Highlights of GTK+ 2.10

Kristian Rietveld
kris@imendio.com

Tim Janik
timj@imendio.com

Agenda

- **Upcoming release**

- **Improvements**

- **After 2.10**

- **Summary**

Upcoming Release

- **GTK+ 2.10 expected next week**

  – **Longer release cycle than usual**

  – **Project Ridley**

  – **Performance**

- **Comes with GLib 2.12, Pango 1.14**

Improvements

- **Glib and Pango**

- **GTK+**

GLib and Pango

- **GLib Memory Management**

- **GLib Type System Changes**

- **Other Improvements**

- **GLib Round Up**

- **Pango**

GLib Memory Management

- **New memory management API: GSlice**

- **Got rid of:**
  - **GMemChunk**
  - **GAllocator**

GLib Memory Management (cont.)

- **Allocating and freeing:**

```
yourmem = g_slice_new  (StructureType);

g_slice_free (StructureType, yourmem);
```

- **Debugging:**

```
G_SLICE=always-malloc

G_DEBUG=gc-friendly
```

GLib Type System Changes

- **G_TYPE_HASH_TABLE (reference counted hash tables)**

- **G_TYPE_GTYPE to store types in GValues and properties**

- **GInitiallyUnowned: moved initial floating reference from GtkObject**

Other Improvements

- **GBookmarkFile: a parser for files containing bookmarks stored using the Desktop Bookmark specification**

- **Priority sorting in GAsyncQueue**

- **Reaping of idle threads from GThreadPool**

GLib Round Up

- **Some significant core changes (MainLoop, etc.)**

- **Many misc improvements, optimizations and bugfixes**

- **Lots of good improvements to the documentation**

- **Many translation updates as always**

Pango

- **Many different optimizations**

- **Updates to Unicode 4.1**

- **ATSUI support (OS X backend)**

Pango (Cont.)

- **Documentation improvements**

- **Support for conditional compilation**

- **Usual load of bugfixes (50+)**

- **Some code cleanups**

GTK+

- **Image File Loading**

- **Win32 Backend**

- **Theming**

- **File Chooser**

- **GtkTreeView**

- **Other Improvements**

- **New Additions**

Image File Loading

- **GdkPixbuf**

  – **Save TIFF**

  – **Load 16 bit PNM**

  – **Partial loading of animated GIFs**

Win32 Backend

- **Windows support**
  - **Win32 backend updates**
  - **WIMP updates**

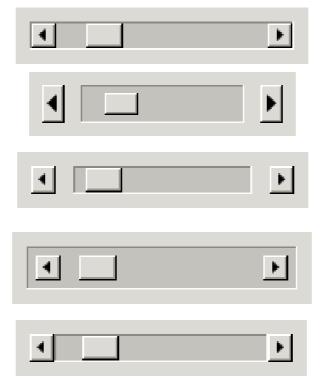# Theming Enhancements

- **Symbolic colors**

  ```
  color["my-red"] = { 1.0, 0.0, 0.0 }
  bg[NORMAL] = lighter(@my-red)
  ```

- **Notebook tabulators**

- **Spacing and padding**

- **Customized expanders and resize grips**
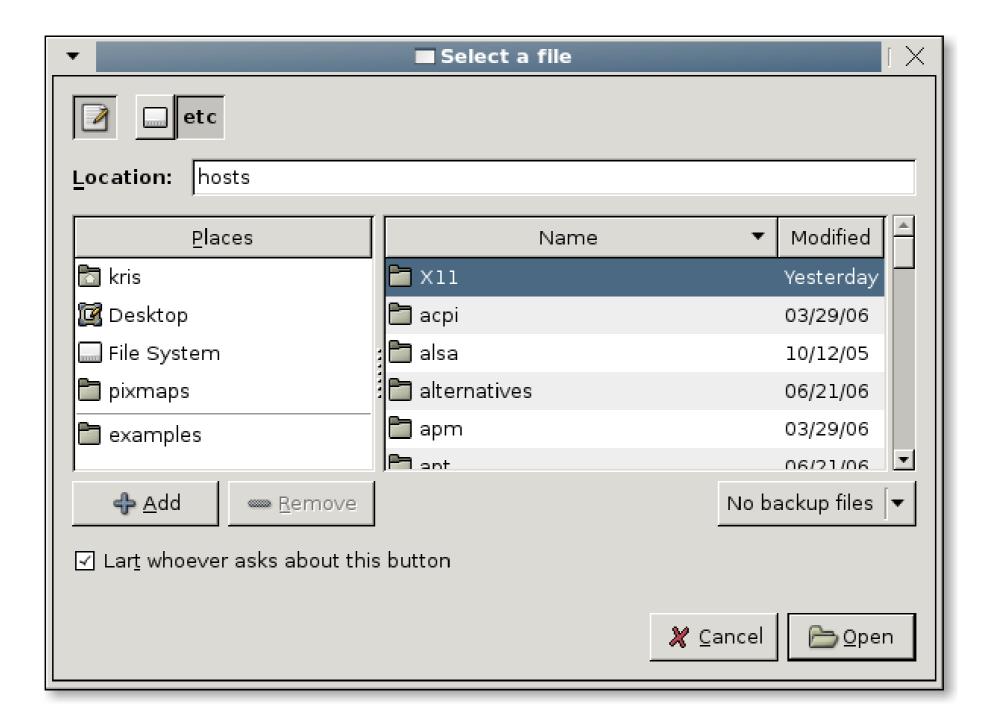
Theming Example

- **GtkRange style properties**

File Chooser

- **Performance**

- **Now fully asynchronous**

- **Location entry always visible**

Location Entry

etc

Location: hosts

Places	Name ▼	Modified
📁 kris	📁 X11	Yesterday
📝 Desktop	📁 acpi	03/29/06
🖥 File System	📁 alsa	10/12/05
📁 pixmaps	📁 alternatives	06/21/06
📁 examples	📁 apm	03/29/06
	📁 apt	06/21/06

➕ Add   ➖ Remove

No backup files ▼

☑ Lart whoever asks about this button

✗ Cancel   📁 Open

GtkTreeView

- **Filter/sort model**

- **Theming**

- **Search popup improvements**

- **Rubber banding (demo!)**

Other Improvements

- **Rich text copy and paste in GtkTextView**

- **Display closing / migration**

- **Notebook DnD (demo!)**

New Additions

- **Backends**

- **GtkAssistant**

- **GtkStatusIcon**

- **Cell renderers**

- **Recent files**

- **Printing**

- **Other Additions**

Backends

- **Two new backends**

  – **Mac OS X (Quartz / CoreGraphics)**

  – **DirectFB**

- **Both are functional, but not 100% finished**

OS X backend

GtkAssistant

- **Replaces GnomeDruid**
- **Single class**
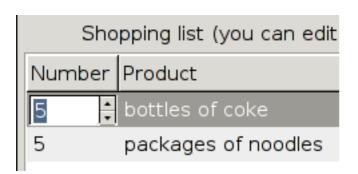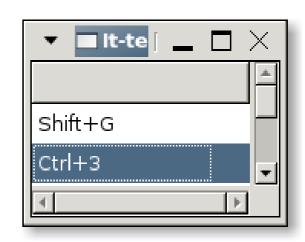- **More flexible**
- **Demo!**

GtkStatusIcon

- **Already in wide use due to libegg**

- **Also support for Win32 tray icons**

Cell Renderers

- **GtkCellRendererSpin**

- **GtkCellRendererAccel**

Recent Files

- **Widgetry for selecting recently used files**

- **Infrastructure for maintaining the list of recent files**

- **Slides of Sunday's talk are at**

http://o-hand.com/~ebassi/2006-guadec-recent-files/

Printing

- **Cross-platform printing support**

- **GtkPrintOperation, for setting up the job**

- **Page setup and print dialogs**

- **Talk yesterday**

Other Additions

- **GtkLinkButton**
  - **Replaces GnomeHRef**
- **Touchscreen mode**

After 2.10

- **GTK+ 2.12 release during January 2007**

- **Don't expect 3.0 anytime soon**

    – **Want to avoid breaking API for a while**

GTK+ 2.12

- **GtkBuilder**

- **Canvas**

- **New tooltips API**

- **Introspection**

- **GtkEntry (libsexy, multi-line)**

- **International calendar support**

Summary

- **GTK+ 2.10 out next week**

  - **Printing**

  - **Recent files**

  - **New widgets**

  - **Lots of improvements**

- **GTK+ 2.12 during January 2007**

  - **Will be really awesome too!**

Thanks

- **The GTK+ and GLib Team**

- **The Pango Maintainers**

- **All translation teams**

More information

- **http://www.gtk.org/**

- http://o-hand.com/~ebassi/2006-guadec-recent-files/

- gtk-devel-list@gnome.org

- Blog entries on Planet GNOME

Questions?

Was anybody down at the beach when the sun came up on Saturday?