

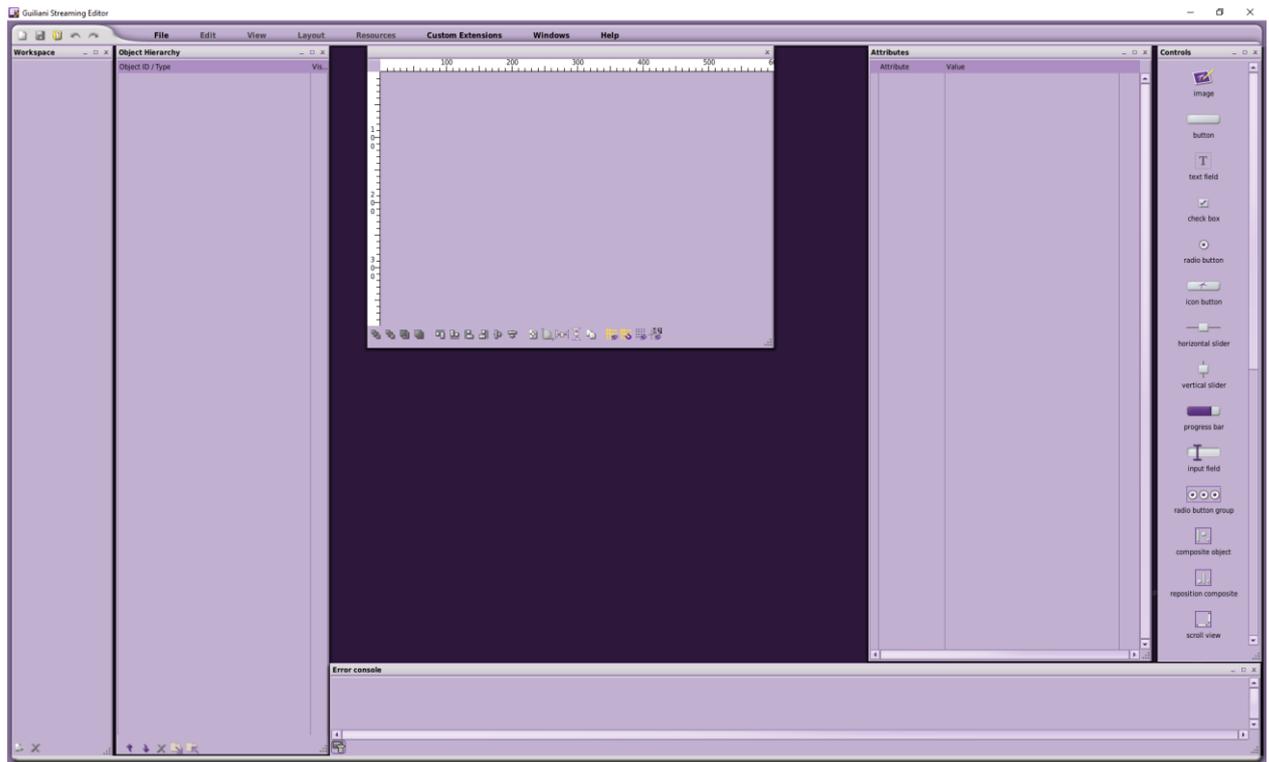
HowTo: Create a GSE Application step-by-step

V0.1 Nov 18th 2016

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This introduction shows how to create a simple 2 dialog application with a button that navigates forward and a back button.

- 1) Open GSE.exe.
- 2) If the different windows are not arranged to your desire, they can be moved and resized.
 - a. Moving: Drag and drop by clicking on the headline of each window.
 - b. Resizing: Hover to the borders and, when the cursor changes to “resize”, drag to desired size.



Img 1: GSE

- 3) The GSE has several windows, you can see the list if you click in the “Windows” button on the menu bar.

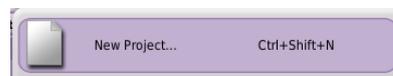


Img 2: “Windows” menu list

- 4) Now you have to create your project. For this, go to the “File” button in the menu bar and click “New Project”. You can also use the HotKey “Ctrl+Shift+N”.

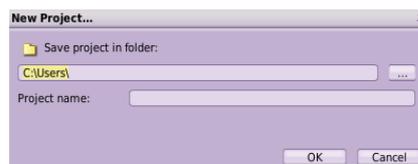


Img 3: "File" menu list



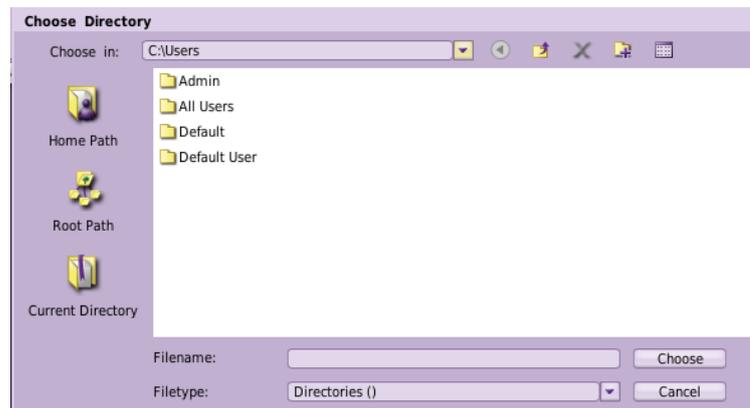
Img 4: New Project menu option

- 5) A window will be opened, in which you have to choose the path where you want the project to be, and the name of the project.



Img 5: Project's path and name

- 6) You can browse by clicking the (...) icon.



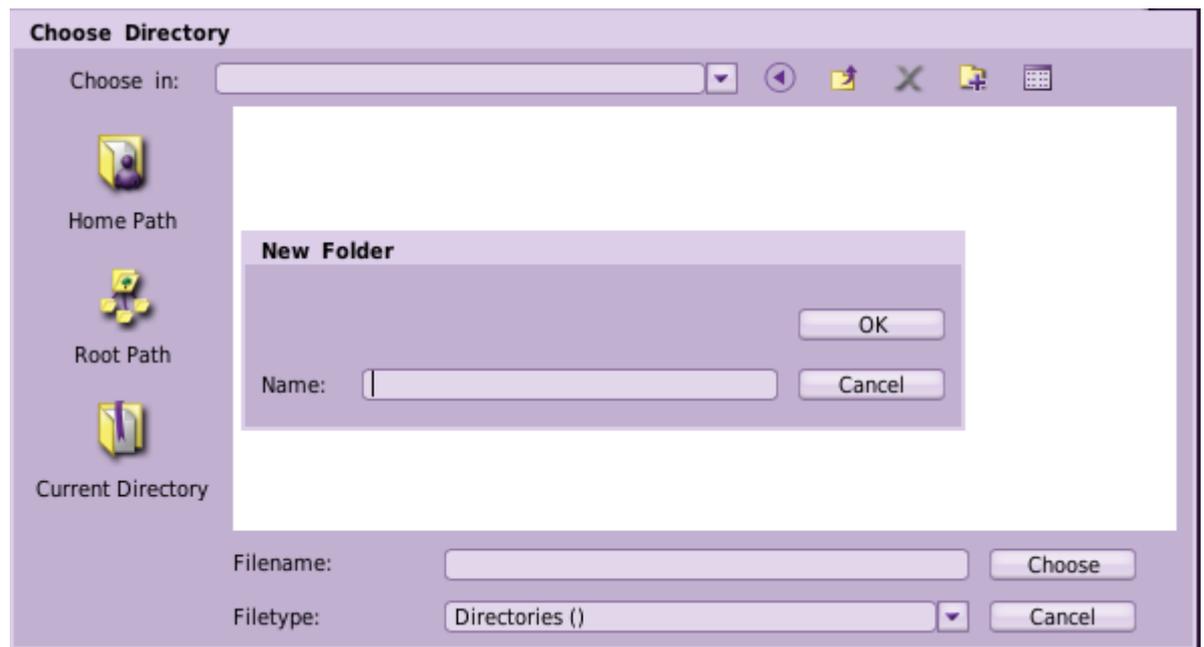
Img 6: Browse for project location

- 7) And you can create a new folder by clicking the icon



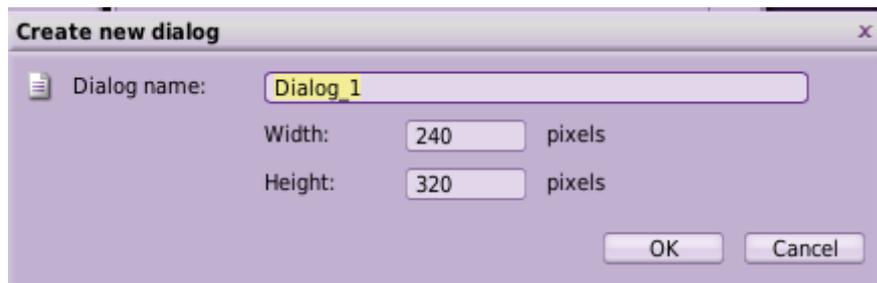
Img 7: Create new folder

- 8) Once you have selected the folder, click on “Choose” and you will be taken back to the “New Project” window. Add the project name of your desire and click “OK”.



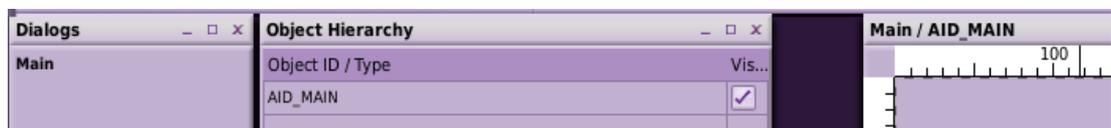
Img 8: Name new folder

- 9) Next step is to create a dialog. For this, click again on “Files” and select the menu option “New Dialog” or, again, use the hotkeys “Ctrl+N”.



Img 9: Create a dialog

- 10) A new window will be displayed. In it, you have to Name the Dialog and give it a width and a height. For this example please use the name "Main", a width of 600 pixels and a height of 400 pixels. Once this is done, click on "OK". Create a second dialog of the same size named "Second".



Img 10: Now the windows have a new dialog.

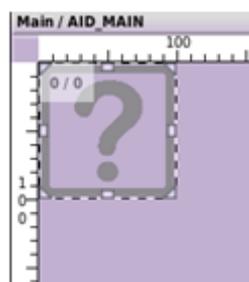
- 11) We can start adding objects to the dialog. First, we will add an image, which will be the background image of the application. We will resize it to cover the whole dialog, we will create an Object ID to individually be able to identify it and we will add an image to our project (with its correspondent Image ID).

First, we will click the "Image" Control from the control screen.



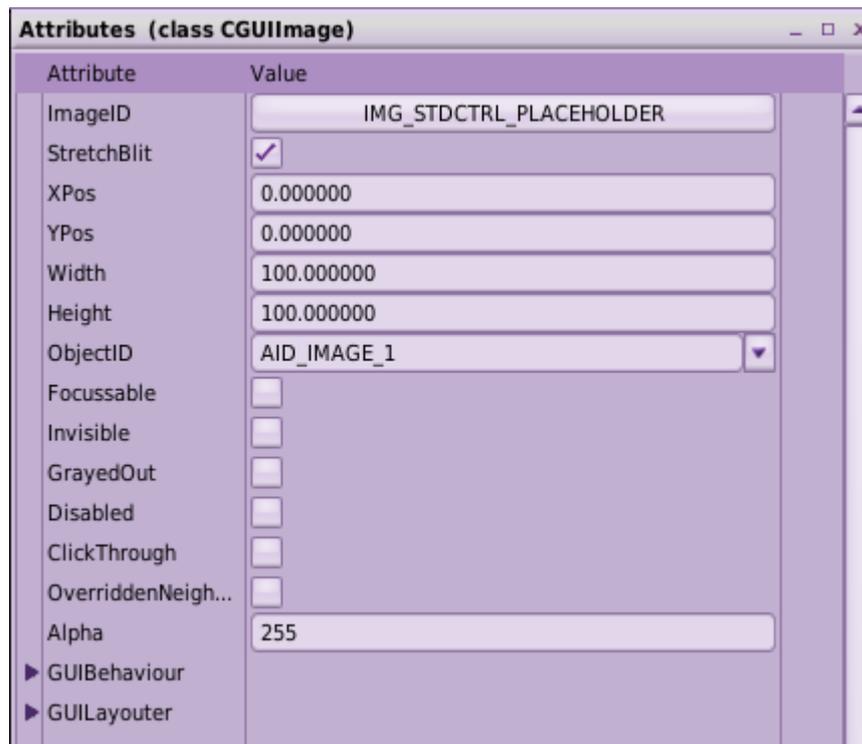
Img 11: Image control from control window

An image object will appear in our dialog, the current image is a placeholder that we will change afterwards.



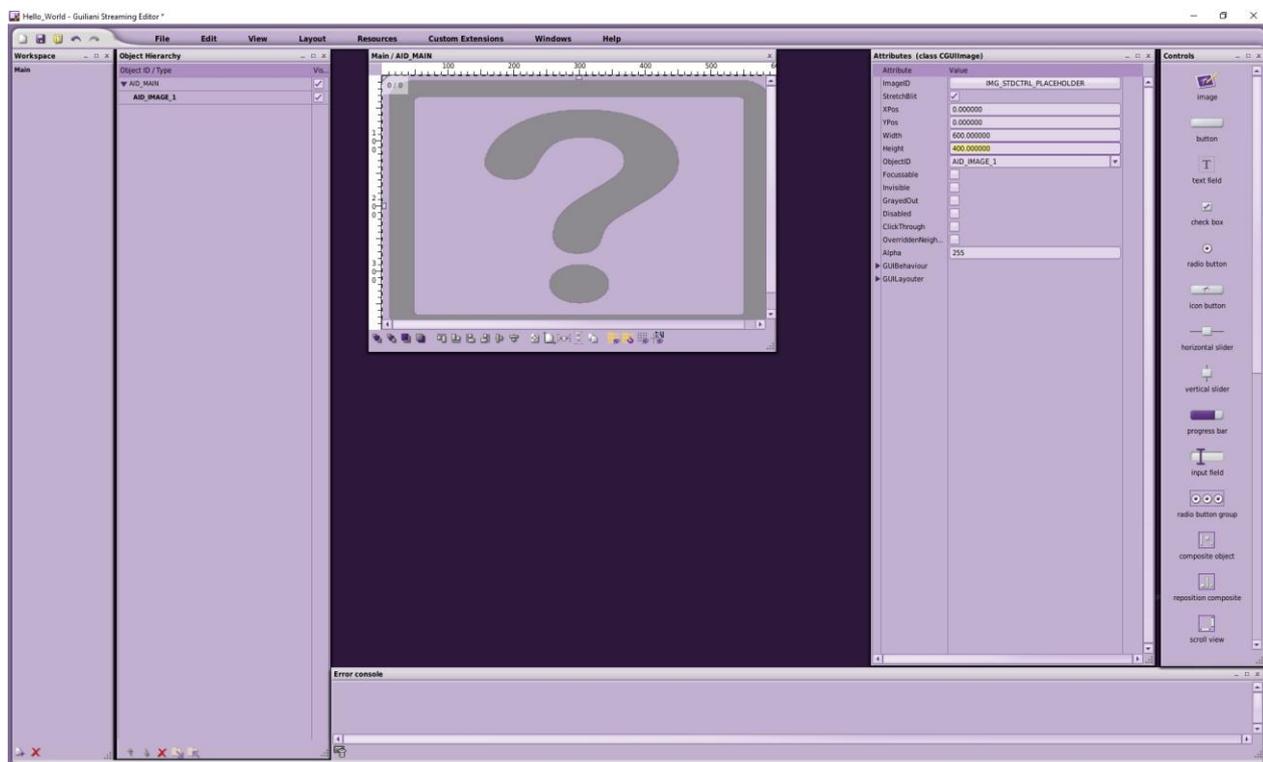
Img 12: New image object added into dialog

If you look at the Attributes Window with the image object selected, you can see all the image attributes.



Img 13: Attributes of the image object

Now you have to change the values of the attributes “Width” and “Height” to adapt to the Dialog measures that you introduced when you first created the dialog.



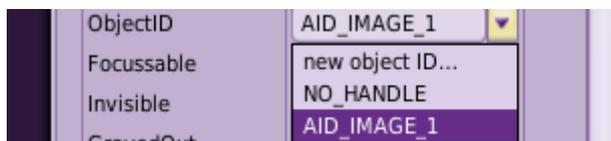
Img 14: Resize image object

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Now you have to create an Object ID for the image. This is done by clicking on the attribute "Object ID". A list of options will be displayed. Click on "New Object ID".



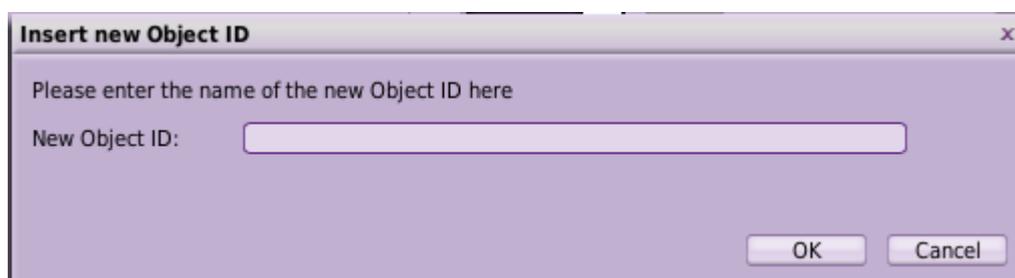
Img 15: New Object ID for the image

A new window will be displayed, in it you have to introduce the text that your ID will have. Usual convention dictates something along

OBJ_<your_type_of_object>_<what_the_object_will_be>.

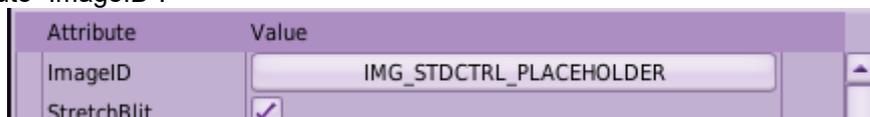
For example, for this concrete case the Object ID will be called

OBJ_IMG_BACKGROUND



Img 16: Window to add the new ID

Now, you will change the image that the object is displaying. For this, click on the attribute "ImageID".



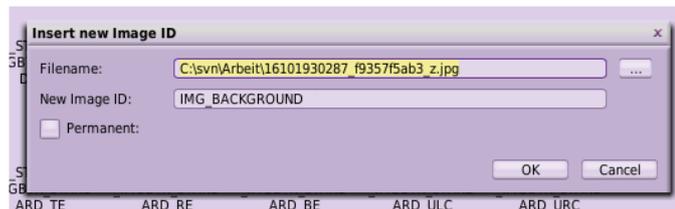
Img 17: Button to select an Image for the object

A new window will be displayed, with the title "Manage Images...". Click on "Insert new Image" and a new window will appear.



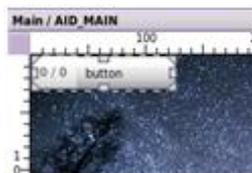
Img 18: Image list

In this new window (with title "Insert new Image ID") you will indicate the path where the image is located, and you will create an Image ID for it. GSE creates a template Image ID dependent on the name of the image, but you can modify it as you wish.



Img 19: Insert new image ID window with location of the file and Image ID

- Now we will add a button, which will switch from the main dialog to a second dialog (named "Second"). First we click the control "Button" on the Controls window. A new button object will appear in the dialog.



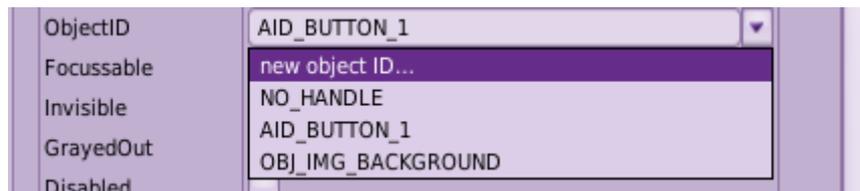
Img 20: New button Object

We will now resize it, create an object ID for it, remove the displayed text, change the background button image and assign a command to the button. To create a new object ID select new Object ID from the ObjectID combo box as done before. This button should be named OBJ_BTN_FORWARD.

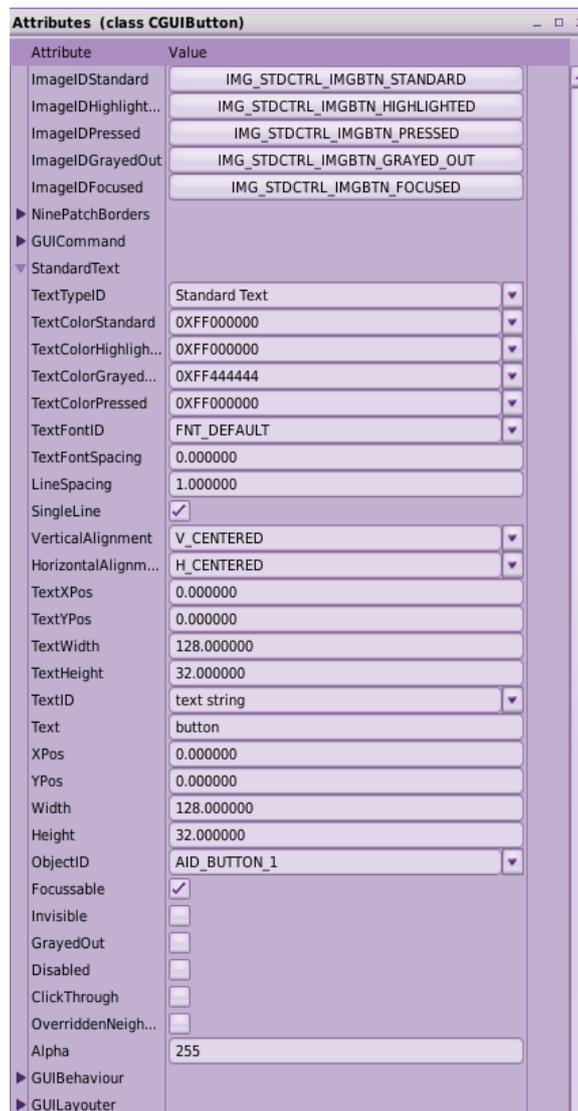
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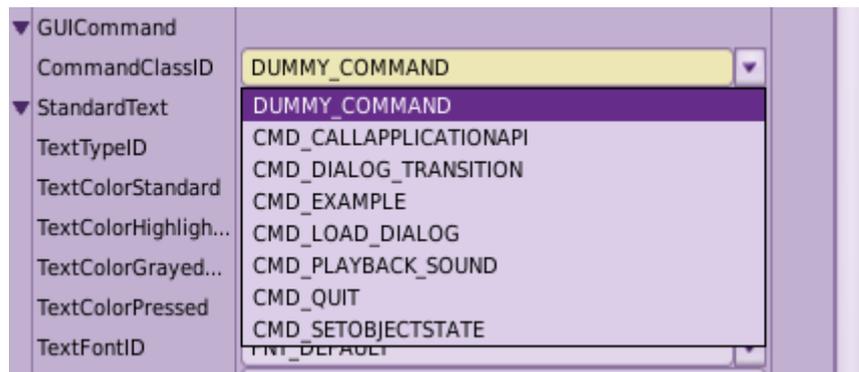


Img 21: Create Object ID

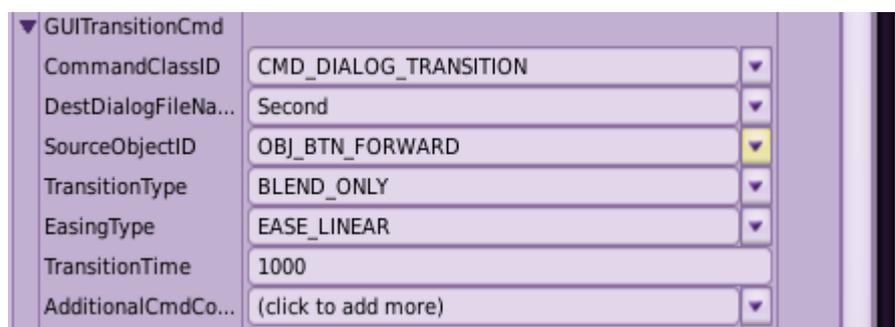


Img 22: Button attributes

The resizing process of the button is the same as for the image, as the process of creating the object ID. Please set width and height to 80 and XPos and YPos to 10. For adding a command for the button, you will unfold the Attribute "GUICommand", and select "CMD_DIALOG_TRANSITION", you will have to select the destination dialog "Second" and the Object ID that is executing the command (the Object ID of the button).

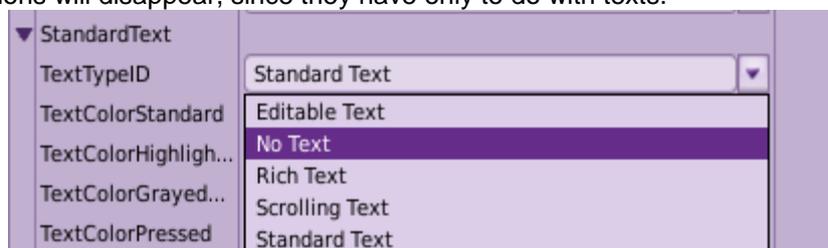


Img 23: Add command for the button



Img 24: Indicate destination dialog and object of origin

Then, you will remove the text from the button, since only an image will be displayed on the button. The attribute “StandardText” has a drop down menu. Select “No Text” and a list of options will disappear, since they have only to do with texts.

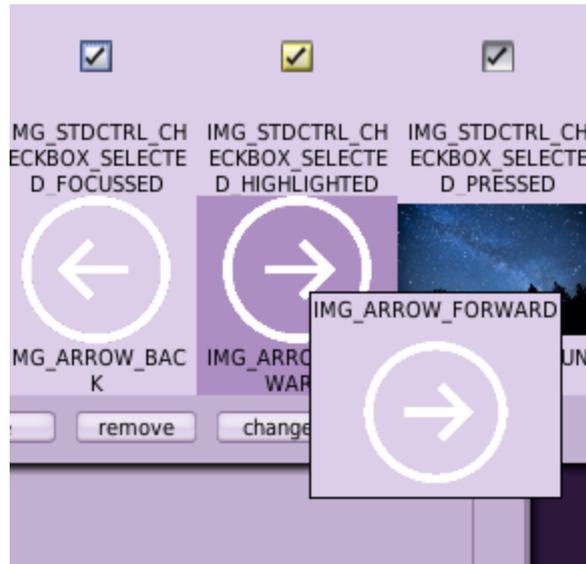


Img 25: Remove text from button

The process of adding an image to the button is similar to the one for an image. The only difference is, that a button has a possible image depending on one of five states (e.g. if a button is clicked, an image with “clicked” effect can be displayed). In this case, all the states will display the same image. Insert a new image (arrow_forward.bmp) and assign it to the button like the background before.

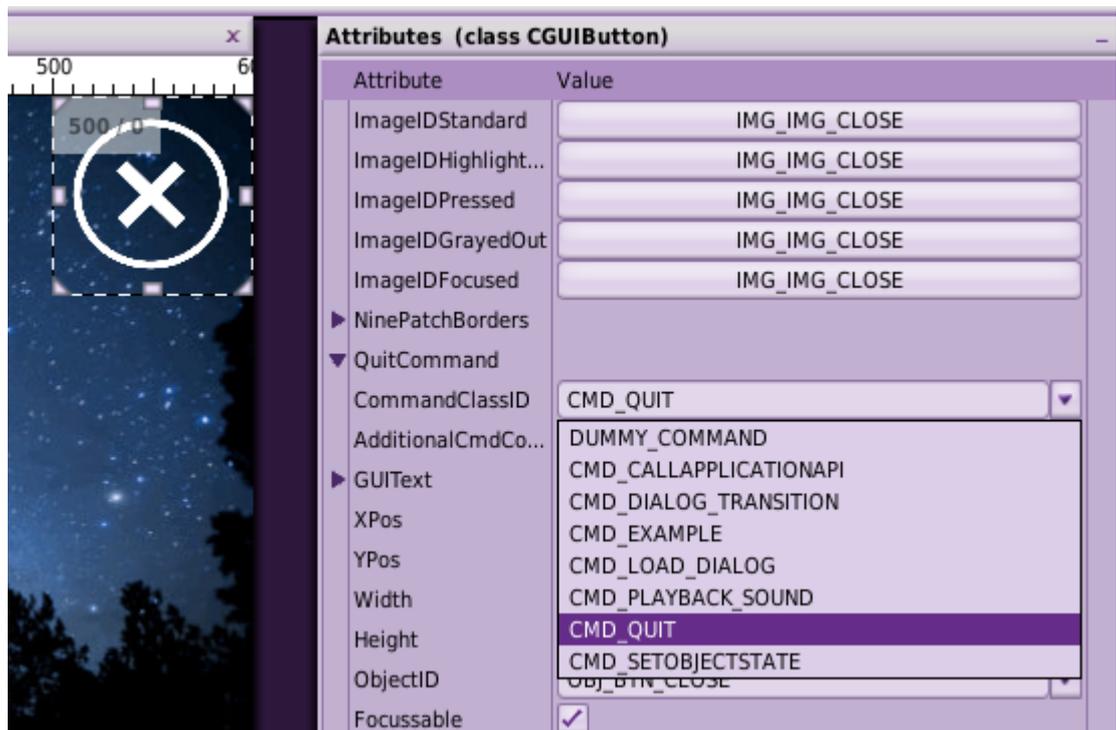


Img 26: Different images for each button state



Img 27: Image Preview

- 13) You will repeat the process described in 12, but this time for a button that will close the application, named OBJ_BTN_CLOSE. This button should be moved to position (500|0) For this button, the command that will be executed on click will be the termination of the application (CMD_QUIT). The image is img_close.png.



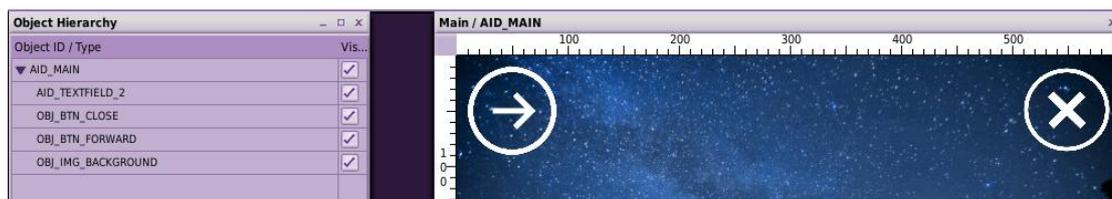
Img 28: "Quit" button and attributes

- 14) The application has two dialogs, and the "Quit" button and the background image can be reutilized (in the case of the button, exactly the same; in the case of the image, the image resource and its Image and Object ID shall be modified).

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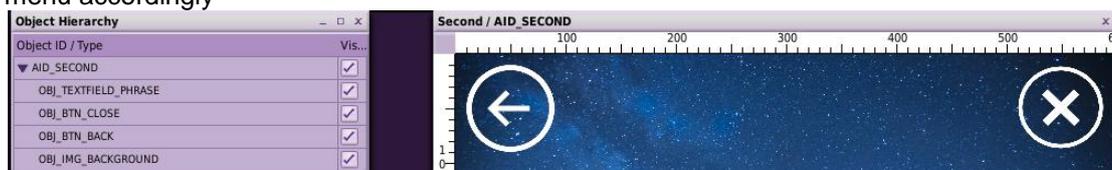
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Img 29: Multi-selection and copy

GSE allows multi-selection and cut/copy and paste. This will be done pressing Ctrl-A in dialog "Main" and Ctrl-V in dialog "Second". You can also use the buttons in the menu accordingly



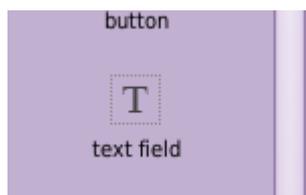
Img 30: Paste objects previously selected

- 15) The second dialog will also contain a navigation button, in this case, a back button. The process of creation of this button is the same as 12). The differences are
- The Image resource (arrow_back.png)
 - The Image ID (IMG_ARROW_BACK). This is created automatically
 - The Object ID (OBJ_BTN_BACK)
 - The destination of the command CMD_DIALOG_TRANSITION ("Main" in this case)
 - The ID of the object executing the command (OBJ_BUTTON_BACK)

The used background image can also be changed (use milky-way-stars-night-sky.jpg and name it IMG_BACKGROUND_2).

Additionally, the dialog "Second" will contain a Textfield with a default text.

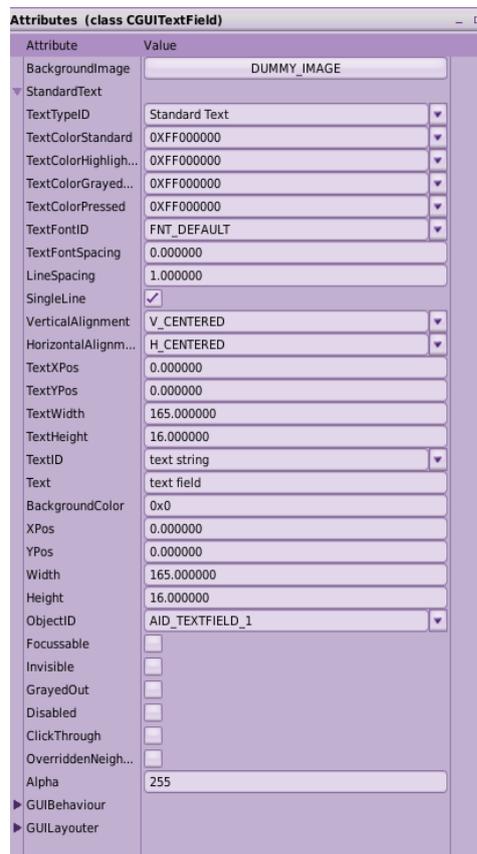
The process of adding a textfield is equivalent as the one for adding images and buttons. You will click on the control "TextField" in the Controls Window.



Img 31: Textfield control

Among the editions that should be done for the text to be displayed, there are the following

- Modify the font color (in hex, set to 0xFFFFFFFF for readability)
- Modify the width and height of both the object and the text within (240x16)
- Add the expected text "This is the phrase displayed".



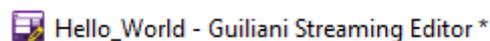
Img 32: Textfield attributes

Since the text shall be centered on the dialog, you can use the “Align” functionality built in GSE. For this, select the background image first (as reference) and the Textfield and then click on the center horizontally icon. Enter a Y Pos of 350 to position the text on the bottom. Choose the Font FNT_KEYBOARD if you want to see the text larger.



Img 33: Align objects

- 16) Now, the application is finished. What’s left is to save the project with Ctrl-S or using the “File” menu (although it is recommended to save progress as in any other application) and run it using File “Run Simulation...”. A new Window will be displayed

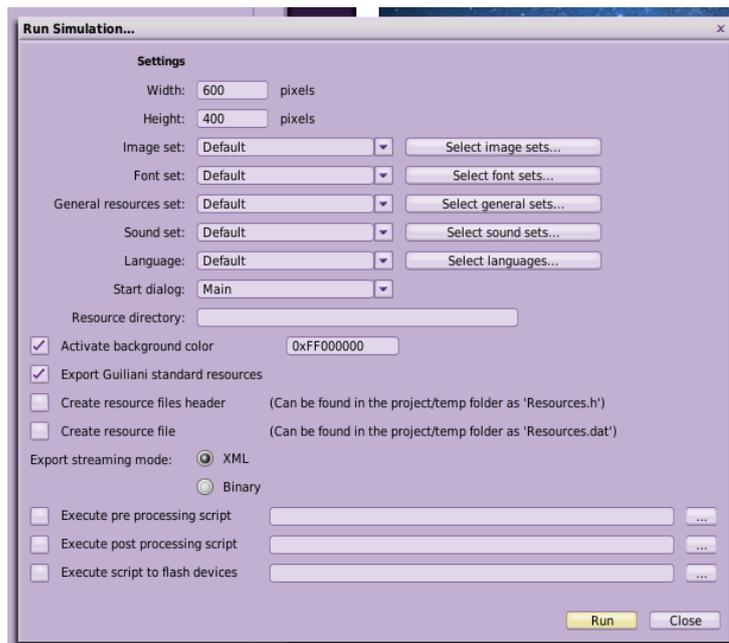


Img 34: Project needs to be saved

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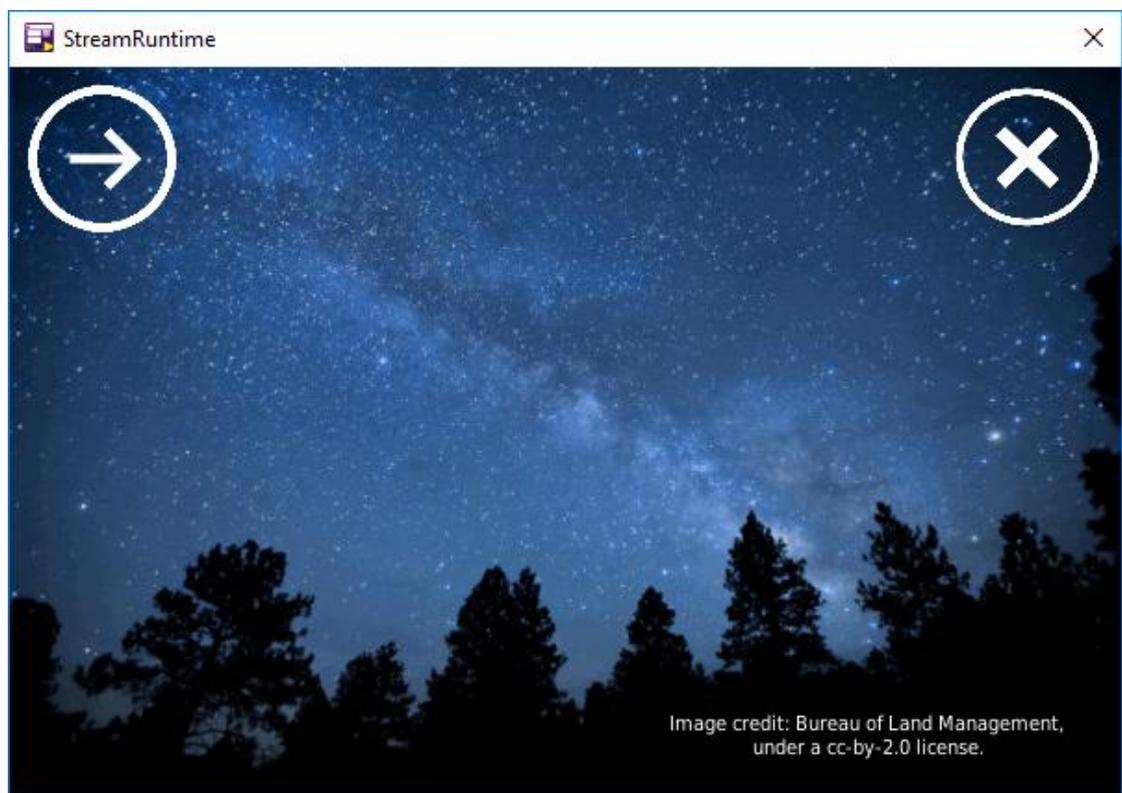
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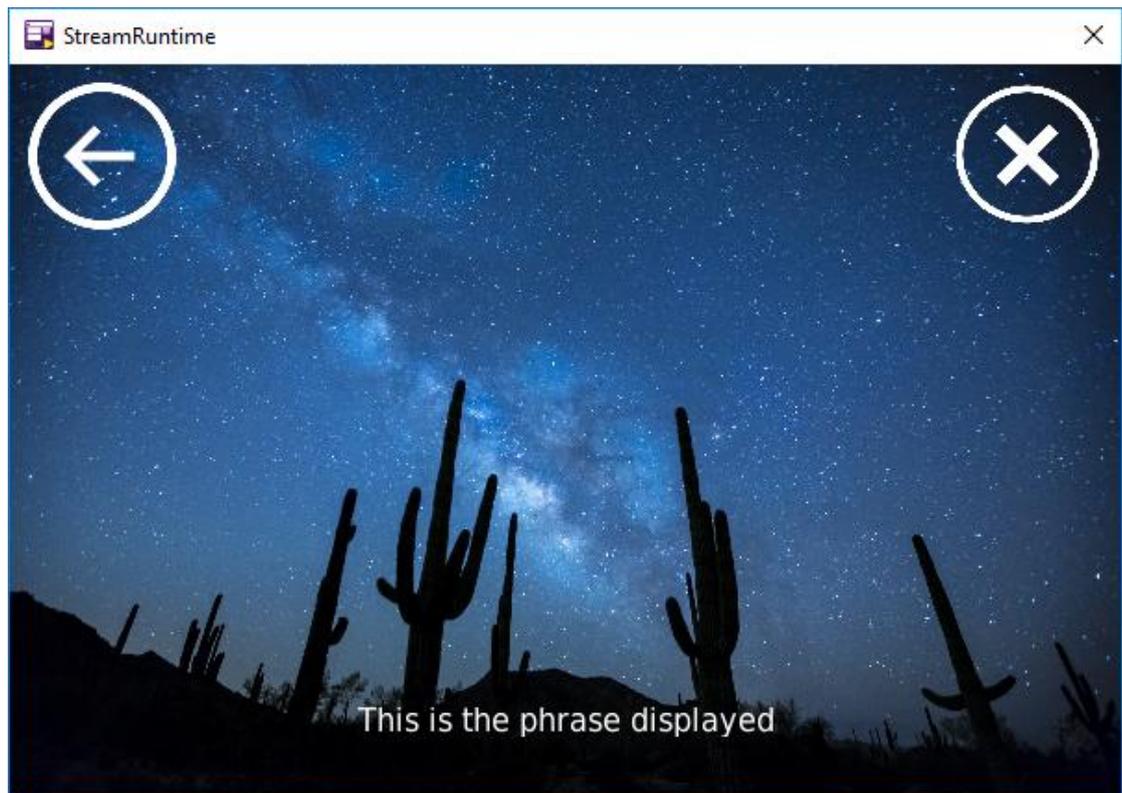
Img 35: Run simulation window

You will want that the start dialog is “Main”, to visualize the application in its correct functionality.

Then, a new application will start and you will be able to test if what you designed works as you wanted.



Img 36: Main dialog in StreamRuntime app



Img 37: Second dialog in StreamRuntime app