

Home Assignment

The Problem

For an internal cross-platform visual system, you are required to design and develop a new widget library. You **must not** use any windowing system API that an operating system provides to you.

The library should:

1. Provide built-in widgets (e.g., Button, Label, Image ...)
2. Provide an ability to instantiate widgets by their types of names (e.g., config file)
3. Provide an ability to extend it with new user-defined widgets (i.e., not part of your library)
4. Provide grouping (ability to create groups that can contain widgets and groups) - e.g., dialog window with tabs that switch contents of the window
5. Provide the ability to attach/detach widgets to/from a group
6. Provide notification mechanism to notify clients about widgets' events like "a button was clicked", "cursor entered/left a widget", etc.

The Assignment

You are requested to implement in Delphi a library (.DLL) with an example user application (.EXE), which makes use of the library.

Notes:

- Do not implement any graphical elements. Printouts to console as sufficient to showcase the library features
- Do not invest more than 8 hours for implementation. However, make sure that the implementation is of production quality
- Submit your code project by hosting it on GitHub