

The Perl6 GTK+ Tutorial

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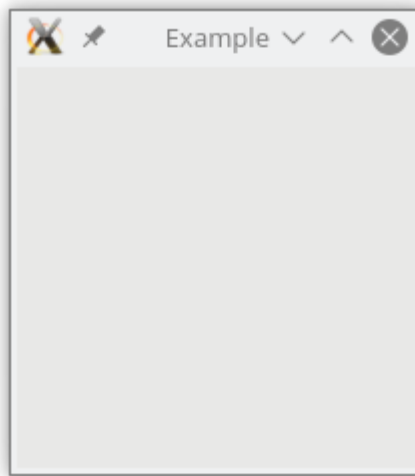
Preface

This tutorial is about using the Graphical User Interface library **GTK+** while writing code in the programming language **Perl6** instead of **C** in which the library is written. There are a few packages written to help you with that. This tutorial will first explain the modules in the package **GTK::V3** and then the modules from **GTK::Glade**. The first is about building your GUI on your own and the latter is about making use of the generated *XML* file from the GTK+ GUI designer program *Glade*. At the end of the tutorial some of the design ideas of **GTK::V3** are explained followed by a reference of the modules.

Simple Example

To get an idea of how the modules from the `GTK::V3` package work, a simple example is shown where a window is opened. When the window manager button  is clicked, the application will stop and the GUI will disappear.

Example Window



```
1 use v6;  
2  
3 use GTK::V3::Gtk::GtkMain;  
4 use GTK::V3::Gtk::GtkWindow;  
5  
6 my GTK::V3::Gtk::GtkMain $m .= new;  
7  
8 class AppSignalHandlers {  
9     method exit-program ( ) {  
10         $m.gtk-main-quit;  
11     }  
12 }  
13  
14 my GTK::V3::Gtk::GtkWindow $stop-window .= new(:title<Example>);
```

```

15
16 my AppSignalHandlers $ash .= new;
17 $stop-window.register-signal( $ash, 'exit-program', 'destroy');
18
19 $stop-window.show-all;
20 $m.gtk-main;

```

Lets explain some of the code displayed above. To start with, every Perl6 program starts with `use v6` with variants like `use v6.c` [line 1]. Then we need to load the modules used in this program. These are `GTK::V3::Gtk::GtkMain` and `GTK::V3::Gtk::GtkWindow` [3,4]. They will load class definitions having the same names.

Next, we initialize a `GTK::V3::Gtk::GtkMain` object `$m` which will be used later on [6].

Then we will setup a class to handle signals. These signals are registered after all widgets are setup and laid out [8-12]. There is only one method defined in that class to stop the program. Our first GTK method is used here, `gtk-main-quit` from the `GTK::V3::Gtk::GtkMain` class.

Now we can start creating the widgets. There is only one widget `GTK::V3::Gtk::GtkWindow` and initialized as a window with its title set to 'Example' [14].

Initialize the handler class and register signals. We use the `destroy` signal to call the `exit-program` method in the handler object `$ash` [16,17].

Then show the window and everything in it [19] and start the main loop [20].

To run the program, save the code in a file called `simple-example.pl6` and type the following.

```
perl6 simple-example.pl6 <Enter>
```

Installation

Before any code can be run we must install the packages we want to use. It is assumed that **Perl6** (See Perl6 Site) and the **GTK+** libraries (See Gtk Site) are already installed. The program `zef` is used to install the modules. Enter

the following command on the command line to install the most important modules `GTK::V3` and `GTK::Glade` with any other dependencies.

```
> zef install GTK::Glade
```

Basic Information

Main Loop