [Post Wait] as 10.0 seconds. There is a flexible way to trigger the entrance and exit of “Wipe” animation. Tick [Wait Hit Keyboard] and let the operator decides when to start or end the animation.

No.	Animation	I/O	Type	Speed	Prior Wait	Post Wait	Position
1	Display	In	-	-	KB-F12	1.2s	X200, Y200 / W100, H100
2	Wipe	In	→ Right	4	0.0s	10.0s	X200, Y200 / W100, H100

Cancel [Prior Wait] Set [Post Wait] 10 seconds

Place the cursor here then click right button to resize the WIPE animation box.

6-4. Add a [Push] animation

6-5. Add a [Fade] animation

VII. Live CG Editing