Apertis

Extensibility and Customization of UI Interfaces

Author:	Tomeu Vizoso
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Last Reviewer:	Luis Araujo

DOCUMENT CHANGE LOG

Version	Date	Changes
0.1.2	2015-11-16	• Update to new name Apertis • Removed file custom properties (metadata)
0.1.1	2014-12-11	• Update to new template
0.1.0	2013-03-13	• Initial version

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1 MISCELLANEOUS DOCUMENTATION

1.1 MUTTER

1.1.1 MUTTER API

Patches have been contributed upstream to generate documentation for the API. These can be built from the sources as with any other gtk-doc based project (such as Clutter itself)[1].

The first release to contain these changes will be 3.7.92.

1.1.2 GESTURES IN MUTTER

Documentation[2] has been contributed upstream about using Clutter's gestures API from within Mutter plugins.

1.1.3 CONTAINERS IN MUTTER

Documentation[3] has been contributed upstream about the containers in Mutter for window and chrome actors.

1.1.4 WRITING MUTTER THEMES

There's documentation on how to write themes[4], a specification[5] of the format and sites with hundreds of themes that can serve as examples[6].

1.1.5 SETTING THE THEME IN MUTTER PLUGINS

The theme to be used needs to be set via the GSettings mechanism. Mutter will use whatever theme is set in the settings under the value “theme” in the “org.gnome.desktop.wm.preferences” schema, but the plugin can override the schema to be used with the function meta_prefs_override_preference_schema.

1.2 CLUTTER

1.2.1 GLSL SHADERS

There's two APIs in Cogl for using shaders that can be used in Clutter applications:

- CoglShader[7]: stable API, has the big downside that whole shaders are replaced, so all functionality needs to be present in the custom shaders.

1 https://developer.gnome.org/meta/stable/
2 https://developer.gnome.org/clutter/stable/ClutterGestureAction.html
3 https://developer.gnome.org/meta/stable/meta-MetaCompositor.html
4 https://live.gnome.org/GnomeArt/Tutorials/MetacityThemes/
5 http://git.gnome.org/browse/mutter/tree/doc/theme-format.txt
6 http://art.gnome.org/themes/metacity/
7 https://developer.gnome.org/cogl/stable/cogl-Shaders-and-Programmable-Pipeline.html

- CoglSnippet[8]: experimental API scheduled for 2.0, allows replacing parts in each shader in the pipeline.

As a book for learning GLSL for Open GL ES, we recommend *OpenGL® ES 2.0 Programming Guide*[9]. We also recommend to consult the specification[10] for specific questions about how it is supposed to work, and also the man pages for usage reference of the API[11].

1.2.2 CLUTTER PROFILING

Documentation[12] has been contributed upstream to help discovering and understanding performance problems in Clutter applications, including suggestions for improvement.

8 https://developer.gnome.org/cogl-2.0-experimental/stable/cogl-2.0-experimental-Shader-snippets.html
9 http://opengles-book.com/
10 http://www.khronos.org/registry/gles/specs/2.0/GLSL_ES_Specification_1.0.17.pdf
11 http://www.khronos.org/opengles/sdk/docs/manglsl/
12 https://live.gnome.org/Clutter/Profiling