Tumbler

A Modern D-Bus Thumbnail Service

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Thumbnails are needed everywhere

- Apps:
  - File managers
  - Image viewers
  - Music and media players
  - Search tools / dashboards / indexers
- Devices:
  - Desktop PCs
  - Phones
  - Tablets

Thumbnailing is difficult

- ▶ Variety of file types need to be supported
- ▶ Same for URI schemes
- ▶ Costly process in terms of CPU and memory

Problems with the current state

- Desktops, apps reimplement the same (complex) functionality
  - MIME types
  - URI schemes
  - libraries, plugins, script
- Thumbnails are usually created in-process
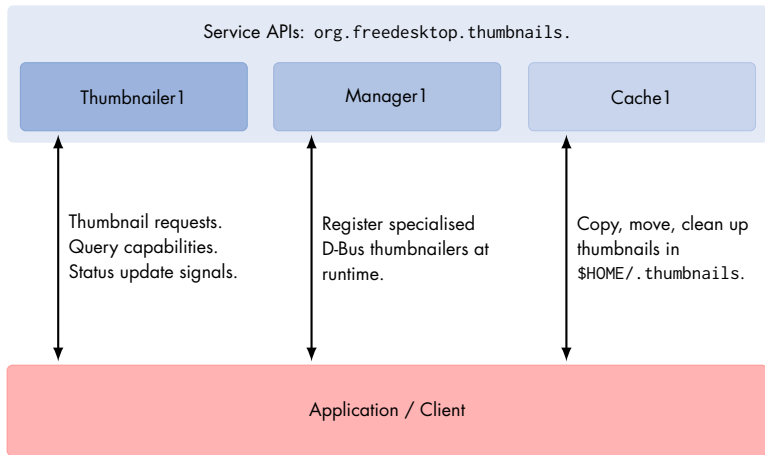 - Different apps compete for CPU time
  - (May crash apps if buggy)

Say hello to

Tumbler

Tumbler is…

- an attempt to centralize thumbnail functionality
- a collection of D-Bus services for creating thumbnails
- an implementation of the
  Thumbnail Management D-Bus Specification
- written in C using GIO
- used in Xfce, Tracker, MeeGo and on the N9
- something I'd love to see being used in other places

Service Overview

Benefits & features

- ▶ central scheduling: *foreground*, *background*
- ▶ natural API: async requests, signals for status updates etc.
- ▶ extensible set of flavors: *normal*, *large*
- ▶ plugin interface for flexible URI/MIME types support
- ▶ state of plugins:
  GdkPixbuf, JPEG, ODF, Poppler, OpenRAW, FreeType,
  GStreamer

Let's see it!

Demonstration

What's next?

Outlook

Limitations & future work

- ▶ Make flavors more flexible
- ▶ Add a plugin for thumbnail scripts
- ▶ Handle conflicting plugins in better ways
- ▶ Add support for pausing/resuming requests (improve LIFO)

Wrapping up

- ▶ Thanks for your interest!
- ▶ Source code: `http://git.xfce.org/xfce/tumbler`
- ▶ Releases: `http://archive.xfce.org/src/xfce/tumbler`
- ▶ Specification: `http://live.gnome.org/ThumbnailerSpec`
- ▶ Slides: `http://wiki.xfce.org/events/2012/fosdem`

Questions?

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