Unity Places Developer Guide

Neil Jagdish Patel

neil.patel@canonical.com

What is a Place?

- Places hook into the Unity Dash and Launcher

- Allow users to browse and search data in a constant way on the desktop

- Can be presenting local or remote data

- Can provide data for global search

A Place

- Places are in their own process, normally D-Bus services

- A Place should install a .place file containing information Unity needs to activate it

- Places can have none, one or many PlaceEntrys

- A PlaceEntry is what is shown on the Launcher

A Place File

[Place]
DBusName=com.canonical.Unity.FilesPlace
DBusObjectPath=/com/canonical/unity/filesplace

[Entry:Files]
DBusObjectPath=/com/canonical/unity/filesplace/files
Icon=/usr/share/unity/files.png
Name=Files & Folders
Description=Find documents, downloads, and other files

A Place on D-Bus

- Small interface that tells Unity
    - What PlaceEntrys the Place contains
    - When a PlaceEntry added/removed

- A PlaceEntry is represented as a **PlaceEntryInfo**

- Can also implement **Activation** interface

A PlaceEntry on D-Bus

methods:

SetActive (bool active)

SetActiveSection (uint section_id)

SetGlobalSearch (string search, { string, string} hints)

SetSearch (string search, { string, string} hints)

signals:

EntryRendererInfoChanged (RendererInfo info)

GlobalRenderInfoChanged (RendererInfo info)

PlaceEntryInfoChanged (PlaceEntryInfo)

Sections, Groups and Results

- Sections are used for high-level filtering of types

- Groups are used to aggregate results that are similar (i.e. "Installed", "Yesterday" (files), "Online" (contacts)

- Results are the "hits" for the current search string

- *Every PlaceEntry has three **DeeSharedModel's** representing these three tables, and updates those models to update Unity during searches*

DeeSharedModel

- Synchronised table shared over D-Bus

- Allows nice client-side API and syncs across D-Bus with other DeeSharedModels of the same name (DeePeer)

- Made to have a constantly changing dataset, where we can easily react to individual changes on view side (100 -> 50 -> 1 result)

- Demo time!

Model Columns

Sections
s display_name
s icon_hint

Groups

s group_renderer
s display_name
s icon_hint

Results

s uri
s icon_hint
u group_id
s mimetype
s display_name
s comment

Specific Rendering Requests

Groups

s group_renderer

s display_name

s icon_hint

Global Search

- Global Results model in PlaceEntry

- Sections and groups model for future use

libunity

- Wraps Place and PlaceEntry into easy to use objects

- Maps current search string/current section etc to properties on a PlaceEntry

- **lp:unity-place-sample**

- Say thank you to Mikkel (kamstrup)

Complete API/Features

- Intercept activation of URIs

- Add browsing mode

- Have "no results" page with links to useful URIs ("Search Web?")

- https://wiki.ubuntu.com/Unity/Places

Upcoming Features

- Better browsing/context stacks

- More Group renderers

- DND support

- Better support for Web places

YouTube Place Demo

- lp:~njpatel/unity-place-sample/unity-place-youtube