

Cairo-Dock

3.4.0

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- [How can I draw anywhere on the dock, not only on my icon ?](#)

## 1.1 Introduction

This documentation presents the core library of Cairo-Dock: *libgldi* (GL Desktop Interface).

It is useful if you want to write a plug-in, add new features in the core, or just love C.

Note: to write applets in any language very easily, see <http://doc.glx-dock.org>.

It has a **decentralized conception** and is built of several modules: internal modules ([Managers](#)) and external modules ([Modules](#)) that can extend it.

It also has an [Objects](#) architecture.

## 1.2 Installation

The installation is very easy and uses *cmake*. In a terminal, copy-paste the following commands :

```
### grab the sources of the core
mkdir CD && cd CD
bzip2 -d cairo-dock-core.tar.gz
### compile the dock and install it
cd cairo-dock-core
cmake CMakeLists.txt -DCMAKE_INSTALL_PREFIX=/usr
make
sudo make install
### grab the sources of the plug-ins
cd ..
bzip2 -d cairo-dock-plug-ins.tar.gz
### compile the stable plug-ins and install them
cmake CMakeLists.txt -DCMAKE_INSTALL_PREFIX=/usr
make
sudo make install
```

To install unstable plug-ins, add `-Denable-xxx=yes` to the `cmake` command, where `xxx` is the lower-case name of the applet.

## 1.3 Main structures

### 1.3.1 Objects

Any element in *libgldi* is a [\\_GldiObject](#).

An Object is created by an [ObjectManager](#), which defines the properties and notifications of its children.

It has a reference counter, can be deleted from the current theme, and can be reloaded.

An Object can cast **notifications**; notifications are broadcasted on its [ObjectManager](#).

An [ObjectManager](#) can inherit from another [ObjectManager](#); in this case, all methods of the parent [ObjectManagers](#) are called recursively, and likewise all notifications on an Object are casted recursively to all parent [ObjectManagers](#).

See [\\_GldiObject](#) and [cairo-dock-object.h](#) for more details.

### 1.3.2 Managers

The core is divided in several internal modules, called Managers.

Each Manager manages a set of parameters and objects (for instance, the Dock Manager manages the list of all Docks and their parameters).

See [\\_GldiManager](#) and [cairo-dock-manager.h](#) for more details.

### 1.3.3 Containers

Containers are generic animated windows. They can hold Icons and support cairo/OpenGL drawing.

See [\\_GldiContainer](#) and [cairo-dock-container.h](#) for more details.

### 1.3.4 Icons

Icons are elements inside a Container on which the user can interact. For instance, a Launcher is an Icon that launches a program on left-click.

See [\\_Icon](#) and [cairo-dock-icon-factory.h](#) for more details.

### 1.3.5 Dock

Docks are a kind of Container that sits on a border of the screen.

See [\\_CairoDock](#) and [cairo-dock-dock-factory.h](#) for more details.

### 1.3.6 Desklet

Desklets are a kind of Container that stays on the desktop and holds one or many icons.

See [\\_CairoDesklet](#) and [cairo-dock-desklet-factory.h](#) for more details.

### 1.3.7 Dialog

Dialogs are a kind of Container that holds no icon, but rather point to an icon, and are used to display some information or interact with the user.

See [\\_CairoDialog](#) and [cairo-dock-dialog-factory.h](#) for more details.

### 1.3.8 Modules

A Module is an Object representing a plug-in for *libgldi*.

It defines a set of properties and an interface for init/stop/reload.

A Module that adds an Icon is called an "applet".

See [\\_GldiModule](#) and [cairo-dock-module-manager.h](#) for more details.

Note: the [cairo-dock-plug-ins](#) project is a set of modules in the form of loadable libraries (.so files).

the [cairo-dock-plug-ins-extra](#) project is a set of modules in the form of scripts (Python or any language) that interact on the core through Dbus.

### 1.3.9 Module-Instances

A Module-Instance is an actual instance of a Module.

It holds a set of parameters and data (amongst them the Applet-Icon if it's an applet).

A Module can have several instances.

See [\\_GldiModuleInstance](#) and [cairo-dock-module-instance-manager.h](#) for more details.

### 1.3.10 Drawing with cairo/opengl

libgldi defines [\\_CairoDockImageBuffer](#), a generic Image that works for both cairo and OpenGL.

See [cairo-dock-image-buffer.h](#) for more details.

It is possible to add small images above Icons; they are called [\\_CairoOverlay](#).

For instance quick-info and progress-bars are Overlays.

See [cairo-dock-overlay.h](#) for more details.

### 1.3.11 Windows management

libgldi keeps track of all the currently existing windows, with all their properties, and notifies everybody of any change. It is used for the Taskbar.

Each window has a corresponding [\\_GldiWindowActor](#) object.

See [cairo-dock-windows-manager.h](#) for more details.

## 1.4 External Modules

### 1.4.1 Create a new applet

Go to the "plug-ins" folder, and run the *generate-applet.sh* script. Answer the few questions, and you're done! The script creates a `<module-name>` folder, with *src* and *data* sub-folders, which contain the following:

- `data/icon.png`: the default icon of your applet
- `data/preview.jpg`: a preview of your applet, around 200x200 pixels
- `data/<module-name>.conf.in`: the config file of your applet
- `src/applet-init.c`: contains the *init*, *stop* and *reload* methods, as well as the definition of your applet.
- `src/applet-config.c`: container the *get\_config* and *reset\_config* methods
- `src/applet-notifications.c`: contains the callbacks of your applet (ie, the code that is called on events, for instance on click on the icon)
- `src/applet-struct.h`: contains the structures (Config, Data, and any other you may need)

Note: when adding a new file, don't forget to add it in the `CMakeLists.txt`.

when changing something in the config file, don't forget to update the version number of the applet, in the main `CMakeLists.txt`.

when changing anything, don't forget to install (*sudo make install*)

### 1.4.2 First steps

Edit the file `src/applet-inic.c`; the macro `CD_APPLET_DEFINITION` is a convenient way to define an applet: just fill its name, its category, a brief description, and your name.

In the section `CD_APPLET_INIT_BEGIN/CD_APPLET_INIT_END`, write the code that will run on startup.



In the section `CD_APPLET_STOP_BEGIN/CD_APPLET_STOP_END`, write the code that will run when the applet is deactivated: remove any timer, destroy any allocated resources, unregister notifications, etc.

In the section `CD_APPLET_RELOAD_BEGIN/CD_APPLET_RELOAD_END` section, write the code that will run when the applet is reloaded; this can happen in 2 cases:

- when the configuration is changed (`CD_APPLET_MY_CONFIG_CHANGED` is TRUE, for instance when the user edits the applet)
- when something else changed (`CD_APPLET_MY_CONFIG_CHANGED` is FALSE, for instance when the icon theme is changed, or the icon size is changed); in this case, most of the time you have nothing to do, except if you loaded some resources yourself.

Edit the file `src/applet-config.c`; In the section `CD_APPLET_GET_CONFIG_BEGIN/CD_APPLET_GET_CONFIG_END`, get all your config parameters (don't forget to define them in `applet-struct.h`).

In the section `CD_APPLET_RESET_CONFIG_BEGIN/CD_APPLET_RESET_CONFIG_END`, free any config parameter that was allocated (for instance, strings).

Edit the file `src/applet-notifications.c`;

In the section `CD_APPLET_ON_CLICK_BEGIN/CD_APPLET_ON_CLICK_END`, write the code that will run when the user clicks on the icon (or an icon of the sub-dock).

There are other similar sections available:

- `CD_APPLET_ON_MIDDLE_CLICK_BEGIN/CD_APPLET_ON_MIDDLE_CLICK_END` for the actions on middle click on your icon or one of its sub-dock.
- `CD_APPLET_ON_DOUBLE_CLICK_BEGIN/CD_APPLET_ON_DOUBLE_CLICK_END` for the actions on double click on your icon or one of its sub-dock.
- `CD_APPLET_ON_SCROLL_BEGIN/CD_APPLET_ON_SCROLL_END` for the actions on scroll on your icon or one of its sub-dock.
- `CD_APPLET_ON_BUILD_MENU_BEGIN/CD_APPLET_ON_BUILD_MENU_END` for the building of the menu on left click on your icon or one of its sub-dock.

To register to an event, use one of the following convenient macro during the init:

- `CD_APPLET_REGISTER_FOR_CLICK_EVENT`
- `CD_APPLET_REGISTER_FOR_MIDDLE_CLICK_EVENT`
- `CD_APPLET_REGISTER_FOR_DOUBLE_CLICK_EVENT`
- `CD_APPLET_REGISTER_FOR_SCROLL_EVENT`
- `CD_APPLET_REGISTER_FOR_BUILD_MENU_EVENT`

Note: don't forget to unregister during the stop.

### 1.4.3 Go further

A lot of useful macros are provided in `cairo-dock-applet-facility.h` to make your life easier.

The applet instance is **myApplet**, and it holds the following:

- **myIcon** : this is your icon !
- **myContainer** : the container your icon belongs to (a Dock or a Desklet). For convenience, the following 2 parameters are available.
- **myDock** : if your container is a dock, `myDock = myContainer`, otherwise it is NULL.

- **myDesklet** : if your container is a desklet, myDesklet = myContainer, otherwise it is NULL.
- **myConfig** : the structure holding all the parameters you get in your config file. You have to define it in *applet-struct.h*.
- **myData** : the structure holding all the resources loaded at run-time. You have to define it in *applet-struct.h*.
- **myDrawContext** : a cairo context, if you need to draw on the icon with the libcairo.
- To get values contained inside your **conf file**, you can use the following :  
[CD\\_CONFIG\\_GET\\_BOOLEAN](#) & cie
- To **build your menu**, you can use the following :  
[CD\\_APPLET\\_ADD\\_SUB\\_MENU](#) & cie
- To directly **set an image on your icon**, you can use the following :  
[CD\\_APPLET\\_SET\\_IMAGE\\_ON\\_MY\\_ICON](#) & cie
- To modify the **label** of your icon, you can use the following :  
[CD\\_APPLET\\_SET\\_NAME\\_FOR\\_MY\\_ICON](#) & cie
- To set a **quick-info** on your icon, you can use the following :  
[CD\\_APPLET\\_SET\\_QUICK\\_INFO\\_ON\\_MY\\_ICON](#) & cie
- To **create a surface** that fits your icon from an image, you can use the following :  
[CD\\_APPLET\\_LOAD\\_SURFACE\\_FOR\\_MY\\_APPLET](#) & cie
- To trigger the **refresh** of your icon or container after you drew something, you can use the following :  
[CD\\_APPLET\\_REDRAW\\_MY\\_ICON](#) & [CAIRO\\_DOCK\\_REDRAW\\_MY\\_CONTAINER](#)

#### 1.4.4 How can I take advantage of the OpenGL ?

There are 3 cases :

- your applet just has a static icon; there is nothing to take into account, the common functions to set an image or a surface on an icon already handle the texture mapping.
- you draw dynamically on your icon with libcairo (using myDrawContext), but you don't want to bother with OpenGL; all you have to do is to call `/ref cairo_dock_update_icon_texture` to update your icon's texture after you drawn your surface. This can be done for occasional drawings, like Switcher redrawing its icon each time a window is moved.
- you draw your icon differently whether the dock is in OpenGL mode or not; in this case, you just need to put all the OpenGL commands into a `CD_APPLET_START_DRAWING_MY_ICON/CD_APPLET_FINISH_DRAWING_MY_ICON` section inside your code.

There are also a lot of convenient functions you can use to draw in OpenGL. See [cairo-dock-draw-opengl.h](#) for loading and drawing textures and paths, and [cairo-dock-particle-system.h](#) for an easy way to draw particle systems.

#### 1.4.5 How can I animate my applet to make it more lively ?

If you want to animate your icon easily, to signal some action (like *Music-Player* when a new song starts), you can simply **request for one of the registered animations** with [CD\\_APPLET\\_ANIMATE\\_MY\\_ICON](#) and stop it with [CD\\_APPLET\\_STOP\\_ANIMATING\\_MY\\_ICON](#). You just need to specify the name of the animation (like "rotate" or "pulse") and the number of time it will be played.

But you can also make your own animation, like *Clock* of *Cairo-Penguin*. You will have to integrate yourself into the rendering loop of your container. Don't panic, here again, Cairo-Dock helps you !

First you will register to the "update container" notification, with a simple call to [CD\\_APPLET\\_REGISTER\\_FOR\\_UPDATE\\_ICON\\_SLOW\\_EVENT](#) or [CD\\_APPLET\\_REGISTER\\_FOR\\_UPDATE\\_ICON\\_EVENT](#), depending on the

refresh frequency you need :  $\sim 10\text{Hz}$  or  $\sim 33\text{Hz}$ . A high frequency needs of course more CPU, and most of the time the slow frequency is enough.

Then you will just put all your code in a `CD_APPLET_ON_UPDATE_ICON_BEGIN/CD_APPLET_ON_UPDATE_ICON_END` section. That's all ! In this section, do what you want, like redrawing your icon, possibly incrementing a counter to know until where you went, etc. See [the previous paragraph](#) to draw on your icon. Inside the rendering loop, you can skip an iteration with `CD_APPLET_SKIP_UPDATE_ICON`, and quit the loop with `CD_APPLET_STOP_UPDATE_ICON` or `CD_APPLET_PAUSE_UPDATE_ICON` (don't forget to quit the loop when you're done, otherwise your container may continue to redraw itself, which means a needless CPU load).

To know the size allocated to your icon, use the convenient `CD_APPLET_GET_MY_ICON_EXTENT`.

#### 1.4.6 I have heavy treatments to do, how can I make them without slowing the dock ?

Say for instance you want to download a file on the Net, it is likely to take some amount of time, during which the dock will be frozen, waiting for you. To avoid such a situation, Cairo-Dock defines [Tasks](#). They perform their job **asynchronously**, and can be **periodic**. See [cairo-dock-task.h](#) for a quick explanation on how a Task works.

You create a Task with `cairo_dock_new_task`, launch it with `cairo_dock_launch_task`, and either cancel it with `cairo_dock_discard_task` or destroy it with `cairo_dock_free_task`.

#### 1.4.7 Key binding

You can bind an action to a shortcut with the following macro: `CD_APPLET_BIND_KEY`.

For instance, the GMenu applet displays the menu on `ctrl+F1`.

You get a `GldiShortkey` that you simply destroy when the applet stops (with `gldi_object_unref`).

See [cairo-dock-keybinder.h](#) for more details.

#### 1.4.8 I need more than one icon, how can I easily get more ?

In dock mode, your icon can have a sub-dock; in desklet mode, you can load a list of icons into your desklet. Cairo-Dock provides a convenient macro to **quickly load a list of icons** in both cases : `CD_APPLET_LOAD_MY_ICONS_LIST` to load a list of icons and `CD_APPLET_DELETE_MY_ICONS_LIST` to destroy it. Thus you don't need to know in which mode you are, neither to care about loading the icons, freeing them, or anything.

You can get the list of icons with `CD_APPLET_MY_ICONS_LIST` and to their container with `CD_APPLET_MY_ICONS_LIST_CONTAINER`.

## 1.5 Advanced fonctionnalités

### 1.5.1 How can I make my own widgets in the config panel ?

Cairo-Dock can build itself the config panel of your applet from the config file. Moreover, it can do the opposite : update the conf file from the config panel. However, it is limited to the widgets it knows, and there are some cases it is not enough. Because of that, Cairo-Dock offers 2 hooks in the process of building/reading the config panel : when defining your applet in the `CD_APPLET_DEFINE_BEGIN/CD_APPLET_DEFINE_END` section, add to the interface the 2 functions `plInterface->load_custom_widget` and `plInterface->save_custom_widget`. They will be respectively called when the config panel of your applet is raised, and when it is validated.

If you want to modify the content of an existing widget, you can grab it with `cairo_dock_gui_find_group_key_widget_in_list`. To add your custom widgets, insert in the conf file an empty widget (with the prefix `'_'`), then grab it and pack some `GtkWidget` inside. If you want to dynamically alter the config panel (like having a "new" button

that would make appear new widgets on click), you can add in the conf file the new widgets, and then call `cairo_dock_reload_current_module_widget` to reload the config panel. See the `AlsaMixer` or `Weather` applets for an easy example, and `Clock` or `Mail` for a more advanced example.

### 1.5.2 How can my applet control the window of an application ?

Say your applet launches an external application that has its own window. It is logical to **make your applet control this application**, rather than letting the Taskbar do. All you need to do is to call the macro `CD_APPLET_MANAGE_APPLICATION`, indicating which application you wish to manage (you need to enter the class of the application, as you can get from "xprop | grep CLASS"). Your applet will then behave like a launcher that has stolen the applet icon.

### 1.5.3 How can I render some numerical values on my icon ?

Cairo-Dock offers a powerful and versatile architecture for this case : `_CairoDataRenderer`. A `DataRenderer` is a generic way to render a set of values on an icon; there are several implementations of this class : `Gauge`, `CairoDockGraph`, `Bar`, and it is quite easy to implement a new kind of `DataRenderer`.

Each kind of renderer has a set of attributes that you can use to customize it; you just need to call the `CD_APPLET_ADD_DATA_RENDERER_ON_MY_ICON` macro with the attributes, and you're done ! Then, each time you want to render some new values, simply call `CD_APPLET_RENDER_NEW_DATA_ON_MY_ICON` with the new values.

When your applet is reloaded, you have to reload the `DataRenderer` as well, using the convenient `CD_APPLET_RELOAD_MY_DATA_RENDERER` macro. If you don't specify attributes to it, it will simply reload the current `DataRenderer`, otherwise it will load the new attributes; the previous data are not lost, which is useful in the case of `Graph` for instance.

You can remove it at any time with `CD_APPLET_REMOVE_MY_DATA_RENDERER`.

### 1.5.4 How can I make my applet multi-instanciable ?

Applets can be launched several times, an instance will be created each time. To ensure your applet can be instanciated several times, you just need to pass `myApplet` to any function that uses one of its fields (`myData`, `myIcon`, etc). Then, to indicate Cairo-Dock that your applet is multi-instanciable, you'll have to define the macro `CD_APPLET_MULTI_INSTANCE` in each file. A convenient way to do that is to define it in the `CMakeLists.txt` by adding the following line:

```
add_definitions (-DCD_APPLET_MULTI_INSTANCE="1")
```

.

### 1.5.5 How can I draw anywhere on the dock, not only on my icon ?

Say you want to draw directly on your container, like `CairoPenguin` or `ShowMouse` do. This can be achieved easily by registering to the `NOTIFICATION_RENDER` notification. You will then be notified each time a Dock or a Desklet is drawn. Register AFTER so that you will draw after the view.

## Chapter 2

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# Chapter 3

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## Chapter 4

# Data Structure Documentation

### 4.1 `_CairoDataRenderer` Struct Reference

Generic `DataRenderer`. Any implementation of a `DataRenderer` will derive from this class.

#### Data Fields

- [CairoDataRendererInterface](#) interface  
*interface of the Data Renderer.*
- [CairoDataToRenderer](#) `data`  
*internal data to be drawn by the renderer.*
- `gint iWidth`  
*size of the drawing area.*
- [CairoDataRendererFormatValueFunc](#) `format_value`  
*specific function to format the values as text.*
- `gchar cFormatBuffer` [CAIRO\_DOCK\_DATA\_FORMAT\_MAX\_LEN+1]  
*buffer for the text.*
- `gpointer pFormatData`  
*data passed to the format fonction.*
- `gboolean bUpdateMinMax`  
*TRUE <=> the Data Renderer should dynamically update the range of the values.*
- `gboolean bWriteValues`  
*TRUE <=> the Data Renderer should write the values as text itself.*
- `gint iLatencyTime`  
*the time it will take to update to the new value, with a smooth animation (require OpenGL capacity)*
- `gint iRank`  
*the rank of the renderer, eg the number of values it can display at once (for exemple, 1 for a bar, 2 for a dual-gauge)*
- `gboolean bCanRenderValueAsText`  
*set to TRUE <=> the renderer can draw the values as text itself.*
- `gboolean bRotateWithContainer`  
*set to TRUE <=> the drawing will be rotated if the container is vertical.*
- `RendererRotateTheme iRotateTheme`  
*an option to rotate applet, no, automatic or always.*
- `gboolean bisRotate`  
*set to TRUE <=> the theme images are rotated 90° clockwise.*
- `gboolean bUseOverlay`  
*whether the data-renderer draws on an overlay rather than directly on the icon.*

- [CairoOverlayPosition](#) [iOverlayPosition](#)  
*position of the overlay, in the case the renderer uses one.*
- [CairoDataRendererText](#) \* [pLabels](#)  
*an optionnal list of labels to be displayed on the Data Renderer to indicate the nature of each value. Same size as the set of values.*
- [CairoDataRendererEmblem](#) \* [pEmblems](#)  
*an optionnal list of emblems to be displayed on the Data Renderer to indicate the nature of each value. Same size as the set of values.*
- [CairoDataRendererTextParam](#) \* [pValuesText](#)  
*an optionnal list of text zones to write the values. Same size as the set of values.*
- [gint](#) [iSmoothAnimationStep](#)  
*the animation counter for the smooth movement.*
- [gdouble](#) [fLatency](#)  
*latency due to the smooth movement (0 means the displayed value is the current one, 1 the previous)*

#### 4.1.1 Detailed Description

Generic DataRenderer. Any implementation of a DataRenderer will derive from this class.

The documentation for this struct was generated from the following file:

- [cairo-dock-data-renderer.h](#)

## 4.2 [\\_CairoDataRendererAttribute](#) Struct Reference

Generic DataRenderer attributes structure. The attributes of any implementation of a DataRenderer will derive from this class.

### Data Fields

- [const gchar](#) \* [cModelName](#)  
*name of the model ("gauge", "graph", etc) [mandatory].*
- [gint](#) [iNbValues](#)  
*number of values to represent (for instance 3 for (cpu, mem, swap)) [1 by default and minimum].*
- [gint](#) [iMemorySize](#)  
*number of values to remember over time. For instance graphs can display as much values as the icon's width [2 by default and minimum].*
- [gdouble](#) \* [pMinMaxValues](#)  
*an array of pairs of (min,max) values. [optionnal, input values will be considered between 0 and 1 if NULL].*
- [gboolean](#) [bUpdateMinMax](#)  
*whether to automatically update the values' range [false by default].*
- [gboolean](#) [bWriteValues](#)  
*whether to write the values on the icon. [false by default].*
- [RendererRotateTheme](#) [iRotateTheme](#)  
*an option to rotate applet, no, automatic or always.*
- [gint](#) [iLatencyTime](#)  
*time needed to update to the new values. The update is smooth in OpenGL mode. [0 by default]*
- [CairoDataRendererFormatValueFunc](#) [format\\_value](#)  
*a function used to format the values into a string. Only useful if you make te DataRenderer write the values [optionnal, by default the values are formatted with 2 decimals].*
- [gpointer](#) [pFormatData](#)

- data to be passed to the format function [optional].*
- `gchar ** cEmblems`  
*an optional list of emblems to draw on the overlay.*
- `gchar ** cLabels`  
*an optional list of labels to write on the overlay.*

#### 4.2.1 Detailed Description

Generic `DataRenderer` attributes structure. The attributes of any implementation of a `DataRenderer` will derive from this class.

The documentation for this struct was generated from the following file:

- [cairo-dock-data-renderer.h](#)

### 4.3 `_CairoDataRendererInterface` Struct Reference

Interface of a `DataRenderer`.

#### Data Fields

- `CairoDataRendererLoadFunc` [load](#)  
*function that loads anything the `DataRenderer` will need. It also completes the `DataRenderer` structure (for instance the text zones).*
- `CairoDataRendererRenderFunc` [render](#)  
*function that draws the values with `cairo`.*
- `CairoDataRendererRenderOpenGLFunc` [render\\_opengl](#)  
*function that draws the values with `opengl`.*
- `CairoDataRendererReloadFunc` [reload](#)  
*function that reloads the `DataRenderer`'s buffers when the icon is resized.*
- `CairoDataRendererUnloadFunc` [unload](#)  
*function that unload all the previously allocated buffers.*

#### 4.3.1 Detailed Description

Interface of a `DataRenderer`.

The documentation for this struct was generated from the following file:

- [cairo-dock-data-renderer.h](#)

### 4.4 `_CairoDesklet` Struct Reference

Definition of a `Desklet`, which derives from a `Container`.

#### 4.4.1 Detailed Description

Definition of a `Desklet`, which derives from a `Container`.

The documentation for this struct was generated from the following file:

- [cairo-dock-desklet-factory.h](#)

## 4.5 `_CairoDeskletAttr` Struct Reference

Configuration attributes of a Desklet.

### 4.5.1 Detailed Description

Configuration attributes of a Desklet.

The documentation for this struct was generated from the following file:

- [cairo-dock-desklet-factory.h](#)

## 4.6 `_CairoDeskletDecoration` Struct Reference

Decoration of a Desklet.

### 4.6.1 Detailed Description

Decoration of a Desklet.

The documentation for this struct was generated from the following file:

- [cairo-dock-desklet-factory.h](#)

## 4.7 `_CairoDeskletRenderer` Struct Reference

Definition of a Desklet's renderer.

### Data Fields

- CairoDeskletRenderFunc [render](#)  
*rendering function with libcairo.*
- CairoDeskletGLRenderFunc [render\\_opengl](#)  
*rendering function with OpenGL.*
- CairoDeskletConfigureRendererFunc [configure](#)  
*get the configuration of the renderer from a set of config attributes.*
- CairoDeskletLoadRendererDataFunc [load\\_data](#)  
*load the internal data of the renderer.*
- CairoDeskletFreeRendererDataFunc [free\\_data](#)  
*free all internal data of the renderer.*
- CairoDeskletCalculateIconsFunc [calculate\\_icons](#)  
*define the icons' size and load them.*
- CairoDeskletUpdateRendererDataFunc [update](#)  
*function called on each iteration of the rendering loop.*
- CairoDeskletGLRenderFunc [render\\_bounding\\_box](#)  
*optionnal rendering function with OpenGL that only draws the bounding boxes of the icons (for picking).*
- GList \* [pPreDefinedConfigList](#)  
*An optionnal list of preset configs.*

### 4.7.1 Detailed Description

Definition of a Desklet's renderer.

The documentation for this struct was generated from the following file:

- [cairo-dock-desklet-factory.h](#)

## 4.8 `_CairoDialog` Struct Reference

Definition of a Dialog.

### Data Fields

- [GldiContainer](#) `container`  
*container.*

### 4.8.1 Detailed Description

Definition of a Dialog.

The documentation for this struct was generated from the following file:

- [cairo-dock-dialog-factory.h](#)

## 4.9 `_CairoDialogDecorator` Struct Reference

Definition of a Dialog/Menu decorator. It draws the frame of the Dialog/Menu.

### Data Fields

- `CairoDialogSetDecorationSizeFunc` [set\\_size](#)  
*defines the various margins and alignment of the dialog*
- `CairoDialogRenderDecorationFunc` [render](#)  
*draw the dialog's frame (outline and background)*
- `CairoMenuSetupFunc` [setup\\_menu](#)  
*defines the `GldiMenuParams` of the menu (radius, alignment, arrow height)*
- `CairoMenuRenderFunc` [render\\_menu](#)  
*draw the menu's frame (outline and background); in the end, must clip the shape of the frame on the context*
- `const gchar *` [cDisplayedName](#)  
*readable name of the decorator*

### 4.9.1 Detailed Description

Definition of a Dialog/Menu decorator. It draws the frame of the Dialog/Menu.

The documentation for this struct was generated from the following file:

- [cairo-dock-dialog-factory.h](#)

## 4.10 `_CairoDialogRenderer` Struct Reference

Definition of a Dialog renderer. It draws the inside of the Dialog.

### 4.10.1 Detailed Description

Definition of a Dialog renderer. It draws the inside of the Dialog.

The documentation for this struct was generated from the following file:

- [cairo-dock-dialog-factory.h](#)

## 4.11 `_CairoDock` Struct Reference

Definition of a Dock, which derives from a Container.

### Data Fields

- [GldiContainer](#) `container`  
*container.*
- [GList](#) \* `icons`  
*the list of icons.*
- [gboolean](#) `blsMainDock`  
*Set to TRUE for the main dock (the first to be created, and the one containing the taskbar).*
- [gint](#) `iRefCount`  
*number of icons pointing on the dock (0 means it is a root dock, >0 a sub-dock).*
- [gchar](#) \* `cDockName`  
*unique name of the dock*
- [CairoDockVisibility](#) `iVisibility`  
*visibility.*
- [gint](#) `iNumScreen`  
*number of the screen the dock is placed on (-1 <=> all screen, >0 <=> num screen).*
- [gint](#) `iIconSize`  
*icon size, as specified in the config of the dock*
- [gboolean](#) `bGlobalIconSize`  
*whether the dock should use the global icons size parameters.*
- [gboolean](#) `bGlobalBg`  
*whether the dock should use the global background parameters.*
- [gchar](#) \* `cBgImagePath`  
*path to an image, or NULL*
- [gboolean](#) `bBgImageRepeat`  
*whether to repeat the image as a pattern, or to stretch it to fill the dock.*
- [GldiColor](#) `fBgColorBright`  
*first color of the gradation*
- [GldiColor](#) `fBgColorDark`  
*second color of the gradation*
- [CairoDockImageBuffer](#) `backgroundBuffer`  
*Background image buffer of the dock.*
- [gdouble](#) `fFoldingFactor`  
*(un)foldng factor, between 0(unfolded) to 1(folded). It's up to the renderer on how to make use of it.*



- gdouble [fHideOffset](#)  
*counter for auto-hide.*
- gdouble [fPostHideOffset](#)  
*counter for the post-hiding animation for icons always visible.*
- gboolean [blsBelow](#)  
*Whether the dock is in a popped up state or not.*
- gint [bHasModalWindow](#)  
*TRUE if the dock has a modal window (menu, dialog, etc), that will block it.*
- gboolean [blsDragging](#)  
*whether the user is dragging something over the dock.*
- gboolean [bTemporaryHidden](#)  
*Backup of the auto-hide state before quick-hide.*
- gboolean [bEntranceDisabled](#)  
*whether mouse can't enter into the dock.*
- gboolean [blsShrinkingDown](#)  
*whether the dock is shrinking down.*
- gboolean [blsGrowingUp](#)  
*whether the dock is growing up.*
- gboolean [blsHiding](#)  
*whether the dock is hiding.*
- gboolean [blsShowing](#)  
*whether the dock is showing.*
- gboolean [blconIsFlyingAway](#)  
*whether an icon is being dragged away from the dock*
- gboolean [bPreventDraggingIcons](#)  
*whether icons in the dock can be dragged with the mouse (inside and outside of the dock).*
- gdouble [iMaxIconHeight](#)  
*maximum height of the icons.*
- gdouble [fFlatDockWidth](#)  
*width of the dock, only taking into account an alignment of the icons.*
- guint [iSidMoveResize](#)  
*Source ID for window resizing.*
- guint [iSidUnhideDelayed](#)  
*Source ID for window popping down to the bottom layer.*
- guint [iSidLeaveDemand](#)  
*Source ID of the timer that delays the "leave" event.*
- guint [iSidUpdateWMIcons](#)  
*Source ID for pending update of WM icons geometry.*
- guint [iSidHideBack](#)  
*Source ID for hiding back the dock.*
- guint [iSidLoadBg](#)  
*Source ID for loading the background.*
- guint [iSidDestroyEmptyDock](#)  
*Source ID to destroy an empty main dock.*
- guint [iSidTestMouseOutside](#)  
*Source ID for shrinking down the dock after a mouse event.*
- guint [iSidUpdateDockSize](#)  
*Source ID for updating the dock's size and icons layout.*
- [CairoDockRenderer](#) \* [pRenderer](#)  
*current renderer, never NULL.*
- gpointer [pRendererData](#)

- data that can be used by the renderer.*

  - gboolean [bCanDrop](#)
    - Set to TRUE by the renderer if one can drop between 2 icons.*
  - CairoDockMousePositionType [iMousePositionType](#)
    - set by the view to say if the mouse is currently on icons, on the edge, or outside of icons.*
  - gint [iMinDockWidth](#)
    - width of the dock at rest.*
  - gint [iMinDockHeight](#)
    - height of the dock at rest.*
  - gint [iMaxDockWidth](#)
    - maximum width of the dock.*
  - gint [iMaxDockHeight](#)
    - maximum height of the dock.*
  - gint [iDecorationsWidth](#)
    - width of background decorations, set by the renderer.*
  - gint [iDecorationsHeight](#)
    - height of background decorations, set by the renderer.*
  - gdouble [fMagnitudeMax](#)
    - maximal magnitude of the zoom, between 0 and 1.*
  - gint [iActiveWidth](#)
    - width of the active zone of the dock.*
  - gint [iActiveHeight](#)
    - height of the active zone of the dock.*
  - CairoDockInputState [iInputState](#)
    - state of the input shape (active, at rest, hidden).*
  - cairo\_region\_t \* [pShapeBitmap](#)
    - input shape of the window when the dock is at rest.*
  - cairo\_region\_t \* [pHiddenShapeBitmap](#)
    - input shape of the window when the dock is hidden.*
  - cairo\_region\_t \* [pActiveShapeBitmap](#)
    - input shape of the window when the dock is active (NULL to cover all dock).*

#### 4.11.1 Detailed Description

Definition of a Dock, which derives from a Container.

The documentation for this struct was generated from the following file:

- [cairo-dock-dock-factory.h](#)

## 4.12 `_CairoDockClassAppli` Struct Reference

Definition of a Class of application.

### Data Fields

- gboolean [bUseXIcon](#)
  - TRUE if the appli must use the icon provided by X instead the one from the theme.*
- gboolean [bExpand](#)
  - TRUE if the appli doesn't group together with its class.*

- [GList \\* plconsOfClass](#)  
*List of the inhibitors of the class.*
- [GList \\* pAppliOfClass](#)  
*List of the appli icons of this class.*

#### 4.12.1 Detailed Description

Definition of a Class of application.

The documentation for this struct was generated from the following file:

- [cairo-dock-class-manager.h](#)

### 4.13 **\_CairoDockDesktopEnvBackend Struct Reference**

Definition of the Desktop Environment backend.

#### 4.13.1 Detailed Description

Definition of the Desktop Environment backend.

The documentation for this struct was generated from the following file:

- [cairo-dock-file-manager.h](#)

### 4.14 **\_CairoDockGLConfig Struct Reference**

This strucure summarizes the available OpenGL configuration on the system.

#### 4.14.1 Detailed Description

This strucure summarizes the available OpenGL configuration on the system.

The documentation for this struct was generated from the following file:

- [cairo-dock-opengl.h](#)

### 4.15 **\_CairoDockGLFont Struct Reference**

Structure used to load a font for OpenGL text rendering.

#### 4.15.1 Detailed Description

Structure used to load a font for OpenGL text rendering.

The documentation for this struct was generated from the following file:

- [cairo-dock-opengl-font.h](#)

## 4.16 `_CairoDockGLPath` Struct Reference

Definition of a `CairoDockGLPath`.

### 4.16.1 Detailed Description

Definition of a `CairoDockGLPath`.

The documentation for this struct was generated from the following file:

- [cairo-dock-opengl-path.h](#)

## 4.17 `_CairoDockGroupKeyWidget` Struct Reference

Definition of a widget corresponding to a given (group;key) pair.

### 4.17.1 Detailed Description

Definition of a widget corresponding to a given (group;key) pair.

The documentation for this struct was generated from the following file:

- [cairo-dock-gui-factory.h](#)

## 4.18 `_CairoDockGuiBackend` Struct Reference

Definition of the GUI interface for modules.

### Data Fields

- void(\* [set\\_status\\_message\\_on\\_gui](#))(const gchar \*cMessage)  
*display a message on the GUI.*
- void(\* [reload\\_current\\_widget](#))(GldiModuleInstance \*pModuleInstance, int iShowPage)  
*Reload the current config window from the conf file. iShowPage is the page that should be displayed in case the module has several pages, -1 means to keep the current page.*
- `CairoDockGroupKeyWidget` \*(\* [get\\_widget\\_from\\_name](#) )(GldiModuleInstance \*pModuleInstance, const gchar \*cGroupName, const gchar \*cKeyName)  
*retrieve the widgets in the current module window, corresponding to the (group,key) pair in its conf file.*

### 4.18.1 Detailed Description

Definition of the GUI interface for modules.

The documentation for this struct was generated from the following file:

- [cairo-dock-gui-manager.h](#)

## 4.19 `_CairoDockHidingEffect` Struct Reference

Definition of a Hiding Effect backend (used to provide an animation when the docks hides/shows itself).

## Data Fields

- const gchar \* `cDisplayedName`  
*translated name of the effect*
- gboolean `bCanDisplayHiddenDock`  
*whether the backend can display the dock even when it's hidden*
- void(\* `pre_render`)(`CairoDock` \*pDock, double fOffset, cairo\_t \*pCairoContext)  
*function called before the icons are drawn (cairo)*
- void(\* `pre_render_opengl`)(`CairoDock` \*pDock, double fOffset)  
*function called before the icons are drawn (opengl)*
- void(\* `post_render`)(`CairoDock` \*pDock, double fOffset, cairo\_t \*pCairoContext)  
*function called after the icons are drawn (cairo)*
- void(\* `post_render_opengl`)(`CairoDock` \*pDock, double fOffset)  
*function called after the icons are drawn (opengl)*
- void(\* `init`)(`CairoDock` \*pDock)  
*function called when the animation is started.*

### 4.19.1 Detailed Description

Definition of a Hiding Effect backend (used to provide an animation when the docks hides/shows itself).

The documentation for this struct was generated from the following file:

- [cairo-dock-animations.h](#)

## 4.20 `_CairoDockImageBuffer` Struct Reference

Definition of an Image Buffer. It provides an unified interface for a cairo/opengl image buffer.

### 4.20.1 Detailed Description

Definition of an Image Buffer. It provides an unified interface for a cairo/opengl image buffer.

The documentation for this struct was generated from the following file:

- [cairo-dock-image-buffer.h](#)

## 4.21 `_CairoDockPackage` Struct Reference

Definition of a generic package.

## Data Fields

- gchar \* `cPackagePath`  
*complete path of the package.*
- gdouble `fSize`  
*size in Mo*
- gchar \* `cAuthor`  
*author(s)*
- gchar \* `cDisplayedName`

- name of the package*
- [CairoDockPackageType](#) `iType`
  - type of package : installed, user, distant.*
- `gint` [iRating](#)
  - rating of the package.*
- `gint` [iSobriety](#)
  - sobriety/simplicity of the package.*
- `gchar *` [cHint](#)
  - hint of the package, for instance "sound" or "battery" for a gauge, "internet" or "desktop" for a third-party applet.*
- `gint` [iCreationDate](#)
  - date of creation of the package.*
- `gint` [iLastModifDate](#)
  - date of latest changes in the package.*

#### 4.21.1 Detailed Description

Definition of a generic package.

The documentation for this struct was generated from the following file:

- [cairo-dock-packages.h](#)

## 4.22 `_CairoDockRenderer` Struct Reference

Dock's renderer, also known as 'view'.

### Data Fields

- `CairoDockComputeSizeFunc` [compute\\_size](#)
  - function that computes the sizes of a dock.*
- `CairoDockCalculatelconsFunc` [calculate\\_icons](#)
  - function that computes all the icons' parameters.*
- `CairoDockRenderFunc` [render](#)
  - rendering function (cairo)*
- `CairoDockRenderOptimizedFunc` [render\\_optimized](#)
  - optimized rendering function (cairo) that only redraw a part of the dock.*
- `CairoDockGLRenderFunc` [render\\_opengl](#)
  - rendering function (OpenGL, optionnal).*
- `CairoDockSetSubDockPositionFunc` [set\\_subdock\\_position](#)
  - function that computes the position of the dock when it's a sub-dock.*
- `CairoDockRenderFreeDataFunc` [free\\_data](#)
  - function called when the renderer is unset from the dock.*
- `CairoDockSetInputShapeFunc` [update\\_input\\_shape](#)
  - function called when the input zones are defined.*
- `CairoDockSetIconSizeFunc` [set\\_icon\\_size](#)
  - function called to define the size of an icon, or NULL to let the container handles that.*
- `gboolean` [bUseStencil](#)
  - TRUE if the view uses the OpenGL stencil buffer.*
- `gboolean` [bUseReflect](#)
  - TRUE is the view uses reflects.*

- `const gchar * cDisplayedName`  
*name displayed in the GUI (translated).*
- `gchar * cReadmeFilePath`  
*path to a readme file that gives a short description of the view.*
- `gchar * cPreviewFilePath`  
*path to a preview image.*

#### 4.22.1 Detailed Description

Dock's renderer, also known as 'view'.

The documentation for this struct was generated from the following file:

- [cairo-dock-dock-factory.h](#)

## 4.23 `_CairoDockTransition` Struct Reference

Transitions are an easy way to set an animation on an Icon to make it change from a state to another.

### Data Fields

- `CairoDockTransitionRenderFunc render`  
*the cairo rendering function.*
- `CairoDockTransitionGLRenderFunc render_opengl`  
*the OpenGL rendering function (can be NULL, in which case the texture mapping from the cairo drawing is done automatically).*
- `gpointer pUserData`  
*data passed to the rendering functions.*
- `GFreeFunc pFreeUserDataFunc`  
*function called to destroy the data when the transition is deleted.*
- `gboolean bFastPace`  
*TRUE <=> the transition will be in the fast loop (high frequency refresh).*
- `gboolean bRemoveWhenFinished`  
*TRUE <=> the transition will be destroyed and removed from the icon when finished.*
- `gint iDuration`  
*duration if the transition, in ms. Can be 0 for an endless transition.*
- `gint iElapsedTime`  
*elapsed time since the beginning of the transition, in ms.*
- `gint iCount`  
*number of setps since the beginning of the transition, in ms.*
- `GldiContainer * pContainer`  
*Container of the Icon.*

#### 4.23.1 Detailed Description

Transitions are an easy way to set an animation on an Icon to make it change from a state to another.

The documentation for this struct was generated from the following file:

- [cairo-dock-animations.h](#)

## 4.24 `_CairoGraphAttribute` Struct Reference

Attributes of a Graph.

### Data Fields

- [CairoDataRendererAttribute](#) `rendererAttribute`  
*General attributes of any DataRenderer.*
- [CairoDockTypeGraph](#) `iType`  
*type of graph*
- `gdouble * fHighColor`  
*color of the high values. it's a table of nb\_values triplets, each of them representing an rgb color.*
- `gdouble * fLowColor`  
*color of the low values. same as fHighColor.*
- `gdouble fBackgroundColor` [4]  
*color of the background.*
- `gboolean bMixGraphs`  
*TRUE to draw all the values on the same graph.*

### 4.24.1 Detailed Description

Attributes of a Graph.

The documentation for this struct was generated from the following file:

- [cairo-dock-graph.h](#)

## 4.25 `_CairoIconContainerRenderer` Struct Reference

Definition of an Icon container (= an icon holding a sub-dock) renderer.

### 4.25.1 Detailed Description

Definition of an Icon container (= an icon holding a sub-dock) renderer.

The documentation for this struct was generated from the following file:

- [cairo-dock-icon-factory.h](#)

## 4.26 `_CairoOverlay` Struct Reference

Definition of an Icon Overlay.

### Data Fields

- [GdiObject](#) `object`  
*object*
- [CairoDockImageBuffer](#) `image`  
*image buffer*



- `CairoOverlayPosition` `iPosition`  
*position on the icon*
- `gdouble` `fScale`  
*scale at which to draw the overlay, relatively to the icon (0.5 by default, 1 will cover the whole icon, 0 means to draw at the actual buffer size).*
- `Icon` \* `pIcon`  
*icon it belongs to.*
- `gpointer` `data`  
*data used to identify an overlay*

#### 4.26.1 Detailed Description

Definition of an Icon Overlay.

The documentation for this struct was generated from the following file:

- `cairo-dock-overlay.h`

## 4.27 `_CairoParticle` Struct Reference

A particle of a particle system.

### Data Fields

- `GLfloat` `x`  
*horizontal position, in fraction of the particle system's width, and relatively to the center of the particle system. So it is comprised between -1 and 1.*
- `GLfloat` `y`  
*vertical position, in fraction of the particle system's height, and relatively to the bottom of the particle system. So it is comprised between 0 and 1.*
- `GLfloat` `z`  
*depth of the particle, negative to be "behind". 0 means it is at the same depth as icons.*
- `GLfloat` `vx`  
*horizontal speed*
- `GLfloat` `vy`  
*vertical speed*
- `GLfloat` `fWidth`  
*size*
- `GLfloat` `color` [4]  
*color r,g,b,a*
- `GLfloat` `fOscillation`  
*phase of the oscillations.*
- `GLfloat` `fOmega`  
*oscillation variation speed.*
- `GLfloat` `fSizeFactor`  
*current size factor*
- `GLfloat` `fResizeSpeed`  
*size variation speed.*
- `gint` `iLife`  
*current life time, decreased by 1 at each step.*
- `gint` `iInitialLife`  
*total life time.*

### 4.27.1 Detailed Description

A particle of a particle system.

The documentation for this struct was generated from the following file:

- [cairo-dock-particle-system.h](#)

## 4.28 `_CairoParticleSystem` Struct Reference

A particle system.

### 4.28.1 Detailed Description

A particle system.

The documentation for this struct was generated from the following file:

- [cairo-dock-particle-system.h](#)

## 4.29 `_CairoProgressBarAttribute` Struct Reference

Attributes of a Pprogressbar.

### Data Fields

- [CairoDataRendererAttribute](#) `rendererAttribute`  
*General attributes of any DataRenderer.*
- `gchar *` [cImageGradation](#)  
*image or NULL*
- `gdouble *` [fColorGradation](#)  
*color gradation of the bar (an array of 8 doubles, representing 2 RGBA values) or NULL*
- `gboolean` [bUseCustomPosition](#)  
*TRUE to define a custom position (by default it is placed at the middle bottom)*
- [CairoOverlayPosition](#) `iCustomPosition`  
*custom position*
- `gboolean` [bInverted](#)  
*invert default colors*

### 4.29.1 Detailed Description

Attributes of a Pprogressbar.

The documentation for this struct was generated from the following file:

- [cairo-dock-progressbar.h](#)

## 4.30 `_GldiContainer` Struct Reference

Definition of a Container, whom derive Dock, Desklet, Dialog and FlyingContainer.

## Data Fields

- [GldiObject](#) `object`  
*object.*
- gpointer `pDataSlot` [CAIRO\_DOCK\_NB\_DATA\_SLOT]  
*External data.*
- GtkWidget \* `pWidget`  
*window of the container.*
- gint `iWidth`  
*size of the container.*
- gint `iWindowPositionX`  
*position of the container.*
- gboolean `bInside`  
*TRUE is the mouse is inside the container (including the possible sub-widgets).*
- [CairoDockTypeHorizontality](#) `blsHorizontal`  
*TRUE if the container is horizontal, FALSE if vertical.*
- gboolean `bDirectionUp`  
*TRUE if the container is oriented upwards, FALSE if downwards.*
- guint `iSidGLAnimation`  
*Source ID of the animation loop.*
- gint `iAnimationDeltaT`  
*interval of time between 2 animation steps.*
- gint `iMouseX`  
*X position of the mouse in the container's system of reference.*
- gint `iMouseY`  
*Y position of the mouse in the container's system of reference.*
- gdouble `fRatio`  
*zoom applied to the container's elements.*
- gboolean `bUseReflect`  
*TRUE if the container has a reflection power.*
- GLXContext `glContext`  
*OpenGL context.*
- gboolean `bPerspectiveView`  
*whether the GL context is an ortho or a perspective view.*
- gboolean `bKeepSlowAnimation`  
*TRUE if a slow animation is running.*
- gint `iAnimationStep`  
*counter for the animation loop.*

### 4.30.1 Detailed Description

Definition of a Container, whom derive Dock, Desklet, Dialog and FlyingContainer.

The documentation for this struct was generated from the following file:

- [cairo-dock-container.h](#)

## 4.31 `_GldiContainerManagerBackend` Struct Reference

Definition of the Container backend. It defines some operations that should be, but are not, provided by GTK.

### 4.31.1 Detailed Description

Definition of the Container backend. It defines some operations that should be, but are not, provided by GTK.

The documentation for this struct was generated from the following file:

- [cairo-dock-container.h](#)

## 4.32 `_GldiDesktopBackground` Struct Reference

Definition of a Desktop Background Buffer. It has a reference count so that it can be shared across all the lib.

### 4.32.1 Detailed Description

Definition of a Desktop Background Buffer. It has a reference count so that it can be shared across all the lib.

The documentation for this struct was generated from the following file:

- [cairo-dock-desktop-manager.h](#)

## 4.33 `_GldiDesktopManagerBackend` Struct Reference

Definition of the Desktop Manager backend.

### 4.33.1 Detailed Description

Definition of the Desktop Manager backend.

The documentation for this struct was generated from the following file:

- [cairo-dock-desktop-manager.h](#)

## 4.34 `_GldiManager` Struct Reference

Definition of a Manager.

### Data Fields

- `GldiObject` [object](#)  
*object*
- `GldiManagerInitFunc` [init](#)  
*function called once and for all at the init of the core.*
- `GldiManagerLoadFunc` [load](#)  
*function called when loading the current theme, after getting the config*
- `GldiManagerUnloadFunc` [unload](#)  
*function called when unloading the current theme, before resetting the config.*
- `GldiManagerReloadFunc` [reload](#)  
*function called when reloading a part of the current theme.*
- `GldiManagerGetConfigFunc` [get\\_config](#)  
*function called when getting the config of the current theme, or a part of it.*
- `GldiManagerResetConfigFunc` [reset\\_config](#)  
*function called when resetting the current theme, or a part of it.*

#### 4.34.1 Detailed Description

Definition of a Manager.

The documentation for this struct was generated from the following file:

- [cairo-dock-manager.h](#)

### 4.35 `_GldiModule` Struct Reference

Definition of an external module.

#### Data Fields

- `GldiObject` `object`  
*object*
- `GldiModuleInterface` \* `pInterface`  
*interface of the module.*
- `GldiVisitCard` \* `pVisitCard`  
*visit card of the module.*
- `gchar` \* `cConfFilePath`  
*conf file of the module.*
- `gpointer` `handle`  
*if the module interface is provided by a dynamic library, handle to this library.*
- `GList` \* `pInstancesList`  
*list of instances of the module.*

#### 4.35.1 Detailed Description

Definition of an external module.

The documentation for this struct was generated from the following file:

- [cairo-dock-module-manager.h](#)

### 4.36 `_GldiModuleInstance` Struct Reference

Definition of an instance of a module. A module can be instanced several times.

#### Data Fields

- `GldiObject` `object`  
*object*
- `GldiModule` \* `pModule`  
*the module this instance represents.*
- `gchar` \* `cConfFilePath`  
*conf file of the instance.*
- `gboolean` `bCanDetach`  
*TRUE if the instance can be detached from docks (desklet mode).*
- `Icon` \* `pIcon`

- the icon holding the instance.*
- [GldiContainer](#) \* [pContainer](#)  
*container of the icon.*
- [CairoDock](#) \* [pDock](#)  
*this field repeats the 'pContainer' field if the container is a dock, and is NULL otherwise.*
- [CairoDesklet](#) \* [pDesklet](#)  
*this field repeats the 'pContainer' field if the container is a desklet, and is NULL otherwise.*
- [cairo\\_t](#) \* [pDrawContext](#)  
*a drawing context on the icon.*
- [gint](#) [iSlotID](#)  
*a unique ID to insert external data on icons and containers.*
- [gpointer](#) [pConfig](#)  
*pointer to a structure containing the config parameters of the applet.*
- [gpointer](#) [pData](#)  
*pointer to a structure containing the data of the applet.*

#### 4.36.1 Detailed Description

Definition of an instance of a module. A module can be instanciated several times.

The documentation for this struct was generated from the following file:

- [cairo-dock-module-instance-manager.h](#)

### 4.37 [\\_GldiModuleInterface](#) Struct Reference

Definition of the interface of a module.

#### 4.37.1 Detailed Description

Definition of the interface of a module.

The documentation for this struct was generated from the following file:

- [cairo-dock-module-manager.h](#)

### 4.38 [\\_GldiObject](#) Struct Reference

Definition of an Object.

#### 4.38.1 Detailed Description

Definition of an Object.

The documentation for this struct was generated from the following file:

- [cairo-dock-object.h](#)

### 4.39 [\\_GldiObjectManager](#) Struct Reference

Definition of an ObjectManager.

### 4.39.1 Detailed Description

Definition of an ObjectManager.

The documentation for this struct was generated from the following file:

- [cairo-dock-object.h](#)

## 4.40 `_GldiTask` Struct Reference

Definition of a periodic and/or asynchronous Task.

### Data Fields

- guint [iPeriod](#)  
*interval of time in seconds, 0 if the Task is to run once.*
- gpointer [pSharedMemory](#)  
*structure passed as parameter of the 'get\_data' and 'update' functions. Must not be accessed outside of these 2 functions !*
- gboolean [bDiscard](#)  
*TRUE when the task has been discarded.*

### 4.40.1 Detailed Description

Definition of a periodic and/or asynchronous Task.

The documentation for this struct was generated from the following file:

- [cairo-dock-task.h](#)

## 4.41 `_GldiTextDescription` Struct Reference

Description of the rendering of a text.

### Data Fields

- gchar \* [cFont](#)  
*font.*
- PangoFontDescription \* [fd](#)  
*pango font*
- gint [iSize](#)  
*size in pixels*
- gboolean [bNoDecorations](#)  
*whether to draw the decorations (frame and outline) or not*
- gboolean [bUseDefaultColors](#)  
*whether to use the default colors or the colors defined below*
- GldiColor [fColorStart](#)  
*text color*
- GldiColor [fBackgroundColor](#)  
*background color*

- GdiColor [fLineColor](#)  
*outline color*
- gboolean [bOutlined](#)  
*TRUE to stroke the outline of the characters (in black).*
- gint [iMargin](#)  
*margin around the text, it is also the dimension of the frame if available.*
- gboolean [bUseMarkup](#)  
*whether to use Pango markups or not (markups are html-like marks, like ...; using markups force you to escape some characters like "&" -> "&amp;")*
- gdouble [fMaxRelativeWidth](#)  
*maximum width allowed, in ratio of the screen's width. Carriage returns will be inserted if necessary. 0 means no limit.*

#### 4.41.1 Detailed Description

Description of the rendering of a text.

The documentation for this struct was generated from the following file:

- [cairo-dock-style-facility.h](#)

## 4.42 [\\_GdiVisitCard](#) Struct Reference

Definition of the visit card of a module. Contains everything that is statically defined for a module.

#### 4.42.1 Detailed Description

Definition of the visit card of a module. Contains everything that is statically defined for a module.

The documentation for this struct was generated from the following file:

- [cairo-dock-module-manager.h](#)

## 4.43 [\\_GdiWindowActor](#) Struct Reference

Definition of a window actor.

### Data Fields

- gboolean [blsHidden](#)  
*not used yet...*

#### 4.43.1 Detailed Description

Definition of a window actor.

The documentation for this struct was generated from the following file:

- [cairo-dock-windows-manager.h](#)



## 4.44 `_GdiWindowManagerBackend` Struct Reference

Definition of the Windows Manager backend.

### 4.44.1 Detailed Description

Definition of the Windows Manager backend.

The documentation for this struct was generated from the following file:

- [cairo-dock-windows-manager.h](#)

## 4.45 `_Icon` Struct Reference

Definition of an Icon.

### Data Fields

- [GdiObject](#) `object`  
*object*
- [CairoDockIconGroup](#) `iGroup`  
*group of the icon.*
- [IconInterface](#) `iface`  
*interface*
- `gchar * cName`  
*Name of the icon.*
- `gchar * cQuickInfo`  
*Short info displayed on the icon (few characters).*
- `gchar * cFileName`  
*name or path of an image displayed on the icon.*
- `gchar * cClass`  
*Class of application the icon will be bound to.*
- `gchar * cParentDockName`  
*name of the dock the icon belongs to (NULL means it's not currently inside a dock).*
- [CairoDock](#) \* `pSubDock`  
*Sub-dock the icon is pointing to.*
- `gdouble fOrder`  
*Order of the icon amongst the other icons of its group.*
- `gboolean bStatic`  
*a hint to indicate the icon should be kept static (no animation like bouncing).*
- `gboolean bAlwaysVisible`  
*a flag that allows the icon to be always visible, even when the dock is hidden.*
- `gboolean bPointed`  
*Whether the icon is currently pointed or not.*

### 4.45.1 Detailed Description

Definition of an Icon.

The documentation for this struct was generated from the following file:

- [cairo-dock-icon-factory.h](#)

## 4.46 `_IconInterface` Struct Reference

Icon's interface.

### Data Fields

- `void(* load\_image )(Icon *icon)`  
*function that loads the icon surface (and optionnally texture).*
- `void(* action\_on\_drag\_hover )(Icon *icon)`  
*function called when the user drag something over the icon for more than 500ms.*

### 4.46.1 Detailed Description

Icon's interface.

The documentation for this struct was generated from the following file:

- [cairo-dock-icon-factory.h](#)

# Chapter 5

## File Documentation

### 5.1 cairo-dock-animations.h File Reference

#### Data Structures

- struct [\\_CairoDockTransition](#)  
*Transitions are an easy way to set an animation on an Icon to make it change from a state to another.*
- struct [\\_CairoDockHidingEffect](#)  
*Definition of a Hiding Effect backend (used to provide an animation when the docks hides/shows itself).*

#### Macros

- #define [cairo\\_dock\\_container\\_is\\_animating](#)(pContainer)
- #define [cairo\\_dock\\_animation\\_will\\_be\\_visible](#)(pDock)
- #define [gldi\\_icon\\_stop\\_animation](#)(plcon)
- #define [cairo\\_dock\\_get\\_animation\\_delta\\_t](#)(pContainer)
- #define [cairo\\_dock\\_get\\_slow\\_animation\\_delta\\_t](#)(pContainer)
- #define [cairo\\_dock\\_has\\_transition](#)(plcon)
- #define [cairo\\_dock\\_get\\_transition\\_count](#)(plcon)
- #define [cairo\\_dock\\_get\\_transition\\_elapsed\\_time](#)(plcon)
- #define [cairo\\_dock\\_get\\_transition\\_fraction](#)(plcon)

#### Typedefs

- typedef gboolean(\* [CairoDockTransitionRenderFunc](#) )(Icon \*plcon, gpointer pUserData)  
*callback to render the icon with libcairo at each step of the Transition.*
- typedef gboolean(\* [CairoDockTransitionGLRenderFunc](#) )(Icon \*plcon, gpointer pUserData)  
*callback to render the icon with OpenGL at each step of the Transition.*

#### Functions

- void [cairo\\_dock\\_pop\\_up](#) (CairoDock \*pDock)
- void [cairo\\_dock\\_pop\\_down](#) (CairoDock \*pDock)
- void [cairo\\_dock\\_launch\\_animation](#) (GldiContainer \*pContainer)
- void [gldi\\_icon\\_start\\_animation](#) (Icon \*icon)
- void [gldi\\_icon\\_request\\_animation](#) (Icon \*plcon, const gchar \*cAnimation, int iNbRounds)
- void [gldi\\_icon\\_request\\_attention](#) (Icon \*plcon, const gchar \*cAnimation, int iNbRounds)
- void [gldi\\_icon\\_stop\\_attention](#) (Icon \*plcon)

- void `cairo_dock_trigger_icon_removal_from_dock` (`Icon *plcon`)
- void `cairo_dock_set_transition_on_icon` (`Icon *plcon`, `GldiContainer *pContainer`, `CairoDockTransitionRenderFunc` `render_step_cairo`, `CairoDockTransitionGLRenderFunc` `render_step_opengl`, `gboolean bFast`, `gint iDuration`, `gboolean bRemoveWhenFinished`, `gpointer pUserData`, `GFreeFunc pFreeUserData`)
- void `cairo_dock_remove_transition_on_icon` (`Icon *plcon`)

### 5.1.1 Detailed Description

This class handles the icons and containers animations. Each container has a rendering loop. An iteration of this loop is separated in 2 phases : the update of each element of the container and of the container itself, and the redraw of each element and of the container itself. The loop has 2 possible frequencies : fast (~33Hz) and slow (~10Hz), to optimize the CPU load according to the needs of the animation. To be called on each iteration of the loop, you register to the `CAIRO_DOCK_UPDATE_X` or `CAIRO_DOCK_UPDATE_X_SLOW`, where X is either `ICON`, `DOCK`, `DESKLET`, `DIALOG` or `FLYING_CONTAINER`. If you need to draw things directly on the container, you register to `CAIRO_DOCK_RENDER_X`, where X is either `ICON`, `DOCK`, `DESKLET`, `DIALOG` or `FLYING_CONTAINER`.

### 5.1.2 Macro Definition Documentation

#### 5.1.2.1 `#define cairo_dock_container_is_animating( pContainer )`

Say if a container is currently animated.

Parameters

<i>pContainer</i>	a Container
-------------------	-------------

#### 5.1.2.2 `#define cairo_dock_animation_will_be_visible( pDock )`

Say if it's usefull to launch an animation on a Dock (indeed, it's useless to launch it if it will be invisible).

Parameters

<i>pDock</i>	the Dock to animate.
--------------	----------------------

#### 5.1.2.3 `#define gldi_icon_stop_animation( plcon )`

Stop any animation on an Icon, except the disappearance/appearance animation.

Parameters

<i>plcon</i>	the icon
--------------	----------

#### 5.1.2.4 `#define cairo_dock_get_animation_delta_t( pContainer )`

Get the interval of time between 2 iterations of the fast loop (in ms).

Parameters

<i>pContainer</i>	the container.
-------------------	----------------

#### 5.1.2.5 `#define cairo_dock_get_slow_animation_delta_t( pContainer )`

Get the interval of time between 2 iterations of the slow loop (in ms).

## Parameters

<i>pContainer</i>	the container.
-------------------	----------------

5.1.2.6 #define cairo\_dock\_has\_transition( *plcon* )

Say if an Icon has a Transition.

## Parameters

<i>plcon</i>	the icon.
--------------	-----------

## Returns

TRUE if the icon has a Transition.

5.1.2.7 #define cairo\_dock\_get\_transition\_count( *plcon* )

Get the the elapsed number of steps since the beginning of the transition.

## Parameters

<i>plcon</i>	the icon.
--------------	-----------

## Returns

the elapsed number of steps.

5.1.2.8 #define cairo\_dock\_get\_transition\_elapsed\_time( *plcon* )

Get the elapsed time (in ms) since the beginning of the transition.

## Parameters

<i>plcon</i>	the icon.
--------------	-----------

## Returns

the elapsed time.

5.1.2.9 #define cairo\_dock\_get\_transition\_fraction( *plcon* )

Get the percentage of the elapsed time (between 0 and 1) since the beginning of the transition, if the transition has a fixed duration (otherwise 0).

## Parameters

<i>plcon</i>	the icon.
--------------	-----------

## Returns

the elapsed time in [0,1].

## 5.1.3 Function Documentation

5.1.3.1 void cairo\_dock\_pop\_up ( CairoDock \* *pDock* )

Pop up a Dock above other windows, if it is in mode "keep below other windows"; otherwise do nothing.

## Parameters

<i>pDock</i>	the dock.
--------------	-----------

## 5.1.3.2 void cairo\_dock\_pop\_down ( CairoDock \* pDock )

Pop down a Dock below other windows, if it is in mode "keep below other windows"; otherwise do nothing.

## Parameters

<i>pDock</i>	the dock.
--------------	-----------

## 5.1.3.3 void cairo\_dock\_launch\_animation ( GldiContainer \* pContainer )

Launch the animation of a Container.

## Parameters

<i>pContainer</i>	the container to animate.
-------------------	---------------------------

## 5.1.3.4 void gldi\_icon\_start\_animation ( Icon \* icon )

Start the animation of an Icon. Do nothing if the icon is at rest or if the animation won't be visible.

## Parameters

<i>icon</i>	the icon to animate.
-------------	----------------------

## 5.1.3.5 void gldi\_icon\_request\_animation ( Icon \* plcon, const gchar \* cAnimation, int iNbRounds )

Launch a given animation on an Icon. Do nothing if the icon will not be animated or if the animation doesn't exist.

## Parameters

<i>plcon</i>	the icon to animate.
<i>cAnimation</i>	name of the animation.
<i>iNbRounds</i>	number of rounds the animation will be played.

## 5.1.3.6 void gldi\_icon\_request\_attention ( Icon \* plcon, const gchar \* cAnimation, int iNbRounds )

Launch an animation that will draw the user's attention (ie, the icon will be visible even if the dock is hidden or even if it's in a sub-dock).

## Parameters

<i>plcon</i>	the icon
<i>cAnimation</i>	an animation name, or NULL or "default" to use the default attention animation
<i>iNbRounds</i>	number of rounds, or <= 0 for an endless animation

## 5.1.3.7 void gldi\_icon\_stop\_attention ( Icon \* plcon )

Stop the icon from drawing the attention. If the icon is not drawing the attention, do nothing.

## Parameters

<i>plcon</i>	the icon
--------------	----------

5.1.3.8 void `cairo_dock_trigger_icon_removal_from_dock ( Icon * plcon )`

Trigger the removal of an Icon from its Dock. The icon will effectively be removed at the end of the animation. If the icon is not inside a dock, nothing happens.

## Parameters

<i>plcon</i>	the icon to remove
--------------	--------------------

5.1.3.9 void `cairo_dock_set_transition_on_icon ( Icon * plcon, GldiContainer * pContainer, CairoDockTransitionRenderFunc render_step_cairo, CairoDockTransitionGLRenderFunc render_step_opengl, gboolean bFastPace, gint iDuration, gboolean bRemoveWhenFinished, gpointer pUserData, GFreeFunc pFreeUserDataFunc )`

Set a Transition on an Icon.

## Parameters

<i>plcon</i>	the icon.
<i>pContainer</i>	the Container of the Icon. It will be shared with the transition.
<i>render_step_cairo</i>	the cairo rendering function.
<i>render_step_opengl</i>	the openGL rendering function (can be NULL, in which case the texture mapping from the cairo drawing is done automatically).
<i>bFastPace</i>	TRUE for a high frequency refresh (this uses of course more CPU).
<i>iDuration</i>	duration if the transition, in ms. Can be 0 for an endless transition, in which case you can stop the transition with <a href="#">cairo_dock_remove_transition_on_icon</a> .
<i>bRemoveWhenFinished</i>	TRUE to destroy and remove the transition when it is finished.
<i>pUserData</i>	data passed to the rendering functions.
<i>pFreeUserDataFunc</i>	function called to free the user data when the transition is destroyed (optionnal).

5.1.3.10 void `cairo_dock_remove_transition_on_icon ( Icon * plcon )`

Stop and remove the Transition of an Icon.

## Parameters

<i>plcon</i>	the icon.
--------------	-----------

## 5.2 cairo-dock-applet-canvas.h File Reference

## Macros

- #define `CD_APPLET_DEFINE_ALL_BEGIN`(*cName*, *iMajorVersion*, *iMinorVersion*, *iMicroVersion*, *iAppletCategory*, *cDescription*, *cAuthor*)
- #define `CD_APPLET_DEFINE_END`
- #define `CD_APPLET_DEFINITION`(*cName*, *iMajorVersion*, *iMinorVersion*, *iMicroVersion*, *iAppletCategory*, *cDescription*, *cAuthor*)

- #define CD\_APPLET\_INIT\_ALL\_BEGIN(pApplet)
- #define CD\_APPLET\_INIT\_END
- #define CD\_APPLET\_STOP\_BEGIN
- #define CD\_APPLET\_STOP\_END
- #define CD\_APPLET\_RELOAD\_ALL\_BEGIN
- #define CD\_APPLET\_RELOAD\_END
- #define CD\_APPLET\_GET\_CONFIG\_ALL\_BEGIN
- #define CD\_APPLET\_GET\_CONFIG\_END
- #define CD\_APPLET\_RESET\_CONFIG\_ALL\_BEGIN
- #define CD\_APPLET\_RESET\_CONFIG\_ALL\_END
- #define CD\_APPLET\_RESET\_DATA\_BEGIN
- #define CD\_APPLET\_RESET\_DATA\_ALL\_END
- #define CD\_APPLET\_ON\_CLICK\_BEGIN
- #define CD\_APPLET\_ON\_CLICK\_END
- #define CD\_APPLET\_ON\_BUILD\_MENU\_BEGIN
- #define CD\_APPLET\_ON\_BUILD\_MENU\_END
- #define CD\_APPLET\_ON\_MIDDLE\_CLICK\_BEGIN
- #define CD\_APPLET\_ON\_MIDDLE\_CLICK\_END
- #define CD\_APPLET\_ON\_DOUBLE\_CLICK\_BEGIN
- #define CD\_APPLET\_ON\_DOUBLE\_CLICK\_END
- #define CD\_APPLET\_ON\_DROP\_DATA\_BEGIN
- #define CD\_APPLET\_ON\_DROP\_DATA\_END
- #define CD\_APPLET\_ON\_SCROLL\_BEGIN
- #define CD\_APPLET\_ON\_SCROLL\_END
- #define CD\_APPLET\_ON\_UPDATE\_ICON\_BEGIN
- #define CD\_APPLET\_ON\_UPDATE\_ICON\_END
- #define CD\_APPLET\_SKIP\_UPDATE\_ICON
- #define CD\_APPLET\_STOP\_UPDATE\_ICON
- #define CD\_APPLET\_PAUSE\_UPDATE\_ICON
- #define CD\_APPLET\_REGISTER\_FOR\_CLICK\_EVENT
- #define CD\_APPLET\_UNREGISTER\_FOR\_CLICK\_EVENT
- #define CD\_APPLET\_REGISTER\_FOR\_BUILD\_MENU\_EVENT
- #define CD\_APPLET\_UNREGISTER\_FOR\_BUILD\_MENU\_EVENT
- #define CD\_APPLET\_REGISTER\_FOR\_MIDDLE\_CLICK\_EVENT
- #define CD\_APPLET\_UNREGISTER\_FOR\_MIDDLE\_CLICK\_EVENT
- #define CD\_APPLET\_REGISTER\_FOR\_DOUBLE\_CLICK\_EVENT
- #define CD\_APPLET\_UNREGISTER\_FOR\_DOUBLE\_CLICK\_EVENT
- #define CD\_APPLET\_REGISTER\_FOR\_DROP\_DATA\_EVENT
- #define CD\_APPLET\_UNREGISTER\_FOR\_DROP\_DATA\_EVENT
- #define CD\_APPLET\_REGISTER\_FOR\_SCROLL\_EVENT
- #define CD\_APPLET\_UNREGISTER\_FOR\_SCROLL\_EVENT
- #define CD\_APPLET\_REGISTER\_FOR\_UPDATE\_ICON\_SLOW\_EVENT
- #define CD\_APPLET\_UNREGISTER\_FOR\_UPDATE\_ICON\_SLOW\_EVENT
- #define CD\_APPLET\_REGISTER\_FOR\_UPDATE\_ICON\_EVENT
- #define CD\_APPLET\_UNREGISTER\_FOR\_UPDATE\_ICON\_EVENT

### 5.2.1 Detailed Description

This file defines numerous macros, that form a canvas for all the applets.

You probably won't need to dig into this file, since you can generate an applet with the 'generate-new-applet.↵ sh' script, that will build the whole canvas for you. Moreover, you can have a look at an applet that has a similar functioning to yours.



## 5.2.2 Macro Definition Documentation

5.2.2.1 `#define CD_APPLET_DEFINE_ALL_BEGIN( _cName, _iMajorVersion, _iMinorVersion, _iMicroVersion, _iAppletCategory, _cDescription, _cAuthor )`

Debut de la fonction de pre-initialisation de l'applet (celle qui est appele a l'enregistrement de tous les plug-ins).  
Definit egalement les variables globales suivantes : myIcon, myDock, myDesklet, myContainer, et myDrawContext.

## Parameters

<code>_cName</code>	nom de sous lequel l'applet sera enregistree par Cairo-Dock.
<code>_iMajorVersion</code>	version majeure du dock necessaire au bon fonctionnement de l'applet.
<code>_iMinorVersion</code>	version mineure du dock necessaire au bon fonctionnement de l'applet.
<code>_iMicroVersion</code>	version micro du dock necessaire au bon fonctionnement de l'applet.
<code>_iAppletCategory</code>	Categorie de l'applet (CAIRO_DOCK_CATEGORY_ACCESSORY, CAIRO_DOCK_CATEGORY_DESKTOP, CAIRO_DOCK_CATEGORY_CONTROLLER)
<code>_cDescription</code>	description et mode d'emploi succinct de l'applet.
<code>_cAuthor</code>	nom de l'auteur et eventuellement adresse mail.

5.2.2.2 `#define CD_APPLET_DEFINE_END`

Fin de la fonction de pre-initialisation de l'applet.

5.2.2.3 `#define CD_APPLET_DEFINITION( cName, iMajorVersion, iMinorVersion, iMicroVersion, iAppletCategory, cDescription, cAuthor )`

Fonction de pre-initialisation generique. Ne fais que definir l'applet (en appelant les 2 macros precedentes), la plupart du temps cela est suffisant.

5.2.2.4 `#define CD_APPLET_INIT_ALL_BEGIN( pApplet )`

Debut de la fonction d'initialisation de l'applet (celle qui est appelee a chaque chargement de l'applet). Lis le fichier de conf de l'applet, et cree son icone ainsi que son contexte de dessin.

## Parameters

<code>pApplet</code>	une instance du module.
----------------------	-------------------------

5.2.2.5 `#define CD_APPLET_INIT_END`

Fin de la fonction d'initialisation de l'applet.

5.2.2.6 `#define CD_APPLET_STOP_BEGIN`

Debut de la fonction d'arret de l'applet.

5.2.2.7 `#define CD_APPLET_STOP_END`

Fin de la fonction d'arret de l'applet.

5.2.2.8 `#define CD_APPLET_RELOAD_ALL_BEGIN`

Debut de la fonction de rechargement de l'applet.

5.2.2.9 `#define CD_APPLET_RELOAD_END`

Fin de la fonction de rechargement de l'applet.

**5.2.2.10 #define CD\_APPLET\_GET\_CONFIG\_ALL\_BEGIN**

Debut de la fonction de configuration de l'applet (celle qui est appelee au debut de l'init).

**5.2.2.11 #define CD\_APPLET\_GET\_CONFIG\_END**

Fin de la fonction de configuration de l'applet.

**5.2.2.12 #define CD\_APPLET\_RESET\_CONFIG\_ALL\_BEGIN**

Debut de la fonction de liberation des donnees de la config.

**5.2.2.13 #define CD\_APPLET\_RESET\_CONFIG\_ALL\_END**

Fin de la fonction de liberation des donnees de la config.

**5.2.2.14 #define CD\_APPLET\_RESET\_DATA\_BEGIN**

Debut de la fonction de liberation des donnees internes.

**5.2.2.15 #define CD\_APPLET\_RESET\_DATA\_ALL\_END**

Fin de la fonction de liberation des donnees internes.

**5.2.2.16 #define CD\_APPLET\_ON\_CLICK\_BEGIN**

Debut de la fonction de notification au clic gauche.

**5.2.2.17 #define CD\_APPLET\_ON\_CLICK\_END**

Fin de la fonction de notification au clic gauche. Par default elle intercepte la notification si elle l'a recue.

**5.2.2.18 #define CD\_APPLET\_ON\_BUILD\_MENU\_BEGIN**

Debut de la fonction de notification de construction du menu.

**5.2.2.19 #define CD\_APPLET\_ON\_BUILD\_MENU\_END**

Fin de la fonction de notification de construction du menu. Par default elle intercepte la notification si elle l'a recue.

**5.2.2.20 #define CD\_APPLET\_ON\_MIDDLE\_CLICK\_BEGIN**

Debut de la fonction de notification du clic du milieu.

**5.2.2.21 #define CD\_APPLET\_ON\_MIDDLE\_CLICK\_END**

Fin de la fonction de notification du clic du milieu. Par default elle intercepte la notification si elle l'a recue.

**5.2.2.22 #define CD\_APPLET\_ON\_DOUBLE\_CLICK\_BEGIN**

Debut de la fonction de notification du clic du milieu.

**5.2.2.23 #define CD\_APPLET\_ON\_DOUBLE\_CLICK\_END**

Fin de la fonction de notification du clic du milieu. Par default elle intercepte la notification si elle l'a recue.

**5.2.2.24 #define CD\_APPLET\_ON\_DROP\_DATA\_BEGIN**

Debut de la fonction de notification du glisse-depose.

**5.2.2.25 #define CD\_APPLET\_ON\_DROP\_DATA\_END**

Fin de la fonction de notification du glisse-depose. Par default elle intercepte la notification si elle l'a recue.

**5.2.2.26 #define CD\_APPLET\_ON\_SCROLL\_BEGIN**

Debut de la fonction de notification au scroll.

**5.2.2.27 #define CD\_APPLET\_ON\_SCROLL\_END**

Fin de la fonction de notification au scroll. Par default elle intercepte la notification si elle l'a recue.

**5.2.2.28 #define CD\_APPLET\_ON\_UPDATE\_ICON\_BEGIN**

Debut de la fonction de notification d'update icon.

**5.2.2.29 #define CD\_APPLET\_ON\_UPDATE\_ICON\_END**

Fin de la fonction de notification d'update icon.

**5.2.2.30 #define CD\_APPLET\_SKIP\_UPDATE\_ICON**

Quit the update function immediately and wait for the next update.

**5.2.2.31 #define CD\_APPLET\_STOP\_UPDATE\_ICON**

Quit the update function immediately with no more updates.

**5.2.2.32 #define CD\_APPLET\_PAUSE\_UPDATE\_ICON**

Quit the update function immediately with no more updates after redrawing the icon.

**5.2.2.33 #define CD\_APPLET\_REGISTER\_FOR\_CLICK\_EVENT**

Abonne l'applet aux notifications du clic gauche. A effectuer lors de l'init de l'applet.

**5.2.2.34 #define CD\_APPLET\_UNREGISTER\_FOR\_CLICK\_EVENT**

Desabonne l'applet aux notifications du clic gauche. A effectuer lors de l'arret de l'applet.

**5.2.2.35 #define CD\_APPLET\_REGISTER\_FOR\_BUILD\_MENU\_EVENT**

Abonne l'applet aux notifications de construction du menu. A effectuer lors de l'init de l'applet.

**5.2.2.36 #define CD\_APPLET\_UNREGISTER\_FOR\_BUILD\_MENU\_EVENT**

Desabonne l'applet aux notifications de construction du menu. A effectuer lors de l'arret de l'applet.

**5.2.2.37 #define CD\_APPLET\_REGISTER\_FOR\_MIDDLE\_CLICK\_EVENT**

Abonne l'applet aux notifications du clic du milieu. A effectuer lors de l'init de l'applet.

**5.2.2.38 #define CD\_APPLET\_UNREGISTER\_FOR\_MIDDLE\_CLICK\_EVENT**

Desabonne l'applet aux notifications du clic du milieu. A effectuer lors de l'arret de l'applet.

**5.2.2.39 #define CD\_APPLET\_REGISTER\_FOR\_DOUBLE\_CLICK\_EVENT**

Abonne l'applet aux notifications du double clic. A effectuer lors de l'init de l'applet.

**5.2.2.40 #define CD\_APPLET\_UNREGISTER\_FOR\_DOUBLE\_CLICK\_EVENT**

Desabonne l'applet aux notifications du double clic. A effectuer lors de l'arret de l'applet.

**5.2.2.41 #define CD\_APPLET\_REGISTER\_FOR\_DROP\_DATA\_EVENT**

Abonne l'applet aux notifications du glisse-depose. A effectuer lors de l'init de l'applet.

**5.2.2.42 #define CD\_APPLET\_UNREGISTER\_FOR\_DROP\_DATA\_EVENT**

Desabonne l'applet aux notifications du glisse-depose. A effectuer lors de l'arret de l'applet.

**5.2.2.43 #define CD\_APPLET\_REGISTER\_FOR\_SCROLL\_EVENT**

Abonne l'applet aux notifications du clic gauche. A effectuer lors de l'init de l'applet.

**5.2.2.44 #define CD\_APPLET\_UNREGISTER\_FOR\_SCROLL\_EVENT**

Desabonne l'applet aux notifications du clic gauche. A effectuer lors de l'arret de l'applet.

**5.2.2.45 #define CD\_APPLET\_REGISTER\_FOR\_UPDATE\_ICON\_SLOW\_EVENT**

Register the applet to the 'update icon' notifications of the slow rendering loop.

#### 5.2.2.46 #define CD\_APPLET\_UNREGISTER\_FOR\_UPDATE\_ICON\_SLOW\_EVENT

Unregister the applet from the slow rendering loop.

#### 5.2.2.47 #define CD\_APPLET\_REGISTER\_FOR\_UPDATE\_ICON\_EVENT

Register the applet to the 'update icon' notifications of the fast rendering loop.

#### 5.2.2.48 #define CD\_APPLET\_UNREGISTER\_FOR\_UPDATE\_ICON\_EVENT

Unregister the applet from the fast rendering loop.

## 5.3 cairo-dock-applet-facility.h File Reference

### Macros

- #define [cairo\\_dock\\_set\\_icon\\_surface](#)(plconContext, pSurface, plcon)
- #define [CD\\_CONFIG\\_GET\\_BOOLEAN\\_WITH\\_DEFAULT](#)(cGroupName, cKeyName, bDefaultValue)
- #define [CD\\_CONFIG\\_GET\\_BOOLEAN](#)(cGroupName, cKeyName)
- #define [CD\\_CONFIG\\_GET\\_INTEGER\\_WITH\\_DEFAULT](#)(cGroupName, cKeyName, iDefaultValue)
- #define [CD\\_CONFIG\\_GET\\_INTEGER](#)(cGroupName, cKeyName)
- #define [CD\\_CONFIG\\_GET\\_DOUBLE\\_WITH\\_DEFAULT](#)(cGroupName, cKeyName, fDefaultValue)
- #define [CD\\_CONFIG\\_GET\\_DOUBLE](#)(cGroupName, cKeyName)
- #define [CD\\_CONFIG\\_GET\\_INTEGER\\_LIST](#)(cGroupName, cKeyName, iNbElements, iValueBuffer)
- #define [CD\\_CONFIG\\_GET\\_STRING\\_WITH\\_DEFAULT](#)(cGroupName, cKeyName, cDefaultValue)
- #define [CD\\_CONFIG\\_GET\\_STRING](#)(cGroupName, cKeyName)
- #define [CD\\_CONFIG\\_GET\\_FILE\\_PATH](#)(cGroupName, cKeyName, cDefaultFileName)
- #define [CD\\_CONFIG\\_GET\\_STRING\\_LIST\\_WITH\\_DEFAULT](#)(cGroupName, cKeyName, length, cDefault↵  
Values)
- #define [CD\\_CONFIG\\_GET\\_STRING\\_LIST](#)(cGroupName, cKeyName, length)
- #define [CD\\_CONFIG\\_GET\\_COLOR\\_RGBA\\_WITH\\_DEFAULT](#)(cGroupName, cKeyName, pColorBuffer, p↵  
DefaultColor)
- #define [CD\\_CONFIG\\_GET\\_COLOR\\_RGBA](#)(cGroupName, cKeyName, pColorBuffer)
- #define [CD\\_CONFIG\\_GET\\_COLOR\\_RGB\\_WITH\\_DEFAULT](#)(cGroupName, cKeyName, pColorBuffer, p↵  
DefaultColor)
- #define [CD\\_CONFIG\\_GET\\_COLOR\\_RGB](#)(cGroupName, cKeyName, pColorBuffer)
- #define [CD\\_CONFIG\\_GET\\_COLOR](#)(cGroupName, cKeyName, pColor)
- #define [CD\\_CONFIG\\_GET\\_THEME\\_PATH](#)(cGroupName, cKeyName, cThemeDirName, cDefaultTheme↵  
Name)
- #define [CD\\_CONFIG\\_GET\\_GAUGE\\_THEME](#)(cGroupName, cKeyName)
- #define [CD\\_CONFIG\\_RENAME\\_GROUP](#)(cGroupName, cNewGroupName)
- #define [CD\\_APPLET\\_ADD\\_SUB\\_MENU\\_WITH\\_IMAGE](#)(cLabel, pMenu, cImage)
- #define [CD\\_APPLET\\_ADD\\_SUB\\_MENU](#)(cLabel, pMenu)
- #define [CD\\_APPLET\\_ADD\\_IN\\_MENU\\_WITH\\_STOCK\\_AND\\_DATA](#)(cLabel, gtkStock, pCallBack, pMenu,↵  
pData)
- #define [CD\\_APPLET\\_ADD\\_IN\\_MENU\\_WITH\\_DATA](#)(cLabel, pCallBack, pMenu, pData)
- #define [CD\\_APPLET\\_ADD\\_IN\\_MENU](#)(cLabel, pCallBack, pMenu)
- #define [CD\\_APPLET\\_ADD\\_IN\\_MENU\\_WITH\\_STOCK](#)(cLabel, gtkStock, pCallBack, pMenu)
- #define [CD\\_APPLET\\_ADD\\_SEPARATOR\\_IN\\_MENU](#)(pMenu)
- #define [CD\\_APPLET\\_POPUP\\_MENU\\_ON\\_MY\\_ICON](#)(pMenu)
- #define [CD\\_APPLET\\_RELOAD\\_CONFIG\\_PANEL](#)
- #define [CD\\_APPLET\\_RELOAD\\_CONFIG\\_PANEL\\_WITH\\_PAGE](#)(iNumPage)
- #define [CD\\_APPLET\\_MY\\_CONF\\_FILE](#)

- #define `CD_APPLET_MY_KEY_FILE`
- #define `CD_APPLET_MY_CONFIG_CHANGED`
- #define `CD_APPLET_MY_CONTAINER_TYPE_CHANGED`
- #define `CD_APPLET_MY_OLD_CONTAINER`
- #define `CD_APPLET_CLICKED_ICON`
- #define `CD_APPLET_CLICKED_CONTAINER`
- #define `CD_APPLET_SHIFT_CLICK`
- #define `CD_APPLET_CTRL_CLICK`
- #define `CD_APPLET_ALT_CLICK`
- #define `CD_APPLET_MY_MENU`
- #define `CD_APPLET_RECEIVED_DATA`
- #define `CD_APPLET_SCROLL_UP`
- #define `CD_APPLET_SCROLL_DOWN`
- #define `CD_APPLET_BIND_KEY`(cShortKey, cDescription, cGroupName, cKeyName, handler)
- #define `CD_APPLET_REDRAW_MY_ICON`
- #define `CAIRO_DOCK_REDRAW_MY_CONTAINER`
- #define `CD_APPLET_LOAD_SURFACE_FOR_MY_APPLET`(cImagePath)
- #define `CD_APPLET_LOAD_SURFACE_FOR_MY_APPLET_WITH_DEFAULT`(cUserName, c← DefaultLocalImageName)
- #define `CD_APPLET_SET_SURFACE_ON_MY_ICON`(pSurface)
- #define `CD_APPLET_SET_IMAGE_ON_MY_ICON`(cIconName)
- #define `CD_APPLET_SET_USER_IMAGE_ON_MY_ICON`(cIconName, cDefaultLocalImageName)
- #define `CD_APPLET_SET_DEFAULT_IMAGE_ON_MY_ICON_IF_NONE`
- #define `CD_APPLET_SET_NAME_FOR_MY_ICON`(cIconName)
- #define `CD_APPLET_SET_NAME_FOR_MY_ICON_PRINTF`(cIconNameFormat,...)
- #define `CD_APPLET_SET_QUICK_INFO_ON_MY_ICON`(cQuickInfo)
- #define `CD_APPLET_SET_QUICK_INFO_ON_MY_ICON_PRINTF`(cQuickInfoFormat,...)
- #define `CD_APPLET_SET_HOURS_MINUTES_AS_QUICK_INFO`(iTimeInSeconds)
- #define `CD_APPLET_SET_MINUTES_SECONDES_AS_QUICK_INFO`(iTimeInSeconds)
- #define `CD_APPLET_SET_SIZE_AS_QUICK_INFO`(iSizeInBytes)
- #define `CD_APPLET_SET_STATIC_ICON`
- #define `CD_APPLET_UNSET_STATIC_ICON`
- #define `CD_APPLET_SET_ALWAYS_VISIBLE_ICON`(bAlwaysVisible)
- #define `CD_APPLET_ANIMATE_MY_ICON`(cAnimationName, iAnimationLength)
- #define `CD_APPLET_STOP_ANIMATING_MY_ICON`
- #define `CD_APPLET_DEMANDS_ATTENTION`(cAnimationName, iAnimationLength)
- #define `CD_APPLET_STOP_DEMANDING_ATTENTION`
- #define `CD_APPLET_GET_MY_ICON_EXTENT`(iWidthPtr, iHeightPtr)
- #define `CD_APPLET_START_DRAWING_MY_ICON`
- #define `CD_APPLET_START_DRAWING_MY_ICON_CAIRO`
- #define `CD_APPLET_START_DRAWING_MY_ICON_OR_RETURN`(...)
- #define `CD_APPLET_START_DRAWING_MY_ICON_OR_RETURN_CAIRO`(...)
- #define `CD_APPLET_FINISH_DRAWING_MY_ICON`
- #define `CD_APPLET_FINISH_DRAWING_MY_ICON_CAIRO`
- #define `CD_APPLET_ADD_OVERLAY_ON_MY_ICON`(cImageFile, iPosition)
- #define `CD_APPLET_PRINT_OVERLAY_ON_MY_ICON`(cImageFile, iPosition)
- #define `CD_APPLET_REMOVE_OVERLAY_ON_MY_ICON`(iPosition)
- #define `CD_APPLET_ADD_DATA_RENDERER_ON_MY_ICON`(pAttr)
- #define `CD_APPLET_RELOAD_MY_DATA_RENDERER`(...)
- #define `CD_APPLET_RENDER_NEW_DATA_ON_MY_ICON`(pValues)
- #define `CD_APPLET_REMOVE_MY_DATA_RENDERER`
- #define `CD_APPLET_SET_MY_DATA_RENDERER_HISTORY_TO_MAX`
- #define `CD_APPLET_MY_CONTAINER_IS_OPENGL`
- #define `CD_APPLET_SET_DESKLET_RENDERER_WITH_DATA`(cRendererName, pConfig)
- #define `CD_APPLET_SET_DESKLET_RENDERER`(cRendererName)

- #define `CD_APPLET_SET_STATIC_DESKLET`
- #define `CD_APPLET_ALLOW_NO_CLICKABLE_DESKLET`
- #define `CD_APPLET_DELETE_MY_ICONS_LIST`
- #define `CD_APPLET_REMOVE_ICON_FROM_MY_ICONS_LIST(plcon)`
- #define `CD_APPLET_DETACH_ICON_FROM_MY_ICONS_LIST(plcon)`
- #define `CD_APPLET_LOAD_MY_ICONS_LIST(plconList, cDockRendererName, cDeskletRendererName, pDeskletRendererConfig)`
- #define `CD_APPLET_ADD_ICON_IN_MY_ICONS_LIST(plcon)`
- #define `CD_APPLET_MY_ICONS_LIST`
- #define `CD_APPLET_MY_ICONS_LIST_CONTAINER`
- #define `CD_APPLET_MANAGE_APPLICATION(cApplicationClass)`
- #define `D_(message)`

## Enumerations

- enum `CairoDockInfoDisplay` {  
`CAIRO_DOCK_INFO_NONE,`  
`CAIRO_DOCK_INFO_ON_ICON,`  
`CAIRO_DOCK_INFO_ON_LABEL }`  
*type of possible display on a Icon.*

## Functions

- void `cairo_dock_set_icon_surface_full` (`cairo_t *plconContext`, `cairo_surface_t *pSurface`, `double fScale`, `double fAlpha`, `Icon *plcon`)
- gboolean `cairo_dock_set_image_on_icon` (`cairo_t *plconContext`, `const gchar *clconName`, `Icon *plcon`, `GldiContainer *pContainer`)
- void `cairo_dock_set_image_on_icon_with_default` (`cairo_t *plconContext`, `const gchar *cImage`, `Icon *plcon`, `GldiContainer *pContainer`, `const gchar *cDefaultImagePath`)
- `gchar *` `cairo_dock_get_human_readable_size` (`long long int iSizeInBytes`)
- void `cairo_dock_play_sound` (`const gchar *cSoundPath`)

### 5.3.1 Detailed Description

A collection of useful macros for applets. Macros provides a normalized API that will :

- lets you perform complex operations with a minimum amount of code
- ensures a bug-free functioning
- masks the internal complexity
- allows a normalized and easy-to-maintain code amongst all the applets.

### 5.3.2 Macro Definition Documentation

#### 5.3.2.1 #define `cairo_dock_set_icon_surface( plconContext, pSurface, plcon )`

Apply a surface on a context. The context is cleared beforehand with the default icon background..



## Parameters

<i>pIconContext</i>	the drawing context; is not altered by the function.
<i>pSurface</i>	the surface to apply.
<i>pIcon</i>	the icon.

5.3.2.2 #define CD\_CONFIG\_GET\_BOOLEAN\_WITH\_DEFAULT( *cGroupName*, *cKeyName*, *bDefaultValue* )

Get the value of a 'boolean' from the conf file.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>bDefaultValue</i>	default value if the group/key is not found (typically if the key is new).

## Returns

a gboolean.

5.3.2.3 #define CD\_CONFIG\_GET\_BOOLEAN( *cGroupName*, *cKeyName* )

Get the value of a 'boolean' from the conf file, with TRUE as default value.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.

## Returns

a gboolean.

5.3.2.4 #define CD\_CONFIG\_GET\_INTEGER\_WITH\_DEFAULT( *cGroupName*, *cKeyName*, *iDefaultValue* )

Get the value of an 'integer' from the conf file.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>iDefaultValue</i>	default value if the group/key is not found (typically if the key is new).

## Returns

an integer.

5.3.2.5 #define CD\_CONFIG\_GET\_INTEGER( *cGroupName*, *cKeyName* )

Get the value of a 'entier' from the conf file, with 0 as default value.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.

## Returns

an integer.

5.3.2.6 #define CD\_CONFIG\_GET\_DOUBLE\_WITH\_DEFAULT( *cGroupName*, *cKeyName*, *fDefaultValue* )

Get the value of a 'double' from the conf file.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>fDefaultValue</i>	default value if the group/key is not found (typically if the key is new).

## Returns

a double.

5.3.2.7 #define CD\_CONFIG\_GET\_DOUBLE( *cGroupName*, *cKeyName* )

Get the value of a 'double' from the conf file, with 0. as default value.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.

## Returns

a double.

5.3.2.8 #define CD\_CONFIG\_GET\_INTEGER\_LIST( *cGroupName*, *cKeyName*, *iNbElements*, *iValueBuffer* )

Get the value of an 'integers list' from the conf file.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>iNbElements</i>	number of elements to get from the conf file.
<i>iValueBuffer</i>	buffer to fill with the values.

5.3.2.9 #define CD\_CONFIG\_GET\_STRING\_WITH\_DEFAULT( *cGroupName*, *cKeyName*, *cDefaultValue* )

Get the value of a 'string' from the conf file.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>cDefaultValue</i>	default value if the group/key is not found (typically if the key is new). can be NULL.

## Returns

a newly allocated string.

5.3.2.10 #define CD\_CONFIG\_GET\_STRING( *cGroupName*, *cKeyName* )

Get the value of a 'string' from the conf file, with NULL as default value.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.

## Returns

a newly allocated string.

5.3.2.11 #define CD\_CONFIG\_GET\_FILE\_PATH( *cGroupName*, *cKeyName*, *cDefaultFileName* )

Get the value of a 'file' from the conf file, with NULL as default value. If the value is a file name (not a path), it is supposed to be in the Cairo-Dock's current theme folder. If the value is NULL, the default file is used, taken at the applet's data folder, but the conf file is not updated with this value.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>cDefaultFileName</i>	default file if none is specified in the conf file.

## Returns

a newly allocated string giving the complete path of the file.

5.3.2.12 #define CD\_CONFIG\_GET\_STRING\_LIST\_WITH\_DEFAULT( *cGroupName*, *cKeyName*, *length*, *cDefaultValues* )

Get the value of a 'strings list' from the conf file.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>length</i>	pointer to the number of strings that were extracted from the conf file.
<i>cDefaultValues</i>	default value if the group/key is not found (typically if the key is new). It is a string with words separated by ';'. It can be NULL.

## Returns

a table of strings, to be freed with 'g\_strfreev'.

5.3.2.13 `#define CD_CONFIG_GET_STRING_LIST( cGroupName, cKeyName, length )`

Get the value of a 'strings list' from the conf file, with NULL as default value.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>length</i>	pointer to the number of strings that were extracted from the conf file.

## Returns

a table of strings, to be freed with 'g\_strfreev'.

5.3.2.14 `#define CD_CONFIG_GET_COLOR_RGBA_WITH_DEFAULT( cGroupName, cKeyName, pColorBuffer, pDefaultColor )`

Get the value of a 'color' in the RGBA format from the conf file.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>pColorBuffer</i>	a table of 4 'double' already allocated, that will be filled with the color components.
<i>pDefaultColor</i>	default value if the group/key is not found (typically if the key is new). It is a table of 4 'double'. It can be NULL.

5.3.2.15 `#define CD_CONFIG_GET_COLOR_RGBA( cGroupName, cKeyName, pColorBuffer )`

Get the value of a 'color' in the RGBA format from the conf file, with NULL as default value.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>pColorBuffer</i>	a table of 4 'double' already allocated, that will be filled with the color components.

5.3.2.16 `#define CD_CONFIG_GET_COLOR_RGB_WITH_DEFAULT( cGroupName, cKeyName, pColorBuffer, pDefaultColor )`

Get the value of a 'color' in the RGB format from the conf file.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>pColorBuffer</i>	a table of 3 'double' already allocated, that will be filled with the color components.
<i>pDefaultColor</i>	default value if the group/key is not found (typically if the key is new). It is a table of 3 'double'. It can be NULL.

5.3.2.17 `#define CD_CONFIG_GET_COLOR_RGB( cGroupName, cKeyName, pColorBuffer )`

Get the value of a 'color' in the RGB format from the conf file, with NULL as default value.

## Parameters

<i>cGroupName</i>	name of the group in the conf file.
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<i>cKeyName</i>	name of the key in the conf file.
<i>pColorBuffer</i>	a table of 3 'double' already allocated, that will be filled with the color components.

### 5.3.2.18 #define CD\_CONFIG\_GET\_COLOR( *cGroupName*, *cKeyName*, *pColor* )

Get the value of a 'color' in a GdiColor from the conf file, with NULL as default value.

#### Parameters

<i>cGroupName</i>	name of the group in the conf file.
<i>cKeyName</i>	name of the key in the conf file.
<i>pColor</i>	a GdiColor already allocated, that will be filled with the color components.

### 5.3.2.19 #define CD\_CONFIG\_GET\_THEME\_PATH( *cGroupName*, *cKeyName*, *cThemeDirName*, *cDefaultThemeName* )

Get the complete path of a theme in the conf file.

#### Parameters

<i>cGroupName</i>	name of the group (in the conf file).
<i>cKeyName</i>	name of the key (in the conf file).
<i>cThemeDirName</i>	name of the folder containing the local, user, and distant themes.
<i>cDefaultThemeName</i>	default value, if the key/group/theme doesn't exist.

#### Returns

Path to the folder of the theme, in a newly allocated string.

### 5.3.2.20 #define CD\_CONFIG\_GET\_GAUGE\_THEME( *cGroupName*, *cKeyName* )

Get the complete path of a Gauge theme in the conf file.

#### Parameters

<i>cGroupName</i>	name of the group (in the conf file).
<i>cKeyName</i>	name of the key (in the conf file).

#### Returns

Path to the theme, in a newly allocated string.

### 5.3.2.21 #define CD\_CONFIG\_RENAME\_GROUP( *cGroupName*, *cNewGroupName* )

Rename a group in the conf file, in case you had to change it. Do nothing if the old group no more exists in the conf file.

#### Parameters

<i>cGroupName</i>	name of the group.
<i>cNewGroupName</i>	new name of the group.

### 5.3.2.22 #define CD\_APPLET\_ADD\_SUB\_MENU\_WITH\_IMAGE( *cLabel*, *pMenu*, *clmage* )

Create and add a sub-menu to a given menu.

## Parameters

<i>cLabel</i>	name of the sub-menu.
<i>pMenu</i>	GtkWidget of the menu we will add the sub-menu to..
<i>clmage</i>	name of an image (can be a path or a GtkStock).

## Returns

the sub-menu, newly created and attached to the menu.

5.3.2.23 #define CD\_APPLET\_ADD\_SUB\_MENU( *cLabel*, *pMenu* )

Create and add a sub-menu to a given menu.

## Parameters

<i>cLabel</i>	name of the sub-menu.
<i>pMenu</i>	GtkWidget of the menu we will add the sub-menu to..

## Returns

the sub-menu, newly created and attached to the menu.

5.3.2.24 #define CD\_APPLET\_ADD\_IN\_MENU\_WITH\_STOCK\_AND\_DATA( *cLabel*, *gtkStock*, *pCallback*, *pMenu*, *pData* )

Create and add an entry to a menu, with an icon.

## Parameters

<i>cLabel</i>	name of the entry.
<i>gtkStock</i>	name of a GTK icon or path to an image.
<i>pCallback</i>	function called when the user selects this entry.
<i>pMenu</i>	menu to add the entry to.
<i>pData</i>	data passed as parameter of the callback.

5.3.2.25 #define CD\_APPLET\_ADD\_IN\_MENU\_WITH\_DATA( *cLabel*, *pCallback*, *pMenu*, *pData* )

Create and add an entry to a menu.

## Parameters

<i>cLabel</i>	name of the entry.
<i>pCallback</i>	function called when the user selects this entry.
<i>pMenu</i>	menu to add the entry to.
<i>pData</i>	data passed as parameter of the callback.

5.3.2.26 #define CD\_APPLET\_ADD\_IN\_MENU( *cLabel*, *pCallback*, *pMenu* )

Create and add an entry to a menu. 'myApplet' will be passed to the callback.

## Parameters

<i>cLabel</i>	name of the entry.
<i>pCallback</i>	function called when the user selects this entry.
<i>pMenu</i>	menu to add the entry to.

### 5.3.2.27 #define CD\_APPLET\_ADD\_IN\_MENU\_WITH\_STOCK( *cLabel*, *gtkStock*, *pCallback*, *pMenu* )

Create and add an entry to a menu, with an icon. 'myApplet' will be passed to the callback.

#### Parameters

<i>cLabel</i>	name of the entry.
<i>gtkStock</i>	name of a GTK icon or path to an image.
<i>pCallback</i>	function called when the user selects this entry.
<i>pMenu</i>	menu to add the entry to.

### 5.3.2.28 #define CD\_APPLET\_ADD\_SEPARATOR\_IN\_MENU( *pMenu* )

Create and add a separator to a menu.

### 5.3.2.29 #define CD\_APPLET\_POPUP\_MENU\_ON\_MY\_ICON( *pMenu* )

Pop-up a menu on the applet's icon.

#### Parameters

<i>pMenu</i>	menu to show
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### 5.3.2.30 #define CD\_APPLET\_RELOAD\_CONFIG\_PANEL

Reload the config panel of the applet. This is useful if you have custom widgets inside your conf file, and need to reload them.

### 5.3.2.31 #define CD\_APPLET\_RELOAD\_CONFIG\_PANEL\_WITH\_PAGE( *iNumPage* )

Reload the config panel of the applet and jump to the given page. This is useful if you have custom widgets inside your conf file, and need to reload them.

### 5.3.2.32 #define CD\_APPLET\_MY\_CONF\_FILE

Path of the applet's instance's conf file.

### 5.3.2.33 #define CD\_APPLET\_MY\_KEY\_FILE

Key file of the applet instance, available during the init, config, and reload.

### 5.3.2.34 #define CD\_APPLET\_MY\_CONFIG\_CHANGED

TRUE if the conf file has changed before the reload.



**5.3.2.35 #define CD\_APPLET\_MY\_CONTAINER\_TYPE\_CHANGED**

TRUE if the container type has changed (which can only happen if the config has changed).

**5.3.2.36 #define CD\_APPLET\_MY\_OLD\_CONTAINER**

The previous Container.

**5.3.2.37 #define CD\_APPLET\_CLICKED\_ICON**

The clicked Icon.

**5.3.2.38 #define CD\_APPLET\_CLICKED\_CONTAINER**

The clicked Container.

**5.3.2.39 #define CD\_APPLET\_SHIFT\_CLICK**

TRUE if the 'SHIFT' key was pressed during the click.

**5.3.2.40 #define CD\_APPLET\_CTRL\_CLICK**

TRUE if the 'CTRL' key was pressed during the click.

**5.3.2.41 #define CD\_APPLET\_ALT\_CLICK**

TRUE if the 'ALT' key was pressed during the click.

**5.3.2.42 #define CD\_APPLET\_MY\_MENU**

Main menu of the applet.

**5.3.2.43 #define CD\_APPLET\_RECEIVED\_DATA**

Data received after a drop occurred (string).

**5.3.2.44 #define CD\_APPLET\_SCROLL\_UP**

TRUE if the user scrolled up.

**5.3.2.45 #define CD\_APPLET\_SCROLL\_DOWN**

TRUE if the user scrolled down.

**5.3.2.46 #define CD\_APPLET\_BIND\_KEY( *cShortKey*, *cDescription*, *cGroupName*, *cKeyName*, *handler* )**

Bind a shortcut to an action. Unref it when you don't want it anymore. 'myApplet' is passed as the callback data.

## Parameters

<i>cShortcut</i>	a keyboard shortcut.
<i>cDescription</i>	a short description of the action
<i>cGroupName</i>	group name where it's stored in the applet's conf file
<i>cKeyName</i>	key name where it's stored in the applet's conf file
<i>handler</i>	function called when the shortcut is pressed by the user

## Returns

the shortcut.

## 5.3.2.47 #define CD\_APPLET\_REDRAW\_MY\_ICON

Redraw the applet's icon (as soon as the main loop is available).

## 5.3.2.48 #define CAIRO\_DOCK\_REDRAW\_MY\_CONTAINER

Redraw the applet's container (as soon as the main loop is available).

5.3.2.49 #define CD\_APPLET\_LOAD\_SURFACE\_FOR\_MY\_APPLET( *cImagePath* )

Load an image into a surface, at the same size as the applet's icon. If the image is given by its sole name, it is searched inside the current theme root folder.

## Parameters

<i>cImagePath</i>	path or name of an image.
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## Returns

the newly allocated surface.

5.3.2.50 #define CD\_APPLET\_LOAD\_SURFACE\_FOR\_MY\_APPLET\_WITH\_DEFAULT( *cUserImageName*,  
*cDefaultLocalImageName* )

Load a user image into a surface, at the same size as the applet's icon, or a default image taken in the installed folder of the applet if the first one is NULL. If the user image is given by its sole name, it is searched inside the current theme root folder.

## Parameters

<i>cUserImageName</i>	name or path of a user image.
<i>cDefaultLocalImageName</i>	default image

## Returns

the newly allocated surface.

5.3.2.51 #define CD\_APPLET\_SET\_SURFACE\_ON\_MY\_ICON( *pSurface* )

Apply a surface on the applet's icon, and redraw it.

## Parameters

<i>pSurface</i>	the surface to draw on your icon.
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5.3.2.52 #define CD\_APPLET\_SET\_IMAGE\_ON\_MY\_ICON( *cIconName* )

Apply an image on the applet's icon. The image is resized at the same size as the icon. Does not trigger the icon refresh.

## Parameters

<i>cIconName</i>	name of an icon or path to an image.
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5.3.2.53 #define CD\_APPLET\_SET\_USER\_IMAGE\_ON\_MY\_ICON( *cIconName*, *cDefaultLocalImageName* )

Apply an image on the applet's icon, clearing it beforehand, and adding the reflect. The image is searched in any possible locations, and the default image provided is used if the search was fruitless (taken in the installation folder of the applet).

## Parameters

<i>cIconName</i>	name of an icon or path to an image.
<i>cDefaultLocalImageName</i>	name of an image to use as a fallback (taken in the applet's installation folder).

## 5.3.2.54 #define CD\_APPLET\_SET\_DEFAULT\_IMAGE\_ON\_MY\_ICON\_IF\_NONE

Apply the default icon on the applet's icon if there is no image yet.

5.3.2.55 #define CD\_APPLET\_SET\_NAME\_FOR\_MY\_ICON( *cIconName* )

Set a new label on the applet's icon.

## Parameters

<i>cIconName</i>	the label.
------------------	------------

5.3.2.56 #define CD\_APPLET\_SET\_NAME\_FOR\_MY\_ICON\_PRINTF( *cIconNameFormat*, ... )

Set a new label on the applet's icon.

## Parameters

<i>cIconNameFormat</i>	the label, in a 'printf'-like format.
...	values to be written in the string.

5.3.2.57 #define CD\_APPLET\_SET\_QUICK\_INFO\_ON\_MY\_ICON( *cQuickInfo* )

Set a quick-info on the applet's icon.

## Parameters

<i>cQuickInfo</i>	the quick-info. This is a small text (a few characters) that is superimposed on the icon.
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5.3.2.58 `#define CD_APPLET_SET_QUICK_INFO_ON_MY_ICON_PRINTF( cQuickInfoFormat, ... )`

Set a quick-info on the applet's icon.

## Parameters

<i>cQuickInfoFormat</i>	the label, in a 'printf'-like format.
...	values to be written in the string.

5.3.2.59 `#define CD_APPLET_SET_HOURS_MINUTES_AS_QUICK_INFO( iTimeInSeconds )`

Write the time in hours-minutes as a quick-info on the applet's icon.

## Parameters

<i>iTimeInSeconds</i>	the time in seconds.
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5.3.2.60 `#define CD_APPLET_SET_MINUTES_SECONDES_AS_QUICK_INFO( iTimeInSeconds )`

Write the time in minutes-seconds as a quick-info on the applet's icon.

## Parameters

<i>iTimeInSeconds</i>	the time in seconds.
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5.3.2.61 `#define CD_APPLET_SET_SIZE_AS_QUICK_INFO( iSizeInBytes )`

Write a size in bytes as a quick-info on the applet's icon.

## Parameters

<i>iSizeInBytes</i>	the size in bytes, converted into a readable format.
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5.3.2.62 `#define CD_APPLET_SET_STATIC_ICON`

Prevent the applet's icon to be animated when the mouse hovers it (call it once at init).

5.3.2.63 `#define CD_APPLET_UNSET_STATIC_ICON`

Prevent the applet's icon to be animated when the mouse hovers it (call it once at init).

5.3.2.64 `#define CD_APPLET_SET_ALWAYS_VISIBLE_ICON( bAlwaysVisible )`

Make the applet's icon always visible, even when the dock is hidden.

5.3.2.65 `#define CD_APPLET_ANIMATE_MY_ICON( cAnimationName, iAnimationLength )`

Launch an animation on the applet's icon.

## Parameters

<i>cAnimationName</i>	name of the animation.
<i>iAnimationLength</i>	number of rounds the animation should be played.

## 5.3.2.66 #define CD\_APPLET\_STOP\_ANIMATING\_MY\_ICON

Stop any animation on the applet's icon.

5.3.2.67 #define CD\_APPLET\_DEMANDS\_ATTENTION( *cAnimationName*, *iAnimationLength* )

Make applet's icon demanding the attention : it will launch the given animation, and the icon will be visible even if the dock is hidden.

## Parameters

<i>cAnimationName</i>	name of the animation.
<i>iAnimationLength</i>	number of rounds the animation should be played, or 0 for an endless animation.

## 5.3.2.68 #define CD\_APPLET\_STOP\_DEMANDING\_ATTENTION

Stop the demand of attention on the applet's icon.

5.3.2.69 #define CD\_APPLET\_GET\_MY\_ICON\_EXTENT( *iWidthPtr*, *iHeightPtr* )

Get the dimension allocated to the surface/texture of the applet's icon.

## Parameters

<i>iWidthPtr</i>	pointer to the width.
<i>iHeightPtr</i>	pointer to the height.

## 5.3.2.70 #define CD\_APPLET\_START\_DRAWING\_MY\_ICON

Initiate an OpenGL drawing session on the applet's icon.

## 5.3.2.71 #define CD\_APPLET\_START\_DRAWING\_MY\_ICON\_CAIRO

Initiate a Cairo drawing session on the applet's icon.

## 5.3.2.72 #define CD\_APPLET\_START\_DRAWING\_MY\_ICON\_OR\_RETURN( ... )

Initiate an OpenGL drawing session on the applet's icon, or quit the function if failed.

## Parameters

...	value to return in case of failure.
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### 5.3.2.73 #define CD\_APPLET\_START\_DRAWING\_MY\_ICON\_OR\_RETURN\_CAIRO( ... )

Initiate a Cairo drawing session on the applet's icon, or quit the function if failed.

#### Parameters

...	value to return in case of failure.
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### 5.3.2.74 #define CD\_APPLET\_FINISH\_DRAWING\_MY\_ICON

Terminate an OpenGL drawing session on the applet's icon. Does not trigger the icon's redraw.

### 5.3.2.75 #define CD\_APPLET\_FINISH\_DRAWING\_MY\_ICON\_CAIRO

Terminate an OpenGL drawing session on the applet's icon. Does not trigger the icon's redraw.

### 5.3.2.76 #define CD\_APPLET\_ADD\_OVERLAY\_ON\_MY\_ICON( *cImageFile*, *iPosition* )

Add an overlay from an image on the applet's icon.

#### Parameters

<i>cImageFile</i>	an image (if it's not a path, it is searched amongst the current theme's images)
<i>iPosition</i>	position where to display the overlay

#### Returns

the overlay, or NULL if the image couldn't be loaded.

### 5.3.2.77 #define CD\_APPLET\_PRINT\_OVERLAY\_ON\_MY\_ICON( *cImageFile*, *iPosition* )

Print an overlay from an image on the applet's icon (it can't be removed without erasing the icon).

#### Parameters

<i>cImageFile</i>	an image (if it's not a path, it is searched amongst the current theme's images)
<i>iPosition</i>	position where to display the overlay

#### Returns

TRUE if the overlay has been successfully printed.

### 5.3.2.78 #define CD\_APPLET\_REMOVE\_OVERLAY\_ON\_MY\_ICON( *iPosition* )

Remove an overlay from the applet's icon. The overlay is destroyed.

## Parameters

<i>iPosition</i>	position of the overlay
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5.3.2.79 #define CD\_APPLET\_ADD\_DATA\_RENDERER\_ON\_MY\_ICON( *pAttr* )

Add a Data Renderer the applet's icon.

## Parameters

<i>pAttr</i>	the attributes of the Data Renderer. They allow you to define its properties.
--------------	---

## 5.3.2.80 #define CD\_APPLET\_RELOAD\_MY\_DATA\_RENDERER( ... )

Reload the Data Renderer of the applet's icon, without changing any of its parameters. Previous values are kept.

5.3.2.81 #define CD\_APPLET\_RENDER\_NEW\_DATA\_ON\_MY\_ICON( *pValues* )

Add new values to the Data Renderer of the applet's icon. Values are a table of 'double', having the same size as defined when the data renderer was created (1 by default). It also triggers the redraw of the icon.

## Parameters

<i>pValues</i>	the values, a table of double of the correct size.
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## 5.3.2.82 #define CD\_APPLET\_REMOVE\_MY\_DATA\_RENDERER

Completely remove the Data Renderer of the applet's icon, including the values associated with.

## 5.3.2.83 #define CD\_APPLET\_SET\_MY\_DATA\_RENDERER\_HISTORY\_TO\_MAX

Set the history size of the Data Renderer of the applet's icon to the maximum size, that is to say 1 value per pixel.

## 5.3.2.84 #define CD\_APPLET\_MY\_CONTAINER\_IS\_OPENGL

Say if the applet's container currently supports OpenGL.

5.3.2.85 #define CD\_APPLET\_SET\_DESKLET\_RENDERER\_WITH\_DATA( *cRendererName*, *pConfig* )

Set a renderer to the applet's desklet and create myDrawContext. Call it at the beginning of init and also reload, to take into account the desklet's resizing.

## Parameters

<i>cRendererName</i>	name of the renderer.
<i>pConfig</i>	configuration data for the renderer, or NULL.

5.3.2.86 #define CD\_APPLET\_SET\_DESKLET\_RENDERER( *cRendererName* )

Set a renderer to the applet's desklet and create myDrawContext. Call it at the beginning of init and also reload, to take into account the desklet's resizing.

## Parameters

<i>cRendererName</i>	name of the renderer.
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## 5.3.2.87 #define CD\_APPLET\_SET\_STATIC\_DESKLET

Prevent the desklet from being rotated. Use it if your desklet has some static GtkWidget inside.

## 5.3.2.88 #define CD\_APPLET\_ALLOW\_NO\_CLICKABLE\_DESKLET

Prevent the desklet from being transparent to click. Use it if your desklet has no meaning in being unclickable.

## 5.3.2.89 #define CD\_APPLET\_DELETE\_MY\_ICONS\_LIST

Delete the list of icons of an applet (keep the subdock in dock mode).

5.3.2.90 #define CD\_APPLET\_REMOVE\_ICON\_FROM\_MY\_ICONS\_LIST( *plcon* )

Remove an icon from the list of icons of an applet. The icon is destroyed and should not be used after that.

## Parameters

<i>plcon</i>	the icon to remove.
--------------	---------------------

## Returns

whether the icon has been removed or not. In any case, the icon is freed.

5.3.2.91 #define CD\_APPLET\_DETACH\_ICON\_FROM\_MY\_ICONS\_LIST( *plcon* )

Detach an icon from the list of icons of an applet. The icon is not destroyed.

## Parameters

<i>plcon</i>	the icon to remove.
--------------	---------------------

## Returns

whether the icon has been removed or not.

5.3.2.92 #define CD\_APPLET\_LOAD\_MY\_ICONS\_LIST( *plconList*, *cDockRendererName*, *cDeskletRendererName*, *pDeskletRendererConfig* )

Load a list of icons into an applet, with the given renderer for the sub-dock or the desklet. The icons will be loaded automatically in an idle process.

## Parameters

<i>plconList</i>	a list of icons. It will belong to the applet's container after that.
<i>cDockRendererName</i> <i>RendererName</i>	name of a renderer in case the applet is in dock mode.



<i>cDesklet</i> ↔ <i>RendererName</i>	name of a renderer in case the applet is in desklet mode.
<i>pDesklet</i> ↔ <i>RendererConfig</i>	possible configuration parameters for the desklet renderer.

### 5.3.2.93 #define CD\_APPLET\_ADD\_ICON\_IN\_MY\_ICONS\_LIST( *pIcon* )

Add an icon into an applet. The view previously set by CD\_APPLET\_LOAD\_MY\_ICONS\_LIST will be used. The icon will be loaded automatically in an idle process.

#### Parameters

<i>pIcon</i>	an icon.
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### 5.3.2.94 #define CD\_APPLET\_MY\_ICONS\_LIST

Get the list of icons of your applet. It is either the icons of your sub-dock or of your desklet.

### 5.3.2.95 #define CD\_APPLET\_MY\_ICONS\_LIST\_CONTAINER

Get the container of the icons of your applet. It is either your sub-dock or your desklet.

### 5.3.2.96 #define CD\_APPLET\_MANAGE\_APPLICATION( *cApplicationClass* )

Let your applet control the window of an external program, instead of the Taskbar.

#### Parameters

<i>cApplication</i> ↔ <i>Class</i>	the class of the application you wish to control (in lower case), or NULL to stop controlling any appli.
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### 5.3.2.97 #define D\_( *message* )

Macro for gettext, similar to \_( ) et N\_( ), but with the domain of the applet. Surround all your strings with this, so that 'xgettext' can find them and automatically include them in the translation files.

## 5.3.3 Enumeration Type Documentation

### 5.3.3.1 enum CairoDockInfoDisplay

type of possible display on a Icon.

#### Enumerator

**CAIRO\_DOCK\_INFO\_NONE** don't display anything.

**CAIRO\_DOCK\_INFO\_ON\_ICON** display info on the icon (as quick-info).

**CAIRO\_DOCK\_INFO\_ON\_LABEL** display on the label of the icon.

## 5.3.4 Function Documentation

5.3.4.1 void `cairo_dock_set_icon_surface_full` ( `cairo_t * pIconContext`, `cairo_surface_t * pSurface`, double `fScale`, double `fAlpha`, `Icon * pIcon` )

Apply a surface on a context, with a zoom and a transparency factor. The context is cleared beforehand with the default icon background.

## Parameters

<i>pIconContext</i>	the drawing context; is not altered by the function.
<i>pSurface</i>	the surface to apply.
<i>fScale</i>	zoom factor.
<i>fAlpha</i>	transparency in [0,1].
<i>pIcon</i>	the icon.

#### 5.3.4.2 gboolean cairo\_dock\_set\_image\_on\_icon ( cairo\_t \* *pIconContext*, const gchar \* *clconName*, Icon \* *pIcon*, GldiContainer \* *pContainer* )

Apply an image on the context of an icon, clearing it beforehand, and adding the reflect.

## Parameters

<i>pIconContext</i>	the drawing context; is not altered by the function.
<i>clconName</i>	name or path to an icon image.
<i>pIcon</i>	the icon.
<i>pContainer</i>	the container of the icon.

## Returns

TRUE if everything went smoothly.

#### 5.3.4.3 void cairo\_dock\_set\_image\_on\_icon\_with\_default ( cairo\_t \* *pIconContext*, const gchar \* *clmage*, Icon \* *pIcon*, GldiContainer \* *pContainer*, const gchar \* *cDefaultImagePath* )

Apply an image on the context of an icon, clearing it beforehand, and adding the reflect. The image is searched in any possible locations, and the default image provided is used if the search was fruitless.

## Parameters

<i>pIconContext</i>	the drawing context; is not altered by the function.
<i>clmage</i>	name of an image to apply on the icon.
<i>pIcon</i>	the icon.
<i>pContainer</i>	the container of the icon.
<i>cDefaultImagePath</i>	path to a default image.

#### 5.3.4.4 gchar\* cairo\_dock\_get\_human\_readable\_size ( long long int *iSizeInBytes* )

Convert a size in bytes into a readable format.

## Parameters

<i>iSizeInBytes</i>	size in bytes.
---------------------	----------------

## Returns

a newly allocated string.

#### 5.3.4.5 void cairo\_dock\_play\_sound ( const gchar \* *cSoundPath* )

Play a sound, through Alsa or PulseAudio.

## Parameters

<i>cSoundPath</i>	path to an audio file.
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## 5.4 cairo-dock-applet-manager.h File Reference

### Macros

- #define [GLDI\\_OBJECT\\_IS\\_APPLET\\_ICON](#)(obj)

#### 5.4.1 Detailed Description

This class handles the Applet Icons, which are icons used by module instances. Note: they are not UserIcon, because they are created by and belongs to a ModuleInstance, which is the actual object belonging to the user.

#### 5.4.2 Macro Definition Documentation

##### 5.4.2.1 #define GLDI\_OBJECT\_IS\_APPLET\_ICON( *obj* )

Say if an object is a AppletIcon.

## Parameters

<i>obj</i>	the object.
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## Returns

TRUE if the object is a AppletIcon.

## 5.5 cairo-dock-applications-manager.h File Reference

### Macros

- #define [GLDI\\_OBJECT\\_IS\\_APPLI\\_ICON](#)(obj)

### Functions

- void [cairo\\_dock\\_start\\_applications\\_manager](#) (CairoDock \*pDock)
- GList \* [cairo\\_dock\\_get\\_current\\_applis\\_list](#) (void)
- Icon \* [cairo\\_dock\\_get\\_current\\_active\\_icon](#) (void)
- Icon \* [cairo\\_dock\\_get\\_appli\\_icon](#) (GdiWindowActor \*actor)
- void [cairo\\_dock\\_foreach\\_appli\\_icon](#) (GdiIconFunc pFunction, gpointer pUserData)

#### 5.5.1 Detailed Description

This class manages the list of icons representing a window, ie the Taskbar.

## 5.5.2 Macro Definition Documentation

### 5.5.2.1 #define GLDI\_OBJECT\_IS\_APPLI\_ICON( *obj* )

Say if an object is an Applilcon.

## Parameters

<i>obj</i>	the object.
------------	-------------

## Returns

TRUE if the object is a AppliIcon.

### 5.5.3 Function Documentation

#### 5.5.3.1 void cairo\_dock\_start\_applications\_manager ( CairoDock \* *pDock* )

Start the applications manager. It will load all the appli-icons, and keep monitoring them. If enabled, it will insert them into the dock.

## Parameters

<i>pDock</i>	the main dock
--------------	---------------

#### 5.5.3.2 GList\* cairo\_dock\_get\_current\_applis\_list ( void )

Get the list of appli-icons, including the icons not currently displayed in the dock. You can then order the list by z-order, name, etc.

## Returns

a newly allocated list of appli-icons. You must free the list when you're done with it, but not the icons.

#### 5.5.3.3 Icon\* cairo\_dock\_get\_current\_active\_icon ( void )

Get the icon of the currently active window, if any.

## Returns

the icon (maybe not inside a dock, maybe NULL).

#### 5.5.3.4 Icon\* cairo\_dock\_get\_appli\_icon ( GldiWindowActor \* *actor* )

Get the icon of a given window, if any.

## Parameters

<i>actor</i>	the window actor
--------------	------------------

## Returns

the icon (maybe not inside a dock, maybe NULL).

#### 5.5.3.5 void cairo\_dock\_foreach\_appli\_icon ( GldilconFunc *pFunction*, gpointer *pUserData* )

Run a function on all Appli icons.

## Parameters

<i>pFunction</i>	function to be called
<i>pUserData</i>	data passed to the function.

## 5.6 cairo-dock-cinnamon-integration.h File Reference

### 5.6.1 Detailed Description

This class implements the integration of Cinnamon inside Cairo-Dock.

## 5.7 cairo-dock-class-manager.h File Reference

### Data Structures

- struct [\\_CairoDockClassAppli](#)  
*Definition of a Class of application.*

### Macros

- #define [cairo\\_dock\\_register\\_class](#)(cDesktopFile)

### Functions

- void [gldi\\_window\\_foreach\\_inhibitor](#) (GldiWindowActor \*actor, GldiIconRFunc callback, gpointer data)
- void [cairo\\_dock\\_set\\_data\\_from\\_class](#) (const gchar \*cClass, Icon \*plcon)

### 5.7.1 Detailed Description

This class handles the Class Icons, which are icons pointing to the sub-dock of a class.

This class handles the management of the applications classes. Classes are used to group the windows of a same program, and to bind a launcher to the launched application.

### 5.7.2 Macro Definition Documentation

#### 5.7.2.1 #define [cairo\\_dock\\_register\\_class](#)( *cDesktopFile* )

Register a class corresponding to a desktop file. Launchers can then derive from the class.

#### Parameters

<i>cDesktopFile</i>	the desktop file path or name; if it's a name or if the path couldn't be found, it will be searched in the common directories.
---------------------	--

#### Returns

the class ID in a newly allocated string.

### 5.7.3 Function Documentation

5.7.3.1 void `gldi_window_foreach_inhibitor` ( `GldiWindowActor` \* *actor*, `GldiIconRFunc` *callback*, `gpointer` *data* )

Run a function on each Icon that inhibites a given window.



## Parameters

<i>actor</i>	the window actor
<i>callback</i>	function to be called
<i>data</i>	data passed to the callback

5.7.3.2 void `cairo_dock_set_data_from_class` ( const gchar \* *cClass*, Icon \* *pIcon* )

Make a launcher derive from a class. Parameters of the icon that are not NULL are not overwritten.

## Parameters

<i>cClass</i>	the class name
<i>pIcon</i>	the icon

## 5.8 cairo-dock-compiz-integration.h File Reference

## 5.8.1 Detailed Description

This class implements the integration of Compiz inside Cairo-Dock.

## 5.9 cairo-dock-config.h File Reference

## Functions

- void `cairo_dock_load_current_theme` (void)
- gboolean `cairo_dock_is_loading` (void)
- void `cairo_dock_decrypt_string` (const gchar \*cEncryptedString, gchar \*\*cDecryptedString)
- void `cairo_dock_encrypt_string` (const gchar \*cDecryptedString, gchar \*\*cEncryptedString)

## 5.9.1 Detailed Description

This class manages the configuration system of Cairo-Dock. Cairo-Dock and any items (icons, root docks, modules, etc) are configured by conf files. Conf files contains some information usable by the GUI manager to build a corresponding config panel and update the conf file automatically, which relieves you from this thankless task.

## 5.9.2 Function Documentation

5.9.2.1 void `cairo_dock_load_current_theme` ( void )

Load the current theme. This will (re)load all the parameters of Cairo-Dock and all the plug-ins, as if you just started the dock.

5.9.2.2 gboolean `cairo_dock_is_loading` ( void )

Say if Cairo-Dock is loading.

## Returns

TRUE if the global config is being loaded (this happens when a theme is loaded).

5.9.2.3 void `cairo_dock_decrypt_string` ( const gchar \* *cEncryptedString*, gchar \*\* *cDecryptedString* )

Decrypt a string (uses DES-encryption from libcrypt).

## Parameters

<i>cEncryptedString</i>	the encrypted string.
<i>cDecryptedString</i>	the decrypted string.

## 5.9.2.4 void cairo\_dock\_encrypt\_string ( const gchar \* cDecryptedString, gchar \*\* cEncryptedString )

Encrypt a string (uses DES-encryption from libcrypt).

## Parameters

<i>cDecryptedString</i>	the decrypted string.
<i>cEncryptedString</i>	the encrypted string.

## 5.10 cairo-dock-container.h File Reference

## Data Structures

- struct [\\_GldiContainer](#)  
*Definition of a Container, whom derive Dock, Desklet, Dialog and FlyingContainer.*
- struct [\\_GldiContainerManagerBackend](#)  
*Definition of the Container backend. It defines some operations that should be, but are not, provided by GTK.*

## Macros

- #define [CAIRO\\_CONTAINER\(p\)](#)  
*Get the Container part of a pointer.*
- #define [CAIRO\\_DOCK\\_IS\\_CONTAINER\(obj\)](#)
- #define [gldi\\_container\\_enable\\_drop\(pContainer, pCallBack, data\)](#)

## Enumerations

- enum [GldiContainerNotifications](#) {  
[NOTIFICATION\\_BUILD\\_CONTAINER\\_MENU](#),  
[NOTIFICATION\\_BUILD\\_ICON\\_MENU](#),  
[NOTIFICATION\\_CLICK\\_ICON](#),  
[NOTIFICATION\\_DOUBLE\\_CLICK\\_ICON](#),  
[NOTIFICATION\\_MIDDLE\\_CLICK\\_ICON](#),  
[NOTIFICATION\\_SCROLL\\_ICON](#),  
[NOTIFICATION\\_ENTER\\_ICON](#),  
[NOTIFICATION\\_START\\_DRAG\\_DATA](#),  
[NOTIFICATION\\_DROP\\_DATA](#),  
[NOTIFICATION\\_MOUSE\\_MOVED](#),  
[NOTIFICATION\\_KEY\\_PRESSED](#),  
[NOTIFICATION\\_UPDATE](#),  
[NOTIFICATION\\_UPDATE\\_SLOW](#),  
[NOTIFICATION\\_RENDER](#) }  
*signals*
- enum [CairoDockTypeHorizontal](#)  
*Main orientation of a container.*

## Functions

- void `gldi_container_reserve_space` (`GldiContainer *pContainer`, int left, int right, int top, int bottom, int left\_start\_y, int left\_end\_y, int right\_start\_y, int right\_end\_y, int top\_start\_x, int top\_end\_x, int bottom\_start\_x, int bottom\_end\_x)
- int `gldi_container_get_current_desktop_index` (`GldiContainer *pContainer`)
- void `gldi_container_move` (`GldiContainer *pContainer`, int iNumDesktop, int iAbsolutePositionX, int iAbsolutePositionY)
- gboolean `gldi_container_is_active` (`GldiContainer *pContainer`)
- void `gldi_container_present` (`GldiContainer *pContainer`)
- void `cairo_dock_redraw_container` (`GldiContainer *pContainer`)
- void `cairo_dock_redraw_container_area` (`GldiContainer *pContainer`, `GdkRectangle *pArea`)
- void `cairo_dock_redraw_icon` (`Icon *icon`)
- void `gldi_container_notify_drop_data` (`GldiContainer *pContainer`, `gchar *cReceivedData`, `Icon *pPointedIcon`, double fOrder)
- `GtkWidget *` `gldi_container_build_menu` (`GldiContainer *pContainer`, `Icon *icon`)

### 5.10.1 Detailed Description

This class defines the Containers, that are classic or hardware accelerated animated windows, and exposes common functions, such as redrawing a part of a container or popping a menu on a container.

A Container is a rectangular on-screen located surface, has the notion of orientation, can hold external datas, monitors the mouse position, and has its own animation loop.

Docks, Desklets, Dialogs, and Flying-containers all derive from Containers.

### 5.10.2 Macro Definition Documentation

#### 5.10.2.1 `#define CAIRO_DOCK_IS_CONTAINER( obj )`

Say if an object is a Container.

##### Parameters

<i>obj</i>	the object.
------------	-------------

##### Returns

TRUE if the object is a Container.

#### 5.10.2.2 `#define gldi_container_enable_drop( pContainer, pCallback, data )`

Enable a Container to accept drag-and-drops.

##### Parameters

<i>pContainer</i>	a container.
<i>pCallback</i>	the function that will be called when some data is received.
<i>data</i>	data passed to the callback.

### 5.10.3 Enumeration Type Documentation

#### 5.10.3.1 `enum GldiContainerNotifications`

signals

## Enumerator

- NOTIFICATION\_BUILD\_CONTAINER\_MENU** notification called when the menu is being built on a container. data : {Icon, GldiContainer, GtkMenu, gboolean\*}
- NOTIFICATION\_BUILD\_ICON\_MENU** notification called when the menu is being built on an icon (possibly NULL). data : {Icon, GldiContainer, GtkMenu}
- NOTIFICATION\_CLICK\_ICON** notification called when use clicks on an icon data : {Icon, CairoDock, int}
- NOTIFICATION\_DOUBLE\_CLICK\_ICON** notification called when the user double-clicks on an icon. data : {Icon, CairoDock}
- NOTIFICATION\_MIDDLE\_CLICK\_ICON** notification called when the user middle-clicks on an icon. data : {Icon, CairoDock}
- NOTIFICATION\_SCROLL\_ICON** notification called when the user scrolls on an icon. data : {Icon, CairoDock, int}
- NOTIFICATION\_ENTER\_ICON** notification called when the mouse enters an icon. data : {Icon, CairoDock, gboolean\*}
- NOTIFICATION\_START\_DRAG\_DATA** notification called when the mouse enters a dock while dragging an object.
- NOTIFICATION\_DROP\_DATA** notification called when something is dropped inside a container. data ← : {gchar\*, Icon, double\*, CairoDock}
- NOTIFICATION\_MOUSE\_MOVED** notification called when the mouse has moved inside a container.
- NOTIFICATION\_KEY\_PRESSED** notification called when a key is pressed in a container that has the focus.
- NOTIFICATION\_UPDATE** notification called for the fast rendering loop on a container.
- NOTIFICATION\_UPDATE\_SLOW** notification called for the slow rendering loop on a container.
- NOTIFICATION\_RENDER** notification called when a container is rendered.

## 5.10.4 Function Documentation

- 5.10.4.1 void `gldi_container_reserve_space ( GldiContainer * pContainer, int left, int right, int top, int bottom, int left_start_y, int left_end_y, int right_start_y, int right_end_y, int top_start_x, int top_end_x, int bottom_start_x, int bottom_end_x )`

Reserve a space on the screen for a Container; other windows won't overlap this space when maximised.

## Parameters

<i>pContainer</i>	the container
<i>left</i>	
<i>right</i>	
<i>top</i>	
<i>bottom</i>	
<i>left_start_y</i>	
<i>left_end_y</i>	
<i>right_start_y</i>	
<i>right_end_y</i>	
<i>top_start_x</i>	
<i>top_end_x</i>	
<i>bottom_start_x</i>	
<i>bottom_end_x</i>	

- 5.10.4.2 int `gldi_container_get_current_desktop_index ( GldiContainer * pContainer )`

Get the desktop and viewports a Container is placed on.

## Parameters

<i>pContainer</i>	the container
-------------------	---------------

## Returns

an index representing the desktop and viewports.

#### 5.10.4.3 void gldi\_container\_move ( GldiContainer \* pContainer, int iNumDesktop, int iAbsolutePositionX, int iAbsolutePositionY )

Move a Container to a given desktop, viewport, and position (similar to gtk\_window\_move except that the position is defined on the whole desktop (made of all viewports); it's only useful if the Container is sticky).

## Parameters

<i>pContainer</i>	the container
<i>iNumDesktop</i>	desktop number
<i>iAbsolutePositionX</i>	horizontal position on the virtual screen
<i>iAbsolutePositionY</i>	vertical position on the virtual screen

#### 5.10.4.4 gboolean gldi\_container\_is\_active ( GldiContainer \* pContainer )

Tell if a Container is the current active window (similar to gtk\_window\_is\_active but actually works).

## Parameters

<i>pContainer</i>	the container
-------------------	---------------

## Returns

TRUE if the Container is the current active window.

#### 5.10.4.5 void gldi\_container\_present ( GldiContainer \* pContainer )

Show a Container and make it take the focus (similar to gtk\_window\_present, but bypasses the WM focus steal prevention).

## Parameters

<i>pContainer</i>	the container
-------------------	---------------

#### 5.10.4.6 void cairo\_dock\_redraw\_container ( GldiContainer \* pContainer )

Clear and trigger the redraw of a Container.

## Parameters

<i>pContainer</i>	the Container to redraw.
-------------------	--------------------------

#### 5.10.4.7 void cairo\_dock\_redraw\_container\_area ( GldiContainer \* pContainer, GdkRectangle \* pArea )

Clear and trigger the redraw of a part of a container.

## Parameters

<i>pContainer</i>	the Container to redraw.
<i>pArea</i>	the zone to redraw.

## 5.10.4.8 void cairo\_dock\_redraw\_icon ( Icon \* icon )

Clear and trigger the redraw of an Icon. The drawing is not done immediately, but when the expose event is received.

## Parameters

<i>icon</i>	l'icone a retracer.
-------------	---------------------

## 5.10.4.9 void gldi\_container\_notify\_drop\_data ( GldiContainer \* pContainer, gchar \* cReceivedData, Icon \* pPointedIcon, double fOrder )

Notify everybody that a drop has just occurred.

## Parameters

<i>cReceivedData</i>	the dropped data.
<i>pPointedIcon</i>	the icon which was pointed when the drop occurred.
<i>fOrder</i>	the order of the icon if the drop occurred on it, or LAST_ORDER if the drop occurred between 2 icons.
<i>pContainer</i>	the container of the icon

## 5.10.4.10 GtkWidget\* gldi\_container\_build\_menu ( GldiContainer \* pContainer, Icon \* icon )

Build the main menu of a Container.

## Parameters

<i>icon</i>	the icon that was left-clicked, or NULL if none.
<i>pContainer</i>	the container that was left-clicked.

## Returns

the menu.

## 5.11 cairo-dock-core.h File Reference

## 5.11.1 Detailed Description

This class instanciates the different core managers.

## 5.12 cairo-dock-data-renderer-manager.h File Reference

## Macros

- #define [GLDI\\_OBJECT\\_IS\\_DATA\\_RENDERER\(obj\)](#)

## Functions

- [CairoDockGLFont](#) \* [cairo\\_dock\\_get\\_default\\_data\\_renderer\\_font](#) (void)

### 5.12.1 Detailed Description

This class manages the list of available Data Renderers and their global resources.

### 5.12.2 Macro Definition Documentation

#### 5.12.2.1 #define GLDI\_OBJECT\_IS\_DATA\_RENDERER( obj )

Say if an object is a DataRenderer.

#### Parameters

<i>obj</i>	the object.
------------	-------------

#### Returns

TRUE if the object is a DataRenderer.

### 5.12.3 Function Documentation

#### 5.12.3.1 CairoDockGLFont\* cairo\_dock\_get\_default\_data\_renderer\_font ( void )

Get the default GLX font for Data Renderer. It can render strings of ASCII characters fastly. Don't destroy it.

#### Returns

the default GLX font

## 5.13 cairo-dock-data-renderer.h File Reference

### Data Structures

- struct [\\_CairoDataRendererAttribute](#)  
*Generic DataRenderer attributes structure. The attributes of any implementation of a DataRenderer will derive from this class.*
- struct [\\_CairoDataRendererInterface](#)  
*Interface of a DataRenderer.*
- struct [\\_CairoDataRenderer](#)  
*Generic DataRenderer. Any implementation of a DataRenderer will derive from this class.*

### Macros

- #define [cairo\\_dock\\_get\\_icon\\_data\\_renderer](#)(plcon)
- #define [CAIRO\\_DATA\\_RENDERER](#)(r)
- #define [cairo\\_data\\_renderer\\_get\\_data](#)(pRenderer)
- #define [CAIRO\\_DATA\\_RENDERER\\_ATTRIBUTE](#)(pAttr)
- #define [cairo\\_data\\_renderer\\_get\\_nb\\_values](#)(pRenderer)
- #define [cairo\\_data\\_renderer\\_get\\_min\\_value](#)(pRenderer, i)
- #define [cairo\\_data\\_renderer\\_get\\_max\\_value](#)(pRenderer, i)



- #define `cairo_data_renderer_get_value`(pRenderer, i, t)
- #define `cairo_data_renderer_get_current_value`(pRenderer, i)
- #define `cairo_data_renderer_get_previous_value`(pRenderer, i)
- #define `cairo_data_renderer_get_normalized_value`(pRenderer, i, t)
- #define `cairo_data_renderer_get_normalized_current_value`(pRenderer, i)
- #define `cairo_data_renderer_get_normalized_previous_value`(pRenderer, i)
- #define `cairo_data_renderer_get_normalized_current_value_with_latency`(pRenderer, i)
- #define `cairo_data_renderer_format_value_full`(pRenderer, i, cBuffer)
- #define `cairo_data_renderer_format_value`(pRenderer, i)

## Typedefs

- typedef void(\* `CairoDataRendererFormatValueFunc`)(`CairoDataRenderer` \*pRenderer, int iNumValue, gchar \*cFormatBuffer, int iBufferLength, gpointer data)

*Prototype of a function used to format the values in a short readable format (to be displayed as quick-info).*

## Functions

- `CairoDockGLFont` \* `cairo_dock_get_default_data_renderer_font` (void)
- void `cairo_dock_add_new_data_renderer_on_icon` (`Icon` \*plcon, `GldiContainer` \*pContainer, `CairoDataRendererAttribute` \*pAttribute)
- void `cairo_dock_render_new_data_on_icon` (`Icon` \*plcon, `GldiContainer` \*pContainer, `cairo_t` \*pCairoContext, double \*pNewValues)
- void `cairo_dock_remove_data_renderer_on_icon` (`Icon` \*plcon)
- void `cairo_dock_reload_data_renderer_on_icon` (`Icon` \*plcon, `GldiContainer` \*pContainer)
- void `cairo_dock_resize_data_renderer_history` (`Icon` \*plcon, int iNewMemorySize)
- void `cairo_dock_refresh_data_renderer` (`Icon` \*plcon, `GldiContainer` \*pContainer)

### 5.13.1 Detailed Description

This class defines the Data Renderer structure and API. A Data Renderer is a generic way to display a set of values on an icon. For instance you could represent the (cpu, memory, temperature) evolution over the time.

You bind a Data Renderer with `/ref cairo_dock_add_new_data_renderer_on_icon`. You can specify some attributes of the Data Renderer, especially the model that will be used; currently, 3 models are available: "gauge", "graph" and "progressbar".

You then feed the Data Renderer with `/ref cairo_dock_render_new_data_on_icon`, providing it the correct number of values.

To remove the Data Renderer from an icon, use `/ref cairo_dock_remove_data_renderer_on_icon`.

### 5.13.2 Macro Definition Documentation

#### 5.13.2.1 #define `cairo_dock_get_icon_data_renderer`( `plcon` )

Structure Access

#### 5.13.2.2 #define `CAIRO_DATA_RENDERER`( `r` )

Get the elementary part of a Data Renderer

## Parameters

<i>r</i>	a high level data renderer
----------	----------------------------

## Returns

a CairoDataRenderer\*

5.13.2.3 #define cairo\_data\_renderer\_get\_data( *pRenderer* )

Get the data of a Data Renderer

## Parameters

<i>pRenderer</i>	a data renderer
------------------	-----------------

## Returns

a CairoDataToRenderer\*

5.13.2.4 #define CAIRO\_DATA\_RENDERER\_ATTRIBUTE( *pAttr* )

Get the elementary part of a Data Renderer Attribute

## Parameters

<i>pAttr</i>	a high level data renderer attribute
--------------	--------------------------------------

## Returns

a CairoDataRendererAttribute\*

5.13.2.5 #define cairo\_data\_renderer\_get\_nb\_values( *pRenderer* )

Get the number of values a DataRenderer displays. It's also the size of any of its arrays.

## Parameters

<i>pRenderer</i>	a data renderer
------------------	-----------------

## Returns

number of values a DataRenderer displays

5.13.2.6 #define cairo\_data\_renderer\_get\_min\_value( *pRenderer*, *i* )

Data Access Get the lower range of the i-th value.

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value

## Returns

a double

5.13.2.7 `#define cairo_data_renderer_get_max_value( pRenderer, i )`

Get the upper range of the i-th value.

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value

## Returns

a double

5.13.2.8 #define cairo\_data\_renderer\_get\_value( *pRenderer*, *i*, *t* )

Get the i-th value at the time t.

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value
<i>t</i>	the time (in number of steps)

## Returns

a double

5.13.2.9 #define cairo\_data\_renderer\_get\_current\_value( *pRenderer*, *i* )

Get the current i-th value.

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value

## Returns

a double

5.13.2.10 #define cairo\_data\_renderer\_get\_previous\_value( *pRenderer*, *i* )

Get the previous i-th value.

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value

## Returns

a double

5.13.2.11 #define cairo\_data\_renderer\_get\_normalized\_value( *pRenderer*, *i*, *t* )

Get the normalized i-th value (between 0 and 1) at the time t.

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value
<i>t</i>	the time (in number of steps)

## Returns

a double in [0,1]

5.13.2.12 #define cairo\_data\_renderer\_get\_normalized\_current\_value( *pRenderer*, *i* )

Get the normalized current i-th value (between 0 and 1).

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value

## Returns

a double in [0,1]

5.13.2.13 #define cairo\_data\_renderer\_get\_normalized\_previous\_value( *pRenderer*, *i* )

Get the normalized previous i-th value (between 0 and 1).

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value

## Returns

a double in [0,1]

5.13.2.14 #define cairo\_data\_renderer\_get\_normalized\_current\_value\_with\_latency( *pRenderer*, *i* )

Get the normalized current i-th value (between 0 and 1), taking into account the latency of the smooth movement.

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value

## Returns

a double in [0,1]

5.13.2.15 #define cairo\_data\_renderer\_format\_value\_full( *pRenderer*, *i*, *cBuffer* )

Data Format Write a value in a readable text format.

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value
<i>cBuffer</i>	a buffer where to write

5.13.2.16 #define cairo\_data\_renderer\_format\_value( *pRenderer*, *i* )

Write a value in a readable text format in the renderer text buffer.

## Parameters

<i>pRenderer</i>	a data renderer
<i>i</i>	the number of the value

## 5.13.3 Function Documentation

## 5.13.3.1 CairoDockGLFont\* cairo\_dock\_get\_default\_data\_renderer\_font ( void )

Renderer manipulation Get the default GLX font for Data Renderer. It can render strings of digits from 0 to 9. Don't destroy it.

## Returns

the default GLX font

5.13.3.2 void cairo\_dock\_add\_new\_data\_renderer\_on\_icon ( Icon \* *plcon*, GldiContainer \* *pContainer*, CairoDataRendererAttribute \* *pAttribute* )

Add a Data Renderer on an icon. If the icon already has a Data Renderer, it is replaced by the new one, keeping the history alive.

## Parameters

<i>plcon</i>	the icon
<i>pContainer</i>	the icon's container
<i>pAttribute</i>	attributes defining the Renderer

5.13.3.3 void cairo\_dock\_render\_new\_data\_on\_icon ( Icon \* *plcon*, GldiContainer \* *pContainer*, cairo\_t \* *pCairoContext*, double \* *pNewValues* )

Draw the current values associated with the Renderer on the icon.

## Parameters

<i>plcon</i>	the icon
<i>pContainer</i>	the icon's container
<i>pCairoContext</i>	a drawing context on the icon
<i>pNewValues</i>	a set a new values (must be of the size defined on the creation of the Renderer)

5.13.3.4 void cairo\_dock\_remove\_data\_renderer\_on\_icon ( Icon \* *plcon* )

Remove the Data Renderer of an icon. All the allocated ressources will be freed.

## Parameters

<i>pIcon</i>	the icon
--------------	----------

5.13.3.5 void `cairo_dock_reload_data_renderer_on_icon ( Icon * pIcon, GdiContainer * pContainer )`

Reload the Data Renderer of an icon, keeping the history and the attributes. This is intended to be used when the icon size changes.

## Parameters

<i>pIcon</i>	the icon
<i>pContainer</i>	the icon's container

5.13.3.6 void `cairo_dock_resize_data_renderer_history ( Icon * pIcon, int iNewMemorySize )`

Resize the history of a DataRenderer of an icon, that is to say change the number of previous values that are remembered by the DataRenderer.

## Parameters

<i>pIcon</i>	the icon
<i>iNewMemorySize</i>	the new size of history

5.13.3.7 void `cairo_dock_refresh_data_renderer ( Icon * pIcon, GdiContainer * pContainer )`

Redraw the DataRenderer of an icon, with the current values.

## Parameters

<i>pIcon</i>	the icon
<i>pContainer</i>	the icon's container

## 5.14 cairo-dock-dbus.h File Reference

## Macros

- #define `CAIRO_DOCK_DBUS_GET_PROPERTY_IN_VALUE`(pDBusProxy, cInterface, cProperty, pProperties)  
*deprecated...*

## Functions

- DBusGConnection \* `cairo_dock_get_session_connection` (void)
- gboolean `cairo_dock_register_service_name` (const gchar \*cServiceName)
- gboolean `cairo_dock_dbus_is_enabled` (void)
- DBusGProxy \* `cairo_dock_create_new_session_proxy` (const char \*name, const char \*path, const char \*interface)
- DBusGProxy \* `cairo_dock_create_new_system_proxy` (const char \*name, const char \*path, const char \*interface)
- gboolean `cairo_dock_dbus_detect_application` (const gchar \*cName)
- gboolean `cairo_dock_dbus_detect_system_application` (const gchar \*cName)
- gboolean `cairo_dock_dbus_get_boolean` (DBusGProxy \*pDBusProxy, const gchar \*cAccessor)

- guint [cairo\\_dock\\_dbus\\_get\\_uinteger](#) (DBusGProxy \*pDBusProxy, const gchar \*cAccessor)
- int [cairo\\_dock\\_dbus\\_get\\_integer](#) (DBusGProxy \*pDBusProxy, const gchar \*cAccessor)
- gchar \* [cairo\\_dock\\_dbus\\_get\\_string](#) (DBusGProxy \*pDBusProxy, const gchar \*cAccessor)
- gchar \*\* [cairo\\_dock\\_dbus\\_get\\_string\\_list](#) (DBusGProxy \*pDBusProxy, const gchar \*cAccessor)
- gchar \* [cairo\\_dock\\_dbus\\_get\\_uchar](#) (DBusGProxy \*pDBusProxy, const gchar \*cAccessor)
- void [cairo\\_dock\\_dbus\\_call](#) (DBusGProxy \*pDBusProxy, const gchar \*cCommand)

### 5.14.1 Detailed Description

This class defines numerous convenient functions to use DBus inside Cairo-Dock. DBus is used to communicate and interact with other running applications.

### 5.14.2 Function Documentation

#### 5.14.2.1 DBusGConnection\* [cairo\\_dock\\_get\\_session\\_connection](#) ( void )

Get the connection to the 'session' Bus.

#### Returns

the connection to the bus.

#### 5.14.2.2 gboolean [cairo\\_dock\\_register\\_service\\_name](#) ( const gchar \* *cServiceName* )

Register a new service on the session bus.

#### Parameters

<i>cServiceName</i>	name of the service.
---------------------	----------------------

#### Returns

TRUE in case of success, false otherwise.

#### 5.14.2.3 gboolean [cairo\\_dock\\_dbus\\_is\\_enabled](#) ( void )

Say if the bus is available or not.

#### Returns

TRUE if the connection to the bus has been established.

#### 5.14.2.4 DBusGProxy\* [cairo\\_dock\\_create\\_new\\_session\\_proxy](#) ( const char \* *name*, const char \* *path*, const char \* *interface* )

Create a new proxy for the 'session' connection.

#### Parameters

<i>name</i>	a name on the bus.
-------------	--------------------



<i>path</i>	the path.
<i>interface</i>	name of the interface.

**Returns**

the newly created proxy. Use `g_object_unref` when your done with it.

#### 5.14.2.5 DBusGProxy\* cairo\_dock\_create\_new\_system\_proxy ( const char \* *name*, const char \* *path*, const char \* *interface* )

Create a new proxy for the 'system' connection.

**Parameters**

<i>name</i>	a name on the bus.
<i>path</i>	the path.
<i>interface</i>	name of the interface.

**Returns**

the newly created proxy. Use `g_object_unref` when your done with it.

#### 5.14.2.6 gboolean cairo\_dock\_dbus\_detect\_application ( const gchar \* *cName* )

Detect if an application is currently running on Session bus.

**Parameters**

<i>cName</i>	name of the application.
--------------	--------------------------

**Returns**

TRUE if the application is running and has a service on the bus.

#### 5.14.2.7 gboolean cairo\_dock\_dbus\_detect\_system\_application ( const gchar \* *cName* )

Detect if an application is currently running on System bus.

**Parameters**

<i>cName</i>	name of the application.
--------------	--------------------------

**Returns**

TRUE if the application is running and has a service on the bus.

#### 5.14.2.8 gboolean cairo\_dock\_dbus\_get\_boolean ( DBusGProxy \* *pDBusProxy*, const gchar \* *cAccessor* )

Get the value of a 'boolean' parameter on the bus.

**Parameters**

<i>pDBusProxy</i>	proxy to the connection.
<i>cAccessor</i>	name of the accessor.

**Returns**

the value of the parameter.

#### 5.14.2.9 guint cairo\_dock\_dbus\_get\_uinteger ( DBusGProxy \* *pDBusProxy*, const gchar \* *cAccessor* )

Get the value of an 'unsigned integer' parameter non signe on the bus.

**Parameters**

<i>pDBusProxy</i>	proxy to the connection.
<i>cAccessor</i>	name of the accessor.

**Returns**

the value of the parameter.

#### 5.14.2.10 int cairo\_dock\_dbus\_get\_integer ( DBusGProxy \* *pDBusProxy*, const gchar \* *cAccessor* )

Get the value of a 'integer' parameter on the bus.

**Parameters**

<i>pDBusProxy</i>	proxy to the connection.
<i>cAccessor</i>	name of the accessor.

**Returns**

the value of the parameter.

#### 5.14.2.11 gchar\* cairo\_dock\_dbus\_get\_string ( DBusGProxy \* *pDBusProxy*, const gchar \* *cAccessor* )

Get the value of a 'string' parameter on the bus.

**Parameters**

<i>pDBusProxy</i>	proxy to the connection.
<i>cAccessor</i>	name of the accessor.

**Returns**

the value of the parameter, to be freed with `g_free`.

#### 5.14.2.12 gchar\*\* cairo\_dock\_dbus\_get\_string\_list ( DBusGProxy \* *pDBusProxy*, const gchar \* *cAccessor* )

Get the value of a 'string list' parameter on the bus.

## Parameters

<i>pDBusProxy</i>	proxy to the connection.
<i>cAccessor</i>	name of the accessor.

## Returns

the value of the parameter, to be freed with `g_strfreev`.

5.14.2.13 `guchar* cairo_dock_dbus_get_uchar ( DBusGProxy * pDBusProxy, const gchar * cAccessor )`

Get the value of an 'unsigned char' parameter on the bus.

## Parameters

<i>pDBusProxy</i>	proxy to the connection.
<i>cAccessor</i>	name of the accessor.

## Returns

the value of the parameter.

5.14.2.14 `void cairo_dock_dbus_call ( DBusGProxy * pDBusProxy, const gchar * cCommand )`

Call a command on the bus.

## Parameters

<i>pDBusProxy</i>	proxy to the connection.
<i>cCommand</i>	name of the commande.

## 5.15 cairo-dock-default-view.h File Reference

### 5.15.1 Detailed Description

This class implements the Dock rendering interface and provides the "default" view.

## 5.16 cairo-dock-desklet-factory.h File Reference

### Data Structures

- [struct `\_CairoDeskletDecoration`](#)  
*Decoration of a Desklet.*
- [struct `\_CairoDeskletAttr`](#)  
*Configuration attributes of a Desklet.*
- [struct `\_CairoDeskletRenderer`](#)  
*Definition of a Desklet's renderer.*
- [struct `\_CairoDesklet`](#)  
*Definition of a Desklet, which derives from a Container.*

## Macros

- #define `GLDI_OBJECT_IS_DESKLET`(obj)
- #define `CAIRO_DESKLET`(pContainer)
- #define `gldi_desklet_add_interactive_widget`(pDesklet, pInteractiveWidget)

## Enumerations

- enum `CairoDeskletVisibility` {  
`CAIRO_DESKLET_NORMAL`,  
`CAIRO_DESKLET_KEEP_ABOVE`,  
`CAIRO_DESKLET_KEEP_BELOW`,  
`CAIRO_DESKLET_ON_WIDGET_LAYER`,  
`CAIRO_DESKLET_RESERVE_SPACE` }

*Type of accessibility of a Desklet.*

## Functions

- `CairoDesklet * gldi_desklet_new` (`CairoDeskletAttr *attr`)
- void `gldi_desklet_add_interactive_widget_with_margin` (`CairoDesklet *pDesklet`, `GtkWidget *pInteractiveWidget`, `int iRightMargin`)
- void `gldi_desklet_set_margin` (`CairoDesklet *pDesklet`, `int iRightMargin`)
- `GtkWidget * gldi_desklet_steal_interactive_widget` (`CairoDesklet *pDesklet`)
- void `gldi_desklet_hide` (`CairoDesklet *pDesklet`)
- void `gldi_desklet_show` (`CairoDesklet *pDesklet`)
- void `gldi_desklet_set_accessibility` (`CairoDesklet *pDesklet`, `CairoDeskletVisibility iVisibility`, `gboolean bSaveState`)
- void `gldi_desklet_set_sticky` (`CairoDesklet *pDesklet`, `gboolean bSticky`)
- void `gldi_desklet_lock_position` (`CairoDesklet *pDesklet`, `gboolean bPositionLocked`)

### 5.16.1 Detailed Description

This file is a part of the Cairo-Dock project Login : [ctaf42@gmail.com](mailto:ctaf42@gmail.com) Started on Sun Jan 27 18:35:38 2008 Cedric GESTES \$Id\$

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Copyright : (C) 2008 Cedric GESTES E-mail : see the 'copyright' file.

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 3 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details. You should have received a copy of the GNU General Public License along with this program. If not, see <http://www.gnu.org/licenses/>. This class defines the Desklets, that are Widgets placed directly on your desktop. A Desklet is a container that holds 1 applet's icon plus an optionnal list of other icons and an optionnal GTK widget, has a decoration, supports several accessibility types (like Compiz Widget Layer), and has a renderer. Desklets can be resized or moved directly with the mouse, and can be rotated in the 3 directions of space. To actually create or destroy a Desklet, use the Desklet Manager's functions in [cairo-dock-desklet-manager.h](#).

## 5.16.2 Macro Definition Documentation

### 5.16.2.1 #define GLDI\_OBJECT\_IS\_DESKLET( *obj* )

Say if an object is a Desklet.

Parameters

<i>obj</i>	the object.
------------	-------------

Returns

TRUE if the object is a Desklet.

### 5.16.2.2 #define CAIRO\_DESKLET( *pContainer* )

Cast a Container into a Desklet.

Parameters

<i>pContainer</i>	the container.
-------------------	----------------

Returns

the desklet.

### 5.16.2.3 #define gldi\_desklet\_add\_interactive\_widget( *pDesklet*, *pInteractiveWidget* )

Add a GtkWidget to a desklet. Only 1 widget is allowed per desklet, if you need more, you can just use a Gtk↳ Container, and place as many widget as you want inside.

Parameters

<i>pInteractive↳ Widget</i>	the widget to add.
<i>pDesklet</i>	the desklet.

## 5.16.3 Enumeration Type Documentation

### 5.16.3.1 enum CairoDeskletVisibility

Type of accessibility of a Desklet.

Enumerator

**CAIRO\_DESKLET\_NORMAL** Normal, like normal window.

**CAIRO\_DESKLET\_KEEP\_ABOVE** always above

**CAIRO\_DESKLET\_KEEP\_BELOW** always below

**CAIRO\_DESKLET\_ON\_WIDGET\_LAYER** on the Compiz widget layer

**CAIRO\_DESKLET\_RESERVE\_SPACE** prevent other windows form overlapping it

## 5.16.4 Function Documentation

### 5.16.4.1 CairoDesklet\* gldi\_desklet\_new ( CairoDeskletAttr \* *attr* )

Create a new desklet.

## Parameters

<i>attr</i>	the attributes of the desklet
-------------	-------------------------------

## Returns

the desklet.

5.16.4.2 void `gldi_desklet_add_interactive_widget_with_margin` ( CairoDesklet \* *pDesklet*, GtkWidget \* *pInteractiveWidget*, int *iRightMargin* )

Add a GtkWidget to a desklet. Only 1 widget is allowed per desklet, if you need more, you can just use a GtkContainer, and place as many widget as you want inside.

## Parameters

<i>pInteractiveWidget</i>	the widget to add.
<i>pDesklet</i>	the desklet.
<i>iRightMargin</i>	right margin, in pixels, useful to keep a clickable zone on the desklet, or 0 if you don't want a margin.

5.16.4.3 void `gldi_desklet_set_margin` ( CairoDesklet \* *pDesklet*, int *iRightMargin* )

Set the right margin of a desklet. This is useful to keep a clickable zone on the desklet when you put a GTK widget inside.

## Parameters

<i>pDesklet</i>	the desklet.
<i>iRightMargin</i>	right margin, in pixels.

5.16.4.4 GtkWidget\* `gldi_desklet_steal_interactive_widget` ( CairoDesklet \* *pDesklet* )

Detach the interactive widget from a desklet. The widget can then be placed anywhere after that. You have to unref it after you placed it into a container, or to destroy it.

## Parameters

<i>pDesklet</i>	the desklet with an interactive widget.
-----------------	---

## Returns

the widget.

5.16.4.5 void `gldi_desklet_hide` ( CairoDesklet \* *pDesklet* )

Hide a desklet.

## Parameters

<i>pDesklet</i>	the desklet.
-----------------	--------------

5.16.4.6 void `gldi_desklet_show` ( CairoDesklet \* *pDesklet* )

Show a desklet, and give it the focus.

## Parameters

<i>pDesklet</i>	the desklet.
-----------------	--------------

#### 5.16.4.7 void gldi\_desklet\_set\_accessibility ( CairoDesklet \* pDesklet, CairoDeskletVisibility iVisibility, gboolean bSaveState )

Set a desklet's accessibility. For Widget Layer, the WM must support it and the correct rule must be set up in the WM (for instance for Compiz : class=Cairo-dock & type=utility). The function automatically sets up the rule for Compiz (if Dbus is activated).

## Parameters

<i>pDesklet</i>	the desklet.
<i>iVisibility</i>	the new accessibility.
<i>bSaveState</i>	whether to save the new state in the conf file.

#### 5.16.4.8 void gldi\_desklet\_set\_sticky ( CairoDesklet \* pDesklet, gboolean bSticky )

Set a desklet sticky (i.e. visible on all desktops), or not. In case the desklet is set unsticky, its current desktop/viewport is saved.

## Parameters

<i>pDesklet</i>	the desklet.
<i>bSticky</i>	whether the desklet should be sticky or not.

#### 5.16.4.9 void gldi\_desklet\_lock\_position ( CairoDesklet \* pDesklet, gboolean bPositionLocked )

Lock the position of a desklet. This makes the desklet impossible to rotate, drag with the mouse, or retach to the dock. The new state is saved in conf.

## Parameters

<i>pDesklet</i>	the desklet.
<i>bPositionLocked</i>	whether the position should be locked or not.

## 5.17 cairo-dock-desklet-manager.h File Reference

### Typedefs

- typedef gboolean(\* [GldiDeskletForeachFunc](#))([CairoDesklet](#) \*pDesklet, gpointer data)  
*Definition of a function that runs through all desklets.*

### Enumerations

- enum [CairoDeskletNotifications](#) {  
  [NOTIFICATION\\_ENTER\\_DESKLET](#),  
  [NOTIFICATION\\_LEAVE\\_DESKLET](#),  
  [NOTIFICATION\\_CONFIGURE\\_DESKLET](#) }  
*signals*

## Functions

- `CairoDesklet * gldi_desklets_foreach` (`GldiDeskletForeachFunc pCallback`, `gpointer user_data`)
- `void gldi_desklets_foreach_icons` (`GldiIconFunc pFunction`, `gpointer pUserData`)
- `void gldi_desklets_set_visible` (`gboolean bOnWidgetLayerToo`)
- `void gldi_desklets_set_visibility_to_default` (`void`)

### 5.17.1 Detailed Description

This file is a part of the Cairo-Dock project

Login : `ctaf42@gmail.com` Started on Sun Jan 27 18:35:38 2008 Cedric GESTES \$Id\$

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This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details. You should have received a copy of the GNU General Public License along with this program. If not, see <http://www.gnu.org/licenses/>. This class manages the Desklets, that are Widgets placed directly on your desktop. A Desklet is a container that holds 1 applet's icon plus an optionnal list of other icons and an optionnal GTK widget, has a decoration, supports several accessibility types (like Compiz Widget Layer), and has a renderer. Desklets can be resized or moved directly with the mouse, and can be rotated in the 3 directions of space.

### 5.17.2 Enumeration Type Documentation

#### 5.17.2.1 enum CairoDeskletNotifications

signals

Enumerator

**NOTIFICATION\_ENTER\_DESKLET** notification called when the mouse enters a desklet.

**NOTIFICATION\_LEAVE\_DESKLET** notification called when the mouse leave a desklet.

**NOTIFICATION\_CONFIGURE\_DESKLET** notification called when a desklet is resized or moved on the screen.

### 5.17.3 Function Documentation

#### 5.17.3.1 CairoDesklet\* gldi\_desklets\_foreach ( GldiDeskletForeachFunc pCallback, gpointer user\_data )

Run a function through all the desklets. If the callback returns TRUE, then the loop ends and the function returns the current desklet.



## Parameters

<i>pCallback</i>	function to be called on each desklet. If it returns TRUE, the loop ends and the function returns the current desklet.
<i>user_data</i>	data to be passed to the callback.

## Returns

the found desklet, or NULL.

5.17.3.2 void gldi\_desklets\_foreach\_icons ( GldilconFunc *pFunction*, gpointer *pUserData* )

Execute an action on all icons being inside a desklet.

## Parameters

<i>pFunction</i>	the action.
<i>pUserData</i>	data passed to the callback.

5.17.3.3 void gldi\_desklets\_set\_visible ( gboolean *bOnWidgetLayerToo* )

Make all desklets visible. Their accessibility is set to [CAIRO\\_DESKLET\\_NORMAL](#).

## Parameters

<i>bOnWidgetLayerToo</i>	TRUE if you want to act on the desklet that are on the WidgetLayer as well.
--------------------------	---

## 5.17.3.4 void gldi\_desklets\_set\_visibility\_to\_default ( void )

Reset the desklets accessibility to the state defined in their conf file.

## 5.18 cairo-dock-desktop-manager.h File Reference

## Data Structures

- struct [\\_GldiDesktopManagerBackend](#)  
*Definition of the Desktop Manager backend.*
- struct [\\_GldiDesktopBackground](#)  
*Definition of a Desktop Background Buffer. It has a reference count so that it can be shared across all the lib.*

## Enumerations

- enum [CairoDesktopNotifications](#) {  
[NOTIFICATION\\_DESKTOP\\_CHANGED](#),  
[NOTIFICATION\\_DESKTOP\\_GEOMETRY\\_CHANGED](#),  
[NOTIFICATION\\_DESKTOP\\_VISIBILITY\\_CHANGED](#),  
[NOTIFICATION\\_KBD\\_STATE\\_CHANGED](#),  
[NOTIFICATION\\_DESKTOP\\_NAMES\\_CHANGED](#),  
[NOTIFICATION\\_DESKTOP\\_WALLPAPER\\_CHANGED](#),  
[NOTIFICATION\\_SHORTKEY\\_PRESSED](#),  
[NOTIFICATION\\_KEYMAP\\_CHANGED](#) }  
*signals*

## Functions

- void `gldi_desktop_manager_register_backend` (`GldiDesktopManagerBackend *pBackend`)
- gboolean `gldi_desktop_present_class` (`const gchar *cClass`)
- gboolean `gldi_desktop_present_windows` (`void`)
- gboolean `gldi_desktop_present_desktops` (`void`)
- gboolean `gldi_desktop_show_widget_layer` (`void`)
- gboolean `gldi_desktop_set_on_widget_layer` (`GldiContainer *pContainer`, `gboolean bOnWidgetLayer`)
- void `gldi_desktop_get_current` (`int *iCurrentDesktop`, `int *iCurrentViewportX`, `int *iCurrentViewportY`)

### 5.18.1 Detailed Description

This class manages the desktop: screen geometry, current desktop/viewport, etc, and notifies for any change on it.

### 5.18.2 Enumeration Type Documentation

#### 5.18.2.1 enum CairoDesktopNotifications

signals

Enumerator

**NOTIFICATION\_DESKTOP\_CHANGED** notification called when the user switches to another desktop/viewport. data : NULL

**NOTIFICATION\_DESKTOP\_GEOMETRY\_CHANGED** notification called when the geometry of the desktop has changed (number of viewports/desktops, dimensions). data: resolution-has-changed

**NOTIFICATION\_DESKTOP\_VISIBILITY\_CHANGED** notification called when the desktop is shown/hidden. data: NULL

**NOTIFICATION\_KBD\_STATE\_CHANGED** notification called when the state of the keyboard has changed.

**NOTIFICATION\_DESKTOP\_NAMES\_CHANGED** notification called when the names of the desktops have changed

**NOTIFICATION\_DESKTOP\_WALLPAPER\_CHANGED** notification called when the wallpaper has changed

**NOTIFICATION\_SHORTKEY\_PRESSED** notification called when a shortcutkey that has been registered by the dock is pressed. data: keycode, modifiers

**NOTIFICATION\_KEYMAP\_CHANGED** notification called when the keymap changed, before and after updating it. data: updated

### 5.18.3 Function Documentation

#### 5.18.3.1 void `gldi_desktop_manager_register_backend` ( `GldiDesktopManagerBackend * pBackend` )

Register a Desktop Manager backend. NULL functions do not overwrite existing ones.

Parameters

<code>pBackend</code>	a Desktop Manager backend; can be freed after.
-----------------------	--

#### 5.18.3.2 gboolean `gldi_desktop_present_class` ( `const gchar * cClass` )

Present all the windows of a given class.

## Parameters

<i>cClass</i>	the class.
---------------	------------

## Returns

TRUE on success

## 5.18.3.3 gboolean gldi\_desktop\_present\_windows ( void )

Present all the windows of the current desktop.

## Returns

TRUE on success

## 5.18.3.4 gboolean gldi\_desktop\_present\_desktops ( void )

Present all the desktops.

## Returns

TRUE on success

## 5.18.3.5 gboolean gldi\_desktop\_show\_widget\_layer ( void )

Show the Widget Layer.

## Returns

TRUE on success

5.18.3.6 gboolean gldi\_desktop\_set\_on\_widget\_layer ( GldiContainer \* *pContainer*, gboolean *bOnWidgetLayer* )

Set a Container to be displayed on the Widget Layer.

## Parameters

<i>pContainer</i>	a container.
<i>bOnWidgetLayer</i>	whether to set or unset the option.

## Returns

TRUE on success

5.18.3.7 void gldi\_desktop\_get\_current ( int \* *iCurrentDesktop*, int \* *iCurrentViewportX*, int \* *iCurrentViewportY* )

Get the current workspace (desktop and viewport).

## Parameters

<i>iCurrentDesktop</i>	will be filled with the current desktop number
<i>iCurrentViewportX</i>	will be filled with the current horizontal viewport number
<i>iCurrentViewportY</i>	will be filled with the current vertical viewport number

## 5.19 cairo-dock-dialog-factory.h File Reference

### Data Structures

- struct [\\_CairoDialogRenderer](#)  
*Definition of a Dialog renderer. It draws the inside of the Dialog.*
- struct [\\_CairoDialogDecorator](#)  
*Definition of a Dialog/Menu decorator. It draws the frame of the Dialog/Menu.*
- struct [\\_CairoDialog](#)  
*Definition of a Dialog.*

### Macros

- #define [CAIRO\\_DOCK\\_IS\\_DIALOG\(obj\)](#)
- #define [CAIRO\\_DIALOG\(pContainer\)](#)

### Functions

- [CairoDialog \\* gldi\\_dialog\\_new](#) (CairoDialogAttr \*pAttribute)
- [CairoDialog \\* gldi\\_dialog\\_show](#) (const gchar \*cText, [Icon \\*plcon](#), [GldiContainer \\*pContainer](#), double fTimeLength, const gchar \*clconPath, GtkWidget \*pInteractiveWidget, [CairoDockActionOnAnswerFunc pActionFunc](#), gpointer data, GFreeFunc pFreeDataFunc)
- [CairoDialog \\* gldi\\_dialog\\_show\\_temporary\\_with\\_icon\\_printf](#) (const gchar \*cText, [Icon \\*plcon](#), [GldiContainer \\*pContainer](#), double fTimeLength, const gchar \*clconPath,...) G\_GNUC\_PRINTF(1)
- [CairoDialog CairoDialog \\* gldi\\_dialog\\_show\\_temporary\\_with\\_icon](#) (const gchar \*cText, [Icon \\*plcon](#), [GldiContainer \\*pContainer](#), double fTimeLength, const gchar \*clconPath)
- [CairoDialog \\* gldi\\_dialog\\_show\\_temporary](#) (const gchar \*cText, [Icon \\*plcon](#), [GldiContainer \\*pContainer](#), double fTimeLength)
- [CairoDialog \\* gldi\\_dialog\\_show\\_temporary\\_with\\_default\\_icon](#) (const gchar \*cText, [Icon \\*plcon](#), [GldiContainer \\*pContainer](#), double fTimeLength)
- [CairoDialog \\* gldi\\_dialog\\_show\\_with\\_question](#) (const gchar \*cText, [Icon \\*plcon](#), [GldiContainer \\*pContainer](#), const gchar \*clconPath, [CairoDockActionOnAnswerFunc pActionFunc](#), gpointer data, GFreeFunc pFreeDataFunc)
- [CairoDialog \\* gldi\\_dialog\\_show\\_with\\_entry](#) (const gchar \*cText, [Icon \\*plcon](#), [GldiContainer \\*pContainer](#), const gchar \*clconPath, const gchar \*cTextForEntry, [CairoDockActionOnAnswerFunc pActionFunc](#), gpointer data, GFreeFunc pFreeDataFunc)
- [CairoDialog \\* gldi\\_dialog\\_show\\_with\\_value](#) (const gchar \*cText, [Icon \\*plcon](#), [GldiContainer \\*pContainer](#), const gchar \*clconPath, double fValue, double fMaxValue, [CairoDockActionOnAnswerFunc pActionFunc](#), gpointer data, GFreeFunc pFreeDataFunc)
- [CairoDialog \\* gldi\\_dialog\\_show\\_general\\_message](#) (const gchar \*cMessage, double fTimeLength)
- int [gldi\\_dialog\\_show\\_and\\_wait](#) (const gchar \*cText, [Icon \\*plcon](#), [GldiContainer \\*pContainer](#), const gchar \*clconPath, GtkWidget \*pInteractiveWidget)
- GtkWidget \* [gldi\\_dialog\\_steal\\_interactive\\_widget](#) ([CairoDialog \\*pDialog](#))

### 5.19.1 Detailed Description

This class defines the Dialog container, useful to bring interaction with the user. A Dialog is a container that points to an icon. It contains the following optionnal components :

- a message
- an image on its left
- a interaction widget below it
- some buttons at the bottom.

A Dialog is constructed with a set of attributes grouped inside a `_CairoDialogAttribute`. It has a Decorator that draws its shape, and a Renderer that draws its content.

To add buttons, you specify a list of images in the attributes. "ok" and "cancel" are key words for the default ok/cancel buttons. You also has to provide a callback function that will be called on click. When the user clicks on a button, the function is called with the number of the clicked button, counted from 0. -1 and -2 are set if the user pushed the Return or Escape keys. The dialog is unreferenced after the user's answer, so *you have to reference the dialog in the callback if you want to keep the dialog alive*.

This class defines various helper functions to build a Dialog.

Note that Dialogs and Menus share the same rendering.

### 5.19.2 Macro Definition Documentation

#### 5.19.2.1 `#define CAIRO_DOCK_IS_DIALOG( obj )`

Say if an object is a Dialog.

##### Parameters

<i>obj</i>	the object.
------------	-------------

##### Returns

TRUE if the object is a dialog.

#### 5.19.2.2 `#define CAIRO_DIALOG( pContainer )`

Cast a Container into a Dialog.

##### Parameters

<i>pContainer</i>	the container.
-------------------	----------------

##### Returns

the dialog.

### 5.19.3 Function Documentation

#### 5.19.3.1 `CairoDialog* gldi_dialog_new ( CairoDialogAttr * pAttribute )`

Create a new dialog.

## Parameters

<i>pAttribute</i>	attributes of the dialog.
-------------------	---------------------------

## Returns

the dialog.

**5.19.3.2 CairoDialog\*** `gldi_dialog_show ( const gchar * cText, Icon * plcon, GldiContainer * pContainer, double fTimeLength, const gchar * clconPath, GtkWidget * pInteractiveWidget, CairoDockActionOnAnswerFunc pActionFunc, gpointer data, GFreeFunc pFreeDataFunc )`

Pop up a dialog with a message, a widget, 2 buttons ok/cancel and an icon, all optional.

## Parameters

<i>cText</i>	the message to display.
<i>plcon</i>	the icon that will hold the dialog.
<i>pContainer</i>	the container of the icon.
<i>fTimeLength</i>	the duration of the dialog (in ms), or 0 for an unlimited dialog.
<i>clconPath</i>	path to an icon to display in the margin.
<i>pInteractiveWidget</i>	a GTK widget; It is destroyed with the dialog. Use 'cairo_dock_steal_interactive_widget_from_dialog()' before if you want to keep it alive.
<i>pActionFunc</i>	the callback called when the user makes its choice. NULL means there will be no buttons.
<i>data</i>	data passed as a parameter of the callback.
<i>pFreeDataFunc</i>	function used to free the data when the dialog is destroyed, or NULL if unnecessary.

## Returns

the newly created dialog.

**5.19.3.3 CairoDialog\*** `gldi_dialog_show_temporary_with_icon_printf ( const gchar * cText, Icon * plcon, GldiContainer * pContainer, double fTimeLength, const gchar * clconPath, ... )`

Pop up a dialog with a message, and a limited duration, and an icon in the margin.

## Parameters

<i>cText</i>	the message to display.
<i>plcon</i>	the icon that will hold the dialog.
<i>pContainer</i>	the container of the icon.
<i>fTimeLength</i>	the duration of the dialog (in ms), or 0 for an unlimited dialog.
<i>clconPath</i>	path to an icon.
...	arguments to insert in the message, in a printf way.

## Returns

the newly created dialog.

**5.19.3.4 CairoDialog\*** `gldi_dialog_show_temporary_with_icon ( const gchar * cText, Icon * plcon, GldiContainer * pContainer, double fTimeLength, const gchar * clconPath )`

Pop up a dialog with a message, and a limited duration, and an icon in the margin.

## Parameters

<i>cText</i>	the message to display.
<i>plcon</i>	the icon that will hold the dialog.
<i>pContainer</i>	the container of the icon.
<i>fTimeLength</i>	the duration of the dialog (in ms), or 0 for an unlimited dialog.
<i>clconPath</i>	path to an icon.

## Returns

the newly created dialog.

### 5.19.3.5 CairoDialog\* gldi\_dialog\_show\_temporary ( const gchar \* *cText*, Icon \* *plcon*, GldiContainer \* *pContainer*, double *fTimeLength* )

Pop up a dialog with a message, and a limited duration, with no icon.

## Parameters

<i>cText</i>	the message to display.
<i>plcon</i>	the icon that will hold the dialog.
<i>pContainer</i>	the container of the icon.
<i>fTimeLength</i>	the duration of the dialog (in ms), or 0 for an unlimited dialog.

## Returns

the newly created dialog et visible, avec une reference a 1.

### 5.19.3.6 CairoDialog\* gldi\_dialog\_show\_temporary\_with\_default\_icon ( const gchar \* *cText*, Icon \* *plcon*, GldiContainer \* *pContainer*, double *fTimeLength* )

Pop up a dialog with a message, and a limited duration, and a default icon.

## Parameters

<i>cText</i>	the format of the message to display.
<i>plcon</i>	the icon that will hold the dialog.
<i>pContainer</i>	the container of the icon.
<i>fTimeLength</i>	the duration of the dialog (in ms), or 0 for an unlimited dialog.

## Returns

the newly created dialog et visible, avec une reference a 1.

### 5.19.3.7 CairoDialog\* gldi\_dialog\_show\_with\_question ( const gchar \* *cText*, Icon \* *plcon*, GldiContainer \* *pContainer*, const gchar \* *clconPath*, CairoDockActionOnAnswerFunc *pActionFunc*, gpointer *data*, GFreeFunc *pFreeDataFunc* )

Pop up a dialog with a question and 2 buttons ok/cancel. The dialog is unreferenced after the user has answered, so if you want to keep it alive, you have to reference it in the callback.

## Parameters

<i>cText</i>	the message to display.
<i>plcon</i>	the icon that will hold the dialog.
<i>pContainer</i>	the container of the icon.
<i>clconPath</i>	path to an icon to display in the margin.
<i>pActionFunc</i>	the callback.
<i>data</i>	data passed as a parameter of the callback.
<i>pFreeDataFunc</i>	function used to free the data.

## Returns

the newly created dialog et visible, avec une reference a 1.

**5.19.3.8 CairoDialog\* gldi\_dialog\_show\_with\_entry ( const gchar \* *cText*, Icon \* *plcon*, GldiContainer \* *pContainer*, const gchar \* *clconPath*, const gchar \* *cTextForEntry*, CairoDockActionOnAnswerFunc *pActionFunc*, gpointer *data*, GFreeFunc *pFreeDataFunc* )**

Pop up a dialog with a text entry and 2 buttons ok/cancel. The dialog is unreferenced after the user has answered, so if you want to keep it alive, you have to reference it in the callback.

## Parameters

<i>cText</i>	the message to display.
<i>plcon</i>	the icon that will hold the dialog.
<i>pContainer</i>	the container of the icon.
<i>clconPath</i>	path to an icon to display in the margin.
<i>cTextForEntry</i>	text to display initially in the entry.
<i>pActionFunc</i>	the callback.
<i>data</i>	data passed as a parameter of the callback.
<i>pFreeDataFunc</i>	function used to free the data.

## Returns

the newly created dialog.

**5.19.3.9 CairoDialog\* gldi\_dialog\_show\_with\_value ( const gchar \* *cText*, Icon \* *plcon*, GldiContainer \* *pContainer*, const gchar \* *clconPath*, double *fValue*, double *fMaxValue*, CairoDockActionOnAnswerFunc *pActionFunc*, gpointer *data*, GFreeFunc *pFreeDataFunc* )**

Pop up a dialog with an horizontal scale between 0 and *fMaxValue* and 2 buttons ok/cancel. The dialog is unreferenced after the user has answered, so if you want to keep it alive, you have to reference it in the callback.

## Parameters

<i>cText</i>	the message to display.
<i>plcon</i>	the icon that will hold the dialog.
<i>pContainer</i>	the container of the icon.
<i>clconPath</i>	path to an icon to display in the margin.
<i>fValue</i>	initial value of the scale.
<i>fMaxValue</i>	maximum value of the scale.
<i>pActionFunc</i>	the callback.



<i>data</i>	data passed as a parameter of the callback.
<i>pFreeDataFunc</i>	function used to free the data.

**Returns**

the newly created dialog.

**5.19.3.10 CairoDialog\* gldi\_dialog\_show\_general\_message ( const gchar \* *cMessage*, double *fTimeLength* )**

Pop up a dialog, pointing on "the best icon possible". This allows to display a general message.

**Parameters**

<i>cMessage</i>	the message.
<i>fTimeLength</i>	life time of the dialog, in ms.

**Returns**

the newly created dialog, visible and with a reference of 1.

**5.19.3.11 int gldi\_dialog\_show\_and\_wait ( const gchar \* *cText*, Icon \* *plcon*, GldiContainer \* *pContainer*, const gchar \* *clconPath*, GtkWidget \* *pInteractiveWidget* )**

Pop up a dialog with GTK widget and 2 buttons ok/cancel, and block until the user makes its choice.

**Parameters**

<i>cText</i>	the message to display.
<i>plcon</i>	the icon that will hold the dialog.
<i>pContainer</i>	the container of the icon.
<i>clconPath</i>	path to an icon to display in the margin.
<i>pInteractiveWidget</i>	an interactive widget.

**Returns**

the number of the button that was clicked : 0 or -1 for OK, 1 or -2 for CANCEL, -3 if the dialog has been destroyed before. The dialog is destroyed after the user choosed, but the interactive widget is not destroyed, which allows to retrieve the changes made by the user. Destroy it with 'gtk\_widget\_destroy' when you're done with it.

**5.19.3.12 GtkWidget\* gldi\_dialog\_steal\_interactive\_widget ( CairoDialog \* *pDialog* )**

Detach the interactive widget from a dialog. The widget can then be placed anywhere after that. You have to unref it after you placed it into a container, or to destroy it.

**Parameters**

<i>pDialog</i>	the desklet with an interactive widget.
----------------	---

**Returns**

the widget.

## 5.20 cairo-dock-dialog-manager.h File Reference

### Typedefs

- typedef void(\* [CairoDockActionOnAnswerFunc](#) )(int iClickedButton, GtkWidget \*pInteractiveWidget, gpointer data, [CairoDialog](#) \*pDialog)

*Definition of a generic callback of a dialog, called when the user clicks on a button. Buttons are numbered from 0, -1 means 'Return' and -2 means 'Escape'.*

### Enumerations

- enum [CairoDialogNotifications](#)

*signals*

### Functions

- void [gldi\\_dialogs\\_remove\\_on\\_icon](#) ([Icon](#) \*icon)
- void [gldi\\_dialog\\_hide](#) ([CairoDialog](#) \*pDialog)
- void [gldi\\_dialog\\_unhide](#) ([CairoDialog](#) \*pDialog)
- void [gldi\\_dialog\\_toggle\\_visibility](#) ([CairoDialog](#) \*pDialog)

#### 5.20.1 Detailed Description

This class manages the Dialogs, that are useful to bring interaction with the user.

With dialogs, you can pop-up messages, ask for question, etc. Any GTK widget can be embedded inside a dialog, giving you any possible interaction with the user.

The most generic way to build a Dialog is to fill a `_CairoDialogAttr` and pass it to [gldi\\_dialog\\_new](#).

But in most of case, you can just use one of the following convenient functions, that will do the job for you.

- to show a message, you can use [gldi\\_dialog\\_show\\_temporary\\_with\\_icon](#)
- to ask the user a choice, a value or a text, you can use [gldi\\_dialog\\_show\\_with\\_question](#), [gldi\\_dialog\\_show\\_with\\_value](#) or [gldi\\_dialog\\_show\\_with\\_entry](#).
- if you want to pop up only 1 dialog at once on a given icon, use [gldi\\_dialogs\\_remove\\_on\\_icon](#) before you pop up your dialog.

#### 5.20.2 Function Documentation

##### 5.20.2.1 void [gldi\\_dialogs\\_remove\\_on\\_icon](#) ( [Icon](#) \* *icon* )

Remove the dialogs attached to an icon.

##### Parameters

<i>icon</i>	the icon you want to delete all dialogs from.
-------------	---

##### 5.20.2.2 void [gldi\\_dialog\\_hide](#) ( [CairoDialog](#) \* *pDialog* )

Hide a dialog.

## Parameters

<i>pDialog</i>	the dialog.
----------------	-------------

5.20.2.3 void gldi\_dialog\_unhide ( CairoDialog \* *pDialog* )

Show a dialog and give it focus.

## Parameters

<i>pDialog</i>	the dialog.
----------------	-------------

5.20.2.4 void gldi\_dialog\_toggle\_visibility ( CairoDialog \* *pDialog* )

Toggle the visibility of a dialog.

## Parameters

<i>pDialog</i>	the dialog.
----------------	-------------

## 5.21 cairo-dock-dock-facility.h File Reference

### Macros

- `#define cairo\_dock\_get\_available\_docks\_for\_icon(plcon)`

### Functions

- void [cairo\\_dock\\_update\\_dock\\_size](#) (CairoDock \*pDock)
- Icon \* [cairo\\_dock\\_calculate\\_dock\\_icons](#) (CairoDock \*pDock)
- void [cairo\\_dock\\_show\\_subdock](#) (Icon \*pPointedIcon, CairoDock \*pParentDock)
- GList \* [cairo\\_dock\\_get\\_available\\_docks](#) (CairoDock \*pParentDock, CairoDock \*pSubDock)
- void [cairo\\_dock\\_calculate\\_icons\\_positions\\_at\\_rest\\_linear](#) (GList \*plconList, double fFlatDockWidth)
- Icon \* [cairo\\_dock\\_apply\\_wave\\_effect\\_linear](#) (CairoDock \*pDock)
- double [cairo\\_dock\\_get\\_current\\_dock\\_width\\_linear](#) (CairoDock \*pDock)
- void [cairo\\_dock\\_check\\_if\\_mouse\\_inside\\_linear](#) (CairoDock \*pDock)
- void [cairo\\_dock\\_check\\_can\\_drop\\_linear](#) (CairoDock \*pDock)
- GList \* [cairo\\_dock\\_get\\_first\\_drawn\\_element\\_linear](#) (GList \*icons)

#### 5.21.1 Detailed Description

This class contains functions to manipulate docks. Some functions are dedicated to linear docks, that is to say when the icon's position can be defined by 1 coordinate inside a non looped interval; it doesn't mean they have to be drawn on a straight line though, see the Curve view.

#### 5.21.2 Macro Definition Documentation

##### 5.21.2.1 `#define cairo\_dock\_get\_available\_docks\_for\_icon( plcon )`

Get a list of available docks where an user icon can be placed. Its current parent dock is excluded, as well as its sub-dock (if any) and its children.

## Parameters

<i>pIcon</i>	the icon
--------------	----------

## Returns

a list of CairoDock\*

### 5.21.3 Function Documentation

#### 5.21.3.1 void cairo\_dock\_update\_dock\_size ( CairoDock \* pDock )

Compute the maximum size of a dock, and resize it if necessary. It takes into account the size limit, and moves the dock so that it stays centered. Also updates the dock's background if necessary, and re-place the appli thumbnails.

## Parameters

<i>pDock</i>	the dock.
--------------	-----------

#### 5.21.3.2 Icon\* cairo\_dock\_calculate\_dock\_icons ( CairoDock \* pDock )

Calculate the position of all icons inside a dock, and triggers the enter/leave events according to the position of the mouse.

## Parameters

<i>pDock</i>	the dock.
--------------	-----------

## Returns

the pointed icon, or NULL if none is pointed.

#### 5.21.3.3 void cairo\_dock\_show\_subdock ( Icon \* pPointedIcon, CairoDock \* pParentDock )

Pop up a sub-dock.

## Parameters

<i>pPointedIcon</i>	icon pointing on the sub-dock.
<i>pParentDock</i>	dock containing the icon.

#### 5.21.3.4 GList\* cairo\_dock\_get\_available\_docks ( CairoDock \* pParentDock, CairoDock \* pSubDock )

Get a list of available docks.

## Parameters

<i>pParentDock</i>	excluding this dock if not NULL
<i>pSubDock</i>	excluding this dock and its children if not NULL

## Returns

a list of CairoDock\*

#### 5.21.3.5 void cairo\_dock\_calculate\_icons\_positions\_at\_rest\_linear ( GList \* pIconList, double fFlatDockWidth )

Calculate the position at rest (when the mouse is outside of the dock and its size is normal) of the icons of a linear dock.

## Parameters

<i>pIconList</i>	a list of icons.
<i>fFlatDockWidth</i>	width of all the icons placed next to each other.

## 5.21.3.6 Icon\* cairo\_dock\_apply\_wave\_effect\_linear ( CairoDock \* pDock )

Apply a wave effect on the icons of a linear dock. It is the famous zoom when the mouse hovers an icon.

## Parameters

<i>pDock</i>	a linear dock.
--------------	----------------

## Returns

the pointed icon, or NULL if none is pointed.

## 5.21.3.7 double cairo\_dock\_get\_current\_dock\_width\_linear ( CairoDock \* pDock )

Get the current width of all the icons of a linear dock. It doesn't take into account any decoration or frame, only the space occupied by the icons.

## Parameters

<i>pDock</i>	a linear dock.
--------------	----------------

## Returns

the dock's width.

## 5.21.3.8 void cairo\_dock\_check\_if\_mouse\_inside\_linear ( CairoDock \* pDock )

Check the position of the mouse inside a linear dock. It can be inside, on the edge, or outside. Update the 'iMouse↔ PositionType' field.

## Parameters

<i>pDock</i>	a linear dock.
--------------	----------------

## 5.21.3.9 void cairo\_dock\_check\_can\_drop\_linear ( CairoDock \* pDock )

Check if one can drop inside a linear dock. Drop is allowed between 2 icons of the launchers group, if the user is dragging something over the dock. Update the 'bCanDrop' field.

## Parameters

<i>pDock</i>	a linear dock.
--------------	----------------

## 5.21.3.10 GList\* cairo\_dock\_get\_first\_drawn\_element\_linear ( GList \* icons )

Get the first icon to be drawn inside a linear dock, so that if you draw from left to right, the pointed icon will be drawn at last.

## Parameters

<i>icons</i>	a list of icons of a linear dock.
--------------	-----------------------------------

## Returns

the element of the list that contains the first icon to draw.

## 5.22 cairo-dock-dock-factory.h File Reference

### Data Structures

- struct [\\_CairoDockRenderer](#)  
*Dock's renderer, also known as 'view'.*
- struct [\\_CairoDock](#)  
*Definition of a Dock, which derives from a Container.*

### Macros

- #define [GLDI\\_OBJECT\\_IS\\_DOCK\(obj\)](#)
- #define [CAIRO\\_DOCK\(p\)](#)

### Functions

- [CairoDock \\*](#) [gldi\\_dock\\_new](#) (const gchar \*cDockName)
- [CairoDock \\*](#) [gldi\\_subdock\\_new](#) (const gchar \*cDockName, const gchar \*cRendererName, [CairoDock \\*](#)p← ParentDock, GList \*pIconList)
- void [cairo\\_dock\\_remove\\_icons\\_from\\_dock](#) ([CairoDock \\*](#)pDock, [CairoDock \\*](#)pReceivingDock)

#### 5.22.1 Detailed Description

This class defines the Docks, and gives the way to create, destroy, and fill them.

A dock is a container that holds a set of icons and a renderer (also known as view).

It has the ability to be placed anywhere on the screen edges and to resize itself automatically to fit the screen's size.

It supports internal dragging of its icons with the mouse, and dragging of itself with alt+mouse.

A dock can be either a main-dock (not linked to any icon) or a sub-dock (linked to an icon of another dock), and there can be as many docks of each sort as you want.

#### 5.22.2 Macro Definition Documentation

##### 5.22.2.1 #define GLDI\_OBJECT\_IS\_DOCK( *obj* )

Say if an object is a Dock.

## Parameters

<i>obj</i>	the object.
------------	-------------

## Returns

TRUE if the object is a Dock.

### 5.22.2.2 #define CAIRO\_DOCK( p )

Cast a Container into a Dock.

## Parameters

<i>p</i>	the container to consider as a dock.
----------	--------------------------------------

## Returns

the dock.

### 5.22.3 Function Documentation

#### 5.22.3.1 CairoDock\* gldi\_dock\_new ( const gchar \* *cDockName* )

Create a new root dock.

## Parameters

<i>cDockName</i>	the name that identifies the dock
------------------	-----------------------------------

## Returns

the new dock.

#### 5.22.3.2 CairoDock\* gldi\_subdock\_new ( const gchar \* *cDockName*, const gchar \* *cRendererName*, CairoDock \* *pParentDock*, GList \* *plconList* )

Create a new dock of type "sub-dock", and load a given list of icons inside. The list then belongs to the dock, so it must not be freed after that. The buffers of each icon are loaded, so they just need to have an image filename and a name.

## Parameters

<i>cDockName</i>	the name that identifies the dock.
<i>cRendererName</i>	name of a renderer. If NULL, the default renderer will be applied.
<i>pParentDock</i>	the parent dock.
<i>plconList</i>	a list of icons that will be loaded and inserted into the new dock (optional).

## Returns

the new dock.

#### 5.22.3.3 void cairo\_dock\_remove\_icons\_from\_dock ( CairoDock \* *pDock*, CairoDock \* *pReceivingDock* )

Remove all icons from a dock (and its sub-docks). If the receiving dock is NULL, the icons are destroyed and removed from the current theme itself.

## Parameters

<i>pDock</i>	a dock.
<i>pReceivingDock</i>	the dock that will receive the icons, or NULL to destroy and remove the icons.

## 5.23 cairo-dock-dock-manager.h File Reference

### Macros

- #define [gldi\\_dock\\_get\\_name](#)(pDock)



## Enumerations

- enum [GldiIconSize](#)  
*TODO: harmonize the values with the simple config -> make some public functions...*
- enum [CairoDocksNotifications](#) {  
[NOTIFICATION\\_ENTER\\_DOCK](#),  
[NOTIFICATION\\_LEAVE\\_DOCK](#),  
[NOTIFICATION\\_INSERT\\_ICON](#),  
[NOTIFICATION\\_REMOVE\\_ICON](#),  
[NOTIFICATION\\_ICON\\_MOVED](#) }  
*signals*

## Functions

- `gchar * gldi_dock_get_readable_name (CairoDock *pDock)`
- `CairoDock * gldi_dock_get (const gchar *cDockName)`
- `Icon * cairo_dock_search_icon_pointing_on_dock (CairoDock *pDock, CairoDock **pParentDock)`
- `void gldi_dock_rename (CairoDock *pDock, const gchar *cNewName)`
- `void gldi_docks_foreach (GFunc pFunction, gpointer pUserData)`
- `void gldi_docks_foreach_root (GFunc pFunction, gpointer pUserData)`
- `void gldi_icons_foreach_in_docks (GldiIconFunc pFunction, gpointer pUserData)`
- `void cairo_dock_reload_buffers_in_all_docks (gboolean bUpdateIconSize)`
- `void gldi_dock_add_conf_file_for_name (const gchar *cDockName)`
- `gchar * gldi_dock_add_conf_file (void)`
- `void gldi_docks_redraw_all_root (void)`
- `void gldi_dock_set_visibility (CairoDock *pDock, CairoDockVisibility iVisibility)`

### 5.23.1 Detailed Description

This class manages all the Docks. Each Dock has a name that is unique. A Dock can be a sub-dock or a root-dock, whether there exists an icon that points on it or not, but there is no fundamental difference between both.

### 5.23.2 Macro Definition Documentation

#### 5.23.2.1 `#define gldi_dock_get_name( pDock )`

Get the name of a Dock.

Parameters

<i>pDock</i>	the dock.
--------------	-----------

Returns

the name of the dock, that identifies it.

### 5.23.3 Enumeration Type Documentation

#### 5.23.3.1 enum [CairoDocksNotifications](#)

signals

Enumerator

**`NOTIFICATION_ENTER_DOCK`** notification called when the mouse enters a dock.

**NOTIFICATION\_LEAVE\_DOCK** notification called when the mouse leave a dock.

**NOTIFICATION\_INSERT\_ICON** notification called when an icon has just been inserted into a dock. data : {Icon, CairoDock}

**NOTIFICATION\_REMOVE\_ICON** notification called when an icon is going to be removed from a dock. data : {Icon, CairoDock}

**NOTIFICATION\_ICON\_MOVED** notification called when an icon is moved inside a dock. data : {Icon, CairoDock}

## 5.23.4 Function Documentation

### 5.23.4.1 `gchar* gldi_dock_get_readable_name ( CairoDock * pDock )`

Get a readable name for a main Dock, suitable for display (like "Bottom dock"). Sub-Docks names are defined by the user, so you can just use `gldi_dock_get_name` for them.

#### Parameters

<i>pDock</i>	the dock.
--------------	-----------

#### Returns

the readable name of the dock, or NULL if not found. Free it when you're done.

### 5.23.4.2 `CairoDock* gldi_dock_get ( const gchar * cDockName )`

Get a Dock from a given name.

#### Parameters

<i>cDockName</i>	the name of the dock.
------------------	-----------------------

#### Returns

the dock that has been registered under this name, or NULL if none exists.

### 5.23.4.3 `Icon* cairo_dock_search_icon_pointing_on_dock ( CairoDock * pDock, CairoDock ** pParentDock )`

Search an icon pointing on a dock. If several icons point on it, the first one will be returned.

#### Parameters

<i>pDock</i>	the dock.
<i>pParentDock</i>	if not NULL, this will be filled with the dock containing the icon.

#### Returns

the icon pointing on the dock.

### 5.23.4.4 `void gldi_dock_rename ( CairoDock * pDock, const gchar * cNewName )`

Rename a dock. Update the container's name of all of its icons.

## Parameters

<i>pDock</i>	the dock (optional).
<i>cNewName</i>	the new name.

5.23.4.5 void `gldi_docks_foreach` ( GHFunc *pFunction*, gpointer *pUserData* )

Execute an action on all docks.

## Parameters

<i>pFunction</i>	the action.
<i>pUserData</i>	data passed to the callback.

5.23.4.6 void `gldi_docks_foreach_root` ( GFunc *pFunction*, gpointer *pUserData* )

Execute an action on all main docks.

## Parameters

<i>pFunction</i>	the action.
<i>pUserData</i>	data passed to the callback.

5.23.4.7 void `gldi_icons_foreach_in_docks` ( GldilconFunc *pFunction*, gpointer *pUserData* )

Execute an action on all icons being inside a dock.

## Parameters

<i>pFunction</i>	the action.
<i>pUserData</i>	data passed to the callback.

5.23.4.8 void `cairo_dock_reload_buffers_in_all_docks` ( gboolean *bUpdateIconSize* )

(Re)load all buffers of all icons in all docks.

## Parameters

<i>bUpdateIconSize</i>	TRUE to recalculate the icons and docks size.
------------------------	---

5.23.4.9 void `gldi_dock_add_conf_file_for_name` ( const gchar \* *cDockName* )

Add a config file for a root dock. Does not create the dock (use [gldi\\_dock\\_new](#) for that). If the config file already exists, it is overwritten (use [gldi\\_dock\\_get](#) to check if the name is already used).

## Parameters

<i>cDockName</i>	name of the dock.
------------------	-------------------

5.23.4.10 gchar\* `gldi_dock_add_conf_file` ( void )

Add a config file for a new root dock. Does not create the dock (use [gldi\\_dock\\_new](#) for that).

**Returns**

the unique name for the new dock, to be passed to [gldi\\_dock\\_new](#).

**5.23.4.11 void gldi\_docks\_redraw\_all\_root ( void )**

Redraw every root docks.

**5.23.4.12 void gldi\_dock\_set\_visibility ( CairoDock \* pDock, CairoDockVisibility iVisibility )**

Set the visibility of a root dock. Perform all the necessary actions.

**Parameters**

<i>pDock</i>	a root dock.
<i>iVisibility</i>	its new visibility.

**5.24 cairo-dock-dock-visibility.h File Reference****Functions**

- [GldiWindowActor \\* gldi\\_dock\\_search\\_overlapping\\_window \(CairoDock \\*pDock\)](#)

**5.24.1 Detailed Description**

This class manages the visibility of Docks.

**5.24.2 Function Documentation****5.24.2.1 GldiWindowActor\* gldi\_dock\_search\_overlapping\_window ( CairoDock \* pDock )**

Get the application whose window overlaps a dock, or NULL if none.

**Parameters**

<i>pDock</i>	the dock to test.
--------------	-------------------

**Returns**

the window actor, or NULL if none has been found.

**5.25 cairo-dock-draw-opengl.h File Reference****Macros**

- `#define cairo\_dock\_create\_texture\_from\_image(cImagePath)`
- `#define \_cairo\_dock\_delete\_texture(iTexture)`
- `#define \_cairo\_dock\_enable\_texture(...)`
- `#define \_cairo\_dock\_disable\_texture(...)`
- `#define \_cairo\_dock\_set\_alpha(fAlpha)`
- `#define \_cairo\_dock\_set\_blend\_source(...)`
- `#define \_cairo\_dock\_set\_blend\_alpha(...)`

- #define `_cairo_dock_set_blend_over(...)`
- #define `_cairo_dock_set_blend_pbuffer(...)`
- #define `_cairo_dock_apply_texture_at_size(iTexture, w, h)`
- #define `_cairo_dock_apply_texture(iTexture)`
- #define `_cairo_dock_apply_texture_at_size_with_alpha(iTexture, w, h, fAlpha)`

## Functions

- void `cairo_dock_render_one_icon_opengl` (`Icon *icon`, `CairoDock *pDock`, double `fDockMagnitude`, boolean `bUseText`)
- GLuint `cairo_dock_create_texture_from_surface` (`cairo_surface_t *pImageSurface`)
- GLuint `cairo_dock_create_texture_from_raw_data` (`const guchar *pTextureRaw`, int `iWidth`, int `iHeight`)
- GLuint `cairo_dock_create_texture_from_image_full` (`const gchar *cImagePath`, double `*fImageWidth`, double `*fImageHeight`)
- void `cairo_dock_update_icon_texture` (`Icon *pIcon`)

### 5.25.1 Detailed Description

This class provides some useful functions to draw with OpenGL.

### 5.25.2 Macro Definition Documentation

#### 5.25.2.1 #define `cairo_dock_create_texture_from_image( cImagePath )`

Load an image on the dock into an OpenGL texture. The texture will have the same size as the image.

##### Parameters

<code>cImagePath</code>	path to an image.
-------------------------	-------------------

##### Returns

the newly allocated texture, to be destroyed with `_cairo_dock_delete_texture`.

#### 5.25.2.2 #define `_cairo_dock_delete_texture( iTexture )`

Delete an OpenGL texture from the Graphic Card.

##### Parameters

<code>iTexture</code>	variable containing the ID of a texture.
-----------------------	--

#### 5.25.2.3 #define `_cairo_dock_enable_texture( ... )`

Enable texture drawing.

#### 5.25.2.4 #define `_cairo_dock_disable_texture( ... )`

Disable texture drawing.

#### 5.25.2.5 #define `_cairo_dock_set_alpha( fAlpha )`

Set the alpha channel to a current value, other channels are set to 1.

## Parameters

<i>fAlpha</i>	alpha
---------------	-------

## 5.25.2.6 #define \_cairo\_dock\_set\_blend\_source( ... )

Set the color blending to overwrite.

## 5.25.2.7 #define \_cairo\_dock\_set\_blend\_alpha( ... )

Set the color blending to mix, for premultiplied texture.

## 5.25.2.8 #define \_cairo\_dock\_set\_blend\_over( ... )

Set the color blending to mix.

## 5.25.2.9 #define \_cairo\_dock\_set\_blend\_pbuffer( ... )

Set the color blending to mix on a pbuffer.

5.25.2.10 #define \_cairo\_dock\_apply\_texture\_at\_size( *iTexture*, *w*, *h* )

Draw a texture centered on the current point, at a given size.

## Parameters

<i>iTexture</i>	the texture
<i>w</i>	width
<i>h</i>	height

5.25.2.11 #define \_cairo\_dock\_apply\_texture( *iTexture* )

Apply a texture centered on the current point and at the given scale.

## Parameters

<i>iTexture</i>	the texture
-----------------	-------------

5.25.2.12 #define \_cairo\_dock\_apply\_texture\_at\_size\_with\_alpha( *iTexture*, *w*, *h*, *fAlpha* )

Draw a texture centered on the current point, at a given size, and with a given transparency.

## Parameters

<i>iTexture</i>	the texture
<i>w</i>	width
<i>h</i>	height
<i>fAlpha</i>	the transparency, between 0 and 1.

## 5.25.3 Function Documentation

5.25.3.1 void `cairo_dock_render_one_icon_opengl` ( `Icon * icon`, `CairoDock * pDock`, `double fDockMagnitude`, `gboolean bUseText` )

Draw an icon, according to its current parameters : position, transparency, reflect, rotation, stretching. Also draws its indicators, label, and quick-info. It generates a CAIRO\_DOCK\_RENDER\_ICON notification.

## Parameters

<i>icon</i>	the icon to draw.
<i>pDock</i>	the dock containing the icon.
<i>fDockMagnitude</i>	current magnitude of the dock.
<i>bUseText</i>	TRUE to draw the labels.

5.25.3.2 `GLuint cairo_dock_create_texture_from_surface ( cairo_surface_t * pImageSurface )`

Load a cairo surface into an OpenGL texture. The surface can be destroyed after that if you don't need it. The texture will have the same size as the surface.

## Parameters

<i>pImageSurface</i>	the surface, created with one of the 'cairo_dock_create_surface_xxx' functions.
----------------------	---

## Returns

the newly allocated texture, to be destroyed with `_cairo_dock_delete_texture`.

5.25.3.3 `GLuint cairo_dock_create_texture_from_raw_data ( const guchar * pTextureRaw, int iWidth, int iHeight )`

Load a pixels buffer representing an image into an OpenGL texture.

## Parameters

<i>pTextureRaw</i>	a buffer of pixels.
<i>iWidth</i>	width of the image.
<i>iHeight</i>	height of the image.

## Returns

the newly allocated texture, to be destroyed with `_cairo_dock_delete_texture`.

5.25.3.4 `GLuint cairo_dock_create_texture_from_image_full ( const gchar * cImagePath, double * fImageWidth, double * fImageHeight )`

Load an image on the dock into an OpenGL texture. The texture will have the same size as the image. The size is given as an output, if you need it for some reason.

## Parameters

<i>cImagePath</i>	path to an image.
<i>fImageWidth</i>	pointer that will be filled with the width of the image.
<i>fImageHeight</i>	pointer that will be filled with the height of the image.

## Returns

the newly allocated texture, to be destroyed with `_cairo_dock_delete_texture`.

5.25.3.5 `void cairo_dock_update_icon_texture ( Icon * pIcon )`

Update the icon's texture with its current cairo surface. This allows you to draw an icon with libcairo, and just copy the result to the OpenGL texture to be able to draw the icon in OpenGL too.



## Parameters

<i>pIcon</i>	the icon.
--------------	-----------

## 5.26 cairo-dock-draw.h File Reference

### Macros

- #define `cairo_dock_erase_cairo_context(pCairoContext)`

### Functions

- `cairo_t * cairo_dock_create_drawing_context_generic (GldiContainer *pContainer)`  
*CONTEXT ///*.
- `cairo_t * cairo_dock_create_drawing_context_on_container (GldiContainer *pContainer)`
- `cairo_t * cairo_dock_create_drawing_context_on_area (GldiContainer *pContainer, GdkRectangle *pArea, double *fBgColor)`
- `void cairo_dock_draw_rounded_rectangle (cairo_t *pCairoContext, double fRadius, double fLineWidth, double fFrameWidth, double fFrameHeight)`
- `void cairo_dock_draw_icon_cairo (Icon *icon, CairoDock *pDock, cairo_t *pCairoContext)`
- `void cairo_dock_render_one_icon (Icon *icon, CairoDock *pDock, cairo_t *pCairoContext, double fDock← Magnitude, gboolean bUseText)`
- `void cairo_dock_draw_string (cairo_t *pCairoContext, CairoDock *pDock, double fStringLineWidth, gboolean blsLoop, gboolean bForceConstantSeparator)`

#### 5.26.1 Detailed Description

This class provides some useful functions to draw with libcairo.

#### 5.26.2 Macro Definition Documentation

##### 5.26.2.1 #define `cairo_dock_erase_cairo_context( pCairoContext )`

Erase a drawing context, making it fully transparent. You don't need to erase a newly created context.

## Parameters

<i>pCairoContext</i>	a drawing context.
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#### 5.26.3 Function Documentation

##### 5.26.3.1 `cairo_t* cairo_dock_create_drawing_context_generic ( GldiContainer * pContainer )`

*CONTEXT ///*.

Create a generic drawing context, to be used as a source context (for instance, for creating a surface).

## Parameters

<i>pContainer</i>	a container.
-------------------	--------------

## Returns

the context on which to draw. Is never NULL, test it with `cairo_status()` before use it, and destroy it with `cairo_destroy()` when you're done with it.

### 5.26.3.2 `cairo_t* cairo_dock_create_drawing_context_on_container ( GdiContainer * pContainer )`

Create a drawing context to draw on a container. It handles fake transparency.

#### Parameters

<i>pContainer</i>	the container on which you want to draw.
-------------------	--

#### Returns

the newly allocated context, to be destroyed with 'cairo\_destroy'.

### 5.26.3.3 `cairo_t* cairo_dock_create_drawing_context_on_area ( GdiContainer * pContainer, GdkRectangle * pArea, double * fBgColor )`

Create a drawing context to draw on a part of a container. It handles fake transparency.

#### Parameters

<i>pContainer</i>	the container on which you want to draw
<i>pArea</i>	part of the container to draw.
<i>fBgColor</i>	background color (rgba) to fill the area with, or NULL to let it transparent.

#### Returns

the newly allocated context, with a clip corresponding to the area, to be destroyed with 'cairo\_destroy'.

### 5.26.3.4 `void cairo_dock_draw_rounded_rectangle ( cairo_t * pCairoContext, double fRadius, double fLineWidth, double fFrameWidth, double fFrameHeight )`

Compute the path of a rectangle with rounded corners. It doesn't stroke it, use `cairo_stroke` or `cairo_fill` to draw the line or the inside.

#### Parameters

<i>pCairoContext</i>	a drawing context; the current matrix is not altered, but the current path is.
<i>fRadius</i>	radius if the corners.
<i>fLineWidth</i>	width of the line.
<i>fFrameWidth</i>	width of the rectangle, without the corners.
<i>fFrameHeight</i>	height of the rectangle, including the corners.

### 5.26.3.5 `void cairo_dock_draw_icon_cairo ( Icon * icon, CairoDock * pDock, cairo_t * pCairoContext )`

Draw an icon and its reflect on a dock. Only draw the icon's image and reflect, and nothing else.

#### Parameters

<i>icon</i>	the icon to draw.
<i>pDock</i>	the dock containing the icon.
<i>pCairoContext</i>	a context on the dock, not altered by the function.

### 5.26.3.6 `void cairo_dock_render_one_icon ( Icon * icon, CairoDock * pDock, cairo_t * pCairoContext, double fDockMagnitude, gboolean bUseText )`

Draw an icon, according to its current parameters : position, transparency, reflect, rotation, stretching. Also draws its indicators, label, and quick-info. It generates a `CAIRO_DOCK_RENDER_ICON` notification.

## Parameters

<i>icon</i>	the icon to draw.
<i>pDock</i>	the dock containing the icon.
<i>pCairoContext</i>	a context on the dock, it is altered by the function.
<i>fDockMagnitude</i>	current magnitude of the dock.
<i>bUseText</i>	TRUE to draw the labels.

5.26.3.7 void `cairo_dock_draw_string` ( `cairo_t * pCairoContext`, `CairoDock * pDock`, `double fStringLineWidth`, `gboolean blsLoop`, `gboolean bForceConstantSeparator` )

Draw a string linking the center of all the icons of a dock.

## Parameters

<i>pCairoContext</i>	a context on the dock, not altered by the function.
<i>pDock</i>	the dock.
<i>fStringLineWidth</i>	width of the line.
<i>blsLoop</i>	TRUE to loop (link the last icon to the first one).
<i>bForceConstantSeparator</i>	TRUE to consider separators having a constant size.

## 5.27 cairo-dock-file-manager.h File Reference

## Data Structures

- struct [\\_CairoDockDesktopEnvBackend](#)  
*Definition of the Desktop Environment backend.*

## Enumerations

- enum [CairoDockDesktopEnv](#)  
*Type of available Desktop Environments.*
- enum [CairoDockFMEventType](#)  
*Type of events that can occur to a file.*
- enum [CairoDockFMSortType](#)  
*Type of sorting available on files.*

## Functions

- void [cairo\\_dock\\_fm\\_register\\_vfs\\_backend](#) (`CairoDockDesktopEnvBackend *pVFSBackend`)
- `GList *` [cairo\\_dock\\_fm\\_list\\_directory](#) (`const gchar *cURI`, `CairoDockFMSortType g_fm_iSortType`, `int iNewIconsType`, `gboolean bListHiddenFiles`, `int iNbMaxFiles`, `gchar **cFullURI`)
- `gsize` [cairo\\_dock\\_fm\\_measure\\_directory](#) (`const gchar *cBaseURI`, `gint iCountType`, `gboolean bRecursive`, `gint *pCancel`)
- `gboolean` [cairo\\_dock\\_fm\\_get\\_file\\_info](#) (`const gchar *cBaseURI`, `gchar **cName`, `gchar **cURI`, `gchar **cIconName`, `gboolean *blsDirectory`, `int *iVolumeID`, `double *fOrder`, `CairoDockFMSortType iSortType`)
- `gboolean` [cairo\\_dock\\_fm\\_get\\_file\\_properties](#) (`const gchar *cURI`, `guint64 *iSize`, `time_t *iLastModificationTime`, `gchar **cMimeType`, `int *iUID`, `int *iGID`, `int *iPermissionsMask`)
- `gboolean` [cairo\\_dock\\_fm\\_launch\\_uri](#) (`const gchar *cURI`)
- `gboolean` [cairo\\_dock\\_fm\\_add\\_monitor\\_full](#) (`const gchar *cURI`, `gboolean bDirectory`, `const gchar *cMountedURI`, `CairoDockFMMonitorCallback pCallback`, `gpointer data`)

- gboolean [cairo\\_dock\\_fm\\_remove\\_monitor\\_full](#) (const gchar \*cURI, gboolean bDirectory, const gchar \*c↔ MountedURI)
- gboolean [cairo\\_dock\\_fm\\_mount\\_full](#) (const gchar \*cURI, int iVolumeID, CairoDockFMMountCallback p↔ Callback, gpointer user\_data)
- gboolean [cairo\\_dock\\_fm\\_unmount\\_full](#) (const gchar \*cURI, int iVolumeID, CairoDockFMMountCallback p↔ Callback, gpointer user\_data)
- gchar \* [cairo\\_dock\\_fm\\_is\\_mounted](#) (const gchar \*cURI, gboolean \*bIsMounted)
- gboolean [cairo\\_dock\\_fm\\_can\\_eject](#) (const gchar \*cURI)
- gboolean [cairo\\_dock\\_fm\\_eject\\_drive](#) (const gchar \*cURI)
- gboolean [cairo\\_dock\\_fm\\_delete\\_file](#) (const gchar \*cURI, gboolean bNoTrash)
- gboolean [cairo\\_dock\\_fm\\_rename\\_file](#) (const gchar \*cOldURI, const gchar \*cNewName)
- gboolean [cairo\\_dock\\_fm\\_move\\_file](#) (const gchar \*cURI, const gchar \*cDirectoryURI)
- gboolean [cairo\\_dock\\_fm\\_create\\_file](#) (const gchar \*cURI, gboolean bDirectory)
- GList \* [cairo\\_dock\\_fm\\_list\\_apps\\_for\\_file](#) (const gchar \*cURI)
- gboolean [cairo\\_dock\\_fm\\_empty\\_trash](#) (void)
- gchar \* [cairo\\_dock\\_fm\\_get\\_trash\\_path](#) (const gchar \*cNearURI, gchar \*\*cFileInfoPath)
- gchar \* [cairo\\_dock\\_fm\\_get\\_desktop\\_path](#) (void)
- gboolean [cairo\\_dock\\_fm\\_logout](#) (void)
- gboolean [cairo\\_dock\\_fm\\_shutdown](#) (void)
- gboolean [cairo\\_dock\\_fm\\_reboot](#) (void)
- gboolean [cairo\\_dock\\_fm\\_lock\\_screen](#) (void)
- gboolean [cairo\\_dock\\_fm\\_setup\\_time](#) (void)
- gboolean [cairo\\_dock\\_fm\\_show\\_system\\_monitor](#) (void)
- Icon \* [cairo\\_dock\\_fm\\_create\\_icon\\_from\\_URI](#) (const gchar \*cURI, GldiContainer \*pContainer, CairoDockF↔ MSortType iFileSortType)
- int [cairo\\_dock\\_get\\_file\\_size](#) (const gchar \*cFilePath)
- int [cairo\\_dock\\_fm\\_get\\_pid](#) (const gchar \*cProcessName)
- gboolean [cairo\\_dock\\_fm\\_monitor\\_pid](#) (const gchar \*cProcessName, gboolean bCheckSameProcess, G↔ SourceFunc pCallback, gboolean bAlwaysLaunch, gpointer pUserData)

### 5.27.1 Detailed Description

This class manages the integration into the desktop environment, which includes :

- the VFS (Virtual File System)
- the various desktop-related tools.

### 5.27.2 Function Documentation

#### 5.27.2.1 void [cairo\\_dock\\_fm\\_register\\_vfs\\_backend](#) ( CairoDockDesktopEnvBackend \* pVFSBackend )

Register a environment backend, overwriting any previous backend.

#### 5.27.2.2 GList\* [cairo\\_dock\\_fm\\_list\\_directory](#) ( const gchar \* cURI, CairoDockFMSortType g\_fm\_iSortType, int iNewIconsType, gboolean bListHiddenFiles, int iNbMaxFiles, gchar \*\* cFullURI )

List the content of a directory and turn it into a list of icons.

#### 5.27.2.3 gsize [cairo\\_dock\\_fm\\_measure\\_directory](#) ( const gchar \* cBaseURI, gint iCountType, gboolean bRecursive, gint \* pCancel )

Measure a directory (number of files or total size).

5.27.2.4 `gboolean cairo_dock_fm_get_file_info ( const gchar * cBaseURI, gchar ** cName, gchar ** cURI, gchar ** clconName, gboolean * blsDirectory, int * iVolumeID, double * fOrder, CairoDockFMSortType iSortType )`

Get the main info to represent a file.

5.27.2.5 `gboolean cairo_dock_fm_get_file_properties ( const gchar * cURI, guint64 * iSize, time_t * iLastModificationTime, gchar ** cMimeType, int * iUID, int * iGID, int * iPermissionsMask )`

Get some properties about a file.

5.27.2.6 `gboolean cairo_dock_fm_launch_uri ( const gchar * cURI )`

Open a file with the default application.

5.27.2.7 `gboolean cairo_dock_fm_add_monitor_full ( const gchar * cURI, gboolean bDirectory, const gchar * cMountedURI, CairoDockFMMonitorCallback pCallback, gpointer data )`

Add a monitor on an URI. It will be called each time a modification occurs on the file.

5.27.2.8 `gboolean cairo_dock_fm_remove_monitor_full ( const gchar * cURI, gboolean bDirectory, const gchar * cMountedURI )`

Remove a monitor on an URI.

5.27.2.9 `gboolean cairo_dock_fm_mount_full ( const gchar * cURI, int iVolumeID, CairoDockFMMountCallback pCallback, gpointer user_data )`

Mount a point.

5.27.2.10 `gboolean cairo_dock_fm_unmount_full ( const gchar * cURI, int iVolumeID, CairoDockFMMountCallback pCallback, gpointer user_data )`

Unmount a point.

5.27.2.11 `gboolean cairo_dock_fm_is_mounted ( const gchar * cURI, gboolean * blsMounted )`

Say if a point is currently mounted.

5.27.2.12 `gboolean cairo_dock_fm_can_eject ( const gchar * cURI )`

Say if a point can be ejected (like a CD player).

5.27.2.13 `gboolean cairo_dock_fm_eject_drive ( const gchar * cURI )`

Eject a drive, like a CD player.

5.27.2.14 `gboolean cairo_dock_fm_delete_file ( const gchar * cURI, gboolean bNoTrash )`

Delete a file.

5.27.2.15 `gboolean cairo_dock_fm_rename_file ( const gchar * cOldURI, const gchar * cNewName )`

Rename a file.

5.27.2.16 `gboolean cairo_dock_fm_move_file ( const gchar * cURI, const gchar * cDirectoryURI )`

Move a file.

5.27.2.17 `gboolean cairo_dock_fm_create_file ( const gchar * cURI, gboolean bDirectory )`

Create a new file.

5.27.2.18 `GList* cairo_dock_fm_list_apps_for_file ( const gchar * cURI )`

Get the list of applications that can open a given file. Returns a list of strings arrays : {name, command, icon}.

5.27.2.19 `gboolean cairo_dock_fm_empty_trash ( void )`

Empty the Trash.

5.27.2.20 `gchar* cairo_dock_fm_get_trash_path ( const gchar * cNearURI, gchar ** cFileInfoPath )`

Get the path to the Trash.

5.27.2.21 `gchar* cairo_dock_fm_get_desktop_path ( void )`

Get the path to the Desktop.

5.27.2.22 `gboolean cairo_dock_fm_logout ( void )`

Raise the logout panel.

5.27.2.23 `gboolean cairo_dock_fm_shutdown ( void )`

Raise the shutdown panel.

5.27.2.24 `gboolean cairo_dock_fm_reboot ( void )`

Raise the reboot panel.

5.27.2.25 `gboolean cairo_dock_fm_lock_screen ( void )`

Lock the screen.

5.27.2.26 `gboolean cairo_dock_fm_setup_time ( void )`

Raise the panel to configure the time.

5.27.2.27 `gboolean cairo_dock_fm_show_system_monitor ( void )`

Raise the default system monitor.

5.27.2.28 `Icon* cairo_dock_fm_create_icon_from_URI ( const gchar * cURI, GldiContainer * pContainer, CairoDockFMSortType iFileSortType )`

Create an Icon representing a given URI.

5.27.2.29 `int cairo_dock_get_file_size ( const gchar * cFilePath )`

Get the size of a local file.

Parameters

<i>cFilePath</i>	path of a file on the hard disk.
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Returns

the size of the file, or 0 if it doesn't exist.

5.27.2.30 `int cairo_dock_fm_get_pid ( const gchar * cProcessName )`

Get process ID given its name

Parameters

<i>cProcessName</i>	name of the process
---------------------	---------------------

Returns

the PID if it exists or -1

5.27.2.31 `gboolean cairo_dock_fm_monitor_pid ( const gchar * cProcessName, gboolean bCheckSameProcess, GSourceFunc pCallback, gboolean bAlwaysLaunch, gpointer pUserData )`

Monitor a process. Call a function when the process is no longer running

Parameters

<i>cProcessName</i>	name(es) of the process(es)
<i>bCheckSameProcess</i>	TRUE to check if first match is running. FALSE to check every time if this process name is running even if it's not the same PID.
<i>pCallback</i>	function to call when the process is no longer running
<i>bAlwaysLaunch</i>	TRUE to launch the callback function even if the process is not running or if there is an error
<i>pUserData</i>	data to pass to pCallback

Returns

FALSE if the process is not running or if there is an error

## 5.28 cairo-dock-gauge.h File Reference

Typedefs

- typedef struct `_CairoGaugeAttribute` [CairoGaugeAttribute](#)

*Attributes of a Gauge.*

### 5.28.1 Detailed Description

This class defines the Gauge, which derives from the DataRenderer. All you need to know is the attributes that define a Gauge, the API to use is the common API for DataRenderer, defined in [cairo-dock-data-renderer.h](#).

## 5.29 cairo-dock-gnome-shell-integration.h File Reference

### 5.29.1 Detailed Description

This class implements the integration of Gnome-Shell inside Cairo-Dock.

## 5.30 cairo-dock-graph.h File Reference

### Data Structures

- struct [\\_CairoGraphAttribute](#)

*Attributes of a Graph.*

### Enumerations

- enum [CairoDockTypeGraph](#) {  
[CAIRO\\_DOCK\\_GRAPH\\_LINE](#),  
[CAIRO\\_DOCK\\_GRAPH\\_PLAIN](#),  
[CAIRO\\_DOCK\\_GRAPH\\_BAR](#),  
[CAIRO\\_DOCK\\_GRAPH\\_CIRCLE](#),  
[CAIRO\\_DOCK\\_GRAPH\\_CIRCLE\\_PLAIN](#) }

*Types of graph.*

### 5.30.1 Detailed Description

This class defines the Graph, which derives from the DataRenderer. All you need to know is the attributes that define a Graph, the API to use is the common API for DataRenderer, defined in [cairo-dock-data-renderer.h](#).

### 5.30.2 Enumeration Type Documentation

#### 5.30.2.1 enum CairoDockTypeGraph

Types of graph.

#### Enumerator

***CAIRO\_DOCK\_GRAPH\_LINE*** a continuous line.

***CAIRO\_DOCK\_GRAPH\_PLAIN*** a continuous plain graph.

***CAIRO\_DOCK\_GRAPH\_BAR*** a histogram.

***CAIRO\_DOCK\_GRAPH\_CIRCLE*** a circle.

***CAIRO\_DOCK\_GRAPH\_CIRCLE\_PLAIN*** a plain circle.



## 5.31 cairo-dock-gui-factory.h File Reference

### Data Structures

- struct [\\_CairoDockGroupKeyWidget](#)  
*Definition of a widget corresponding to a given (group;key) pair.*

### Enumerations

- enum [CairoDockGUIWidgetType](#) {  
 CAIRO\_DOCK\_WIDGET\_CHECK\_BUTTON,  
 CAIRO\_DOCK\_WIDGET\_CHECK\_CONTROL\_BUTTON,  
 CAIRO\_DOCK\_WIDGET\_SPIN\_INTEGER,  
 CAIRO\_DOCK\_WIDGET\_HSCALE\_INTEGER,  
 CAIRO\_DOCK\_WIDGET\_SIZE\_INTEGER,  
 CAIRO\_DOCK\_WIDGET\_SPIN\_DOUBLE,  
 CAIRO\_DOCK\_WIDGET\_COLOR\_SELECTOR\_RGB,  
 CAIRO\_DOCK\_WIDGET\_COLOR\_SELECTOR\_RGBA,  
 CAIRO\_DOCK\_WIDGET\_HSCALE\_DOUBLE,  
 CAIRO\_DOCK\_WIDGET\_VIEW\_LIST,  
 CAIRO\_DOCK\_WIDGET\_THEME\_LIST,  
 CAIRO\_DOCK\_WIDGET\_ANIMATION\_LIST,  
 CAIRO\_DOCK\_WIDGET\_DIALOG\_DECORATOR\_LIST,  
 CAIRO\_DOCK\_WIDGET\_DESKLET\_DECORATION\_LIST,  
 CAIRO\_DOCK\_WIDGET\_DESKLET\_DECORATION\_LIST\_WITH\_DEFAULT,  
 CAIRO\_DOCK\_WIDGET\_DOCK\_LIST,  
 CAIRO\_DOCK\_WIDGET\_ICONS\_LIST,  
 CAIRO\_DOCK\_WIDGET\_ICON\_THEME\_LIST,  
 CAIRO\_DOCK\_WIDGET\_SCREEN\_LIST,  
 CAIRO\_DOCK\_WIDGET\_JUMP\_TO\_MODULE,  
 CAIRO\_DOCK\_WIDGET\_JUMP\_TO\_MODULE\_IF\_EXISTS,  
 CAIRO\_DOCK\_WIDGET\_LAUNCH\_COMMAND,  
 CAIRO\_DOCK\_WIDGET\_LAUNCH\_COMMAND\_IF\_CONDITION,  
 CAIRO\_DOCK\_WIDGET\_STRING\_ENTRY,  
 CAIRO\_DOCK\_WIDGET\_FILE\_SELECTOR,  
 CAIRO\_DOCK\_WIDGET\_IMAGE\_SELECTOR,  
 CAIRO\_DOCK\_WIDGET\_FOLDER\_SELECTOR,  
 CAIRO\_DOCK\_WIDGET\_SOUND\_SELECTOR,  
 CAIRO\_DOCK\_WIDGET\_SHORTKEY\_SELECTOR,  
 CAIRO\_DOCK\_WIDGET\_CLASS\_SELECTOR,  
 CAIRO\_DOCK\_WIDGET\_PASSWORD\_ENTRY,  
 CAIRO\_DOCK\_WIDGET\_FONT\_SELECTOR,  
 CAIRO\_DOCK\_WIDGET\_LIST,  
 CAIRO\_DOCK\_WIDGET\_LIST\_WITH\_ENTRY,  
 CAIRO\_DOCK\_WIDGET\_NUMBERED\_LIST,  
 CAIRO\_DOCK\_WIDGET\_NUMBERED\_CONTROL\_LIST,  
 CAIRO\_DOCK\_WIDGET\_NUMBERED\_CONTROL\_LIST\_SELECTIVE,  
 CAIRO\_DOCK\_WIDGET\_TREE\_VIEW\_SORT,  
 CAIRO\_DOCK\_WIDGET\_TREE\_VIEW\_SORT\_AND\_MODIFY,  
 CAIRO\_DOCK\_WIDGET\_TREE\_VIEW\_MULTI\_CHOICE,  
 CAIRO\_DOCK\_WIDGET\_EMPTY\_WIDGET,  
 CAIRO\_DOCK\_WIDGET\_EMPTY\_FULL,  
 CAIRO\_DOCK\_WIDGET\_TEXT\_LABEL,  
 CAIRO\_DOCK\_WIDGET\_LINK,  
 CAIRO\_DOCK\_WIDGET\_HANDBOOK,  
 CAIRO\_DOCK\_WIDGET\_SEPARATOR,  
 CAIRO\_DOCK\_WIDGET\_FRAME,

**CAIRO\_DOCK\_WIDGET\_EXPANDER** }

*Types of widgets that Cairo-Dock can automatically build.*

- enum **CairoDockGUIModelColumns**

*Model used for combo-box and tree-view. CAIRO\_DOCK\_MODEL\_NAME is the name as displayed in the widget, and CAIRO\_DOCK\_MODEL\_RESULT is the resulting string effectively written in the config file.*

## Functions

- **CairoDockGroupKeyWidget** \* **cairo\_dock\_gui\_find\_group\_key\_widget\_in\_list** (GSLList \*pWidgetList, const gchar \*cGroupName, const gchar \*cKeyName)

### 5.31.1 Detailed Description

This class handles the construction of the common widgets used in the conf files.

A conf file is a common group/key file, with the following syntax :

```
[Group]
#comment about key1
key1 = 1
#comment about key2
key2 = pouic
```

Each key in the conf file has a comment.

The first character of the comment defines the type of widget. Known types are listed in the CairoDockGUIWidgetType enum.

A key can be a behaviour key or an appearance key. Appearance keys are keys that defines the look of the appli, they belong to the theme. Behaviour keys are keys that define some configuration parameters, that depends on the user. To mark a key as an appearance one, suffix the widget character with a '+'. Thus, keys not marked with a '+' won't be loaded when the user loads a theme, except if he forces it.

After the widget character and its suffix, some widget accept a list of values. For instance, a spinbutton can have a min and a max limits, a list can have pre-defined elements, etc. Such values are set between '[' and ']' brackets, and separated by ';' inside.

After that, let a blank to start the widget description. It will appear on the left of the widget; description must be short enough to fit the config panel width.

You can complete this description with a tooltip. To do that, on a new comment line, add some text between '{' and '}' brackets. Tooltips appear above the widget when you let the mouse over it for ~1 second. They can be as long as you want. Use '

' to insert new lines inside the tooltip.

### 5.31.2 Enumeration Type Documentation

#### 5.31.2.1 enum CairoDockGUIWidgetType

Types of widgets that Cairo-Dock can automatically build.

#### Enumerator

**CAIRO\_DOCK\_WIDGET\_CHECK\_BUTTON** boolean in a button to tick.

**CAIRO\_DOCK\_WIDGET\_CHECK\_CONTROL\_BUTTON** boolean in a button to tick, that will control the sensitivity of the next widget.

**CAIRO\_DOCK\_WIDGET\_SPIN\_INTEGER** integer in a spin button.

**CAIRO\_DOCK\_WIDGET\_HSCALE\_INTEGER** integer in an horizontal scale.

**CAIRO\_DOCK\_WIDGET\_SIZE\_INTEGER** pair of integers for dimansion WidthxHeight

- CAIRO\_DOCK\_WIDGET\_SPIN\_DOUBLE** double in a spin button.
- CAIRO\_DOCK\_WIDGET\_COLOR\_SELECTOR\_RGB** 3 doubles with a color selector (RGB).
- CAIRO\_DOCK\_WIDGET\_COLOR\_SELECTOR\_RGBA** 4 doubles with a color selector (RGBA).
- CAIRO\_DOCK\_WIDGET\_HSCALE\_DOUBLE** double in an horizontal scale.
- CAIRO\_DOCK\_WIDGET\_VIEW\_LIST** list of views.
- CAIRO\_DOCK\_WIDGET\_THEME\_LIST** list of themes in a combo, with preview and readme.
- CAIRO\_DOCK\_WIDGET\_ANIMATION\_LIST** list of available animations.
- CAIRO\_DOCK\_WIDGET\_DIALOG\_DECORATOR\_LIST** list of available dialog decorators.
- CAIRO\_DOCK\_WIDGET\_DESKLET\_DECORATION\_LIST** list of available desklet decorations.
- CAIRO\_DOCK\_WIDGET\_DESKLET\_DECORATION\_LIST\_WITH\_DEFAULT** same but with the 'default' choice too.
- CAIRO\_DOCK\_WIDGET\_DOCK\_LIST** list of existing docks.
- CAIRO\_DOCK\_WIDGET\_ICONS\_LIST** list of icons of a dock.
- CAIRO\_DOCK\_WIDGET\_ICON\_THEME\_LIST** list of installed icon themes.
- CAIRO\_DOCK\_WIDGET\_SCREEN\_LIST** list of screens
- CAIRO\_DOCK\_WIDGET\_JUMP\_TO\_MODULE** a button to jump to another module inside the config panel.
- CAIRO\_DOCK\_WIDGET\_JUMP\_TO\_MODULE\_IF\_EXISTS** same but only if the module exists.
- CAIRO\_DOCK\_WIDGET\_LAUNCH\_COMMAND** a button to launch a specific command.
- CAIRO\_DOCK\_WIDGET\_LAUNCH\_COMMAND\_IF\_CONDITION** a button to launch a specific command with a condition.
- CAIRO\_DOCK\_WIDGET\_STRING\_ENTRY** a text entry.
- CAIRO\_DOCK\_WIDGET\_FILE\_SELECTOR** a text entry with a file selector.
- CAIRO\_DOCK\_WIDGET\_IMAGE\_SELECTOR** a text entry with a file selector, files are filtered to only display images.
- CAIRO\_DOCK\_WIDGET\_FOLDER\_SELECTOR** a text entry with a folder selector.
- CAIRO\_DOCK\_WIDGET\_SOUND\_SELECTOR** a text entry with a file selector and a 'play' button, for sound files.
- CAIRO\_DOCK\_WIDGET\_SHORTKEY\_SELECTOR** a text entry with a shortcut selector.
- CAIRO\_DOCK\_WIDGET\_CLASS\_SELECTOR** a text entry with a class selector.
- CAIRO\_DOCK\_WIDGET\_PASSWORD\_ENTRY** a text entry, where text is hidden and the result is encrypted in the .conf file.
- CAIRO\_DOCK\_WIDGET\_FONT\_SELECTOR** a font selector button.
- CAIRO\_DOCK\_WIDGET\_LIST** a text list.
- CAIRO\_DOCK\_WIDGET\_LIST\_WITH\_ENTRY** a combo-entry, that is to say a list where one can add a custom choice.
- CAIRO\_DOCK\_WIDGET\_NUMBERED\_LIST** a combo where the number of the line is used for the choice.
- CAIRO\_DOCK\_WIDGET\_NUMBERED\_CONTROL\_LIST** a combo where the number of the line is used for the choice, and for controlling the sensitivity of the widgets below.
- CAIRO\_DOCK\_WIDGET\_NUMBERED\_CONTROL\_LIST\_SELECTIVE** a combo where the number of the line is used for the choice, and for controlling the sensitivity of the widgets below; controlled widgets are indicated in the list : {entry;index first widget;nb widgets}.
- CAIRO\_DOCK\_WIDGET\_TREE\_VIEW\_SORT** a tree view, where lines are numbered and can be moved up and down.
- CAIRO\_DOCK\_WIDGET\_TREE\_VIEW\_SORT\_AND\_MODIFY** a tree view, where lines can be added, removed, and moved up and down.
- CAIRO\_DOCK\_WIDGET\_TREE\_VIEW\_MULTI\_CHOICE** a tree view, where lines are numbered and can be selected or not.

**CAIRO\_DOCK\_WIDGET\_EMPTY\_WIDGET** an empty GtkContainer, in case you need to build custom widgets.

**CAIRO\_DOCK\_WIDGET\_EMPTY\_FULL** an empty GtkContainer, the same but using full available space.

**CAIRO\_DOCK\_WIDGET\_TEXT\_LABEL** a simple text label.

**CAIRO\_DOCK\_WIDGET\_LINK** a simple text label.

**CAIRO\_DOCK\_WIDGET\_HANDBOOK** a label containing the handbook of the applet.

**CAIRO\_DOCK\_WIDGET\_SEPARATOR** an horizontal separator.

**CAIRO\_DOCK\_WIDGET\_FRAME** a frame. The previous frame will be closed.

**CAIRO\_DOCK\_WIDGET\_EXPANDER** a frame inside an expander. The previous frame will be closed.

### 5.31.3 Function Documentation

#### 5.31.3.1 CairoDockGroupKeyWidget\* cairo\_dock\_gui\_find\_group\_key\_widget\_in\_list ( GSList \* pWidgetList, const gchar \* cGroupName, const gchar \* cKeyName )

Get a widget from a list of widgets representing a configuration window. The widgets represent a pair (group,key) as defined in the config file.

##### Parameters

<i>pWidgetList</i>	list of widgets built from the config file
<i>cGroupName</i>	name of the group the widget belongs to
<i>cKeyName</i>	name of the key the widget represents

##### Returns

the widget associated with the (group,key) , or NULL if none is found

## 5.32 cairo-dock-gui-manager.h File Reference

### Data Structures

- struct [\\_CairoDockGuiBackend](#)  
*Definition of the GUI interface for modules.*

### Macros

- #define [cairo\\_dock\\_reload\\_current\\_module\\_widget](#)(pModuleInstance)

### Typedefs

- typedef gboolean(\* [CairoDockApplyConfigFunc](#) )(gpointer data)  
*Definition of the callback called when the user apply the config panel.*

### Functions

- void [cairo\\_dock\\_set\\_status\\_message](#) (GtkWidget \*pWindow, const gchar \*cMessage)
- void [cairo\\_dock\\_set\\_status\\_message\\_printf](#) (GtkWidget \*pWindow, const gchar \*cFormat,...) G\_GNUC\_PRINTF(2

### 5.32.1 Detailed Description

This class provides functions to act on configuration windows.

It also defines the interface that a GUI backend should implement.

Note: GUIs are built from a .conf file; .conf files are normal group/key files, but with some special indications in the comments. Each key will be represented by a pre-defined widget, that is defined by the first character of its comment. The comment also contains a description of the key, and an optionnal tooltip. See [cairo-dock-gui-factory.h](#) for the list of pre-defined widgets and a short explanation on how to use them inside a conf file. The file 'cairo-dock.conf' can be an useful example.

### 5.32.2 Macro Definition Documentation

#### 5.32.2.1 #define cairo\_dock\_reload\_current\_module\_widget( *pModuleInstance* )

Reload the widget of a given module instance if it is currently opened (the current page is displayed). This is useful if the module has modified its conf file and wishes to display the changes.

Parameters

<i>pModuleInstance</i>	an instance of a module.
------------------------	--------------------------

### 5.32.3 Function Documentation

#### 5.32.3.1 void cairo\_dock\_set\_status\_message ( GtkWidget \* *pWindow*, const gchar \* *cMessage* )

Display a message on a given window that has a status-bar. If no window is provided, the current config panel will be used.

Parameters

<i>pWindow</i>	window where the message should be displayed, or NULL to target the config panel.
<i>cMessage</i>	the message.

#### 5.32.3.2 void cairo\_dock\_set\_status\_message\_printf ( GtkWidget \* *pWindow*, const gchar \* *cFormat*, ... )

Display a message on a given window that has a status-bar. If no window is provided, the current config panel will be used.

Parameters

<i>pWindow</i>	window where the message should be displayed, or NULL to target the config panel.
<i>cFormat</i>	the message, in a printf-like format
...	arguments of the format.

## 5.33 cairo-dock-hiding-effect.h File Reference

### 5.33.1 Detailed Description

This class implements the rendering interface for hiding docks.

## 5.34 cairo-dock-icon-container.h File Reference

### 5.34.1 Detailed Description

This class implements the rendering interface for icons pointing on a sub-dock.

## 5.35 cairo-dock-icon-facility.h File Reference

### Macros

- `#define cairo_dock_icon_is_being_inserted(icon)`
- `#define cairo_dock_icon_is_being_removed(icon)`
- `#define cairo_dock_get_icon_order(icon)`
- `#define cairo_dock_get_next_element(ic, list)`
- `#define cairo_dock_get_previous_element(ic, list)`
- `#define cairo_dock_set_icon_static(icon, _bStatic)`
- `#define cairo_dock_set_icon_always_visible(icon, _bAlwaysVisible)`
- `#define gldi_icon_mark_as_launching(plcon)`
- `#define gldi_icon_is_launching(plcon)`

### Functions

- `CairoDockIconGroup cairo_dock_get_icon_type (Icon *icon)`
- `int cairo_dock_compare_icons_order (Icon *icon1, Icon *icon2)`
- `int cairo_dock_compare_icons_name (Icon *icon1, Icon *icon2)`
- `int cairo_dock_compare_icons_extension (Icon *icon1, Icon *icon2)`
- `GList * cairo_dock_sort_icons_by_order (GList *plconList)`
- `GList * cairo_dock_sort_icons_by_name (GList *plconList)`
- `Icon * cairo_dock_get_first_icon (GList *plconList)`
- `Icon * cairo_dock_get_last_icon (GList *plconList)`
- `Icon * cairo_dock_get_first_icon_of_group (GList *plconList, CairoDockIconGroup iGroup)`
- `Icon * cairo_dock_get_last_icon_of_group (GList *plconList, CairoDockIconGroup iGroup)`
- `Icon * cairo_dock_get_first_icon_of_order (GList *plconList, CairoDockIconGroup iGroup)`
- `Icon * cairo_dock_get_last_icon_of_order (GList *plconList, CairoDockIconGroup iGroup)`
- `Icon * cairo_dock_get_pointed_icon (GList *plconList)`
- `Icon * cairo_dock_get_next_icon (GList *plconList, Icon *plcon)`
- `Icon * cairo_dock_get_previous_icon (GList *plconList, Icon *plcon)`
- `Icon * cairo_dock_get_icon_with_command (GList *plconList, const gchar *cCommand)`
- `Icon * cairo_dock_get_icon_with_base_uri (GList *plconList, const gchar *cBaseURI)`
- `Icon * cairo_dock_get_icon_with_name (GList *plconList, const gchar *cName)`
- `Icon * cairo_dock_get_icon_with_subdock (GList *plconList, CairoDock *pSubDock)`
- `void cairo_dock_get_icon_extent (Icon *plcon, int *iWidth, int *iHeight)`
- `void cairo_dock_get_current_icon_size (Icon *plcon, GldiContainer *pContainer, double *fSizeX, double *fSizeY)`
- `void cairo_dock_compute_icon_area (Icon *icon, GldiContainer *pContainer, GdkRectangle *pArea)`
- `void gldi_icon_set_name (Icon *plcon, const gchar *clconName)`
- `void gldi_icon_set_name_printf (Icon *plcon, const gchar *clconNameFormat,...) G_GNUC_PRINTF(2`
- `void void gldi_icon_set_quick_info (Icon *plcon, const gchar *cQuickInfo)`
- `void gldi_icon_set_quick_info_printf (Icon *plcon, const gchar *cQuickInfoFormat,...) G_GNUC_PRINTF(2`
- `gboolean cairo_dock_begin_draw_icon (Icon *plcon, gint iRenderingMode)`
- `void cairo_dock_end_draw_icon (Icon *plcon)`

### 5.35.1 Detailed Description

This class provides utility functions on Icons.

## 5.35.2 Macro Definition Documentation

### 5.35.2.1 #define cairo\_dock\_icon\_is\_being\_inserted( *icon* )

Say whether an icon is currently being inserted.

### 5.35.2.2 #define cairo\_dock\_icon\_is\_being\_removed( *icon* )

Say whether an icon is currently being removed.

### 5.35.2.3 #define cairo\_dock\_get\_icon\_order( *icon* )

Get the group order of an icon. 3 groups are available by default : launchers, applis, and applets, and each group has an order.

### 5.35.2.4 #define cairo\_dock\_get\_next\_element( *ic*, *list* )

Get the next element in a list, looping if necessary..

#### Parameters

<i>ic</i>	the current element.
<i>list</i>	a list.

#### Returns

the next element, or the first element of the list if 'ic' is the last one.

### 5.35.2.5 #define cairo\_dock\_get\_previous\_element( *ic*, *list* )

Get the previous element in a list, looping if necessary..

#### Parameters

<i>ic</i>	the current element.
<i>list</i>	a list.

#### Returns

the previous element, or the last element of the list if 'ic' is the first one.

### 5.35.2.6 #define cairo\_dock\_set\_icon\_static( *icon*, *\_bStatic* )

Make an icon static or not. Static icons are not animated when mouse hovers them.

#### Parameters

<i>icon</i>	an icon.
<i>_bStatic</i>	static or not.

### 5.35.2.7 #define cairo\_dock\_set\_icon\_always\_visible( *icon*, *\_bAlwaysVisible* )

Make an icon always visible, even when the dock is hidden.

## Parameters

<i>icon</i>	an icon.
<i>_bAlwaysVisible</i>	whether the icon is always visible or not.

5.35.2.8 `#define gldi_icon_mark_as_launching( plcon )`

Mark an Icon as 'launching'. This states lasts until the corresponding window appears (with a timeout of 15 seconds). Typically used to prevent the program from being started 2 times in a row, or to keep the animation running until the program is started.

5.35.2.9 `#define gldi_icon_is_launching( plcon )`

Tell if an Icon is being launched.

## 5.35.3 Function Documentation

5.35.3.1 `CairoDockIconGroup cairo_dock_get_icon_type ( Icon * icon )`

Get the type of an icon according to its content (launcher, appli, applet). This can be different from its group.

## Parameters

<i>icon</i>	the icon.
-------------	-----------

## Returns

the type of the icon.

5.35.3.2 `int cairo_dock_compare_icons_order ( Icon * icon1, Icon * icon2 )`

Compare 2 icons with the order relation on (group order, icon order).

## Parameters

<i>icon1</i>	an icon.
<i>icon2</i>	another icon.

## Returns

-1 if  $icon1 < icon2$ , 1 if  $icon1 > icon2$ , 0 if  $icon1 = icon2$ .

5.35.3.3 `int cairo_dock_compare_icons_name ( Icon * icon1, Icon * icon2 )`

Compare 2 icons with the order relation on the name (case unsensitive alphabetical order).

## Parameters

<i>icon1</i>	an icon.
<i>icon2</i>	another icon.

## Returns

-1 if  $icon1 < icon2$ , 1 if  $icon1 > icon2$ , 0 if  $icon1 = icon2$ .



5.35.3.4 int cairo\_dock\_compare\_icons\_extension ( Icon \* *icon1*, Icon \* *icon2* )

Compare 2 icons with the order relation on the extension of their URIs (case unsensitive alphabetical order).

## Parameters

<i>icon1</i>	an icon.
<i>icon2</i>	another icon.

## Returns

-1 if  $icon1 < icon2$ , 1 if  $icon1 > icon2$ , 0 if  $icon1 = icon2$ .

5.35.3.5 `GList* cairo_dock_sort_icons_by_order ( GList * plconList )`

Sort a list with the order relation on (group order, icon order).

## Parameters

<i>plconList</i>	a list of icons.
------------------	------------------

## Returns

the sorted list. Elements are the same as the initial list, only their order has changed.

5.35.3.6 `GList* cairo_dock_sort_icons_by_name ( GList * plconList )`

Sort a list with the alphabetical order on the icons' name.

## Parameters

<i>plconList</i>	a list of icons.
------------------	------------------

## Returns

the sorted list. Elements are the same as the initial list, only their order has changed. Icon's orders are updated to reflect the new order.

5.35.3.7 `Icon* cairo_dock_get_first_icon ( GList * plconList )`

Get the first icon of a list of icons.

## Parameters

<i>plconList</i>	a list of icons.
------------------	------------------

## Returns

the first icon, or NULL if the list is empty.

5.35.3.8 `Icon* cairo_dock_get_last_icon ( GList * plconList )`

Get the last icon of a list of icons.

## Parameters

<i>pIconList</i>	a list of icons.
------------------	------------------

**Returns**

the last icon, or NULL if the list is empty.

#### 5.35.3.9 Icon\* cairo\_dock\_get\_first\_icon\_of\_group ( GList \* *pIconList*, CairoDockIconGroup *iGroup* )

Get the first icon of a given group.

**Parameters**

<i>pIconList</i>	a list of icons.
<i>iGroup</i>	the group of icon.

**Returns**

the first found icon with this group, or NULL if none matches.

#### 5.35.3.10 Icon\* cairo\_dock\_get\_last\_icon\_of\_group ( GList \* *pIconList*, CairoDockIconGroup *iGroup* )

Get the last icon of a given group.

**Parameters**

<i>pIconList</i>	a list of icons.
<i>iGroup</i>	the group of icon.

**Returns**

the last found icon with this group, or NULL if none matches.

#### 5.35.3.11 Icon\* cairo\_dock\_get\_first\_icon\_of\_order ( GList \* *pIconList*, CairoDockIconGroup *iGroup* )

Get the first icon whose group has the same order as a given one.

**Parameters**

<i>pIconList</i>	a list of icons.
<i>iGroup</i>	a group of icon.

**Returns**

the first found icon, or NULL if none matches.

#### 5.35.3.12 Icon\* cairo\_dock\_get\_last\_icon\_of\_order ( GList \* *pIconList*, CairoDockIconGroup *iGroup* )

Get the last icon whose group has the same order as a given one.

**Parameters**

<i>plconList</i>	a list of icons.
<i>iGroup</i>	a group of icon.

**Returns**

the last found icon, or NULL if none matches.

**5.35.3.13 Icon\* cairo\_dock\_get\_pointed\_icon ( GList \* *plconList* )**

Get the currently pointed icon in a list of icons.

**Parameters**

<i>plconList</i>	a list of icons.
------------------	------------------

**Returns**

the icon whose field 'bPointed' is TRUE, or NULL if none is pointed.

**5.35.3.14 Icon\* cairo\_dock\_get\_next\_icon ( GList \* *plconList*, Icon \* *plcon* )**

Get the icon next to a given one. The cost is O(n).

**Parameters**

<i>plconList</i>	a list of icons.
<i>plcon</i>	an icon in the list.

**Returns**

the icon whose left neighbor is *plcon*, or NULL if the list is empty or if *plcon* is the last icon.

**5.35.3.15 Icon\* cairo\_dock\_get\_previous\_icon ( GList \* *plconList*, Icon \* *plcon* )**

Get the icon previous to a given one. The cost is O(n).

**Parameters**

<i>plconList</i>	a list of icons.
<i>plcon</i>	an icon in the list.

**Returns**

the icon whose right neighbor is *plcon*, or NULL if the list is empty or if *plcon* is the first icon.

**5.35.3.16 Icon\* cairo\_dock\_get\_icon\_with\_command ( GList \* *plconList*, const gchar \* *cCommand* )**

Search an icon with a given command in a list of icons.

**Parameters**

<i>pIconList</i>	a list of icons.
<i>cCommand</i>	the command.

**Returns**

the first icon whose field 'cCommand' is identical to the given command, or NULL if no icon matches.

**5.35.3.17 Icon\* cairo\_dock\_get\_icon\_with\_base\_uri ( GList \* *pIconList*, const gchar \* *cBaseURI* )**

Search an icon with a given URI in a list of icons.

**Parameters**

<i>pIconList</i>	a list of icons.
<i>cBaseURI</i>	the URI.

**Returns**

the first icon whose field 'cURI' is identical to the given URI, or NULL if no icon matches.

**5.35.3.18 Icon\* cairo\_dock\_get\_icon\_with\_name ( GList \* *pIconList*, const gchar \* *cName* )**

Search an icon with a given name in a list of icons.

**Parameters**

<i>pIconList</i>	a list of icons.
<i>cName</i>	the name.

**Returns**

the first icon whose field 'cName' is identical to the given name, or NULL if no icon matches.

**5.35.3.19 Icon\* cairo\_dock\_get\_icon\_with\_subdock ( GList \* *pIconList*, CairoDock \* *pSubDock* )**

Search the icon pointing on a given sub-dock in a list of icons.

**Parameters**

<i>pIconList</i>	a list of icons.
<i>pSubDock</i>	a sub-dock.

**Returns**

the first icon whose field 'pSubDock' is equal to the given sub-dock, or NULL if no icon matches.

**5.35.3.20 void cairo\_dock\_get\_icon\_extent ( Icon \* *pIcon*, int \* *iWidth*, int \* *iHeight* )**

Get the dimension allocated to the surface/texture of an icon.

## Parameters

<i>plcon</i>	the icon.
<i>iWidth</i>	pointer to the width.
<i>iHeight</i>	pointer to the height.

5.35.3.21 `void cairo_dock_get_current_icon_size ( Icon * plcon, GldiContainer * pContainer, double * fSizeX, double * fSizeY )`

Get the current size of an icon as it is seen on the screen (taking into account the zoom and the ratio).

## Parameters

<i>plcon</i>	the icon
<i>pContainer</i>	its container
<i>fSizeX</i>	pointer to the X size (horizontal)
<i>fSizeY</i>	pointer to the Y size (vertical)

5.35.3.22 `void cairo_dock_compute_icon_area ( Icon * icon, GldiContainer * pContainer, GdkRectangle * pArea )`

Get the total zone used by an icon on its container (taking into account reflect, gap to reflect, zoom and stretching).

## Parameters

<i>icon</i>	the icon
<i>pContainer</i>	its container
<i>pArea</i>	a rectangle filled with the zone used by the icon on its container.

5.35.3.23 `void gldi_icon_set_name ( Icon * plcon, const gchar * clconName )`

Set the label of an icon. If it has a sub-dock, it is renamed (the name is possibly altered to stay unique). The label buffer is updated too.

## Parameters

<i>plcon</i>	the icon.
<i>clconName</i>	the new label of the icon. You can even pass <code>plcon-&gt;cName</code> .

5.35.3.24 `void gldi_icon_set_name_printf ( Icon * plcon, const gchar * clconNameFormat, ... )`

Same as above, but takes a printf-like format string.

## Parameters

<i>plcon</i>	the icon.
<i>clconName</i> ↔ <i>Format</i>	the new label of the icon, in a 'printf' way.
...	data to be inserted into the string.

5.35.3.25 `void void gldi_icon_set_quick_info ( Icon * plcon, const gchar * cQuickInfo )`

Set the quick-info of an icon. This is a small text (a few characters) that is superimposed on the icon.

## Parameters

<i>plcon</i>	the icon.
<i>cQuickInfo</i>	the text of the quick-info. If NULL, will just remove the current the quick-info.

5.35.3.26 void `gldi_icon_set_quick_info_printf ( Icon * plcon, const gchar * cQuickInfoFormat, ... )`

Same as above, but takes a printf-like format string.

## Parameters

<i>plcon</i>	the icon.
<i>cQuickInfoFormat</i>	the text of the quick-info, in a 'printf' way.
...	data to be inserted into the string.

5.35.3.27 gboolean `cairo_dock_begin_draw_icon ( Icon * plcon, gint iRenderingMode )`

Initiate an OpenGL drawing session on an icon's texture.

## Parameters

<i>plcon</i>	the icon on which to draw.
<i>iRenderingMode</i>	rendering mode. 0:normal, 1:don't clear the current texture, so that the drawing will be superimposed on it, 2:keep the current icon texture unchanged for all the drawing (the drawing is made on another texture).

## Returns

TRUE if you can proceed to the drawing, FALSE if an error occurred.

5.35.3.28 void `cairo_dock_end_draw_icon ( Icon * plcon )`

Finish an OpenGL drawing session on an icon.

## Parameters

<i>plcon</i>	the icon on which to draw.
--------------	----------------------------

## Returns

TRUE if you can proceed to the drawing, FALSE if an error occurred.

## 5.36 cairo-dock-icon-factory.h File Reference

### Data Structures

- struct [\\_IconInterface](#)  
*Icon's interface.*
- struct [\\_Icon](#)  
*Definition of an Icon.*
- struct [\\_CairoIconContainerRenderer](#)  
*Definition of an Icon container (= an icon holding a sub-dock) renderer.*

## Macros

- `#define CAIRO_DOCK_IS_ICON(obj)`
- `#define CAIRO_DOCK_IS_APPLI(icon)`
- `#define CAIRO_DOCK_IS_APPLET(icon)`
- `#define CAIRO_DOCK_IS_MULTI_APPLI(icon)`
- `#define CAIRO_DOCK_IS_AUTOMATIC_SEPARATOR(icon)`
- `#define CAIRO_DOCK_IS_USER_SEPARATOR(icon)`
- `#define CAIRO_DOCK_IS_NORMAL_APPLI(icon)`
- `#define CAIRO_DOCK_IS_DETACHABLE_APPLET(icon)`

## Enumerations

- enum `CairoDockIconGroup`  
*Available groups of icons.*
- enum `CairoDockAnimationState`  
*Animation state of an icon, sorted by priority.*

## Functions

- `Icon * gldi_icon_new` (void)
- `Icon * cairo_dock_create_dummy_launcher` (gchar \*cName, gchar \*cFileName, gchar \*cCommand, gchar \*cQuickInfo, double fOrder)
- void `cairo_dock_load_icon_image` (Icon \*icon, GldiContainer \*pContainer)
- void `cairo_dock_load_icon_text` (Icon \*icon)
- void `cairo_dock_load_icon_quickinfo` (Icon \*icon)
- void `cairo_dock_load_icon_buffers` (Icon \*pIcon, GldiContainer \*pContainer)

### 5.36.1 Detailed Description

This class defines the items contained in containers : Icons. An icon can either be:

- a launcher (it has a command, a class, and possible an X window ID)
- an appli (it has a X window ID and a class, no command)
- an applet (it has a module instance and no command, possibly a class)
- a container (it has a sub-dock and no class nor command)
- a class icon (it has a bsub-dock and a class, but no command nor X ID)
- a separator (it has nothing)

The class defines the methods used to create a generic Icon and to load its various buffers. Specialized Icons are created by the corresponding factory.

### 5.36.2 Macro Definition Documentation

#### 5.36.2.1 `#define CAIRO_DOCK_IS_ICON( obj )`

Say if an object is an Icon.



## Parameters

<i>obj</i>	the object.
------------	-------------

## Returns

TRUE if the object is an icon.

5.36.2.2 #define CAIRO\_DOCK\_IS\_APPLI( *icon* )

TRUE if the icon holds a window.

## Parameters

<i>icon</i>	an icon.
-------------	----------

5.36.2.3 #define CAIRO\_DOCK\_IS\_APPLET( *icon* )

TRUE if the icon holds an instance of a module.

## Parameters

<i>icon</i>	an icon.
-------------	----------

5.36.2.4 #define CAIRO\_DOCK\_IS\_MULTI\_APPLI( *icon* )

TRUE if the icon is an icon pointing on the sub-dock of a class.

## Parameters

<i>icon</i>	an icon.
-------------	----------

5.36.2.5 #define CAIRO\_DOCK\_IS\_AUTOMATIC\_SEPARATOR( *icon* )

TRUE if the icon is an automatic separator.

## Parameters

<i>icon</i>	an icon.
-------------	----------

5.36.2.6 #define CAIRO\_DOCK\_IS\_USER\_SEPARATOR( *icon* )

TRUE if the icon is a separator added by the user.

## Parameters

<i>icon</i>	an icon.
-------------	----------

5.36.2.7 #define CAIRO\_DOCK\_IS\_NORMAL\_APPLI( *icon* )

TRUE if the icon is an icon d'appli only.

## Parameters

<i>icon</i>	an icon.
-------------	----------

5.36.2.8 `#define CAIRO_DOCK_IS_DETACHABLE_APPLET( icon )`

TRUE if the icon is an icon d'applet detachable en desklet.

## Parameters

<i>icon</i>	an icon.
-------------	----------

## 5.36.3 Function Documentation

5.36.3.1 `Icon* gldi_icon_new ( void )`

Create an empty icon.

## Returns

the newly allocated icon object.

5.36.3.2 `Icon* cairo_dock_create_dummy_launcher ( gchar * cName, gchar * cFileName, gchar * cCommand, gchar * cQuickInfo, double fOrder )`

Create an Icon that will behave like a launcher. It's especially useful for applets that want to fill a sub-dock or a desklet (the icon is not loaded by the function). Be careful that the strings are not duplicated. Therefore, you must use `g_strdup()` if you want to set a constant string; and must not free the strings after calling this function.

## Parameters

<i>cName</i>	label of the icon
<i>cFileName</i>	name of an image
<i>cCommand</i>	a command, or NULL
<i>cQuickInfo</i>	a quick-info, or NULL
<i>fOrder</i>	order of the icon in its container.

## Returns

the newly created icon.

5.36.3.3 `void cairo_dock_load_icon_image ( Icon * icon, GldiContainer * pContainer )`

Fill the image buffer (surface & texture) of a given icon, according to its type. Set its size if necessary, and fills the reflection buffer for cairo.

## Parameters

<i>icon</i>	the icon.
<i>pContainer</i>	its container.

5.36.3.4 `void cairo_dock_load_icon_text ( Icon * icon )`

Fill the label buffer (surface & texture) of a given icon, according to a text description.

## Parameters

<i>icon</i>	the icon.
-------------	-----------

## 5.36.3.5 void cairo\_dock\_load\_icon\_quickinfo ( Icon \* icon )

Fill the quick-info buffer (surface & texture) of a given icon, according to a text description.

## Parameters

<i>icon</i>	the icon.
-------------	-----------

## 5.36.3.6 void cairo\_dock\_load\_icon\_buffers ( Icon \* pIcon, GldiContainer \* pContainer )

Fill all the buffers (surfaces & textures) of a given icon, according to its type. Set its size accordingly, and fills the reflection buffer for cairo. Label and quick-info are loaded with the current global text description.

## Parameters

<i>pIcon</i>	the icon.
<i>pContainer</i>	its container.

## 5.37 cairo-dock-icon-manager.h File Reference

## Enumerations

- enum [CairoIconNotifications](#) {  
NOTIFICATION\_UNFOLD\_SUBDOCK,  
NOTIFICATION\_UPDATE\_ICON,  
NOTIFICATION\_UPDATE\_ICON\_SLOW,  
NOTIFICATION\_PRE\_RENDER\_ICON,  
NOTIFICATION\_RENDER\_ICON,  
NOTIFICATION\_STOP\_ICON,  
NOTIFICATION\_REQUEST\_ICON\_ANIMATION }

*signals*

## Functions

- void [gldi\\_icons\\_foreach](#) (GldiIconFunc pFunction, gpointer pUserData)
- gint [cairo\\_dock\\_search\\_icon\\_size](#) (GtkIconSize iIconSize)
- gchar \* [cairo\\_dock\\_search\\_icon\\_s\\_path](#) (const gchar \*cFileName, gint iDesiredIconSize)

## 5.37.1 Detailed Description

This class manages the icons parameters and their associated resources.

Specialized Icons are handled by the corresponding manager.

## 5.37.2 Enumeration Type Documentation

## 5.37.2.1 enum CairoIconNotifications

signals

## Enumerator

**NOTIFICATION\_UNFOLD\_SUBDOCK** notification called when an icon's sub-dock is starting to (un)fold. data : {Icon}

**NOTIFICATION\_UPDATE\_ICON** notification called when an icon is updated in the fast rendering loop.

**NOTIFICATION\_UPDATE\_ICON\_SLOW** notification called when an icon is updated in the slow rendering loop.

**NOTIFICATION\_PRE\_RENDER\_ICON** notification called when the background of an icon is rendered.

**NOTIFICATION\_RENDER\_ICON** notification called when an icon is rendered.

**NOTIFICATION\_STOP\_ICON** notification called when an icon is stopped, for instance before it is removed.

**NOTIFICATION\_REQUEST\_ICON\_ANIMATION** notification called when someone asks for an animation for a given icon.

### 5.37.3 Function Documentation

#### 5.37.3.1 void gldi\_icons\_foreach ( GldiIconFunc *pFunction*, gpointer *pUserData* )

Execute an action on all icons.

##### Parameters

<i>pFunction</i>	the action.
<i>pUserData</i>	data passed to the callback.

#### 5.37.3.2 gint cairo\_dock\_search\_icon\_size ( GtkIconSize *iIconSize* )

Search the icon size of a GtkIconSize.

##### Parameters

<i>iIconSize</i>	a GtkIconSize
------------------	---------------

##### Returns

the maximum between the width and the height of the icon size in pixel (or 128 if there is a problem)

#### 5.37.3.3 gchar\* cairo\_dock\_search\_icon\_s\_path ( const gchar \* *cFileName*, gint *iDesiredIconSize* )

Search the path of an icon into the defined icons themes. It also handles the '~' character in paths.

##### Parameters

<i>cFileName</i>	name of the icon file.
<i>iDesiredIconSize</i>	desired icon size if we use icons from user icons theme.

##### Returns

the complete path of the icon, or NULL if not found.

## 5.38 cairo-dock-image-buffer.h File Reference

### Data Structures

- struct [\\_CairoDockImageBuffer](#)

*Definition of an Image Buffer. It provides an unified interface for a cairo/opengl image buffer.*

## Macros

- #define [cairo\\_dock\\_load\\_image\\_buffer](#)(pImage, cImageFile, iWidth, iHeight, iLoadModifier)
- #define [cairo\\_dock\\_apply\\_image\\_buffer\\_surface](#)(pImage, pCairoContext)
- #define [cairo\\_dock\\_apply\\_image\\_buffer\\_texture](#)(pImage)

## Functions

- gchar \* [cairo\\_dock\\_search\\_image\\_s\\_path](#) (const gchar \*cImageFile)
- void [cairo\\_dock\\_load\\_image\\_buffer\\_full](#) (CairoDockImageBuffer \*pImage, const gchar \*cImageFile, int iWidth, int iHeight, CairoDockLoadImageModifier iLoadModifier, double fAlpha)
- void [cairo\\_dock\\_load\\_image\\_buffer\\_from\\_surface](#) (CairoDockImageBuffer \*pImage, cairo\_surface\_t \*pSurface, int iWidth, int iHeight)
- CairoDockImageBuffer \* [cairo\\_dock\\_create\\_image\\_buffer](#) (const gchar \*cImageFile, int iWidth, int iHeight, CairoDockLoadImageModifier iLoadModifier)
- void [cairo\\_dock\\_unload\\_image\\_buffer](#) (CairoDockImageBuffer \*pImage)
- void [cairo\\_dock\\_free\\_image\\_buffer](#) (CairoDockImageBuffer \*pImage)
- void [cairo\\_dock\\_apply\\_image\\_buffer\\_surface\\_with\\_offset](#) (const CairoDockImageBuffer \*pImage, cairo\_t \*pCairoContext, double x, double y, double fAlpha)
- void [cairo\\_dock\\_apply\\_image\\_buffer\\_texture\\_with\\_offset](#) (const CairoDockImageBuffer \*pImage, double x, double y)
- void [cairo\\_dock\\_apply\\_image\\_buffer\\_surface\\_at\\_size](#) (const CairoDockImageBuffer \*pImage, cairo\_t \*pCairoContext, int w, int h, double x, double y, double fAlpha)
- void [cairo\\_dock\\_apply\\_image\\_buffer\\_texture\\_at\\_size](#) (const CairoDockImageBuffer \*pImage, int w, int h, double x, double y)
- void [cairo\\_dock\\_create\\_icon\\_fbo](#) (void)
- void [cairo\\_dock\\_destroy\\_icon\\_fbo](#) (void)

### 5.38.1 Detailed Description

This class defines a generic image API that works for both Cairo and OpenGL. It allows to easily load and display images, without having to care the rendering mode. It supports animated images (an animated image is made of several frames, ordered side by side from left to right).

Use [cairo\\_dock\\_create\\_image\\_buffer](#) to create an image buffer from a file, or [cairo\\_dock\\_load\\_image\\_buffer](#) to load an image into an existing image buffer. Use [cairo\\_dock\\_free\\_image\\_buffer](#) to destroy it or [cairo\\_dock\\_unload\\_image\\_buffer](#) to unload and reset it to 0.

Use [cairo\\_dock\\_apply\\_image\\_buffer\\_surface](#) or [cairo\\_dock\\_apply\\_image\\_buffer\\_texture](#) to display the image.

### 5.38.2 Macro Definition Documentation

#### 5.38.2.1 [cairo\\_dock\\_load\\_image\\_buffer](#)( *pImage*, *cImageFile*, *iWidth*, *iHeight*, *iLoadModifier* )

Load an image into an ImageBuffer. If the image is given by its sole name, it is taken in the root folder of the current theme.

#### Parameters

<i>pImage</i>	an ImageBuffer.
<i>cImageFile</i>	name of a file
<i>iWidth</i>	width it should be loaded. The resulting width can be different depending on the modifier.
<i>iHeight</i>	height it should be loaded. The resulting width can be different depending on the modifier.
<i>iLoadModifier</i>	modifier

5.38.2.2 `#define cairo_dock_apply_image_buffer_surface( pImage, pCairoContext )`

Draw an ImageBuffer on a cairo context.

## Parameters

<i>plmage</i>	an ImageBuffer.
<i>pCairoContext</i>	the current cairo context.

5.38.2.3 #define cairo\_dock\_apply\_image\_buffer\_texture( *plmage* )

Draw an ImageBuffer on the current OpenGL context.

## Parameters

<i>plmage</i>	an ImageBuffer.
---------------	-----------------

## 5.38.3 Function Documentation

5.38.3.1 gchar\* cairo\_dock\_search\_image\_s\_path ( const gchar \* *clmageFile* )

Find the path of an image. '~' is handled, as well as the 'images' folder of the current theme. Use [cairo\\_dock\\_search\\_icon\\_s\\_path](#) to search theme icons.

## Parameters

<i>clmageFile</i>	a file name or path. If it's already a path, it will just be duplicated.
-------------------	--

## Returns

the path of the file, or NULL if it has not been found.

5.38.3.2 void cairo\_dock\_load\_image\_buffer\_full ( CairoDockImageBuffer \* *plmage*, const gchar \* *clmageFile*, int *iWidth*, int *iHeight*, CairoDockLoadImageModifier *iLoadModifier*, double *fAlpha* )

Load an image into an ImageBuffer with a given transparency. If the image is given by its sole name, it is taken in the root folder of the current theme.

## Parameters

<i>plmage</i>	an ImageBuffer.
<i>clmageFile</i>	name of a file
<i>iWidth</i>	width it should be loaded.
<i>iHeight</i>	height it should be loaded.
<i>iLoadModifier</i>	modifier
<i>fAlpha</i>	transparency (1:fully opaque)

5.38.3.3 void cairo\_dock\_load\_image\_buffer\_from\_surface ( CairoDockImageBuffer \* *plmage*, cairo\_surface\_t \* *pSurface*, int *iWidth*, int *iHeight* )

Load a surface into an ImageBuffer.

## Parameters

<i>plmage</i>	an ImageBuffer.
<i>pSurface</i>	a cairo surface
<i>iWidth</i>	width of the surface
<i>iHeight</i>	height of the surface

5.38.3.4 **CairoDockImageBuffer\*** `cairo_dock_create_image_buffer ( const gchar * cImageFile, int iWidth, int iHeight, CairoDockLoadImageModifier iLoadModifier )`

Create and load an image into an ImageBuffer. If the image is given by its sole name, it is taken in the root folder of the current theme.



## Parameters

<i>cImageFile</i>	name of a file
<i>iWidth</i>	width it should be loaded.
<i>iHeight</i>	height it should be loaded.
<i>iLoadModifier</i>	modifier

## Returns

a newly allocated ImageBuffer.

5.38.3.5 void cairo\_dock\_unload\_image\_buffer ( CairoDockImageBuffer \* *plmage* )

Reset an ImageBuffer's resources. It can be used to load another image then.

## Parameters

<i>plmage</i>	an ImageBuffer.
---------------	-----------------

5.38.3.6 void cairo\_dock\_free\_image\_buffer ( CairoDockImageBuffer \* *plmage* )

Reset and free an ImageBuffer.

## Parameters

<i>plmage</i>	an ImageBuffer.
---------------	-----------------

5.38.3.7 void cairo\_dock\_apply\_image\_buffer\_surface\_with\_offset ( const CairoDockImageBuffer \* *plmage*, cairo\_t \* *pCairoContext*, double *x*, double *y*, double *fAlpha* )

Draw an ImageBuffer with an offset on a Cairo context, at the size it was loaded.

## Parameters

<i>plmage</i>	an ImageBuffer.
<i>pCairoContext</i>	the current cairo context.
<i>x</i>	horizontal offset.
<i>y</i>	vertical offset.
<i>fAlpha</i>	transparency (in [0;1])

5.38.3.8 void cairo\_dock\_apply\_image\_buffer\_texture\_with\_offset ( const CairoDockImageBuffer \* *plmage*, double *x*, double *y* )

Draw an ImageBuffer with an offset on the current OpenGL context, at the size it was loaded.

## Parameters

<i>plmage</i>	an ImageBuffer.
<i>x</i>	horizontal offset.
<i>y</i>	vertical offset.

5.38.3.9 void cairo\_dock\_apply\_image\_buffer\_surface\_at\_size ( const CairoDockImageBuffer \* *plmage*, cairo\_t \* *pCairoContext*, int *w*, int *h*, double *x*, double *y*, double *fAlpha* )

Draw an ImageBuffer with an offset on a Cairo context, at a given size.

## Parameters

<i>pImage</i>	an ImageBuffer.
<i>pCairoContext</i>	the current cairo context.
<i>w</i>	requested width
<i>h</i>	requested height
<i>x</i>	horizontal offset.
<i>y</i>	vertical offset.
<i>fAlpha</i>	transparency (in [0;1])

5.38.3.10 void `cairo_dock_apply_image_buffer_texture_at_size` ( const CairoDockImageBuffer \* *pImage*, int *w*, int *h*, double *x*, double *y* )

Draw an ImageBuffer on the current OpenGL context at a given size.

## Parameters

<i>pImage</i>	an ImageBuffer.
<i>w</i>	requested width
<i>h</i>	requested height
<i>x</i>	horizontal offset.
<i>y</i>	vertical offset.

5.38.3.11 void `cairo_dock_create_icon_fbo` ( void )

Create an FBO to render the icons inside a dock.

5.38.3.12 void `cairo_dock_destroy_icon_fbo` ( void )

Destroy the icons FBO.

## 5.39 cairo-dock-indicator-manager.h File Reference

### 5.39.1 Detailed Description

This class manages the indicators.

## 5.40 cairo-dock-keybinder.h File Reference

### Macros

- #define `gldi_shortkey_could_grab`(binding)

### Typedefs

- typedef void(\* `CDBindkeyHandler` )(const gchar \*keystring, gpointer user\_data)

*Definition of a callback, called when a shortcut is pressed by the user.*

## Functions

- GldiShortcut \* [gldi\\_shortkey\\_new](#) (const gchar \*keystring, const gchar \*cDemander, const gchar \*cDescription, const gchar \*clconFilePath, const gchar \*cConfFilePath, const gchar \*cGroupName, const gchar \*cKeyName, CDBindkeyHandler handler, gpointer user\_data)
- gboolean [gldi\\_shortkey\\_rebind](#) (GldiShortcut \*binding, const gchar \*cNewKeyString, const gchar \*cNewDescription)
- gboolean [cairo\\_dock\\_trigger\\_shortkey](#) (const gchar \*cKeyString)

### 5.40.1 Detailed Description

This class defines the Shortkeys, which are objects that bind a keyboard shortcut to an action. The keyboard shortcut is defined globally on the desktop, that is to say they will be effective whatever window has the focus. Keyboard shortcuts are of the form <alt>F1 or <ctrl><shift>s.

Use [gldi\\_shortkey\\_new](#) to create a new shortcut, and simply unref it with [gldi\\_object\\_unref](#) to unbind the keyboard shortcut. To update a binding (whenever the shortcut or the description change, or just to re-grab it), use [gldi\\_shortkey\\_rebind](#).

### 5.40.2 Macro Definition Documentation

#### 5.40.2.1 #define gldi\_shortkey\_could\_grab( binding )

Says if the shortcut of a key binding could be grabbed.

#### Parameters

<i>binding</i>	a key binding.
----------------	----------------

#### Returns

TRUE iif the shortcut has been successfully grabbed by the key binding.

### 5.40.3 Function Documentation

#### 5.40.3.1 GldiShortcut\* gldi\_shortkey\_new ( const gchar \* keystring, const gchar \* cDemander, const gchar \* cDescription, const gchar \* clconFilePath, const gchar \* cConfFilePath, const gchar \* cGroupName, const gchar \* cKeyName, CDBindkeyHandler handler, gpointer user\_data )

Create a new shortcut, that binds an action to a shortcut. Unref it when you don't want it anymore, or when 'user\_data' is freed.

#### Parameters

<i>keystring</i>	a shortcut.
<i>cDemander</i>	the actor making the demand
<i>cDescription</i>	a short description of the action
<i>clconFilePath</i>	an icon that represents the demander
<i>cConfFilePath</i>	conf file where the shortcut stored
<i>cGroupName</i>	group name where it's stored in the conf file
<i>cKeyName</i>	key name where it's stored in the conf file
<i>handler</i>	function called when the shortcut is pressed by the user

<i>user_data</i>	data passed to the callback
------------------	-----------------------------

**Returns**

the shortcut, already bound.

#### 5.40.3.2 gboolean gldi\_shortkey\_rebind ( GldiShortcut \* *binding*, const gchar \* *cNewKeyString*, const gchar \* *cNewDescription* )

Rebind a shortcut to a new one. If the shortcut is the same, don't re-bind it.

**Parameters**

<i>binding</i>	a key binding.
<i>cNewKeyString</i>	the new shortcut
<i>cNewDescription</i>	the new description, or NULL to keep the current one.

**Returns**

TRUE on success

#### 5.40.3.3 gboolean cairo\_dock\_trigger\_shortkey ( const gchar \* *cKeyString* )

Trigger a given shortcut. It will be as if the user effectively pressed the shortcut on its keyboard. It uses the 'XTest' X extension.

**Parameters**

<i>cKeyString</i>	a shortcut.
-------------------	-------------

**Returns**

TRUE if success.

## 5.41 cairo-dock-keyfile-utilities.h File Reference

**Functions**

- GKeyFile \* [cairo\\_dock\\_open\\_key\\_file](#) (const gchar \*cConfFilePath)
- void [cairo\\_dock\\_write\\_keys\\_to\\_file](#) (GKeyFile \*pKeyFile, const gchar \*cConfFilePath)
- void [cairo\\_dock\\_merge\\_conf\\_files](#) (const gchar \*cConfFilePath, gchar \*cReplacementConfFilePath, gchar iIdentifier)
- void [cairo\\_dock\\_upgrade\\_conf\\_file\\_full](#) (const gchar \*cConfFilePath, GKeyFile \*pKeyFile, const gchar \*cDefaultConfFilePath, gboolean bUpdateKeys)
- void [cairo\\_dock\\_get\\_conf\\_file\\_version](#) (GKeyFile \*pKeyFile, gchar \*\*cConfFileVersion)
- gboolean [cairo\\_dock\\_conf\\_file\\_needs\\_update](#) (GKeyFile \*pKeyFile, const gchar \*cVersion)
- void [cairo\\_dock\\_add\\_remove\\_element\\_to\\_key](#) (const gchar \*cConfFilePath, const gchar \*cGroupName, const gchar \*cKeyName, gchar \*cElementName, gboolean bAdd)
- void [cairo\\_dock\\_add\\_group\\_key\\_to\\_conf\\_file](#) (GKeyFile \*pKeyFile, const gchar \*cGroupName, const gchar \*cKeyName, const gchar \*cInitialValue, CairoDockGUIWidgetType iWidgetType, const gchar \*cAuthorizedValues, const gchar \*cDescription, const gchar \*cTooltip)
- void [cairo\\_dock\\_remove\\_group\\_key\\_from\\_conf\\_file](#) (GKeyFile \*pKeyFile, const gchar \*cGroupName, const gchar \*cKeyName)
- void [cairo\\_dock\\_update\\_keyfile](#) (const gchar \*cConfFilePath, GType iFirstDataType,...)

### 5.41.1 Detailed Description

This class provides useful functions to manipulate the conf files of Cairo-Dock, which are classic group/key pair files.

### 5.41.2 Function Documentation

#### 5.41.2.1 GKeyFile\* cairo\_dock\_open\_key\_file ( const gchar \* *cConfFilePath* )

Open a conf file to be read/written. Returns NULL if the file couldn't be found/opened/parsed. Free it with `g_key_file_free` after you're done.

#### 5.41.2.2 void cairo\_dock\_write\_keys\_to\_file ( GKeyFile \* *pKeyFile*, const gchar \* *cConfFilePath* )

Write a key file on the disk.

#### 5.41.2.3 void cairo\_dock\_merge\_conf\_files ( const gchar \* *cConfFilePath*, gchar \* *cReplacementConfFilePath*, gchar *identifier* )

Merge the values of a conf-file into another one. Keys are filtered by an identifier on the original conf-file.

##### Parameters

<i>cConfFilePath</i>	an up-to-date conf-file with old values, that will be updated.
<i>cReplacementConfFilePath</i>	an old conf-file containing values we want to use
<i>identifier</i>	a character to filter the keys, or 0.

#### 5.41.2.4 void cairo\_dock\_upgrade\_conf\_file\_full ( const gchar \* *cConfFilePath*, GKeyFile \* *pKeyFile*, const gchar \* *cDefaultConfFilePath*, gboolean *bUpdateKeys* )

Update a conf-file, by merging values from a given key-file into a template conf-file.

##### Parameters

<i>cConfFilePath</i>	path to the conf-file to update.
<i>pKeyFile</i>	a key-file with correct values, but old comments and possibly missing or old keys. It is not modified by the function.
<i>cDefaultConfFilePath</i>	a template conf-file.
<i>bUpdateKeys</i>	whether to remove old keys (hidden and persistent) or not.

#### 5.41.2.5 void cairo\_dock\_get\_conf\_file\_version ( GKeyFile \* *pKeyFile*, gchar \*\* *cConfFileVersion* )

Get the version of a conf file. The version is written on the first line of the file, as a comment.

#### 5.41.2.6 gboolean cairo\_dock\_conf\_file\_needs\_update ( GKeyFile \* *pKeyFile*, const gchar \* *cVersion* )

Say if a conf file's version mismatches a given version.

#### 5.41.2.7 void cairo\_dock\_add\_remove\_element\_to\_key ( const gchar \* *cConfFilePath*, const gchar \* *cGroupName*, const gchar \* *cKeyName*, gchar \* *cElementName*, gboolean *bAdd* )

Add or remove a value in a list of values to a given (group,key) pair of a conf file.

5.41.2.8 void `cairo_dock_add_group_key_to_conf_file` ( `GKeyFile * pKeyFile`, const `gchar * cGroupName`, const `gchar * ckeyName`, const `gchar * cInitialValue`, `CairoDockGUIWidgetType iWidgetType`, const `gchar * cAuthorizedValues`, const `gchar * cDescription`, const `gchar * cTooltip` )

Add a key to a conf file, so that it can be parsed by the GUI manager.

5.41.2.9 void `cairo_dock_remove_group_key_from_conf_file` ( `GKeyFile * pKeyFile`, const `gchar * cGroupName`, const `gchar * ckeyName` )

Remove a key from a conf file.

5.41.2.10 void `cairo_dock_update_keyfile` ( const `gchar * cConfFilePath`, `GType iFirstDataType`, ... )

Update a conf file with a list of values of the form : {type, name of the groupe, name of the key, value}. Must end with `G_TYPE_INVALID`.

Parameters

<code>cConfFilePath</code>	path to the conf file.
<code>iFirstDataType</code>	type of the first value.

## 5.42 cairo-dock-kwin-integration.h File Reference

### 5.42.1 Detailed Description

This class implements the integration of Kwin inside Cairo-Dock.

## 5.43 cairo-dock-launcher-manager.h File Reference

Macros

- `#define GLDI_OBJECT_IS_LAUNCHER_ICON(obj)`

### 5.43.1 Detailed Description

This class handles the Launcher Icons, which are user icons used to launch a program.

### 5.43.2 Macro Definition Documentation

5.43.2.1 `#define GLDI_OBJECT_IS_LAUNCHER_ICON( obj )`

Say if an object is a `LauncherIcon`.

Parameters

<code>obj</code>	the object.
------------------	-------------

Returns

TRUE if the object is a `LauncherIcon`.

## 5.44 cairo-dock-manager.h File Reference

### Data Structures

- struct [\\_GldiManager](#)  
*Definition of a Manager.*

### Macros

- #define [GLDI\\_OBJECT\\_IS\\_MANAGER\(obj\)](#)

#### 5.44.1 Detailed Description

This class defines the Managers. A Manager is like an internal module: it has a classic module interface, manages a set of resources, and has its own configuration.

Each manager is initialized at the beginning. When loading the current theme, `get_config` and `load` are called. When unloading the current theme, `unload` and `reset_config` are called. When reloading a part of the current theme, `reset_config`, `get_config` and `load` are called.

#### 5.44.2 Macro Definition Documentation

##### 5.44.2.1 #define GLDI\_OBJECT\_IS\_MANAGER( obj )

Say if an object is a Manager.

##### Parameters

<i>obj</i>	the object.
------------	-------------

##### Returns

TRUE if the object is a Manager.

## 5.45 cairo-dock-menu.h File Reference

### Macros

- #define [gldi\\_submenu\\_new\(...\)](#)
- #define [gldi\\_menu\\_item\\_new\(cLabel, cImage\)](#)
- #define [gldi\\_menu\\_add\\_sub\\_menu\(pMenu, cLabel, cImage\)](#)

### Functions

- GtkWidget \* [gldi\\_menu\\_new](#) (Icon \*pIcon)
- void [gldi\\_menu\\_init](#) (GtkWidget \*pMenu, Icon \*pIcon)
- void [gldi\\_menu\\_popup](#) (GtkWidget \*menu)
- GtkWidget \* [gldi\\_menu\\_item\\_new\\_full](#) (const gchar \*cLabel, const gchar \*cImage, gboolean bUseMnemonic, GtkIconSize iSize)
- GtkWidget \* [gldi\\_menu\\_item\\_new\\_with\\_action](#) (const gchar \*cLabel, const gchar \*cImage, GCallback pFunction, gpointer pData)
- GtkWidget \* [gldi\\_menu\\_item\\_new\\_with\\_submenu](#) (const gchar \*cLabel, const gchar \*cImage, GtkWidget \*\*pSubMenuPtr)

- void [gldi\\_menu\\_item\\_set\\_image](#) (GtkWidget \*pMenuItem, GtkWidget \*image)
- GtkWidget \* [gldi\\_menu\\_item\\_get\\_image](#) (GtkWidget \*pMenuItem)
- GtkWidget \* [gldi\\_menu\\_add\\_item](#) (GtkWidget \*pMenu, const gchar \*cLabel, const gchar \*cImage, GCallback pFunction, gpointer pData)
- GtkWidget \* [gldi\\_menu\\_add\\_sub\\_menu\\_full](#) (GtkWidget \*pMenu, const gchar \*cLabel, const gchar \*cImage, GtkWidget \*\*pMenuItemPtr)
- void [gldi\\_menu\\_add\\_separator](#) (GtkWidget \*pMenu)

### 5.45.1 Detailed Description

This class defines the Menu. They are classical menus, but with a custom looking.

### 5.45.2 Macro Definition Documentation

#### 5.45.2.1 #define gldi\_submenu\_new( ... )

Creates a new sub-menu. It's just a menu that doesn't point on an Icon/Container.

#### 5.45.2.2 #define gldi\_menu\_item\_new( cLabel, cImage )

A convenient function to create a menu-item with a label and an image.

##### Parameters

<i>cLabel</i>	the label, or NULL
<i>cImage</i>	the image path or name, or NULL

##### Returns

the new menu-item.

#### 5.45.2.3 #define gldi\_menu\_add\_sub\_menu( pMenu, cLabel, cImage )

A convenient function to add a sub-menu to a given menu.

##### Parameters

<i>pMenu</i>	the menu
<i>cLabel</i>	the label, or NULL
<i>cImage</i>	the image path or name, or NULL

##### Returns

the new sub-menu that has been added.

### 5.45.3 Function Documentation

#### 5.45.3.1 GtkWidget\* gldi\_menu\_new ( Icon \* pIcon )

Creates a new menu that will point on a given Icon. If the Icon is NULL, it will be placed under the mouse.



## Parameters

<i>pIcon</i>	the icon, or NULL
--------------	-------------------

## Returns

the new menu.

## 5.45.3.2 void gldi\_menu\_init ( GtkWidget \* pMenu, Icon \* pIcon )

Initialize a menu, so that it can be drawn and placed correctly. It's useful if the menu was created beforehand (like a DbusMenu).

## Parameters

<i>pIcon</i>	the icon, or NULL
--------------	-------------------

## 5.45.3.3 void gldi\_menu\_popup ( GtkWidget \* menu )

Pop-up a menu. The menu is placed above the icon, or above the container, or above the mouse, depending on how it has been initialized.

## Parameters

<i>menu</i>	the menu.
-------------	-----------

## 5.45.3.4 GtkWidget\* gldi\_menu\_item\_new\_full ( const gchar \* cLabel, const gchar \* cImage, gboolean bUseMnemonic, GtkIconSize iSize )

Creates a menu-item, with a label and an image. The child widget of the menu-item is a gtk-label. If the label is NULL, the child widget will be NULL too (this is useful if the menu-item will hold a custom widget).

## Parameters

<i>cLabel</i>	the label, or NULL
<i>cImage</i>	the image path or name, or NULL
<i>bUseMnemonic</i>	whether to use the mnemonic inside the label or not
<i>iSize</i>	size of the image, or 0 to use the default size

## Returns

the new menu-item.

## 5.45.3.5 GtkWidget\* gldi\_menu\_item\_new\_with\_action ( const gchar \* cLabel, const gchar \* cImage, GCallback pFunction, gpointer pData )

A convenient function to create a menu-item with a label, an image, and an associated action.

## Parameters

<i>cLabel</i>	the label, or NULL
<i>cImage</i>	the image path or name, or NULL

<i>pFunction</i>	the callback
<i>pData</i>	the data passed to the callback

**Returns**

the new menu-item.

#### 5.45.3.6 `GtkWidget* gldi_menu_item_new_with_submenu ( const gchar * cLabel, const gchar * clmage, GtkWidget ** pSubMenuPtr )`

A convenient function to create a menu-item with a label, an image, and an associated sub-menu.

**Parameters**

<i>cLabel</i>	the label
<i>clmage</i>	the image path or name, or NULL
<i>pSubMenuPtr</i>	pointer that will contain the new sub-menu, or NULL

**Returns**

the new menu-item.

#### 5.45.3.7 `void gldi_menu_item_set_image ( GtkWidget * pMenuItem, GtkWidget * image )`

Sets a gtk-image on a menu-item. This is useful if the image can't be given by a name or path (for instance, loaded from a cairo surface).

**Parameters**

<i>pMenuItem</i>	the menu-item
<i>image</i>	the image

#### 5.45.3.8 `GtkWidget* gldi_menu_item_get_image ( GtkWidget * pMenuItem )`

Gets the image of a menu-item.

**Parameters**

<i>pMenuItem</i>	the menu-item
------------------	---------------

**Returns**

the gtk-image

#### 5.45.3.9 `GtkWidget* gldi_menu_add_item ( GtkWidget * pMenu, const gchar * cLabel, const gchar * clmage, GCallback pFunction, gpointer pData )`

A convenient function to add an item to a given menu.

**Parameters**

<i>pMenu</i>	the menu
<i>cLabel</i>	the label, or NULL
<i>cImage</i>	the image path or name, or NULL
<i>pFunction</i>	the callback
<i>pData</i>	the data passed to the callback

**Returns**

the new menu-entry that has been added.

5.45.3.10 `GtkWidget* gldi_menu_add_sub_menu_full ( GtkWidget * pMenu, const gchar * cLabel, const gchar * cImage, GtkWidget ** pMenuItemPtr )`

A convenient function to add a sub-menu to a given menu.

**Parameters**

<i>pMenu</i>	the menu
<i>cLabel</i>	the label, or NULL
<i>cImage</i>	the image path or name, or NULL
<i>pMenuItemPtr</i>	pointer that will contain the new menu-item, or NULL

**Returns**

the new sub-menu that has been added.

5.45.3.11 `void gldi_menu_add_separator ( GtkWidget * pMenu )`

A convenient function to add a separator to a given menu.

**Parameters**

<i>pMenu</i>	the menu
--------------	----------

## 5.46 cairo-dock-module-instance-manager.h File Reference

**Data Structures**

- [struct `\_GldiModuleInstance`](#)

*Definition of an instance of a module. A module can be instanciated several times.*

**Macros**

- `#define GLDI\_OBJECT\_IS\_MODULE\_INSTANCE\(obj\)`

### 5.46.1 Detailed Description

This class defines the instances of modules.

A module-instance represents one instance of a module; it holds a set of data: the icon and its container, the config structure and its conf file, the data structure and a slot to plug datas into containers and icons. All these parameters are optionnal; a module-instance that has an icon is also called an applet.

## 5.46.2 Macro Definition Documentation

### 5.46.2.1 #define GLDI\_OBJECT\_IS\_MODULE\_INSTANCE( *obj* )

Say if an object is a Module-instance.

#### Parameters

<i>obj</i>	the object.
------------	-------------

#### Returns

TRUE if the object is a Module-instance.

## 5.47 cairo-dock-module-manager.h File Reference

### Data Structures

- struct [\\_GldiVisitCard](#)  
*Definition of the visit card of a module. Contains everything that is statically defined for a module.*
- struct [\\_GldiModuleInterface](#)  
*Definition of the interface of a module.*
- struct [\\_GldiModule](#)  
*Definition of an external module.*

### Macros

- #define [GLDI\\_OBJECT\\_IS\\_MODULE](#)(*obj*)

### Typedefs

- typedef [gboolean](#)(\* [GldiModulePreInit](#))([GldiVisitCard](#) \*pVisitCard, [GldiModuleInterface](#) \*pInterface)  
*Pre-init function of a module. Fills the visit card and the interface of a module.*

### Enumerations

- enum [GldiModuleCategory](#)  
*Categories a module can be in.*

### Functions

- [GldiModule](#) \* [gldi\\_module\\_new](#) ([GldiVisitCard](#) \*pVisitCard, [GldiModuleInterface](#) \*pInterface)
- [GldiModule](#) \* [gldi\\_module\\_new\\_from\\_so\\_file](#) (const gchar \*cSoFilePath)
- void [gldi\\_modules\\_new\\_from\\_directory](#) (const gchar \*cModuleDirPath, GError \*\*erreur)
- gchar \* [gldi\\_module\\_get\\_config\\_dir](#) ([GldiModule](#) \*pModule)
- [GldiModule](#) \* [gldi\\_module\\_get](#) (const gchar \*cModuleName)
- void [gldi\\_module\\_activate](#) ([GldiModule](#) \*module)
- void [gldi\\_module\\_deactivate](#) ([GldiModule](#) \*module)
- void [gldi\\_module\\_add\\_instance](#) ([GldiModule](#) \*pModule)  
*should maybe be in the module-instance too..*

### 5.47.1 Detailed Description

This class manages the external modules of Cairo-Dock.

A module has an interface and a visit card :

- the visit card allows it to define itself (name, category, default icon, etc)
- the interface defines the entry points for init, stop, reload, read config, and reset data.

Modules can be instanciated several times; each time they are, an instance `_GldiModuleInstance` is created. Each instance holds a set of data: the icon and its container, the config structure and its conf file, the data structure and a slot to plug datas into containers and icons. All these data are optionnal; a module that has an icon is also called an applet.

### 5.47.2 Macro Definition Documentation

#### 5.47.2.1 #define GLDI\_OBJECT\_IS\_MODULE( *obj* )

Say if an object is a Module.

Parameters

<i>obj</i>	the object.
------------	-------------

Returns

TRUE if the object is a Module.

### 5.47.3 Function Documentation

#### 5.47.3.1 GldiModule\* gldi\_module\_new ( GldiVisitCard \* *pVisitCard*, GldiModuleInterface \* *pInterface* )

Create a new module. The module takes ownership of the 2 arguments, unless an error occured.

Parameters

<i>pVisitCard</i>	the visit card of the module
<i>pInterface</i>	the interface of the module

Returns

the new module, or NULL if the visit card is invalid.

#### 5.47.3.2 GldiModule\* gldi\_module\_new\_from\_so\_file ( const gchar \* *cSoFilePath* )

Create a new module from a .so file.

Parameters

<i>cSoFilePath</i>	path to the .so file
--------------------	----------------------

Returns

the new module, or NULL if an error occured.

#### 5.47.3.3 void gldi\_modules\_new\_from\_directory ( const gchar \* *cModuleDirPath*, GError \*\* *erreur* )

Create new modules from all the .so files contained in the given folder.

## Parameters

<i>cModuleDirPath</i>	path to the folder
<i>erreur</i>	an error

## Returns

the new module, or NULL if an error occurred.

5.47.3.4 `gchar* gldi_module_get_config_dir ( GldiModule * pModule )`

Get the path to the folder containing the config files of a module (one file per instance). The folder is created if needed. If the module is not configurable, or if the folder couldn't be created, NULL is returned.

## Parameters

<i>pModule</i>	the module
----------------	------------

## Returns

the path to the folder (free it after use).

5.47.3.5 `GldiModule* gldi_module_get ( const gchar * cModuleName )`

Get the module which has a given name.

## Parameters

<i>cModuleName</i>	the unique name of the module.
--------------------	--------------------------------

## Returns

the module, or NULL if not found.

5.47.3.6 `void gldi_module_activate ( GldiModule * module )`

Create and initialize all the instances of a module.

## Parameters

<i>module</i>	the module to activate.
---------------	-------------------------

5.47.3.7 `void gldi_module_deactivate ( GldiModule * module )`

Stop and destroy all the instances of a module.

## Parameters

<i>module</i>	the module to deactivate
---------------	--------------------------

## 5.48 cairo-dock-object.h File Reference

### Data Structures

- [struct \\_GldiObject](#)

*Definition of an Object.*

- struct [\\_GldiObjectManager](#)

*Definition of an ObjectManager.*

## Macros

- #define [GLDI\\_RUN\\_FIRST](#)  
*Use this in [gldi\\_object\\_register\\_notification](#) to be called before the core.*
- #define [GLDI\\_RUN\\_AFTER](#)  
*Use this in [gldi\\_object\\_register\\_notification](#) to be called after the core.*
- #define [GLDI\\_NOTIFICATION\\_INTERCEPT](#)  
*Return this in your callback to prevent the other callbacks from being called after you.*
- #define [GLDI\\_NOTIFICATION\\_LET\\_PASS](#)  
*Return this in your callback to let pass the notification to the other callbacks after you.*
- #define [gldi\\_object\\_notify](#)(pObject, iNotifType,...)

## Typedefs

- typedef [gboolean](#)(\* [GldiNotificationFunc](#) )(gpointer pUserData,...)  
*Generic prototype of a notification callback.*

## Enumerations

- enum [GldiObjectNotifications](#) {  
  [NOTIFICATION\\_NEW](#),  
  [NOTIFICATION\\_DESTROY](#) }  
*signals (any object has at least these ones)*

## Functions

- [GldiObject](#) \* [gldi\\_object\\_new](#) ([GldiObjectManager](#) \*pMgr, gpointer attr)
- void [gldi\\_object\\_ref](#) ([GldiObject](#) \*pObject)
- void [gldi\\_object\\_unref](#) ([GldiObject](#) \*pObject)
- void [gldi\\_object\\_delete](#) ([GldiObject](#) \*pObject)
- void [gldi\\_object\\_reload](#) ([GldiObject](#) \*pObject, [gboolean](#) bReloadConfig)
- void [gldi\\_object\\_register\\_notification](#) (gpointer pObject, [GldiNotificationType](#) iNotifType, [GldiNotificationFunc](#) pFunction, [gboolean](#) bRunFirst, gpointer pUserData)
- void [gldi\\_object\\_remove\\_notification](#) (gpointer pObject, [GldiNotificationType](#) iNotifType, [GldiNotificationFunc](#) pFunction, gpointer pUserData)

### 5.48.1 Detailed Description

This class defines the Objects, the base class of libgldi. Every element in this library is an Object. An object is defined by an ObjectManager, which defines its capabilities and signals.

Any object is created with [gldi\\_object\\_new](#) and destroyed with [gldi\\_object\\_unref](#). An object can be deleted from the current theme with [gldi\\_object\\_delete](#). An object can be reloaded with [gldi\\_object\\_reload](#).

You can listen for notifications on an object with [gldi\\_object\\_register\\_notification](#) and stop listening with [gldi\\_object\\_remove\\_notification](#). To listen for notifications on any object of a given type, simply register yourself on its ObjectManager.

## 5.48.2 Macro Definition Documentation

### 5.48.2.1 `#define gldi_object_notify( pObject, iNotifType, ... )`

Broadcast a notification on a given object, and on all its managers.



## Parameters

<i>pObject</i>	the object (Icon, Container, Manager, ...).
<i>iNotifType</i>	type of the notification.
...	parameters to be passed to the callbacks that have registered to this notification.

## 5.48.3 Enumeration Type Documentation

## 5.48.3.1 enum GldiObjectNotifications

signals (any object has at least these ones)

## Enumerator

**NOTIFICATION\_NEW** notification called when an object has been created. data : the object

**NOTIFICATION\_DESTROY** notification called when the object is going to be destroyed. data : the object

## 5.48.4 Function Documentation

## 5.48.4.1 GldiObject\* gldi\_object\_new ( GldiObjectManager \* pMgr, gpointer attr )

Create a new object.

## Parameters

<i>pMgr</i>	the ObjectManager
<i>attr</i>	the attributes of the object

## Returns

the new object, with a reference of 1; use [gldi\\_object\\_unref](#) to destroy it

## 5.48.4.2 void gldi\_object\_ref ( GldiObject \* pObject )

Take a reference on an object.

## Parameters

<i>pObject</i>	the Object
----------------	------------

## 5.48.4.3 void gldi\_object\_unref ( GldiObject \* pObject )

Drop your reference on an object. If it's the last reference, the object is destroyed, otherwise nothing happens.

## Parameters

<i>pObject</i>	the Object
----------------	------------

## 5.48.4.4 void gldi\_object\_delete ( GldiObject \* pObject )

Delete an object from the current theme. The object is unref'd, and won't be created again on next startup.

## Parameters

<i>pObject</i>	the Object
----------------	------------

5.48.4.5 void `gldi_object_reload ( GldiObject * pObject, gboolean bReloadConfig )`

Reload an object.

## Parameters

<i>pObject</i>	the Object
<i>bReloadConfig</i>	TRUE to read its config file again (if the object has one)

5.48.4.6 void `gldi_object_register_notification ( gpointer pObject, GldiNotificationType iNotifType, GldiNotificationFunc pFunction, gboolean bRunFirst, gpointer pUserData )`

Register an action to be called when a given notification is broadcasted from a given object.

## Parameters

<i>pObject</i>	the object (Icon, Container, Manager).
<i>iNotifType</i>	type of the notification.
<i>pFunction</i>	callback.
<i>bRunFirst</i>	GLDI_RUN_FIRST to be called before Cairo-Dock, GLDI_RUN_AFTER to be called after.
<i>pUserData</i>	data to be passed as the first parameter of the callback.

5.48.4.7 void `gldi_object_remove_notification ( gpointer pObject, GldiNotificationType iNotifType, GldiNotificationFunc pFunction, gpointer pUserData )`

Remove a callback from the list of callbacks of a given object for a given notification and a given data. Note: it is safe to remove the callback when it is called, but not another one.

## Parameters

<i>pObject</i>	the object (Icon, Container, Manager) for which the action has been registered.
<i>iNotifType</i>	type of the notification.
<i>pFunction</i>	callback.
<i>pUserData</i>	data that was registered with the callback.

## 5.49 cairo-dock-opengl-font.h File Reference

### Data Structures

- struct [\\_CairoDockGLFont](#)  
Structure used to load a font for OpenGL text rendering.

### Functions

- GLuint [cairo\\_dock\\_create\\_texture\\_from\\_text\\_simple](#) (const gchar \*cText, const gchar \*cFontDescription, cairo\_t \*pSourceContext, int \*iWidth, int \*iHeight)
- CairoDockGLFont \* [cairo\\_dock\\_load\\_textured\\_font](#) (const gchar \*cFontDescription, int first, int count)
- CairoDockGLFont \* [cairo\\_dock\\_load\\_textured\\_font\\_from\\_image](#) (const gchar \*cImagePath)
- void [cairo\\_dock\\_free\\_gl\\_font](#) (CairoDockGLFont \*pFont)

- void [cairo\\_dock\\_get\\_gl\\_text\\_extent](#) (const gchar \*cText, CairoDockGLFont \*pFont, int \*iWidth, int \*iHeight)
- void [cairo\\_dock\\_draw\\_gl\\_text](#) (const gchar \*cText, CairoDockGLFont \*pFont)
- void [cairo\\_dock\\_draw\\_gl\\_text\\_at\\_position](#) (const gchar \*cText, CairoDockGLFont \*pFont, int x, int y)
- void [cairo\\_dock\\_draw\\_gl\\_text\\_in\\_area](#) (const gchar \*cText, CairoDockGLFont \*pFont, int iWidth, int iHeight, gboolean bCentered)
- void [cairo\\_dock\\_draw\\_gl\\_text\\_at\\_position\\_in\\_area](#) (const gchar \*cText, CairoDockGLFont \*pFont, int x, int y, int iWidth, int iHeight, gboolean bCentered)

### 5.49.1 Detailed Description

This class provides different ways to draw text directly in OpenGL. [cairo\\_dock\\_create\\_texture\\_from\\_text\\_simple](#) lets you draw any text in any font, by creating a texture from a Pango font description. This is a convenient function but not very fast. For a more efficient way, you load a font into a CairoDockGLFont with either : [cairo\\_dock\\_load\\_textured\\_font](#) to load a subset of a Mono font into textures. You then use [cairo\\_dock\\_draw\\_gl\\_text\\_at\\_position](#) to draw the text.

### 5.49.2 Function Documentation

5.49.2.1 GLuint [cairo\\_dock\\_create\\_texture\\_from\\_text\\_simple](#) ( const gchar \* *cText*, const gchar \* *cFontDescription*, cairo\_t \* *pSourceContext*, int \* *iWidth*, int \* *iHeight* )

Create a texture from a text. The text is drawn in white, so that you can later colorize it with a mere glColor.

#### Parameters

<i>cText</i>	the text
<i>cFontDescription</i>	a description of the font, for instance "Monospace Bold 12"
<i>pSourceContext</i>	a cairo context, not altered by the function.
<i>iWidth</i>	a pointer that will be filled with the width of the texture.
<i>iHeight</i>	a pointer that will be filled with the height of the texture.

#### Returns

a newly allocated texture.

5.49.2.2 CairoDockGLFont\* [cairo\\_dock\\_load\\_textured\\_font](#) ( const gchar \* *cFontDescription*, int *first*, int *count* )

Load a font into textures. You can then render your text like a normal texture (zoom, etc). The drawback is that only a mono font can be used with this function.

#### Parameters

<i>cFontDescription</i>	a description of the font, for instance "Monospace Bold 12"
<i>first</i>	first character to load.
<i>count</i>	number of characters to load.

#### Returns

a newly allocated opengl font.

5.49.2.3 CairoDockGLFont\* [cairo\\_dock\\_load\\_textured\\_font\\_from\\_image](#) ( const gchar \* *cImagePath* )

Like the previous function, but loads the characters from an image. The image must be squared and contain the 256 extended ASCII characters in the alphabetic order.

## Parameters

<i>cImagePath</i>	path to the image.
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## Returns

a newly allocated opengl font.

## 5.49.2.4 void cairo\_dock\_free\_gl\_font ( CairoDockGLFont \* pFont )

Free an opengl font.

## Parameters

<i>pFont</i>	the font.
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## 5.49.2.5 void cairo\_dock\_get\_gl\_text\_extent ( const gchar \* cText, CairoDockGLFont \* pFont, int \* iWidth, int \* iHeight )

Compute the size a text will take for a given font.

## Parameters

<i>cText</i>	the text
<i>pFont</i>	the font.
<i>iWidth</i>	a pointer that will be filled with the width of the text.
<i>iHeight</i>	a pointer that will be filled with the height of the text.

## 5.49.2.6 void cairo\_dock\_draw\_gl\_text ( const gchar \* cText, CairoDockGLFont \* pFont )

Render a text for a given font. In the case of a bitmap font, the current raster position is used. In the case of a texture font, the current model view is used.

## Parameters

<i>cText</i>	the text
<i>pFont</i>	the font.

## 5.49.2.7 void cairo\_dock\_draw\_gl\_text\_at\_position ( const gchar \* cText, CairoDockGLFont \* pFont, int x, int y )

Like /ref cairo\_dock\_draw\_gl\_text but at a given position.

## Parameters

<i>cText</i>	the text
<i>pFont</i>	the font.
<i>x</i>	x position of the left bottom corner of the text.
<i>y</i>	y position of the left bottom corner of the text.

## 5.49.2.8 void cairo\_dock\_draw\_gl\_text\_in\_area ( const gchar \* cText, CairoDockGLFont \* pFont, int iWidth, int iHeight, gboolean bCentered )

Like /ref cairo\_dock\_draw\_gl\_text but resize the text so that it fits into a given area. Only works for a texture font.

## Parameters

<i>cText</i>	the text
<i>pFont</i>	the font.
<i>iWidth</i>	iWidth of the area.
<i>iHeight</i>	iHeight of the area
<i>bCentered</i>	whether the text is centered on the current position or not.

5.49.2.9 void `cairo_dock_draw_gl_text_at_position_in_area` ( const gchar \* *cText*, CairoDockGLFont \* *pFont*, int *x*, int *y*, int *iWidth*, int *iHeight*, gboolean *bCentered* )

Like /ref `cairo_dock_draw_gl_text_in_area` and /ref `cairo_dock_draw_gl_text_at_position`.

## Parameters

<i>cText</i>	the text
<i>pFont</i>	the font.
<i>x</i>	x position of the left bottom corner of the text.
<i>y</i>	y position of the left bottom corner of the text.
<i>iWidth</i>	iWidth of the area.
<i>iHeight</i>	iHeight of the area
<i>bCentered</i>	whether the text is centered on the given position or not.

## 5.50 cairo-dock-opengl-path.h File Reference

## Data Structures

- struct `_CairoDockGLPath`  
*Definition of a CairoDockGLPath.*

## Functions

- `CairoDockGLPath * cairo_dock_new_gl_path` (int *iNbVertices*, double *x0*, double *y0*, int *iWidth*, int *iHeight*)
- void `cairo_dock_free_gl_path` (`CairoDockGLPath *pPath`)
- void `cairo_dock_gl_path_move_to` (`CairoDockGLPath *pPath`, double *x0*, double *y0*)
- void `cairo_dock_gl_path_set_extent` (`CairoDockGLPath *pPath`, int *iWidth*, int *iHeight*)
- void `cairo_dock_gl_path_line_to` (`CairoDockGLPath *pPath`, GLfloat *x*, GLfloat *y*)
- void `cairo_dock_gl_path_rel_line_to` (`CairoDockGLPath *pPath`, GLfloat *dx*, GLfloat *dy*)
- void `cairo_dock_gl_path_curve_to` (`CairoDockGLPath *pPath`, int *iNbPoints*, GLfloat *x1*, GLfloat *y1*, GLfloat *x2*, GLfloat *y2*, GLfloat *x3*, GLfloat *y3*)
- void `cairo_dock_gl_path_rel_curve_to` (`CairoDockGLPath *pPath`, int *iNbPoints*, GLfloat *dx1*, GLfloat *dy1*, GLfloat *dx2*, GLfloat *dy2*, GLfloat *dx3*, GLfloat *dy3*)
- void `cairo_dock_gl_path_simple_curve_to` (`CairoDockGLPath *pPath`, int *iNbPoints*, GLfloat *x1*, GLfloat *y1*, GLfloat *x2*, GLfloat *y2*)
- void `cairo_dock_gl_path_rel_simple_curve_to` (`CairoDockGLPath *pPath`, int *iNbPoints*, GLfloat *dx1*, GLfloat *dy1*, GLfloat *dx2*, GLfloat *dy2*)
- void `cairo_dock_gl_path_arc` (`CairoDockGLPath *pPath`, int *iNbPoints*, GLfloat *xc*, GLfloat *yc*, double *r*, double *teta0*, double *cone*)
- void `cairo_dock_stroke_gl_path` (const `CairoDockGLPath *pPath`, gboolean *bClosePath*)
- void `cairo_dock_fill_gl_path` (const `CairoDockGLPath *pPath`, GLuint *iTexture*)
- void `cairo_dock_draw_rounded_rectangle_opengl` (double *fFrameWidth*, double *fFrameHeight*, double *f←* Radius, double *fLineWidth*, double \**fLineColor*)

### 5.50.1 Detailed Description

This class define OpenGL path, with similar functions as cairo. You create a path with `cairo_dock_new_gl_path`, then you add lines, curves or arcs to it. Once the path is defined, you can either stroke it with `cairo_dock_stroke_gl_path` or fill it with `cairo_dock_fill_gl_path`. You can fill a path with the current color or with a texture, in this case you must provide the dimension of the husk. To destroy the path, use `cairo_dock_free_gl_path`.

### 5.50.2 Function Documentation

#### 5.50.2.1 CairoDockGLPath\* cairo\_dock\_new\_gl\_path ( int *iNbVertices*, double *x0*, double *y0*, int *iWidth*, int *iHeight* )

Create a new path. It will start at the point (*x0*, *y0*). If you want to be able to fill it with a texture, you can specify here the dimension of the path's husk.

##### Parameters

<i>iNbVertices</i>	maximum number of vertices the path will have
<i>x0</i>	x coordinate of the origin point
<i>y0</i>	y coordinate of the origin point
<i>iWidth</i>	width of the husk of the path.
<i>iHeight</i>	height of the husk of the path

##### Returns

a newly allocated path, with 1 point.

#### 5.50.2.2 void cairo\_dock\_free\_gl\_path ( CairoDockGLPath \* *pPath* )

Destroy a path and free its allocated resources.

##### Parameters

<i>pPath</i>	the path.
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#### 5.50.2.3 void cairo\_dock\_gl\_path\_move\_to ( CairoDockGLPath \* *pPath*, double *x0*, double *y0* )

Rewind the path, defining its origin point. The path has only 1 point after a call to this function.

##### Parameters

<i>pPath</i>	the path.
<i>x0</i>	x coordinate of the origin point
<i>y0</i>	y coordinate of the origin point

#### 5.50.2.4 void cairo\_dock\_gl\_path\_set\_extent ( CairoDockGLPath \* *pPath*, int *iWidth*, int *iHeight* )

Define the dimension of the hulk. This is needed if you intend to fill the path with a texture.

##### Parameters

<i>pPath</i>	the path.
<i>iWidth</i>	width of the hulk

<i>iHeight</i>	height of the hulk
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5.50.2.5 void `cairo_dock_gl_path_line_to` ( CairoDockGLPath \* *pPath*, GLfloat *x*, GLfloat *y* )

Add a line between the current point and a given point.

Parameters

<i>pPath</i>	the path.
<i>x</i>	x coordinate of the point
<i>y</i>	y coordinate of the point

5.50.2.6 void `cairo_dock_gl_path_rel_line_to` ( CairoDockGLPath \* *pPath*, GLfloat *dx*, GLfloat *dy* )

Add a line defined relatively to the current point.

Parameters

<i>pPath</i>	the path.
<i>dx</i>	horizontal offset
<i>dy</i>	vertical offset

5.50.2.7 void `cairo_dock_gl_path_curve_to` ( CairoDockGLPath \* *pPath*, int *iNbPoints*, GLfloat *x1*, GLfloat *y1*, GLfloat *x2*, GLfloat *y2*, GLfloat *x3*, GLfloat *y3* )

Add a Bezier cubic curve starting from the current point.

Parameters

<i>pPath</i>	the path.
<i>iNbPoints</i>	number of points used to discretize the curve
<i>x1</i>	first control point x
<i>y1</i>	first control point y
<i>x2</i>	second control point x
<i>y2</i>	second control point y
<i>x3</i>	terminal point of the curve x
<i>y3</i>	terminal point of the curve y

5.50.2.8 void `cairo_dock_gl_path_rel_curve_to` ( CairoDockGLPath \* *pPath*, int *iNbPoints*, GLfloat *dx1*, GLfloat *dy1*, GLfloat *dx2*, GLfloat *dy2*, GLfloat *dx3*, GLfloat *dy3* )

Add a Bezier cubic curve starting from the current point. The control and terminal points are defined relatively to the current point.

Parameters

<i>pPath</i>	the path.
<i>iNbPoints</i>	number of points used to discretize the curve
<i>dx1</i>	first control point offset x
<i>dy1</i>	first control point offset y

<i>dx2</i>	second control point offset x
<i>dy2</i>	second control point offset y
<i>dx3</i>	terminal point of the curve offset x
<i>dy3</i>	terminal point of the curve offset y

5.50.2.9 void `cairo_dock_gl_path_simple_curve_to` ( `CairoDockGLPath * pPath`, int `iNbPoints`, GLfloat `x1`, GLfloat `y1`, GLfloat `x2`, GLfloat `y2` )

Add a Bezier bilinear curve starting from the current point

Parameters

<i>pPath</i>	the path.
<i>iNbPoints</i>	number of points used to discretize the curve
<i>x1</i>	control point x
<i>y1</i>	control point y
<i>x2</i>	terminal point of the curve x
<i>y2</i>	terminal point of the curve y

5.50.2.10 void `cairo_dock_gl_path_rel_simple_curve_to` ( `CairoDockGLPath * pPath`, int `iNbPoints`, GLfloat `dx1`, GLfloat `dy1`, GLfloat `dx2`, GLfloat `dy2` )

Add a Bezier bilinear curve starting from the current point. The control and terminal points are defined relatively to the current point.

Parameters

<i>pPath</i>	the path.
<i>iNbPoints</i>	number of points used to discretize the curve
<i>dx1</i>	control point offset x
<i>dy1</i>	control point offset y
<i>dx2</i>	terminal point of the curve offset x
<i>dy2</i>	terminal point of the curve offset y

5.50.2.11 void `cairo_dock_gl_path_arc` ( `CairoDockGLPath * pPath`, int `iNbPoints`, GLfloat `xc`, GLfloat `yc`, double `r`, double `teta0`, double `cone` )

Add an arc to the path, joining the current point to the beginning of the arc with a line.

Parameters

<i>pPath</i>	the path.
<i>iNbPoints</i>	number of points used to discretize the arc
<i>xc</i>	x coordinate of the center
<i>yc</i>	y coordinate of the center
<i>r</i>	radius
<i>teta0</i>	initial angle
<i>cone</i>	cone of the arc (a negative value means clockwise).

5.50.2.12 void `cairo_dock_stroke_gl_path` ( const `CairoDockGLPath * pPath`, gboolean `bClosePath` )

Stroke a path with the current color and with the current line width.



## Parameters

<i>pPath</i>	the path.
<i>bClosePath</i>	whether to close the path (that is to say, join the last point with the first one) or not.

5.50.2.13 void `cairo_dock_fill_gl_path` ( const **CairoDockGLPath** \* *pPath*, GLuint *iTexture* )

Fill a path with a texture, or with the current color if the texture is 0.

## Parameters

<i>pPath</i>	the path.
<i>iTexture</i>	the texture, or 0 to fill the path with the current color. To fill the path with a gradation, use <code>GL_COLOR_ARRAY</code> and feed it with a table of colors that matches the vertices.

5.50.2.14 void `cairo_dock_draw_rounded_rectangle_opengl` ( double *fFrameWidth*, double *fFrameHeight*, double *fRadius*, double *fLineWidth*, double \* *fLineColor* )

Draw a rectangle with rounded corners. The rectangle will be centered at the current point. The current matrix is not altered.

## Parameters

<i>fFrameWidth</i>	width of the rectangle, without the corners.
<i>fFrameHeight</i>	height of the rectangle, including the corners.
<i>fRadius</i>	radius of the corners (can be 0).
<i>fLineWidth</i>	width of the line. If set to 0, the background will be filled with the provided color, otherwise the path will be stroke with this color.
<i>fLineColor</i>	color of the line if <i>fLineWidth</i> is non nul, or color of the background otherwise.

## 5.51 cairo-dock-opengl.h File Reference

### Data Structures

- struct [\\_CairoDockGLConfig](#)

*This structure summarizes the available OpenGL configuration on the system.*

### Macros

- #define [gldi\\_gl\\_container\\_begin\\_draw](#)(pContainer)

### Functions

- gboolean [gldi\\_gl\\_backend\\_init](#) (gboolean bForceOpenGL)
- gboolean [gldi\\_gl\\_container\\_make\\_current](#) ([GldiContainer](#) \*pContainer)
- gboolean [gldi\\_gl\\_container\\_begin\\_draw\\_full](#) ([GldiContainer](#) \*pContainer, [GdkRectangle](#) \*pArea, gboolean bClear)
- void [gldi\\_gl\\_container\\_end\\_draw](#) ([GldiContainer](#) \*pContainer)
- void [gldi\\_gl\\_container\\_set\\_perspective\\_view](#) ([GldiContainer](#) \*pContainer)
- void [gldi\\_gl\\_container\\_set\\_perspective\\_view\\_for\\_icon](#) ([Icon](#) \*pIcon)
- void [gldi\\_gl\\_container\\_set\\_ortho\\_view](#) ([GldiContainer](#) \*pContainer)
- void [gldi\\_gl\\_container\\_set\\_ortho\\_view\\_for\\_icon](#) ([Icon](#) \*pIcon)
- void [gldi\\_gl\\_container\\_init](#) ([GldiContainer](#) \*pContainer)

### 5.51.1 Detailed Description

This class manages the OpenGL backend and context.

### 5.51.2 Macro Definition Documentation

#### 5.51.2.1 #define gldi\_gl\_container\_begin\_draw( *pContainer* )

Start drawing on a Container's OpenGL context (draw on the whole Container and clear buffers).

Parameters

<i>pContainer</i>	the container
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### 5.51.3 Function Documentation

#### 5.51.3.1 gboolean gldi\_gl\_backend\_init ( gboolean *bForceOpenGL* )

Initialize the OpenGL backend, by trying to get a suitable GLX configuration.

Parameters

<i>bForceOpenGL</i>	whether to force the use of OpenGL, or let the function decide.
---------------------	---

Returns

TRUE if OpenGL is usable.

#### 5.51.3.2 gboolean gldi\_gl\_container\_make\_current ( *GldiContainer* \* *pContainer* )

Make a Container's OpenGL context the current one.

Parameters

<i>pContainer</i>	the container
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Returns

TRUE if the Container's context is now the current one.

#### 5.51.3.3 gboolean gldi\_gl\_container\_begin\_draw\_full ( *GldiContainer* \* *pContainer*, *GdkRectangle* \* *pArea*, gboolean *bClear* )

Start drawing on a Container's OpenGL context.

Parameters

<i>pContainer</i>	the container
<i>pArea</i>	optional area to clip the drawing (NULL to draw on the whole Container)
<i>bClear</i>	whether to clear the color buffer or not

#### 5.51.3.4 void gldi\_gl\_container\_end\_draw ( *GldiContainer* \* *pContainer* )

Ends the drawing on a Container's OpenGL context.

## Parameters

<i>pContainer</i>	the container
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5.51.3.5 void `gldi_gl_container_set_perspective_view ( GldiContainer * pContainer )`

Set a perspective view to the current GL context to fit a given Container. You may want to ensure the Container's context is really the current one.

## Parameters

<i>pContainer</i>	the container
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5.51.3.6 void `gldi_gl_container_set_perspective_view_for_icon ( Icon * pIcon )`

Set a perspective view to the current GL context to fit a given Icon (which must be inside a Container). You may want to ensure the Icon's Container's context is really the current one.

## Parameters

<i>pIcon</i>	the icon
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5.51.3.7 void `gldi_gl_container_set_ortho_view ( GldiContainer * pContainer )`

Set a orthogonal view to the current GL context to fit a given Container. You may want to ensure the Container's context is really the current one.

## Parameters

<i>pContainer</i>	the container
-------------------	---------------

5.51.3.8 void `gldi_gl_container_set_ortho_view_for_icon ( Icon * pIcon )`

Set a orthogonal view to the current GL context to fit a given Icon (which must be inside a Container). You may want to ensure the Icon's Container's context is really the current one.

## Parameters

<i>pIcon</i>	the icon
--------------	----------

5.51.3.9 void `gldi_gl_container_init ( GldiContainer * pContainer )`

Set a shared default-initialized GL context on a window.

## Parameters

<i>pContainer</i>	the container, not yet realized.
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## 5.52 cairo-dock-overlay.h File Reference

## Data Structures

- struct [\\_CairoOverlay](#)  
*Definition of an Icon Overlay.*

## Macros

- #define [cairo\\_dock\\_set\\_overlay\\_scale](#)(pOverlay, \_fScale)
- #define [cairo\\_dock\\_get\\_overlay\\_image\\_buffer](#)(pOverlay)

## Enumerations

- enum [CairoOverlayPosition](#)

*Available position of an overlay on an icon.*

## Functions

- [CairoOverlay](#) \* [cairo\\_dock\\_add\\_overlay\\_from\\_image](#) ([Icon](#) \*plcon, const gchar \*clmageFile, [CairoOverlayPosition](#) iPosition, gpointer data)
- [CairoOverlay](#) \* [cairo\\_dock\\_add\\_overlay\\_from\\_surface](#) ([Icon](#) \*plcon, cairo\_surface\_t \*pSurface, int iWidth, int iHeight, [CairoOverlayPosition](#) iPosition, gpointer data)
- [CairoOverlay](#) \* [cairo\\_dock\\_add\\_overlay\\_from\\_texture](#) ([Icon](#) \*plcon, GLuint iTexture, [CairoOverlayPosition](#) iPosition, gpointer data)
- void [cairo\\_dock\\_remove\\_overlay\\_at\\_position](#) ([Icon](#) \*plcon, [CairoOverlayPosition](#) iPosition, gpointer data)
- gboolean [cairo\\_dock\\_print\\_overlay\\_on\\_icon\\_from\\_image](#) ([Icon](#) \*plcon, const gchar \*clmageFile, [CairoOverlayPosition](#) iPosition)
- void [cairo\\_dock\\_print\\_overlay\\_on\\_icon\\_from\\_surface](#) ([Icon](#) \*plcon, cairo\_surface\_t \*pSurface, int iWidth, int iHeight, [CairoOverlayPosition](#) iPosition)

### 5.52.1 Detailed Description

This class defines Overlays, that are small images superimposed on the icon at a given position.

To add an overlay to an icon, use [cairo\\_dock\\_add\\_overlay\\_from\\_image](#) or [cairo\\_dock\\_add\\_overlay\\_from\\_surface](#). The overlay can then be removed from the icon by simply destroying it with [gdi\\_object\\_unref](#)

A common feature is to have only 1 overlay at a given position. This can be achieved by passing a non-NULL data to the creation functions. This data will identify all of your overlays. You can then remove an overlay simply from its position with [cairo\\_dock\\_remove\\_overlay\\_at\\_position](#), and adding an overlay at a position will automatically remove any previous overlay at this position with the same data.

If you're never going to update nor remove an overlay, you can choose to print it directly onto the icon with [cairo\\_dock\\_print\\_overlay\\_on\\_icon\\_from\\_image](#) or [cairo\\_dock\\_print\\_overlay\\_on\\_icon\\_from\\_surface](#), which is slightly faster.

Overlays are drawn at 1/2 of the icon size by default, but this can be set up with [cairo\\_dock\\_set\\_overlay\\_scale](#). If you need to modify an overlay directly, you can get its image buffer with [cairo\\_dock\\_get\\_overlay\\_image\\_buffer](#).

### 5.52.2 Macro Definition Documentation

#### 5.52.2.1 #define [cairo\\_dock\\_set\\_overlay\\_scale](#)( pOverlay, \_fScale )

Set the scale of an overlay; by default it's 0.5

#### Parameters

<i>pOverlay</i>	the overlay
<i>_fScale</i>	the scale

#### 5.52.2.2 #define `cairo_dock_get_overlay_image_buffer( pOverlay )`

Get the image buffer of an overlay (only useful if you need to redraw the overlay).

## Parameters

<i>pOverlay</i>	the overlay
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## 5.52.3 Function Documentation

5.52.3.1 **CairoOverlay\*** `cairo_dock_add_overlay_from_image ( Icon * pIcon, const gchar * clmageFile, CairoOverlayPosition iPosition, gpointer data )`

Add an overlay on an icon from an image.

## Parameters

<i>pIcon</i>	the icon
<i>clmageFile</i>	an image (if it's not a path, it is searched amongst the current theme's images)
<i>iPosition</i>	position where to display the overlay

## Returns

the overlay, or NULL if the image couldn't be loaded.

## Parameters

<i>data</i>	data that will be used to look for the overlay in <a href="#">cairo_dock_remove_overlay_at_position</a> ; if NULL, then this function can't be used
-------------	---

5.52.3.2 **CairoOverlay\*** `cairo_dock_add_overlay_from_surface ( Icon * pIcon, cairo_surface_t * pSurface, int iWidth, int iHeight, CairoOverlayPosition iPosition, gpointer data )`

Add an overlay on an icon from a surface.

## Parameters

<i>pIcon</i>	the icon
<i>pSurface</i>	a cairo surface
<i>iWidth</i>	width of the surface
<i>iHeight</i>	height of the surface
<i>iPosition</i>	position where to display the overlay
<i>data</i>	data that will be used to look for the overlay in <a href="#">cairo_dock_remove_overlay_at_position</a> ; if NULL, then this function can't be used

## Returns

the overlay.

5.52.3.3 **CairoOverlay\*** `cairo_dock_add_overlay_from_texture ( Icon * pIcon, GLuint iTexture, CairoOverlayPosition iPosition, gpointer data )`

Add an overlay on an icon from a texture.

## Parameters

<i>pIcon</i>	the icon
--------------	----------

<i>iTexture</i>	a texture
<i>iPosition</i>	position where to display the overlay
<i>data</i>	data that will be used to look for the overlay in <a href="#">cairo_dock_remove_overlay_at_position</a> ; if NULL, then this function can't be used

**Returns**

the overlay.

5.52.3.4 void [cairo\\_dock\\_remove\\_overlay\\_at\\_position](#) ( *Icon* \* *plcon*, *CairoOverlayPosition* *iPosition*, *gpointer* *data* )

Remove an overlay from an icon, given its position and data.

**Parameters**

<i>plcon</i>	the icon
<i>iPosition</i>	the position of the overlay
<i>data</i>	data that was set on the overlay when created; a NULL pointer is not valid.

5.52.3.5 *gboolean* [cairo\\_dock\\_print\\_overlay\\_on\\_icon\\_from\\_image](#) ( *Icon* \* *plcon*, *const gchar* \* *clmageFile*, *CairoOverlayPosition* *iPosition* )

Print an overlay onto an icon from an image at a given position. You can't remove/modify the overlay then. The overlay will be displayed until you modify the icon directly (for instance by setting a new image).

**Parameters**

<i>plcon</i>	the icon
<i>clmageFile</i>	an image (if it's not a path, it is searched amongst the current theme's images)
<i>iPosition</i>	position where to display the overlay

**Returns**

TRUE if the overlay has been successfully printed.

5.52.3.6 void [cairo\\_dock\\_print\\_overlay\\_on\\_icon\\_from\\_surface](#) ( *Icon* \* *plcon*, *cairo\_surface\_t* \* *pSurface*, *int* *iWidth*, *int* *iHeight*, *CairoOverlayPosition* *iPosition* )

Print an overlay onto an icon from a surface at a given position. You can't remove/modify the overlay then. The overlay will be displayed until you modify the icon directly (for instance by setting a new image).

**Parameters**

<i>plcon</i>	the icon
<i>pSurface</i>	a cairo surface
<i>iWidth</i>	width of the surface
<i>iHeight</i>	height of the surface
<i>iPosition</i>	position where to display the overlay

**Returns**

TRUE if the overlay has been successfully printed.

## 5.53 cairo-dock-packages.h File Reference

## Data Structures

- struct [\\_CairoDockPackage](#)  
*Definition of a generic package.*

## Macros

- #define [cairo\\_dock\\_get\\_url\\_data](#)(cURL, erreur)

## Typedefs

- typedef void(\* [CairoDockGetPackagesFunc](#) )(GHashTable \*pPackagesTable, gpointer data)  
*Prototype of the function called when the list of packages is available. Use `g_hash_table_ref` if you want to keep the table outside of this function.*

## Enumerations

- enum [CairoDockPackageType](#) {  
CAIRO\_DOCK\_LOCAL\_PACKAGE,  
CAIRO\_DOCK\_USER\_PACKAGE,  
CAIRO\_DOCK\_DISTANT\_PACKAGE,  
CAIRO\_DOCK\_NEW\_PACKAGE,  
CAIRO\_DOCK\_UPDATED\_PACKAGE,  
CAIRO\_DOCK\_ANY\_PACKAGE }  
*Types of packages.*

## Functions

- gboolean [cairo\\_dock\\_download\\_file](#) (const gchar \*cURL, const gchar \*cLocalPath)
- gchar \* [cairo\\_dock\\_download\\_file\\_in\\_tmp](#) (const gchar \*cURL)
- gchar \* [cairo\\_dock\\_download\\_archive](#) (const gchar \*cURL, const gchar \*cExtractTo)
- GldiTask \* [cairo\\_dock\\_download\\_file\\_async](#) (const gchar \*cURL, const gchar \*cLocalPath, GFunc p↔ Callback, gpointer data)
- gchar \* [cairo\\_dock\\_get\\_url\\_data\\_with\\_post](#) (const gchar \*cURL, gboolean bGetOutputHeaders, GError \*\*erreur, const gchar \*cFirstProperty,...)
- GldiTask \* [cairo\\_dock\\_get\\_url\\_data\\_async](#) (const gchar \*cURL, GFunc pCallback, gpointer data)
- void [cairo\\_dock\\_free\\_package](#) ([CairoDockPackage](#) \*pPackage)
- GHashTable \* [cairo\\_dock\\_list\\_packages](#) (const gchar \*cSharePackagesDir, const gchar \*cUserPackages↔ Dir, const gchar \*cDistantPackagesDir, GHashTable \*pTable)
- GldiTask \* [cairo\\_dock\\_list\\_packages\\_async](#) (const gchar \*cSharePackagesDir, const gchar \*cUser↔ PackagesDir, const gchar \*cDistantPackagesDir, [CairoDockGetPackagesFunc](#) pCallback, gpointer data, GHashTable \*pTable)
- gchar \* [cairo\\_dock\\_get\\_package\\_path](#) (const gchar \*cPackageName, const gchar \*cSharePackagesDir, const gchar \*cUserPackagesDir, const gchar \*cDistantPackagesDir, [CairoDockPackageType](#) iGivenType)

### 5.53.1 Detailed Description

This class provides a convenient way to deal with packages. A Package is a tarball (tar.gz) of a folder, located on a distant server, that can be installed locally. Packages are listed on the server in a file named "list.conf". It's a group-key file starting with "#!CD" on the first line; each package is described in its own group. Packages are stored on the server in a folder that has the same name, and contains the tarball, a "readme" file, and a "preview" file.

The class offers a high level of abstraction that allows to manipulate packages without having to care their location, version, etc. It also provides convenient utility functions to download a file or make a request to a server.



To get the list of available packages, use [cairo\\_dock\\_list\\_packages](#), or its asynchronous version [cairo\\_dock\\_list\\_packages\\_async](#). To access a package, use [cairo\\_dock\\_get\\_package\\_path](#).

## 5.53.2 Macro Definition Documentation

### 5.53.2.1 #define cairo\_dock\_get\_url\_data( *cURL*, *erreur* )

Retrieve the data of a distant URL.

Parameters

<i>cURL</i>	distant adress to get data from.
<i>erreur</i>	an error.

Returns

the data (NULL if failed). It's an array of chars, possibly containing nul chars. Free it after using.

## 5.53.3 Enumeration Type Documentation

### 5.53.3.1 enum CairoDockPackageType

Types of packages.

Enumerator

**CAIRO\_DOCK\_LOCAL\_PACKAGE** package installed as root on the machine (in a sub-folder /usr).

**CAIRO\_DOCK\_USER\_PACKAGE** package located in the user's home

**CAIRO\_DOCK\_DISTANT\_PACKAGE** package present on the server

**CAIRO\_DOCK\_NEW\_PACKAGE** package newly present on the server (for less than 1 month)

**CAIRO\_DOCK\_UPDATED\_PACKAGE** package present locally but with a more recent version on the server, or distant package that has been updated in the past month.

**CAIRO\_DOCK\_ANY\_PACKAGE** joker (the search path function will search locally first, and on the server then).

## 5.53.4 Function Documentation

### 5.53.4.1 gboolean cairo\_dock\_download\_file ( const gchar \* *cURL*, const gchar \* *cLocalPath* )

Download a distant file into a given location.

Parameters

<i>cURL</i>	adress of the file.
<i>cLocalPath</i>	a local path where to store the file.

Returns

TRUE on success, else FALSE..

### 5.53.4.2 gchar\* cairo\_dock\_download\_file\_in\_tmp ( const gchar \* *cURL* )

Download a distant file as a temporary file.

## Parameters

<i>cURL</i>	adress of the file.
-------------	---------------------

## Returns

the local path of the file on success, else NULL. Free the string after using it.

5.53.4.3 `gchar* cairo_dock_download_archive ( const gchar * cURL, const gchar * cExtractTo )`

Download an archive and extract it into a given folder.

## Parameters

<i>cURL</i>	adress of the file.
<i>cExtractTo</i>	folder where to extract the archive (the archive is deleted then).

## Returns

the local path of the file on success, else NULL. Free the string after using it.

5.53.4.4 `GldiTask* cairo_dock_download_file_async ( const gchar * cURL, const gchar * cLocalPath, GFunc pCallback, gpointer data )`

Asynchronously download a distant file into a given location. This function is non-blocking, you'll get a CairoTask that you can discard at any time, and you'll get the path of the downloaded file as the first argument of the callback (the second being the data you passed to this function).

## Parameters

<i>cURL</i>	adress of the file.
<i>cLocalPath</i>	a local path where to store the file, or NULL for a temporary file.
<i>pCallback</i>	function called when the download is finished. It takes the path of the downloaded file (it belongs to the task so don't free it) and the data you've set here.
<i>data</i>	data to be passed to the callback.

## Returns

the Task that is doing the job. Keep it and use `cairo_dock_discard_task` whenever you want to discard the download (for instance if the user cancels it), or `cairo_dock_free_task` inside your callback.

5.53.4.5 `gchar* cairo_dock_get_url_data_with_post ( const gchar * cURL, gboolean bGetOutputHeaders, GError ** erreur, const gchar * cFirstProperty, ... )`

Retrieve the response of a POST request to a server.

## Parameters

<i>cURL</i>	the URL request
<i>bGetOutputHeaders</i>	whether to retrieve the page's header.

<i>erreur</i>	an error.
<i>cFirstProperty</i>	first property of the POST data.
...	tuples of property and data to insert in POST data; the POST data will be formed with a=urlencode(b)&c=urlencode(d)&... End it with NULL.

**Returns**

the data (NULL if failed). It's an array of chars, possibly containing nul chars. Free it after using.

#### 5.53.4.6 GldiTask\* cairo\_dock\_get\_url\_data\_async ( const gchar \* *cURL*, GFunc *pCallback*, gpointer *data* )

Asynchronously retrieve the content of a distant URL. This function is non-blocking, you'll get a CairoTask that you can discard at any time, and you'll get the content of the downloaded file as the first argument of the callback (the second being the data you passed to this function).

**Parameters**

<i>cURL</i>	distant adress to get data from.
<i>pCallback</i>	function called when the download is finished. It takes the content of the downloaded file (it belongs to the task so don't free it) and the data you've set here.
<i>data</i>	data to be passed to the callback.

**Returns**

the Task that is doing the job. Keep it and use `cairo_dock_discard_task` whenever you want to discard the download (for instance if the user cancels it), or `cairo_dock_free_task` inside your callback.

#### 5.53.4.7 void cairo\_dock\_free\_package ( CairoDockPackage \* *pPackage* )

Destroy a package and free all its allocated memory.

**Parameters**

<i>pPackage</i>	the package.
-----------------	--------------

#### 5.53.4.8 GHashTable\* cairo\_dock\_list\_packages ( const gchar \* *cSharePackagesDir*, const gchar \* *cUserPackagesDir*, const gchar \* *cDistantPackagesDir*, GHashTable \* *pTable* )

Get a list of packages from differente sources.

**Parameters**

<i>cShare↔ PackagesDir</i>	path of a local folder containg packages or NULL.
<i>cUser↔ PackagesDir</i>	path of a user folder containg packages or NULL.
<i>cDistant↔ PackagesDir</i>	path of a distant folder containg packages or NULL.
<i>pTable</i>	a table of packages previously retrieved, or NULL.

**Returns**

a hash table of (name, [\\_CairoDockPackage](#)). Free it with `g_hash_table_destroy` when you're done with it.

5.53.4.9 **GldiTask\*** `cairo_dock_list_packages_async ( const gchar * cSharePackagesDir, const gchar * cUserPackagesDir, const gchar * cDistantPackagesDir, CairoDockGetPackagesFunc pCallback, gpointer data, GHashTable * pTable )`

Asynchronously get a list of packages from different sources. This function is non-blocking, you'll get a CairoTask that you can discard at any time, and you'll get a hash-table of the packages as the first argument of the callback (the second being the data you passed to this function).

#### Parameters

<i>cSharePackagesDir</i>	path of a local folder containing packages or NULL.
<i>cUserPackagesDir</i>	path of a user folder containing packages or NULL.
<i>cDistantPackagesDir</i>	path of a distant folder containing packages or NULL.
<i>pCallback</i>	function called when the listing is finished. It takes the hash-table of the found packages (it belongs to the task so don't free it) and the data you've set here.
<i>data</i>	data to be passed to the callback.
<i>pTable</i>	a table of packages previously retrieved, or NULL.

#### Returns

the Task that is doing the job. Keep it and use `cairo_dock_discard_task` whenever you want to discard the download (for instance if the user cancels it), or `cairo_dock_free_task` inside your callback.

5.53.4.10 **gchar\*** `cairo_dock_get_package_path ( const gchar * cPackageName, const gchar * cSharePackagesDir, const gchar * cUserPackagesDir, const gchar * cDistantPackagesDir, CairoDockPackageType iGivenType )`

Look for a package with a given name into different sources. If the package is found on the server and is not present on the disk, or is not up to date, then it is downloaded and the local path is returned.

#### Parameters

<i>cPackageName</i>	name of the package.
<i>cSharePackagesDir</i>	path of a local folder containing packages or NULL.
<i>cUserPackagesDir</i>	path of a user folder containing packages or NULL.
<i>cDistantPackagesDir</i>	path of a distant folder containing packages or NULL.
<i>iGivenType</i>	type of package, or CAIRO_DOCK_ANY_PACKAGE if any type of package should be considered.

#### Returns

a newly allocated string containing the complete local path of the package. If the package is distant, it is downloaded and extracted into this folder.

## 5.54 cairo-dock-particle-system.h File Reference

### Data Structures

- [struct `\_CairoParticle`](#)  
A particle of a particle system.
- [struct `\_CairoParticleSystem`](#)  
A particle system.

## Macros

- #define `cairo_dock_render_particles`(pParticleSystem)

## Typedefs

- typedef struct `_CairoParticle` `CairoParticle`  
*A particle of a particle system.*
- typedef struct `_CairoParticleSystem` `CairoParticleSystem`  
*A particle system.*
- typedef void( `CairoDockRewindParticleFunc` )( `CairoParticle` \*pParticle, double dt)  
*Function that re-initializes a particle when its life is over.*

## Functions

- void `cairo_dock_render_particles_full` ( `CairoParticleSystem` \*pParticleSystem, int iDepth)
- `CairoParticleSystem` \* `cairo_dock_create_particle_system` (int iNbParticles, GLuint iTexture, double fWidth, double fHeight)
- void `cairo_dock_free_particle_system` ( `CairoParticleSystem` \*pParticleSystem)
- gboolean `cairo_dock_update_default_particle_system` ( `CairoParticleSystem` \*pParticleSystem, `CairoDockRewindParticleFunc` pRewindParticle)

### 5.54.1 Detailed Description

A Particle System is a set of particles that evolve according to a given model. Each particle will see its parameters change with time : direction, speed, oscillation, color, size, etc. Particle Systems fully take advantage of OpenGL and are able to render many thousands of particles at a high frequency refresh.

### 5.54.2 Macro Definition Documentation

#### 5.54.2.1 #define `cairo_dock_render_particles`( *pParticleSystem* )

Render all the particles of a particle system.

#### Parameters

<i>pParticleSystem</i>	the particle system.
------------------------	----------------------

### 5.54.3 Function Documentation

#### 5.54.3.1 void `cairo_dock_render_particles_full` ( `CairoParticleSystem` \* *pParticleSystem*, int *iDepth* )

Render all the particles of a particle system with a given depth.

#### Parameters

<i>pParticleSystem</i>	the particle system.
<i>iDepth</i>	depth of the particles that will be rendered. If set to -1, only particles with a negative z will be rendered, if set to 1, only particles with a positive z will be rendered, if set to 0, all the particles will be rendered.

5.54.3.2 **CairoParticleSystem**\* `cairo_dock_create_particle_system ( int iNbParticles, GLuint iTexture, double fWidth, double fHeight )`

Create a particle system.

## Parameters

<i>iNbParticles</i>	number of particles of the system.
<i>iTexture</i>	texture to map on each particle.
<i>fWidth</i>	width of the system.
<i>fHeight</i>	height of the system.

## Returns

a newly allocated particle system.

5.54.3.3 void `cairo_dock_free_particle_system ( CairoParticleSystem * pParticleSystem )`

Destroy a particle system, freeing all the resources it was using.

## Parameters

<i>pParticleSystem</i>	the particle system.
------------------------	----------------------

5.54.3.4 gboolean `cairo_dock_update_default_particle_system ( CairoParticleSystem * pParticleSystem, CairoDockRewindParticleFunc pRewindParticle )`

Update a particle system to the next step with a generic particle behavior model. You can write your own model depending on your needs.

## Parameters

<i>pParticleSystem</i>	the particle system.
<i>pRewindParticle</i>	function called on a particle when its life is over.

## Returns

TRUE if some particles are still alive.

## 5.55 cairo-dock-progressbar.h File Reference

## Data Structures

- struct [\\_CairoProgressBarAttribute](#)

*Attributes of a Pprogressbar.*

## 5.55.1 Detailed Description

This class defines the ProgressBar, which derives from the DataRenderer. All you need to know is the attributes that define a ProgressBar, the API to use is the common API for DataRenderer, defined in [cairo-dock-data-renderer.h](#).

## 5.56 cairo-dock-separator-manager.h File Reference

## Macros

- #define [GLDI\\_OBJECT\\_IS\\_SEPARATOR\\_ICON\(obj\)](#)

### 5.56.1 Detailed Description

This class handles the Separator Icons, which are user icons doing nothing.

### 5.56.2 Macro Definition Documentation

#### 5.56.2.1 #define GLDI\_OBJECT\_IS\_SEPARATOR\_ICON( *obj* )

Say if an object is a SeparatorIcon.

##### Parameters

<i>obj</i>	the object.
------------	-------------

##### Returns

TRUE if the object is a SeparatorIcon.

## 5.57 cairo-dock-stack-icon-manager.h File Reference

### Macros

- #define [GLDI\\_OBJECT\\_IS\\_STACK\\_ICON\(obj\)](#)

### 5.57.1 Detailed Description

This class handles the Stack Icons, which are user icons pointing to a sub-dock.

### 5.57.2 Macro Definition Documentation

#### 5.57.2.1 #define GLDI\_OBJECT\_IS\_STACK\_ICON( *obj* )

Say if an object is a StackIcon.

##### Parameters

<i>obj</i>	the object.
------------	-------------

##### Returns

TRUE if the object is a StackIcon.

## 5.58 cairo-dock-style-facility.h File Reference

### Data Structures

- struct [\\_GldiTextDescription](#)  
*Description of the rendering of a text.*

### Macros

- #define [GLDI\\_COLOR\\_SHADE\\_LIGHT](#)



- *A light shade level (dock background, ...)*
- #define [GLDI\\_COLOR\\_SHADE\\_MEDIUM](#)  
*A medium shade level (selected menu-item, widget inside a dialog/menu, separator, ...)*
- #define [GLDI\\_COLOR\\_SHADE\\_STRONG](#)  
*A strong shade level (child widget inside a dialog/menu, ...)*

## Enumerations

- enum [GldiStyleColors](#)  
*Available types of color.*

## Functions

- void [gldi\\_style\\_color\\_shade](#) (GldiColor \*icolor, double shade, GldiColor \*ocolor)

### 5.58.1 Detailed Description

This file provides a few functions dealing with style elements like colors and text.

### 5.58.2 Function Documentation

#### 5.58.2.1 void [gldi\\_style\\_color\\_shade](#) ( GldiColor \* *icolor*, double *shade*, GldiColor \* *ocolor* )

Shade a color, making it darker if it's light, and lighter if it's dark. Note that the opposite behavior can be obtained by passing a negative shade value. Alpha is copied unchanged. Both pointers can be the same.

#### Parameters

<i>icolor</i>	input color
<i>shade</i>	amount of light to add/remove, <= 1.
<i>ocolor</i>	output color

## 5.59 cairo-dock-style-manager.h File Reference

### Macros

- #define [gldi\\_style\\_colors\\_set\\_bg\\_color](#)(pCairoContext)

### Enumerations

- enum [GldiStyleNotifications](#) { [NOTIFICATION\\_STYLE\\_CHANGED](#) }  
*signals*

### Functions

- void [gldi\\_style\\_color\\_get](#) (GldiStyleColors iColorType, GldiColor \*pColor)
- void [gldi\\_style\\_colors\\_set\\_bg\\_color\\_full](#) (cairo\_t \*pCairoContext, gboolean bUseAlpha)
- void [gldi\\_style\\_colors\\_set\\_selected\\_bg\\_color](#) (cairo\_t \*pCairoContext)
- void [gldi\\_style\\_colors\\_set\\_line\\_color](#) (cairo\_t \*pCairoContext)
- void [gldi\\_style\\_colors\\_set\\_text\\_color](#) (cairo\_t \*pCairoContext)

- void `gldi_style_colors_set_separator_color` (cairo\_t \*pCairoContext)
- void `gldi_style_colors_set_child_color` (cairo\_t \*pCairoContext)
- void `gldi_style_colors_paint_bg_color_with_alpha` (cairo\_t \*pCairoContext, int iWidth, double fAlpha)

### 5.59.1 Detailed Description

This class defines the global style used by all widgets (Docks, Dialogs, Desklets, Menus, Icons). This includes background color, outline color, text color, linewidth, corner radius.

### 5.59.2 Macro Definition Documentation

#### 5.59.2.1 #define `gldi_style_colors_set_bg_color`( *pCairoContext* )

Set the global background color on a context.

Parameters

<i>pCairoContext</i>	a context
----------------------	-----------

### 5.59.3 Enumeration Type Documentation

#### 5.59.3.1 enum `GldiStyleNotifications`

signals

Enumerator

**`NOTIFICATION_STYLE_CHANGED`** notification called when the global style has changed

### 5.59.4 Function Documentation

#### 5.59.4.1 void `gldi_style_color_get` ( `GldiStyleColors` *iColorType*, `GldiColor` \* *pColor* )

Get the value of a color. In case the color is actually a pattern, it gives its dominant color. This function is really only useful when you need to have a color for sure (rather than potentially a pattern/texture), or when you need to apply the color with some transformation. Most of the time, you only want to use the `gldi_style_colors_set_*` functions.

Parameters

<i>iColorType</i>	type of the color
<i>pColor</i>	output color

#### 5.59.4.2 void `gldi_style_colors_set_bg_color_full` ( `cairo_t` \* *pCairoContext*, `gboolean` *bUseAlpha* )

Set the global background color on a context, with or without the alpha component.

Parameters

<i>pCairoContext</i>	a context
<i>bUseAlpha</i>	TRUE to use the alpha, FALSE to set it fully opaque

#### 5.59.4.3 void `gldi_style_colors_set_selected_bg_color` ( `cairo_t` \* *pCairoContext* )

Set the global selected color on a context.

## Parameters

<i>pCairoContext</i>	a context
----------------------	-----------

5.59.4.4 void gldi\_style\_colors\_set\_line\_color ( cairo\_t \* *pCairoContext* )

Set the global line color on a context.

## Parameters

<i>pCairoContext</i>	a context
----------------------	-----------

5.59.4.5 void gldi\_style\_colors\_set\_text\_color ( cairo\_t \* *pCairoContext* )

Set the global text color on a context.

## Parameters

<i>pCairoContext</i>	a context
----------------------	-----------

5.59.4.6 void gldi\_style\_colors\_set\_separator\_color ( cairo\_t \* *pCairoContext* )

Set the global separator color on a context.

## Parameters

<i>pCairoContext</i>	a context
----------------------	-----------

5.59.4.7 void gldi\_style\_colors\_set\_child\_color ( cairo\_t \* *pCairoContext* )

Set the global child color on a context.

## Parameters

<i>pCairoContext</i>	a context
----------------------	-----------

5.59.4.8 void gldi\_style\_colors\_paint\_bg\_color\_with\_alpha ( cairo\_t \* *pCairoContext*, int *iWidth*, double *fAlpha* )

Paint a context with a horizontal alpha gradation. If the alpha is negative, the global style is used to find the alpha.

## Parameters

<i>pCairoContext</i>	a context
<i>iWidth</i>	width of the gradation
<i>fAlpha</i>	alpha to use

## 5.60 cairo-dock-surface-factory.h File Reference

## Macros

- #define [CAIRO\\_DOCK\\_ORIENTATION\\_MASK](#)  
*mask to get the orientation from a CairoDockLoadImageModifier.*
- #define [cairo\\_dock\\_create\\_surface\\_for\\_square\\_icon](#)(clmagePath, flmageSize)

- #define [cairo\\_dock\\_create\\_surface\\_from\\_text](#)(cText, pLabelDescription, iTextWidthPtr, iTextHeightPtr)

## Enumerations

- enum [CairoDockLoadImageModifier](#) {  
[CAIRO\\_DOCK\\_FILL\\_SPACE](#),  
[CAIRO\\_DOCK\\_KEEP\\_RATIO](#),  
[CAIRO\\_DOCK\\_DONT\\_ZOOM\\_IN](#),  
[CAIRO\\_DOCK\\_ORIENTATION\\_HFLIP](#),  
[CAIRO\\_DOCK\\_ORIENTATION\\_ROT\\_180](#),  
[CAIRO\\_DOCK\\_ORIENTATION\\_VFLIP](#),  
[CAIRO\\_DOCK\\_ORIENTATION\\_ROT\\_90\\_HFLIP](#),  
[CAIRO\\_DOCK\\_ORIENTATION\\_ROT\\_90](#),  
[CAIRO\\_DOCK\\_ORIENTATION\\_ROT\\_90\\_VFLIP](#),  
[CAIRO\\_DOCK\\_ORIENTATION\\_ROT\\_270](#),  
[CAIRO\\_DOCK\\_ANIMATED\\_IMAGE](#) }

*Types of image loading modifiers.*

## Functions

- `cairo_surface_t * cairo\_dock\_create\_surface\_from\_xicon\_buffer (gulong *pXIconBuffer, int iBufferNb↔ Elements, int iWidth, int iHeight)`
- `cairo_surface_t * cairo\_dock\_create\_surface\_from\_pixbuf (GdkPixbuf *pixbuf, double fMaxScale, int iWidth↔ Constraint, int iHeightConstraint, CairoDockLoadImageModifier iLoadingModifier, double *fImageWidth, double *fImageHeight, double *fZoomX, double *fZoomY)`
- `cairo_surface_t * cairo\_dock\_create\_blank\_surface (int iWidth, int iHeight)`
- `cairo_surface_t * cairo\_dock\_create\_surface\_from\_image (const gchar *cImagePath, double fMaxScale, int iWidthConstraint, int iHeightConstraint, CairoDockLoadImageModifier iLoadingModifier, double *fImage↔ Width, double *fImageHeight, double *fZoomX, double *fZoomY)`
- `cairo_surface_t * cairo\_dock\_create\_surface\_from\_image\_simple (const gchar *cImageFile, double f↔ ImageWidth, double fImageHeight)`
- `cairo_surface_t * cairo\_dock\_create\_surface\_from\_icon (const gchar *cImagePath, double fImageWidth, double fImageHeight)`
- `cairo_surface_t * cairo\_dock\_create\_surface\_from\_pattern (const gchar *cImageFile, double fImageWidth, double fImageHeight, double fAlpha)`
- `cairo_surface_t * cairo\_dock\_rotate\_surface (cairo_surface_t *pSurface, double fImageWidth, double f↔ ImageHeight, double fRotationAngle)`
- `cairo_surface_t * cairo\_dock\_create\_surface\_from\_text\_full (const gchar *cText, GldiTextDescription *p↔ LabelDescription, double fMaxScale, int iMaxWidth, int *iTextWidth, int *iTextHeight)`
- `cairo_surface_t * cairo\_dock\_duplicate\_surface (cairo_surface_t *pSurface, double fWidth, double fHeight, double fDesiredWidth, double fDesiredHeight)`

### 5.60.1 Detailed Description

This class contains functions to load any image/X buffer/GdkPixbuf/text into a cairo-surface. The loading of an image can be modified by a mask, to take into account the ratio, zoom, orientation, etc.

The general way to load an image is by using [cairo\\_dock\\_create\\_surface\\_from\\_image](#).

If you just want to load an image at a given size, use [cairo\\_dock\\_create\\_surface\\_from\\_image\\_simple](#), or [cairo↔ dock\\_create\\_surface\\_from\\_icon](#).

To load a text into a surface, describe your text look with a [\\_GldiTextDescription](#), and pass it to [cairo\\_dock\\_create↔ \\_surface\\_from\\_text](#).

Note: if you also need to load the image into a texture, it's easier to use the higher level ImageBuffer API (see [cairo\\_dock\\_create\\_image\\_buffer](#)).

## 5.60.2 Macro Definition Documentation

### 5.60.2.1 #define cairo\_dock\_create\_surface\_for\_square\_icon( *cImagePath*, *flmageSize* )

Create a square surface from any image, at a given size. If the image is given by its sole name, it is searched inside the icons themes known by Cairo-Dock.

#### Parameters

<i>cImagePath</i>	path or name of an image.
<i>flmageSize</i>	the desired surface size.

#### Returns

the newly allocated surface.

### 5.60.2.2 #define cairo\_dock\_create\_surface\_from\_text( *cText*, *pLabelDescription*, *iTextWidthPtr*, *iTextHeightPtr* )

Create a surface representing a text, according to a given text description.

#### Parameters

<i>cText</i>	the text.
<i>pLabelDescription</i>	description of the text rendering.
<i>iTextWidthPtr</i>	will be filled the width of the resulting surface.
<i>iTextHeightPtr</i>	will be filled the height of the resulting surface.

#### Returns

the newly allocated surface.

## 5.60.3 Enumeration Type Documentation

### 5.60.3.1 enum CairoDockLoadImageModifier

Types of image loading modifiers.

#### Enumerator

**CAIRO\_DOCK\_FILL\_SPACE** fill the space, with transparency if necessary.

**CAIRO\_DOCK\_KEEP\_RATIO** keep the ratio of the original image.

**CAIRO\_DOCK\_DONT\_ZOOM\_IN** don't zoom in the image if the final surface is larger than the original image.

**CAIRO\_DOCK\_ORIENTATION\_HFLIP** orientation horizontal flip

**CAIRO\_DOCK\_ORIENTATION\_ROT\_180** orientation 180° rotation

**CAIRO\_DOCK\_ORIENTATION\_VFLIP** orientation vertical flip

**CAIRO\_DOCK\_ORIENTATION\_ROT\_90\_HFLIP** orientation 90° rotation + horizontal flip

**CAIRO\_DOCK\_ORIENTATION\_ROT\_90** orientation 90° rotation

**CAIRO\_DOCK\_ORIENTATION\_ROT\_90\_VFLIP** orientation 90° rotation + vertical flip

**CAIRO\_DOCK\_ORIENTATION\_ROT\_270** orientation 270° rotation

**CAIRO\_DOCK\_ANIMATED\_IMAGE** load the image as a strip if possible.

## 5.60.4 Function Documentation

5.60.4.1 `cairo_surface_t* cairo_dock_create_surface_from_xicon_buffer ( gulong * pXIconBuffer, int iBufferNbElements, int iWidth, int iHeight )`

Create a surface from raw data of an X icon. The biggest icon possible is taken. The ratio is kept, and the surface will fill the space with transparency if necessary.

## Parameters

<i>pXIconBuffer</i>	raw data of the icon.
<i>iBufferNbElements</i>	number of elements in the buffer.
<i>iWidth</i>	will be filled with the resulting width of the surface.
<i>iHeight</i>	will be filled with the resulting height of the surface.

## Returns

the newly allocated surface.

5.60.4.2 `cairo_surface_t* cairo_dock_create_surface_from_pixbuf ( GdkPixbuf * pixbuf, double fMaxScale, int iWidthConstraint, int iHeightConstraint, CairoDockLoadImageModifier iLoadingModifier, double * fImageWidth, double * fImageHeight, double * fZoomX, double * fZoomY )`

Create a surface from a GdkPixbuf.

## Parameters

<i>pixbuf</i>	the pixbuf.
<i>fMaxScale</i>	maximum zoom of the icon.
<i>iWidthConstraint</i>	constraint on the width, or 0 to not constraint it.
<i>iHeightConstraint</i>	constraint on the height, or 0 to not constraint it.
<i>iLoadingModifier</i>	a mask of different loading modifiers.
<i>fImageWidth</i>	will be filled with the resulting width of the surface (hors zoom).
<i>fImageHeight</i>	will be filled with the resulting height of the surface (hors zoom).
<i>fZoomX</i>	if non NULL, will be filled with the zoom that has been applied on width.
<i>fZoomY</i>	if non NULL, will be filled with the zoom that has been applied on width.

## Returns

the newly allocated surface.

5.60.4.3 `cairo_surface_t* cairo_dock_create_blank_surface ( int iWidth, int iHeight )`

Create an empty surface (transparent) of a given size. In OpenGL mode, this surface can act as a buffer to generate a texture.

## Parameters

<i>iWidth</i>	width of the surface.
<i>iHeight</i>	height of the surface.

## Returns

the newly allocated surface.

5.60.4.4 `cairo_surface_t* cairo_dock_create_surface_from_image ( const gchar * cImagePath, double fMaxScale, int iWidthConstraint, int iHeightConstraint, CairoDockLoadImageModifier iLoadingModifier, double * fImageWidth, double * fImageHeight, double * fZoomX, double * fZoomY )`

Create a surface from any image.

## Parameters

<i>clmagePath</i>	complete path to the image.
<i>fMaxScale</i>	maximum zoom of the icon.
<i>iWidthConstraint</i>	constraint on the width, or 0 to not constraint it.
<i>iHeightConstraint</i>	constraint on the height, or 0 to not constraint it.
<i>iLoadingModifier</i>	a mask of different loading modifiers.
<i>fImageWidth</i>	will be filled with the resulting width of the surface (hors zoom).
<i>fImageHeight</i>	will be filled with the resulting height of the surface (hors zoom).
<i>fZoomX</i>	if non NULL, will be filled with the zoom that has been applied on width.
<i>fZoomY</i>	if non NULL, will be filled with the zoom that has been applied on width.

## Returns

the newly allocated surface.

#### 5.60.4.5 `cairo_surface_t* cairo_dock_create_surface_from_image_simple ( const gchar * clmageFile, double flmageWidth, double flmageHeight )`

Create a surface from any image, at a given size. If the image is given by its sole name, it is searched inside the current theme root folder.

## Parameters

<i>clmageFile</i>	path or name of an image.
<i>flmageWidth</i>	the desired surface width.
<i>flmageHeight</i>	the desired surface height.

## Returns

the newly allocated surface.

#### 5.60.4.6 `cairo_surface_t* cairo_dock_create_surface_from_icon ( const gchar * clmagePath, double flmageWidth, double flmageHeight )`

Create a surface from any image, at a given size. If the image is given by its sole name, it is searched inside the icons themes known by Cairo-Dock.

## Parameters

<i>clmagePath</i>	path or name of an image.
<i>flmageWidth</i>	the desired surface width.
<i>flmageHeight</i>	the desired surface height.

## Returns

the newly allocated surface.

#### 5.60.4.7 `cairo_surface_t* cairo_dock_create_surface_from_pattern ( const gchar * clmageFile, double flmageWidth, double flmageHeight, double fAlpha )`

Create a surface at a given size, and fill it with a pattern. If the pattern image is given by its sole name, it is searched inside the current theme root folder.



## Parameters

<i>cImageFile</i>	path or name of an image that will be repeated to fill the surface.
<i>fImageWidth</i>	the desired surface width.
<i>fImageHeight</i>	the desired surface height.
<i>fAlpha</i>	transparency of the pattern (1 means opaque).

## Returns

the newly allocated surface.

5.60.4.8 `cairo_surface_t* cairo_dock_rotate_surface ( cairo_surface_t * pSurface, double fImageWidth, double fImageHeight, double fRotationAngle )`

Create a surface by rotating another. Only works for 1/4 of rounds.

## Parameters

<i>pSurface</i>	surface to rotate.
<i>fImageWidth</i>	the width of the surface.
<i>fImageHeight</i>	the height of the surface.
<i>fRotationAngle</i>	rotation angle to apply, in radians.

## Returns

the newly allocated surface.

5.60.4.9 `cairo_surface_t* cairo_dock_create_surface_from_text_full ( const gchar * cText, GldiTextDescription * pLabelDescription, double fMaxScale, int iMaxWidth, int * iTextWidth, int * iTextHeight )`

Create a surface representing a text, according to a given text description.

## Parameters

<i>cText</i>	the text.
<i>pLabelDescription</i>	description of the text rendering.
<i>fMaxScale</i>	maximum zoom of the text.
<i>iMaxWidth</i>	maximum authorized width for the surface; it will be zoomed in to fits this limit. 0 for no limit.
<i>iTextWidth</i>	will be filled the width of the resulting surface.
<i>iTextHeight</i>	will be filled the height of the resulting surface.

## Returns

the newly allocated surface.

5.60.4.10 `cairo_surface_t* cairo_dock_duplicate_surface ( cairo_surface_t * pSurface, double fWidth, double fHeight, double fDesiredWidth, double fDesiredHeight )`

Create a surface identical to another, possibly resizing it.

## Parameters

<i>pSurface</i>	surface to duplicate.
<i>fWidth</i>	the width of the surface.
<i>fHeight</i>	the height of the surface.
<i>fDesiredWidth</i>	desired width of the copy (0 to keep the same size).
<i>fDesiredHeight</i>	desired height of the copy (0 to keep the same size).

## Returns

the newly allocated surface.

## 5.61 cairo-dock-task.h File Reference

### Data Structures

- struct [\\_GldiTask](#)

*Definition of a periodic and/or asynchronous Task.*

### Macros

- #define [gldi\\_task\\_new](#)(iPeriod, get\_data, update, pSharedMemory)
- #define [gldi\\_task\\_get\\_elapsed\\_time](#)(pTask)

### Typedefs

- typedef void(\* [GldiGetDataAsyncFunc](#) )(gpointer pSharedMemory)  
*Definition of the asynchronous job, that does the heavy part.*
- typedef gboolean(\* [GldiUpdateSyncFunc](#) )(gpointer pSharedMemory)  
*Definition of the synchronous job, that update the dock with the results of the previous job. Returns TRUE to continue, FALSE to stop.*

### Functions

- void [gldi\\_task\\_launch](#) (GldiTask \*pTask)
- void [gldi\\_task\\_launch\\_delayed](#) (GldiTask \*pTask, double fDelay)
- GldiTask \* [gldi\\_task\\_new\\_full](#) (int iPeriod, [GldiGetDataAsyncFunc](#) get\_data, [GldiUpdateSyncFunc](#) update, GFreeFunc free\_data, gpointer pSharedMemory)
- void [gldi\\_task\\_stop](#) (GldiTask \*pTask)
- void [gldi\\_task\\_discard](#) (GldiTask \*pTask)
- void [gldi\\_task\\_free](#) (GldiTask \*pTask)
- gboolean [gldi\\_task\\_is\\_active](#) (GldiTask \*pTask)
- gboolean [gldi\\_task\\_is\\_running](#) (GldiTask \*pTask)
- void [gldi\\_task\\_change\\_frequency](#) (GldiTask \*pTask, int iNewPeriod)
- void [gldi\\_task\\_change\\_frequency\\_and\\_relaunch](#) (GldiTask \*pTask, int iNewPeriod)
- void [gldi\\_task\\_downgrade\\_frequency](#) (GldiTask \*pTask)
- void [gldi\\_task\\_set\\_normal\\_frequency](#) (GldiTask \*pTask)

### 5.61.1 Detailed Description

An easy way to define periodic and asynchronous tasks, that can perform heavy jobs without blocking the dock.

A Task is divided in 2 phases :

- the asynchronous phase will be executed in another thread, while the dock continues to run on its own thread, in parallel. During this phase you will do all the heavy job (like downloading a file or computing something) but you can't interact on the dock.
- the synchronous phase will be executed after the first one has finished. There you will update your applet with the result of the first phase.

#### Attention

A data buffer is used to communicate between the 2 phases. It is important that these datas are never accessed outside the task, and vice versa that the asynchronous thread never accesses other data than this buffer.

If you want to access these datas outside the task, you have to copy them in a safe place during the 2nd phase, or to stop the task before (beware that stopping the task means waiting for the 1st phase to finish, which can take some time).

You create a Task with [gldi\\_task\\_new](#), launch it with [gldi\\_task\\_launch](#), and destroy it with [gldi\\_task\\_free](#) or [gldi\\_task\\_discard](#).

A Task can be periodic if you specify a period, otherwise it will be executed once. It also can also be fully synchronous if you don't specify an asynchronous function.

### 5.61.2 Macro Definition Documentation

#### 5.61.2.1 #define gldi\_task\_new( *iPeriod*, *get\_data*, *update*, *pSharedMemory* )

Create a periodic Task.

#### Parameters

<i>iPeriod</i>	time between 2 iterations, possibly nul for a Task to be executed once only.
<i>get_data</i>	asynchronous function, which carries out the heavy job parallel to the dock; stores the results in the shared memory.
<i>update</i>	synchronous function, which carries out the update of the dock from the result of the previous function. Returns TRUE to continue, FALSE to stop.
<i>pSharedMemory</i>	structure passed as a parameter of the <i>get_data</i> and <i>update</i> functions. Must not be accessed outside of these functions !

#### Returns

the newly allocated Task, ready to be launched with [gldi\\_task\\_launch](#). Free it with [gldi\\_task\\_free](#) or [gldi\\_task\\_discard](#).

#### 5.61.2.2 #define gldi\_task\_get\_elapsed\_time( *pTask* )

Get the time elapsed since the last time the Task has run.

## Parameters

<i>pTask</i>	the periodic Task.
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## 5.61.3 Function Documentation

5.61.3.1 void `gldi_task_launch ( GldiTask * pTask )`

Launch a periodic Task, beforehand prepared with `gldi_task_new`. The first iteration is executed immediately. The frequency returns to its normal state.

## Parameters

<i>pTask</i>	the periodic Task.
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5.61.3.2 void `gldi_task_launch_delayed ( GldiTask * pTask, double fDelay )`

Same as above but after a delay. If the delay is 0, the task will be launched as soon as the main loop becomes idle.

## Parameters

<i>pTask</i>	the periodic Task.
<i>fDelay</i>	delay in ms.

5.61.3.3 `GldiTask* gldi_task_new_full ( int iPeriod, GldiGetDataAsyncFunc get_data, GldiUpdateSyncFunc update, GFreeFunc free_data, gpointer pSharedMemory )`

Create a periodic Task.

## Parameters

<i>iPeriod</i>	time between 2 iterations, possibly nul for a Task to be executed once only.
<i>get_data</i>	asynchronous function, which carries out the heavy job parallel to the dock; stores the results in the shared memory.
<i>update</i>	synchronous function, which carries out the update of the dock from the result of the previous function. Returns TRUE to continue, FALSE to stop.
<i>free_data</i>	function called when the Task is destroyed, to free the shared memory (optionnal).
<i>pSharedMemory</i>	structure passed as a parameter of the <code>get_data</code> and <code>update</code> functions. Must not be accessed outside of these functions !

## Returns

the newly allocated Task, ready to be launched with `gldi_task_launch`. Free it with `gldi_task_free` or `gldi_task_discard`.

5.61.3.4 void `gldi_task_stop ( GldiTask * pTask )`

Stop a periodic Task. If the Task is running, it will wait until the asynchronous thread has finished, and skip the update. The Task can be launched again with a call to `gldi_task_launch`.

## Parameters

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<i>pTask</i>	the periodic Task.
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#### 5.61.3.5 void gldi\_task\_discard ( GldiTask \* pTask )

Discard a periodic Task. The asynchronous thread will continue, and the Task will be freed when it ends. The Task should be considered as destroyed after a call to this function. This function can be used inside the 'update' callback to destroy the Task.

##### Parameters

<i>pTask</i>	the periodic Task.
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#### 5.61.3.6 void gldi\_task\_free ( GldiTask \* pTask )

Stop and destroy a periodic Task, freeing all the allocated resources. Unlike [gldi\\_task\\_discard](#), the task is stopped before being freed, so this is a blocking call. If you want to destroy the task inside the update callback, don't use this function; use [gldi\\_task\\_discard](#) instead.

##### Parameters

<i>pTask</i>	the periodic Task.
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#### 5.61.3.7 gboolean gldi\_task\_is\_active ( GldiTask \* pTask )

Tell if a Task is active, that is to say is periodically called.

##### Parameters

<i>pTask</i>	the periodic Task.
--------------	--------------------

##### Returns

TRUE if the Task is active.

#### 5.61.3.8 gboolean gldi\_task\_is\_running ( GldiTask \* pTask )

Tell if a Task is running, that is to say it is either in the thread or waiting for the update.

##### Parameters

<i>pTask</i>	the periodic Task.
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##### Returns

TRUE if the Task is running.

#### 5.61.3.9 void gldi\_task\_change\_frequency ( GldiTask \* pTask, int iNewPeriod )

Change the frequency of a Task. The next iteration is re-scheduled according to the new period.

## Parameters

<i>pTask</i>	the periodic Task.
<i>iNewPeriod</i>	the new period between 2 iterations of the Task, in s.

5.61.3.10 void `gldi_task_change_frequency_and_relaunch ( GldiTask * pTask, int iNewPeriod )`

Change the frequency of a Task and relaunch it immediately. The next iteration is therefore immediately executed.

## Parameters

<i>pTask</i>	the periodic Task.
<i>iNewPeriod</i>	the new period between 2 iterations of the Task, in s, or -1 to let it unchanged.

5.61.3.11 void `gldi_task_downgrade_frequency ( GldiTask * pTask )`

Downgrade the frequency of a Task. The Task will be executed less often (this is typically useful to put on stand-by a periodic measure).

## Parameters

<i>pTask</i>	the periodic Task.
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5.61.3.12 void `gldi_task_set_normal_frequency ( GldiTask * pTask )`

Set the frequency of the Task to its normal state. This is also done automatically when launching the Task.

## Parameters

<i>pTask</i>	the periodic Task.
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## 5.62 cairo-dock-themes-manager.h File Reference

### Functions

- void `cairo_dock_update_conf_file` (const gchar \*cConfFilePath, GType iFirstDataType,...)
- void `cairo_dock_write_keys_to_conf_file` (GKeyFile \*pKeyFile, const gchar \*cConfFilePath)
- gboolean `cairo_dock_export_current_theme` (const gchar \*cNewThemeName, gboolean bSaveBehavior, gboolean bSaveLaunchers)
- gboolean `cairo_dock_package_current_theme` (const gchar \*cThemeName, const gchar \*cDirPath)
- gchar \* `cairo_dock_depackage_theme` (const gchar \*cPackagePath)
- gboolean `cairo_dock_delete_themes` (gchar \*\*cThemesList)
- gboolean `cairo_dock_import_theme` (const gchar \*cThemeName, gboolean bLoadBehavior, gboolean bLoadLaunchers)
- `GldiTask *` `cairo_dock_import_theme_async` (const gchar \*cThemeName, gboolean bLoadBehavior, gboolean bLoadLaunchers, GFunc pCallback, gpointer data)
- void `cairo_dock_set_paths` (gchar \*cRootDataDirPath, gchar \*cExtraDirPath, gchar \*cThemesDirPath, gchar \*cCurrentThemeDirPath, gchar \*cLocalThemeDirPath, gchar \*cDistantThemeDirName, gchar \*cThemeServerAdress)

### 5.62.1 Detailed Description

This class defines the structure of the global theme (launchers, icons, plug-ins, configuration files, etc). It also provides methods to manage the themes, like exporting the current theme, importing new themes, deleting themes, etc.

### 5.62.2 Function Documentation

#### 5.62.2.1 void cairo\_dock\_update\_conf\_file ( const gchar \* *cConfFilePath*, GType *iFirstDataType*, ... )

Update a conf file with a list of values of the form : {type, name of the groupe, name of the key, value}. Must end with G\_TYPE\_INVALID.

Parameters

<i>cConfFilePath</i>	path to the conf file.
<i>iFirstDataType</i>	type of the first value.

#### 5.62.2.2 void cairo\_dock\_write\_keys\_to\_conf\_file ( GKeyFile \* *pKeyFile*, const gchar \* *cConfFilePath* )

Write a key file on the disk.

Parameters

<i>pKeyFile</i>	the key-file
<i>cConfFilePath</i>	its path on the disk

#### 5.62.2.3 gboolean cairo\_dock\_export\_current\_theme ( const gchar \* *cNewThemeName*, gboolean *bSaveBehavior*, gboolean *bSaveLaunchers* )

Export the current theme to a given name. Exported themes can be imported directly from the Theme Manager.

Parameters

<i>cNewThemeName</i>	name to export the theme to.
<i>bSaveBehavior</i>	whether to save the behavior parameters too.
<i>bSaveLaunchers</i>	whether to save the launchers too.

Returns

TRUE if the theme could be exported successfully.

#### 5.62.2.4 gboolean cairo\_dock\_package\_current\_theme ( const gchar \* *cThemeName*, const gchar \* *cDirPath* )

Create a package of the current theme. Packages can be distributed easily, and imported into the dock by a mere drag and drop into the Theme Manager. The package is placed in the *cDirPath* directory (or \$HOME if *cDirPath* is wrong).

Parameters

<i>cThemeName</i>	name of the package.
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<i>cDirPath</i>	path to the directory
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**Returns**

TRUE if the theme could be packaged succesfully.

**5.62.2.5 gchar\* cairo\_dock\_depackage\_theme ( const gchar \* cPackagePath )**

Extract a package into the themes folder. Does not load it.

**Parameters**

<i>cPackagePath</i>	path of a package. If the package is distant, it is first downoladed.
---------------------	---

**Returns**

the path of the theme folder, or NULL if anerror ocured.

**5.62.2.6 gboolean cairo\_dock\_delete\_themes ( gchar \*\* cThemesList )**

Remove some exported themes from the hard-disk.

**Parameters**

<i>cThemesList</i>	a list of theme names, NULL-terminated.
--------------------	---

**Returns**

TRUE if the themes has been succesfully deleted.

**5.62.2.7 gboolean cairo\_dock\_import\_theme ( const gchar \* cThemeName, gboolean bLoadBehavior, gboolean bLoadLaunchers )**

Import a theme, which can be : a local theme, a user theme, a distant theme, or even the path to a packaged theme.

**Parameters**

<i>cThemeName</i>	name of the theme to import.
<i>bLoadBehavior</i>	whether to import the behavior parameters too.
<i>bLoadLaunchers</i>	whether to import the launchers too.

**Returns**

TRUE if the theme could be imported succesfully.

**5.62.2.8 GldiTask\* cairo\_dock\_import\_theme\_async ( const gchar \* cThemeName, gboolean bLoadBehavior, gboolean bLoadLaunchers, GFunc pCallback, gpointer data )**

Asynchronously import a theme, which can be : a local theme, a user theme, a distant theme, or even the path to a packaged theme. This function is non-blocking, you'll get a CairoTask that you can discard at any time, and you'll get the result of the import as the first argument of the callback (the second being the data you passed to this function). Note that only downloading or unpacking the theme is done asynchronously, actually copying the files in the current theme folder is not (because it couldn't be cancelled without first making a backup).



## Parameters

<i>cThemeName</i>	name of the theme to import.
<i>bLoadBehavior</i>	whether to import the behavior parameters too.
<i>bLoadLaunchers</i>	whether to import the launchers too.
<i>pCallback</i>	function called when the download is finished. It takes the result of the import (TRUE for a successful import) and the data you've set here.
<i>data</i>	data to be passed to the callback.

## Returns

the Task that is doing the job. Keep it and use `cairo_dock_discard_task` if you want to discard the download before it's completed (for instance if the user cancels it), or `cairo_dock_free_task` inside your callback.

5.62.2.9 `void cairo_dock_set_paths ( gchar * cRootDataDirPath, gchar * cExtraDirPath, gchar * cThemesDirPath, gchar * cCurrentThemeDirPath, gchar * cLocalThemeDirPath, gchar * cDistantThemeDirName, gchar * cThemeServerAdress )`

Define the paths of themes. Do it just after 'gldi\_init'.

## Parameters

<i>cRootDataDir↔ Path</i>	path to the root folder of libgldi
<i>cExtraDirPath</i>	path to the extras themes (plug-in themes)
<i>cThemesDirPath</i>	path to the user themes
<i>cCurrent↔ ThemeDirPath</i>	path to the current theme
<i>cLocalTheme↔ DirPath</i>	path to the installed themes (default themes)
<i>cDistant↔ ThemeDirName</i>	folder of the themes on the server
<i>cThemeServer↔ Adress</i>	adress of the themes server

## 5.63 cairo-dock-user-icon-manager.h File Reference

## Macros

- `#define GLDI_OBJECT_IS_USER_ICON(obj)`

## 5.63.1 Detailed Description

This class handles the User Icons. These are Icons belonging to the user (like launchers, stack-icons, separators), and that have a config file. The config file contains at least the dock the icon belongs to and the position inside the dock.

## 5.63.2 Macro Definition Documentation

5.63.2.1 `#define GLDI_OBJECT_IS_USER_ICON( obj )`

Say if an object is a UserIcon.

## Parameters

<i>obj</i>	the object.
------------	-------------

## Returns

TRUE if the object is a UserIcon.

## 5.64 cairo-dock-utils.h File Reference

### Functions

- gboolean [cairo\\_dock\\_remove\\_version\\_from\\_string](#) (gchar \*cString)
- void [cairo\\_dock\\_remove\\_html\\_spaces](#) (gchar \*cString)
- void [cairo\\_dock\\_get\\_version\\_from\\_string](#) (const gchar \*cVersionString, int \*iMajorVersion, int \*iMinorVersion, int \*iMicroVersion)
- gboolean [cairo\\_dock\\_string\\_is\\_address](#) (const gchar \*cString)
- const gchar \* [cairo\\_dock\\_get\\_default\\_terminal](#) (void)
- gchar \* [cairo\\_dock\\_get\\_command\\_with\\_right\\_terminal](#) (const gchar \*cCommand)

#### 5.64.1 Detailed Description

Some helper functions.

#### 5.64.2 Function Documentation

##### 5.64.2.1 gboolean [cairo\\_dock\\_remove\\_version\\_from\\_string](#) ( gchar \* *cString* )

Remove the version number from a string. Directly modifies the string.

## Parameters

<i>cString</i>	a string.
----------------	-----------

## Returns

TRUE if a version has been removed.

##### 5.64.2.2 void [cairo\\_dock\\_remove\\_html\\_spaces](#) ( gchar \* *cString* )

Replace the %20 by normal spaces into the string. The string is directly modified.

## Parameters

<i>cString</i>	the string (it can't be a constant string)
----------------	--

##### 5.64.2.3 void [cairo\\_dock\\_get\\_version\\_from\\_string](#) ( const gchar \* *cVersionString*, int \* *iMajorVersion*, int \* *iMinorVersion*, int \* *iMicroVersion* )

Get the 3 version numbers of a string.

## Parameters

<i>cVersionString</i>	the string of the form "x.y.z".
<i>iMajorVersion</i>	pointer to the major version.
<i>iMinorVersion</i>	pointer to the minor version.
<i>iMicroVersion</i>	pointer to the micro version.

5.64.2.4 gboolean cairo\_dock\_string\_is\_address ( const gchar \* *cString* )

Say if a string is an address ([file://xxx](#), [http://xxx](#), [ftp://xxx](#), etc).

## Parameters

<i>cString</i>	a string.
----------------	-----------

## Returns

TRUE if it's an address.

## 5.64.2.5 const gchar\* cairo\_dock\_get\_default\_terminal ( void )

Get the command to launch the default terminal

5.64.2.6 gchar\* cairo\_dock\_get\_command\_with\_right\_terminal ( const gchar \* *cCommand* )

Get the command to launch another one from a terminal

## Parameters

<i>cCommand</i>	command to launch from a terminal
-----------------	-----------------------------------

## 5.65 cairo-dock-windows-manager.h File Reference

## Data Structures

- struct [\\_GldiWindowManagerBackend](#)  
*Definition of the Windows Manager backend.*
- struct [\\_GldiWindowActor](#)  
*Definition of a window actor.*

## Enumerations

- enum [GldiWindowNotifications](#)  
*signals*

## Functions

- void [gldi\\_windows\\_manager\\_register\\_backend](#) ([GldiWindowManagerBackend](#) \*pBackend)
- void [gldi\\_windows\\_foreach](#) (gboolean bOrderedByZ, GFunc callback, gpointer data)
- [GldiWindowActor](#) \* [gldi\\_windows\\_find](#) (gboolean(\*callback)([GldiWindowActor](#) \*, gpointer), gpointer data)
- [GldiWindowActor](#) \* [gldi\\_windows\\_get\\_active](#) (void)

### 5.65.1 Detailed Description

This class manages the windows actors and notifies for any change on them.

### 5.65.2 Function Documentation

5.65.2.1 `void gldi_windows_manager_register_backend ( GldiWindowManagerBackend * pBackend )`

Register a Window Manager backend. NULL functions are simply ignored.

Parameters

<i>pBackend</i>	a Window Manager backend
-----------------	--------------------------

5.65.2.2 `void gldi_windows_foreach ( gboolean bOrderedByZ, GFunc callback, gpointer data )`

Run a function on each window actor.

Parameters

<i>bOrderedByZ</i>	TRUE to sort by z-order, FALSE to sort by age
<i>callback</i>	the callback
<i>data</i>	user data

5.65.2.3 `GldiWindowActor* gldi_windows_find ( gboolean(*) (GldiWindowActor *, gpointer) callback, gpointer data )`

Run a function on each window actor.

Parameters

<i>callback</i>	the callback (takes the actor and the data, returns TRUE to stop)
<i>data</i>	user data

Returns

the found actor, or NULL

5.65.2.4 `GldiWindowActor* gldi_windows_get_active ( void )`

Get the current active window actor.

Returns

the actor, or NULL if no window is currently active

## 5.66 gldi-icon-names.h File Reference

### 5.66.1 Detailed Description

This file lists the common named icons; these are generic icons that any icon-theme should provide, and they replace gtk-stock icons.

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