

Miscellaneous Helper Classes

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Not only the core classes are available for those who create modules. I have developed some other useful things...

When reading this document you should already have read about the core classes and the room list, and have access to the source code of MathMoon.

1 Button

The `Button` class derives from `wxButton` and adds no methods that are not already defined by that class (see the `wxWidgets` documentation). It differs only in that the help text is displayed in the window status bar when the mouse hovers over the button.

2 CommandProcessor

A `CommandProcessor` is really only a function like object (should I change the name?), i.e. an object that supports “`void operator()()`”. You can’t instantiate this class, it is abstract.

There are two derived classes, “`Function`” and “`GoThroughDoor`”. A `Function` is passed a pointer to a `void` function at construction time, and enables the use of traditional callbacks when an object wants a `CommandProcessor`.

`GoThroughDoor` is passed a pointer to a `WindowContents` object and the name of a door, and when activated it tells the `WindowContents` object to go through that door. It is used by the `Intro WindowContents`, which passes such an object to `HtmlPanel`. It is then activated when the button of the `HtmlPanel` is clicked.

3 HtmlPanel

The `HtmlPanel` is a `wxPanel` that can be used to display an HTML file and a button. When the button is clicked, a `CommandProcessor` is activated. You should pass an `HtmlPanel` a pointer to the current `WindowContents` object, the name of the HTML file to display, the text and the help text of the button, and a `CommandProcessor` to the constructor.

4 IntroWC

The (abstract) `IntroWC` class is for those classes that display some intro message and then go on. Derived classes should override the `EnterRoom()` method, which is called when the intro panel (managed entirely by `IntroWC`; currently we use `HtmlPanel` for this) says it's time to enter the room for real.

If you derive from `IntroWC` your `WindowContents` object will require the attributes “`html_file`”, “`button_text`” and “`button_help`” to be present in the room list clause.

5 Theme

Objects of this class are created by `WindowContents` objects. The constructor should be passed the functor (name) of a theme clause in the room list file. The panel responsible for the window should ask for the `Theme` object, and tell it to `Draw()` onto a `wxDC` of a given size, whenever the window needs to be repainted. You can see how this is done by looking at the `MultiSimPanel` definition of `OnPaint()` and `Draw()`.