Graphic Objects and Loading Them into TGF2/MMF2

There are a couple of ways of ensuring graphics appear in a game.

Types of objects you can use:

Active Object: Consider the active object any image that might move, interact with other objects, or be animated. The active object in game terms would be called a sprite. All graphics are stored internally to the TGF2/MMF2 application.

Active Picture : An active picture is any picture that you may want to resize, rotate or generally program to move. The picture that the Active Picture object links to is stored externally from the TGF2/MMF2 program.

Backdrop: The backdrop object is a simple object that is displayed at the back of the frame and is used to provide an image as a game background. You cannot program actions against the backdrop object and is only used for scrolling an image or as a scene image. Backdrop objects are stored internally to the TGF2/MMF2 program.

Picture: If you wish to just display a simple picture and not do any resizing or rotating in realtime, then the picture object is a simple way to display images. All image files are stored externally to TGF2/MMF2.

Quick Backdrop: If you wish to create a gradient or a pattern of another image then the Quick Backdrop is available. The Quick Backdrop was very popular for creating gradient sky images. All images are internal to TGF2/MMF2.

Using the Active Object:

This object allows you to import a graphic file into TGF2/MMF2 and this will be stored internally to the game file/exe. This does mean that the executable file can get quite large.

Place the Active Object on screen using Insert | New Object. Select the running character object.

Click anywhere on the frame to place the image. You will now see the green diamond shape as shown in Figure 1.1.

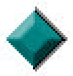


Figure 1.1 The Active Object.

Double left click on this object to access the Picture Editor.

Click on the import button as shown in Figure 1.2, which is the second button in:

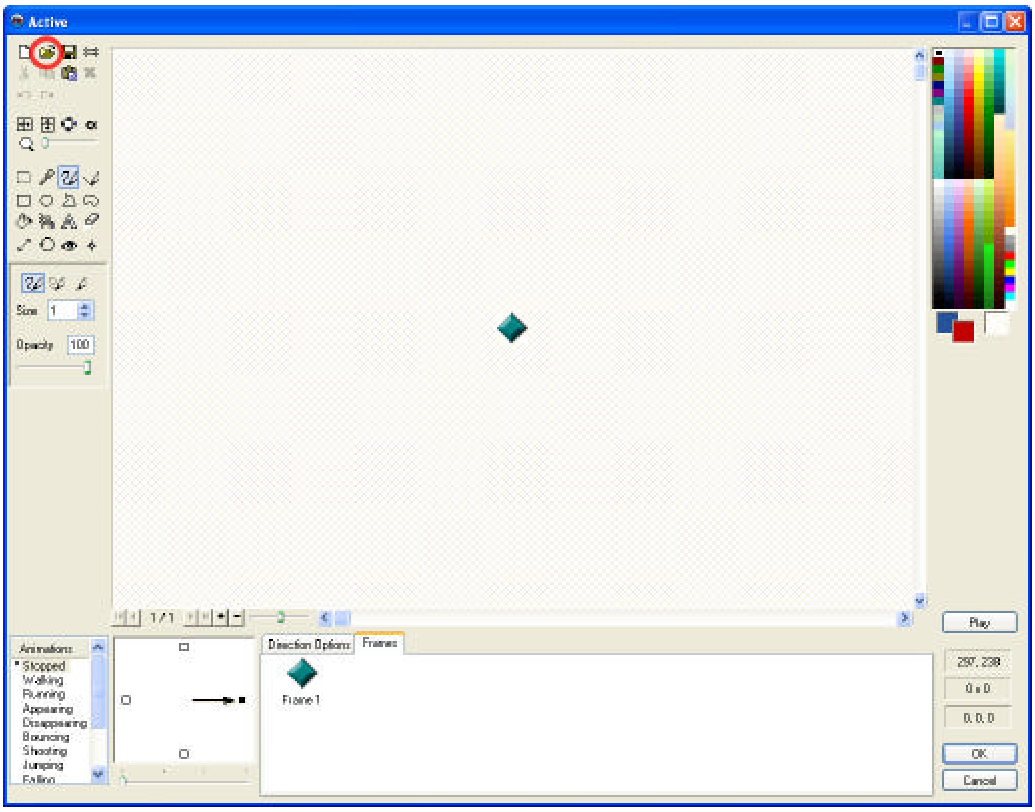
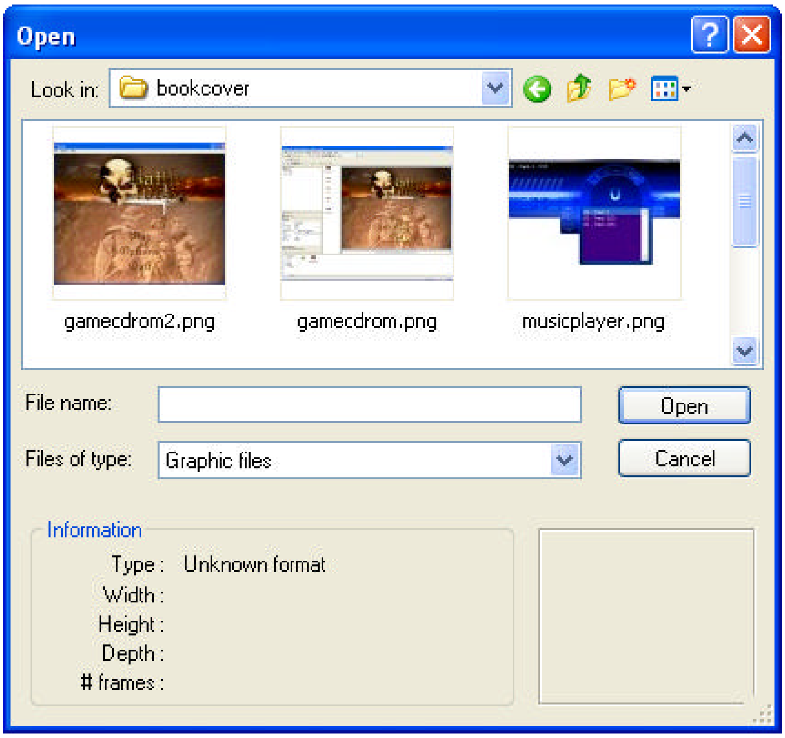


Figure 1.2 The Import Option within the Picture Editor

Locate your image file, using the browse dialog as shown in Figure 1.3.



Look in: bookcover

File name:

Files of type: Graphic files

Type : Unknown format
Width :
Height :
Depth :
# frames :

Figure 1.3 The browse dialog.

Select the image that you want to import and then click on Open. This will place it in the Import Dialog, click on OK to save it to the Picture Editor, then click on OK again to save it to the Frame.

Note: If you require more information about the import options please consult the in-built help documentation.

Using the Active Picture:

Using the Active Picture means you can place an extenal picture into the program, TGF2/MMF2 then links to this picture. This keeps the size of the MFA/executable smaller, but you do need to follow some basic rules for linking to these graphics.

You should ALWAYS place all of the graphics you intend to use within your game in the same folder as the MFA or in a folder below the MFA file. You should not have the folders very deep for example:

CORRECT : Mfa file is stored in the G:\Games folder, the pictures are in the G:\Games\Images folder.

INCORRECT: Mfa file is stored in the G:\Games folder, the pictures are stored in U:\Users\John folder.

You must take into consideration if other users are going to access the MFA file that the folder that the MFA and pictures are stored in are accessible by all. For example if the MFA is stored in a shared drive and the images in a personal folder it will not work, this is why you should always keep the images local to the MFA file. If you distribute the MFA file you should always zip the file and any images below it with it, otherwise the images will not show up within the program as shown in Figure 1.4. If you see a gray box with a cross in it, then you have either forgotten to move the images with the MFA file or the graphic location does not exist on the machine that is accessing the MFA file.

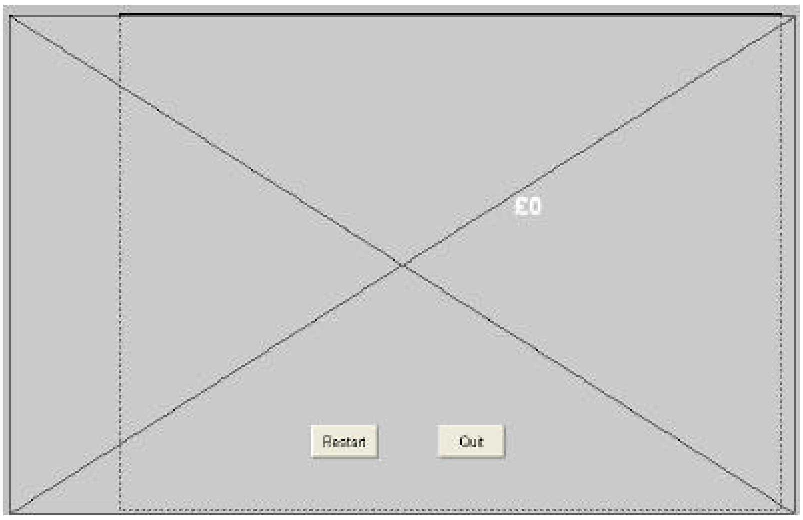
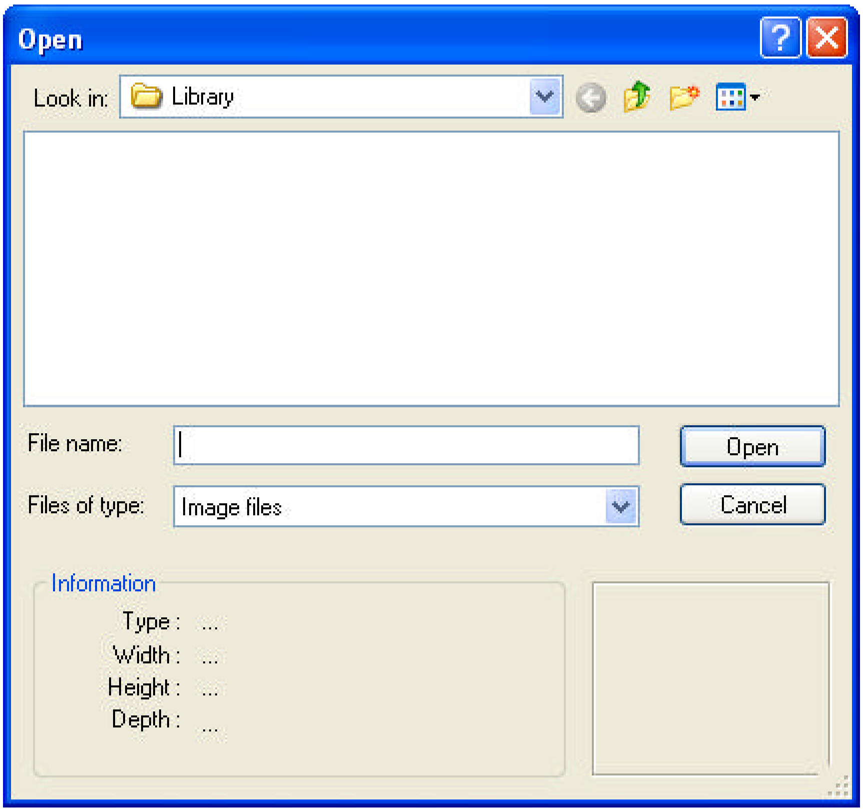


Figure 1.4 The Active Picture object with no file loaded.

To insert select the Insert | New Object and choose the Active Picture object.

Active Picture

Once you have clicked on the frame a dialog box will appear as shown in Figure 1.5.



Look in: Library

File name:

Files of type: Image files

Type : ...
Width : ...
Height : ...
Depth : ...

Figure 1.5 The open image dialog box.

This dialog box will remember the path of the image you browse for and locate. So if the image is in the folder:

G:\School\Games\Images\Game1\Project a\Menu.gif

It will always remember that as a path. If you build your executable and give it to the students to take home, they will not have access to that folder on their home PC's and the image will not be displayed. If the folder will always appear (e.g the MFA and/or the exe will always have access to the image location) you can browse for the image and click on Open. If NOT click on the Cancel button.

By clicking on the Cancel button you will create a image with a cross through it as shown in Figure 1.6.

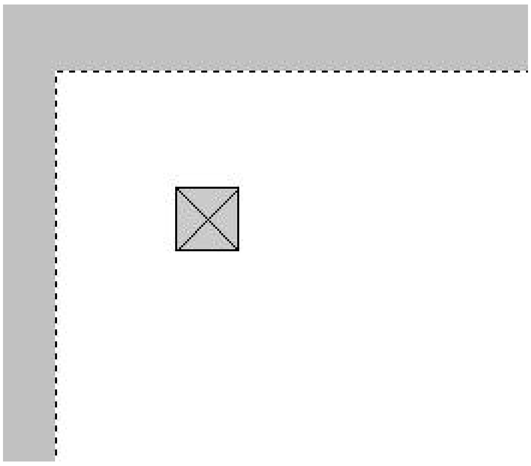
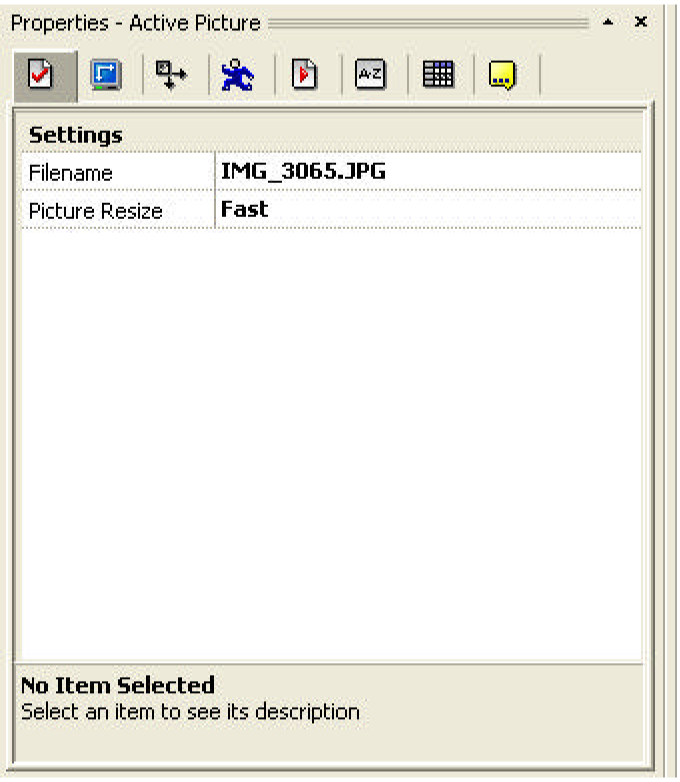


Figure 1.6 The object with no picture loaded.

Using Object Properties to Load a Graphic File

As long as your MFA application file is in the same folder as the graphics you can then, double click on the X to access the object properties, then can type in the name of the file as shown in Figure 1.7.



Settings

Filename	IMG_3065.JPG
Picture Resize	Fast

No Item Selected
Select an item to see its description

Figure 1.7 Loading a picture via the properties.

This will then display the image in the frame as shown in Figure 1.8.

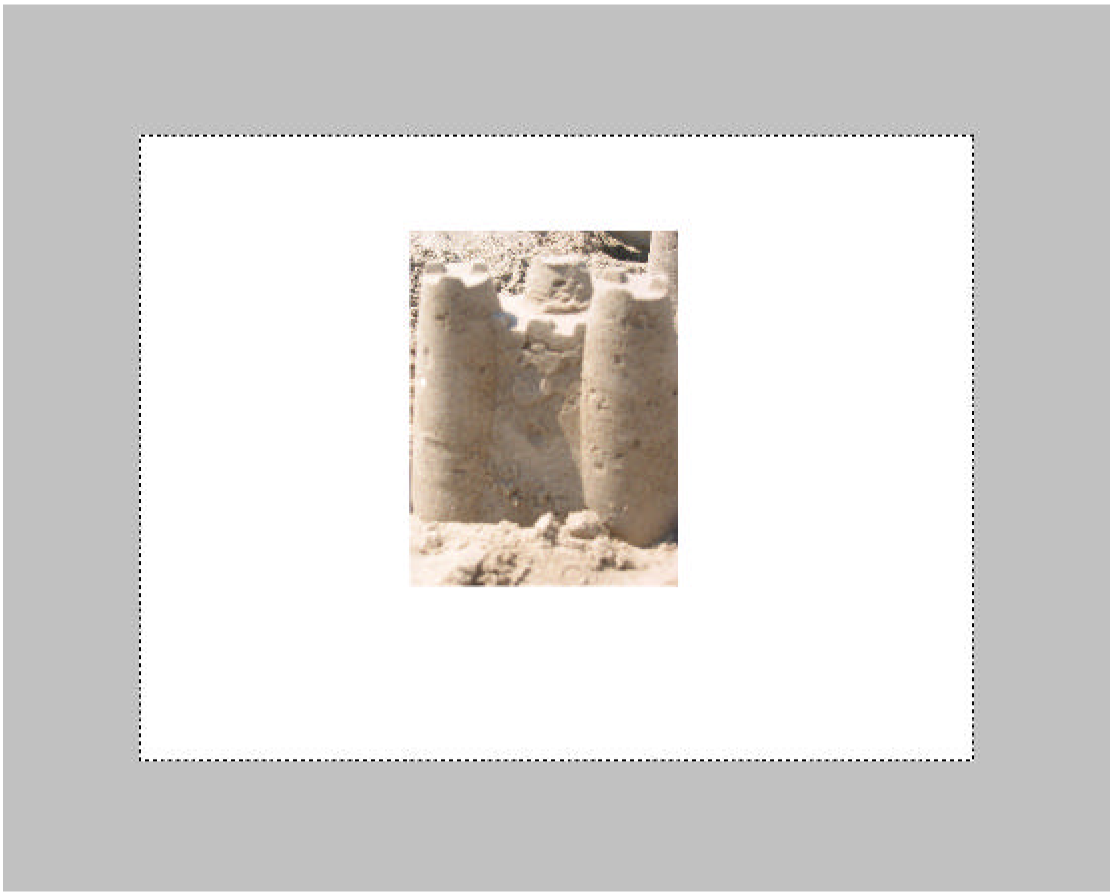


Figure 1.8 The image displayed on screen after entering the correct filename.

You will need to ensure when you distribute your application that you always keep the image file in the same location as the executable or MFA file.

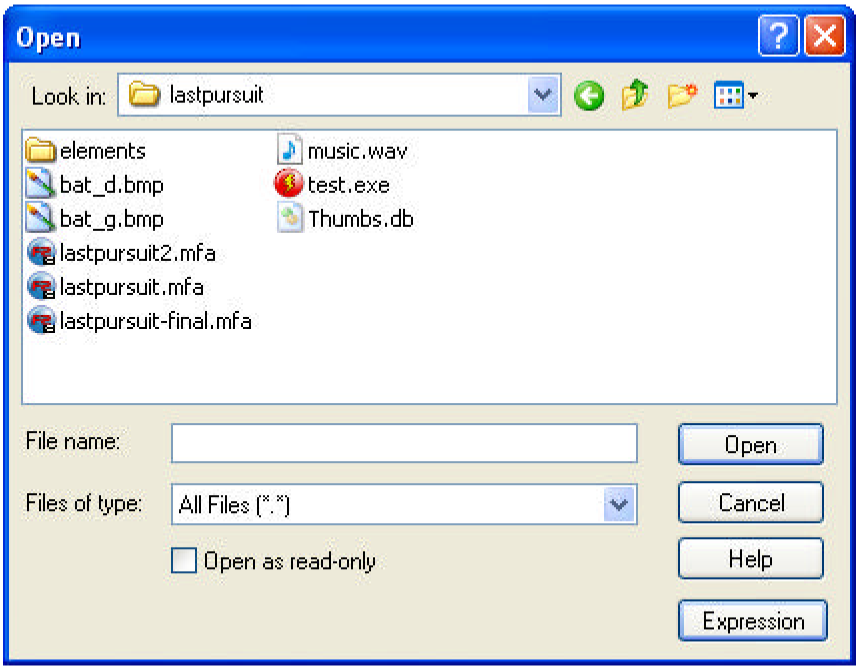
Using the Event Editor to Load an Image

You can also load your images using the Event Editor, this allows you to specify a folder that is relative to the MFA/exe file. This means as long as you keep the same folder structure the images will always appear. The benefit of this is that you don't have to store the images in the same folder as the MFA/Exe you can create numerous folders underneath.

Go into the Event Editor for the frame that you wish to program the Active Picture for:

Create a condition "Start of Frame".

Move across to the Active Picture object, right click on the Action box and select New Picture. A dialog box will appear as shown in Figure 1.9.



Look in: lastpursuit

Files of type: All Files (*.*)

□ Open as read-only

Figure 1.9 The open dialog box to search for an image.

Rather than browsing for a file, click on the Expression button, this allows you to code various options for selecting a particular picture and location.

Clicking on the Expression button will display the Expression Evaluator as shown in Figure 1.10.

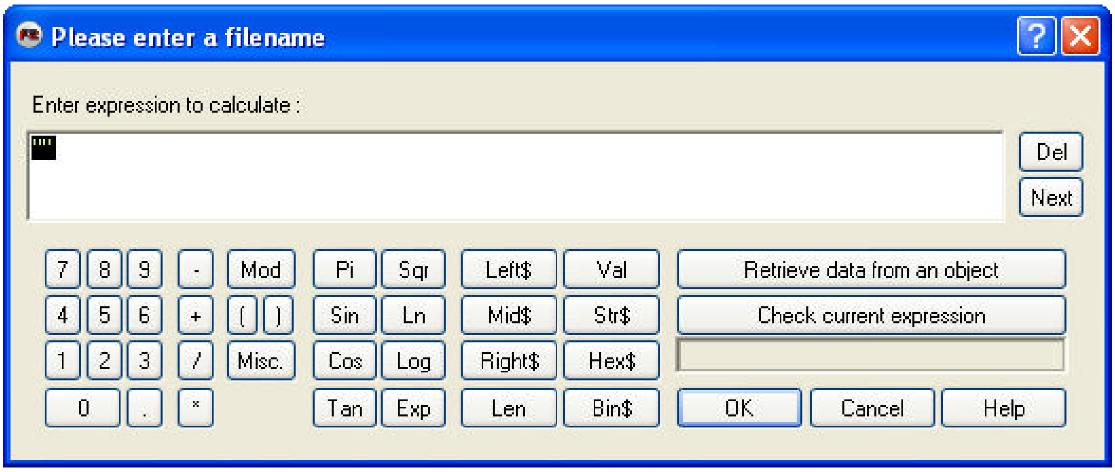


Figure 1.10 the Expression Evaluator

You can now use the various options to tell TGF2/MMF2 to pick a specific image. This is useful for not only specifying different pictures but for different locations. Click on the Retrieve data from an object button, as we need to get the location of the MFA (exe) file.

Under the Special object and then Filenames (as shown in Figure 1.11) you have a number of different options for checking the location of the file, the drive its on etc. Using the application Directory option will get the current directory path to the file. It doesn't matter in the future where you move the file, it will always check the location of the MFA/exe and report it back to the program.

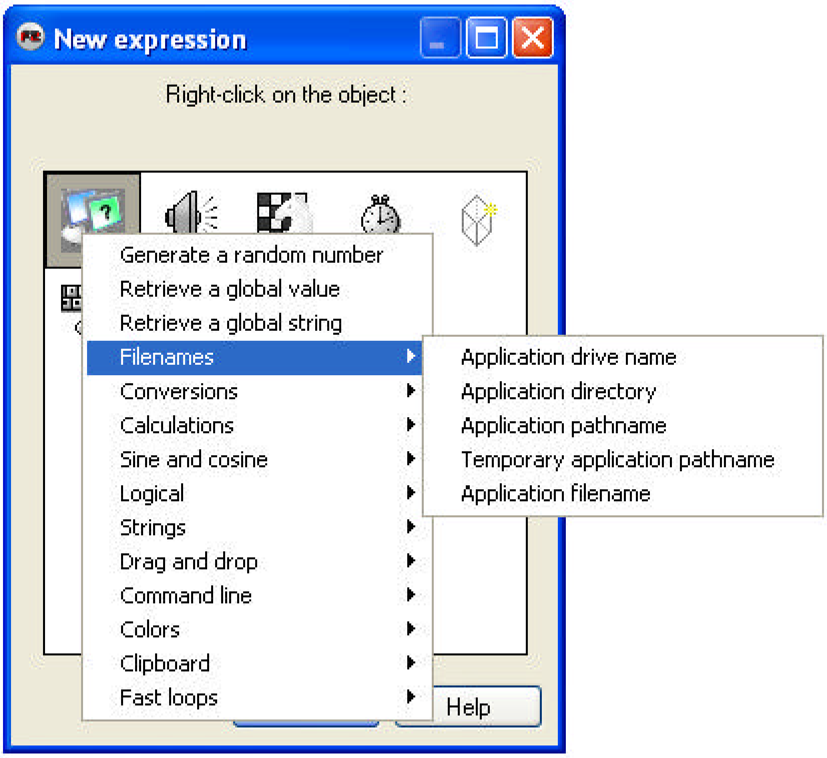
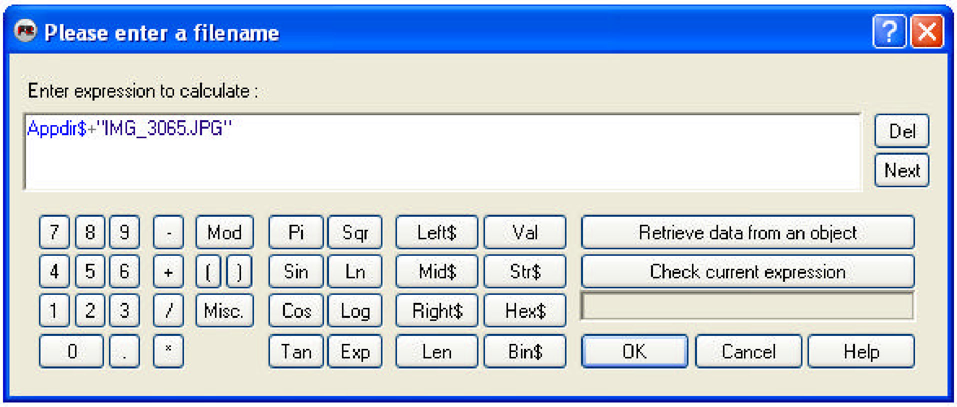


Figure 1.11 The file and drive options available via the Special Object.

In the Expression Evaluator you will now have the command

Appdir$

If your MFA file was stored in the D:\Games folder, it would return this information to the action box. At the moment this would not work as we need to also specify the name of the file. In this example the graphics file is in the same location as the MFA file. To do this we need to using a "+" sign to add the following, then the name of the graphic file in quotes, to leave you with the following information as shown in Figure 1.12.



Enter expression to calculate :

Appdir$+"IMG_3065.JPG"

Del
Next
7 8 9 - Mod Pi Sqr Left$ Val Retrieve data from an object
4 5 6 + ( ) Sin Ln Mid$ Str$ Check current expression
1 2 3 / Misc. Cos Log Right$ Hex$
0 . * Tan Exp Len Bin$ OK Cancel Help

Figure 1.12 The new contents of the Expression Evaluator.

This will now retrieve the path to the MFA file and then read in the image, there by loading the graphic onto the screen. If the file was in a folder below this, in a folder called \Graphics\ you would need to change it to read:

Appdir$+”Graphics\IMG_3065.JPG”

Note: If you use this method, you would not enter the graphics filename in the object properties.

Backdrop

To insert a Backdrop object you can use the Insert | New Object, Backdrop. You can see the icon in Figure 1.13.

Figure 1.13 The Backdrop Icon.

You load any images you wish to use directly into the Picture Editor for the Backdrop. The backdrop object does not appear in the Event Editor as an object that can have actions applied to it.

Picture Object

The Picture object can be applied to the screen in the same way as the Active Picture object, via the object properties, selecting it via the selector or the Event Editor. The Picture object can be inserted by Insert | New Object, Picture. The icon can be seen in Figure 1.14.

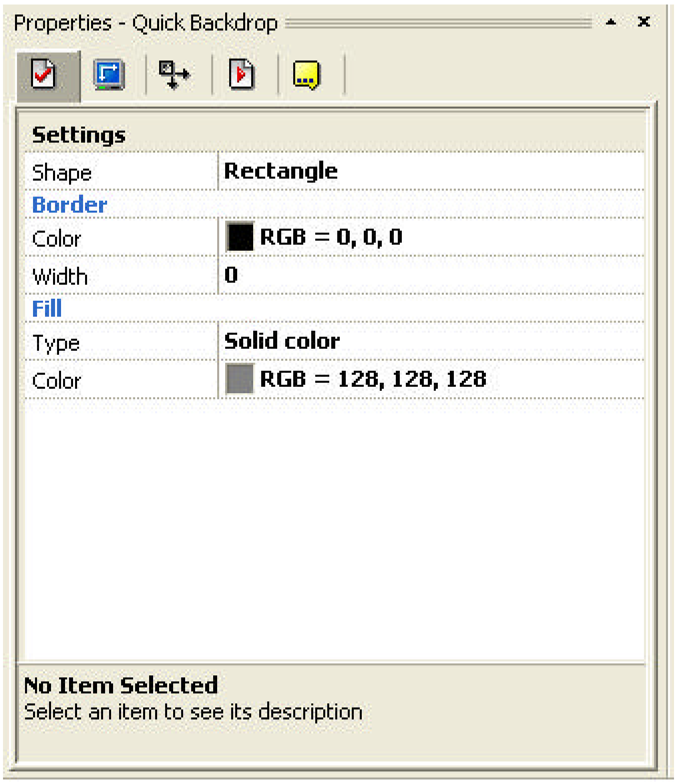
Figure 1.14 The Picture Icon.

Quick Backdrop

The Quick Backdrop is used to create a quick colorful background. Click on Insert | New object select the Quick Backdrop icon as shown in Figure 1.15 and then click on the frame.

Figure 1.15 The Quick Backdrop Icon.

You will then be able to change its appearance via the object properties as shown in Figure 1.16.



Properties - Quick Backdrop

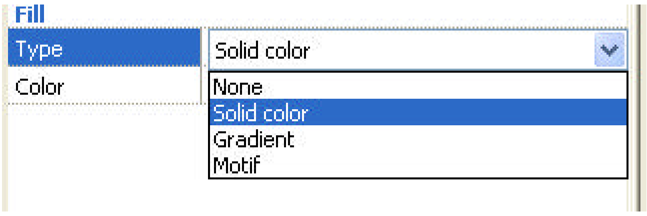
Settings	
Shape	Rectangle
Border	
Color	■ RGB = 0, 0, 0
Width	0
Fill	
Type	Solid color
Color	■ RGB = 128, 128, 128

No Item Selected
Select an item to see its description

Figure 1.16 The Quick Backdrop properties.

The most important configuration options are its shape and its fill type.

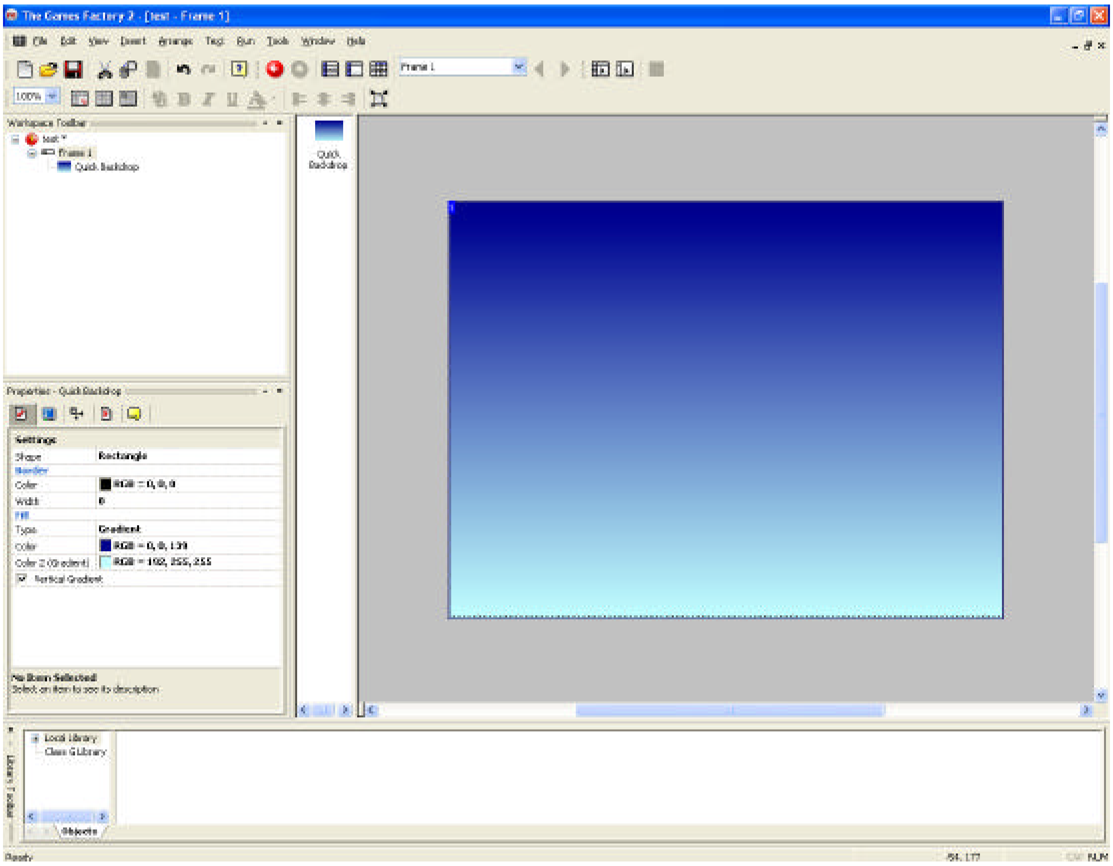
If you want to create a simple backgroup gradient, select fill type as shown in Figure 1.17:



Fill	
Type	Solid color
Color	

Figure 1.17 Various configuration options for the Quick Backdrop.

Select Gradient, and then select two colors to move between. Once you have selected the two colors and resized your Quick Backdrop you should have something that appears like Figure 1.18.



Settings	
Shape	Rectangle
Border	
Color	■ RGB = 0, 0, 0
Width	0
Fill	
Type	Gradient
Color	■ RGB = 0, 0, 139
Color 2 (Gradient)	□ RGB = 192, 255, 255
☑ Vertical Gradient	

No Item Selected
Select an item to see its description

Figure 1.18 The Quick Backdrop applied to the Frame.

You will need to select Vertical Gradient if you want it to run top to bottom, otherwise the gradient will run left to right.