Locations of code files and segments with MyGUI as implemented in Scourge of War: Waterloo.

The MyGUI system is a flexible and complex XML based system that provides the full framework for building a GUI. Because of the flexibility, the system can be difficult for the newcomer to find the bit of code that one wants to change. We will attempt to identify the basics of the MyGUI structure and where the various components and files are located. We will start from the top level and then work our way down.

**Location:** \SoW Waterloo\Base\Layout

This directory contains a number of layout files and one folder ‘Media’.

**Layout file:** The top level file is ‘*filename*.layout’. This file defines and sizes the major components of the GUI element that you actually see.

Each element of the layout is called a ‘Widget’ and a given layout file usually contains many individual Widgets. There are a number of Types of Widgets. Each Widget is defined by a number of parameters in the first line. Each parameter (shown in red has a value delimted by double quotation marks.

<Widget type="ImageBox" skin="ImageBox" position\_real="0 0 1 1" align="Stretch" layer="Wallpaper">

</Widget>

**Location:** \SoW Waterloo\Base\Layout\Media

This directory contains two folders.

**Common** – This folder contains files and folders used in common.

**MyGUI\_Media** – This folder contains core XML files, fonts and graphics.

**Location:** \SoW Waterloo\Base\Layout\Media\MyGUI\_Media

This directory contains a number of important files.

**MyGUI\_Core.xml** – This file contains entries pointing to the files used in this project.

**MyGUI\_Settings.xml** – This file contains the base default font setting and the default pointer setting.

**MyGUI\_Fonts.xml** – This file contains entries for each font that is available in the GUI. The Font Editor program in the SDK can be used to adjust settings and generate code segments to be included in this file.

**MyGUI\_Layers.xml** – This file defines the names and properties of each layer available in this GUI implementation.

**MyGUI\_CommonSkins.xml** – This file defines skins that are available across all themes etc for this GUI.

**MyGUI\_BlueWhite Templates.xml** – This file contains the resources used in the BlueWhite theme.

**MyGUI\_BlueWhiteSkins.xml** – This file contains the skin code segment used in higher level files.

**HyperTextSkins.xml** – This file defines the hypertext box used to display HTML formatted text entries.

**MyGUI\_Pointers.xml** – This file defines graphical pointers at the resource level.

**MyGUI\_PointerImages.xml** – This file contains resources pointed to in MyGUI\_Pointers.xml. This file then references the specific location on a listed PNG file where the pointer graphic is located.

***Fontname*.ttf** – actual TrueType font files referred to in MyGUI\_Fonts.xml.

***Graphic*.png** – actual graphics files containing the graphic elements that will be used to display buttons, pointers, etc in game.

***Example***

For the screen ‘Credits’ , the top level file is /base/layout/credits.layout.

This is how the leather background is defined for this window.

The main window is defined by this line:

<Widget type="Window" skin="WindowC" position="62 62 900 900" align="HCenter" layer="Main">

The skin used is ‘WindowC”, this skin is defined in /layout/Media/MyGUI\_Media/MyGUI\_BlueWhiteTemplates.xml.

The WindowC in turn uses the skin ‘ClientTileSkin2’ which is defined in /layout/Media/MyGUI\_Media/MyGUI\_BlueWhiteSkins.xml. This code segment:

<Resource type="ResourceSkin" name="ClientTileSkin2" size="128 128" texture="Leather.png">

<BasisSkin type="TileRect" offset="0 0 128 128" align="Stretch">

<State name="normal" offset="0 0 128 128">

<Property key="TileSize" value="128 128"/>

<Property key="TileH" value="true"/>

<Property key="TileV" value="true"/>

</State>

</BasisSkin>

</Resource>

Indentifies the source graphic ‘Leather.png’ and defines the location and size of the part of the graphic file used to define the background.

Xxxxxx

This is how the parchment background is defined for the hypertext window.

The hypertext window is defined by this line:

<Widget type="ScrollViewPanel" skin="ScrollView2" position="0 0 16 16" align="Stretch" name="ScrollViewPanel">

<Property key="CanvasAlign" value="Default"/>

<Property key="VisibleHScroll" value="false"/>

<Widget type="StackPanel" skin="PanelEmpty" position="0 0 16 16" align="Default" name="StackPanel"/>

</Widget>

The skin used is ‘ScrollView2”, this skin is defined in /layout/Media/MyGUI\_Media/MyGUI\_BlueWhiteTemplates.xml.

The ‘ScrollView2’ in turn uses the skin ‘PanelSkin2’ which is defined in /layout/Media/MyGUI\_Media/MyGUI\_BlueWhiteSkins.xml. This code segment:

<Resource type="ResourceSkin" name="PanelSkin2" size="512 512" texture="Textures\_wallpapers\_Parchment.png">

Indentifies the source graphic ‘Textures\_wallpapers\_Parchment.png’ and defines the location and size of the part of the graphic file used to define the background.