

The OSDL / freedesktop.org

Portland

initiative

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What Is Portland

- **Portland is an Open Source project that delivers common APIs to enable ISVs to more easily integrate their applications into the Linux Desktop**
 - A uniform programming interface regardless of the user's choice of desktop (Gnome, KDE, XFCE)
 - Useful for both FOSS and commercial apps
- **Portland has both short-term and long-term goals:**
 - Short term: deliver a set of command line tools (xdg-utils)
 - Long term: develop Linux Desktop service APIs based on DBUS



1.0 – Xdg-utils Overview

- **Installation Tools**

- **xdg-desktop-menu**: command line tool for installing desktop menu items
- **xdg-desktop-icon**: command line tool for installing icons to the desktop
- **xdg-mime**: command line tool for installing file type descriptions
- **xdg-icon-resource**: command line tool for installing icon resources

- **Runtime Tools**

- **xdg-open**: opens a file or URL in the user's preferred application
- **xdg-email**: command line tool for sending mail using the user's preferred e-mail composer
- **xdg-screensaver**: command line tool for controlling the screensaver

- **See man pages for details**

- <http://portland.freedesktop.org/xdg-utils-1.0/>



Value proposition for ISDs

(ISD=Independent Software Developer)

- **Single code base:** reduces ISD development effort to integrate applications with both Gnome and KDE
- **Extensive pre-testing:** Xdg-utils pre-testing on a large set of distributions reduces ISD QA overhead
 - But, to future-proof Portland **we want OSVs to include and test xdg-utils with future product releases**
- **Flexible deployment:** ISD can ship xdg-utils w/ application - no hard dependency on distro
 - Short term transition solution, long term we want xdg-utils to be part of platform itself



ISDs like it...

- **“...standardized interfaces and tools like those in Portland will help speed development and increase compatibility for RealNetworks' RealPlayer media player ...”**

Jeff Ayars, vice president Product Engineering, RealNetworks Inc.

- **“As the definition of the Portland Project interfaces stabilizes, Open Country plans on taking full advantage of them to reduce software development costs ...”**

Laurent Gharda, COO and Co-Founder of Open Country

- **“With the increasing use of Linux and the freedom of choice it provides, we want to be sure to continue to support that choice on as many Linux distros and desktops as possible. The Portland programming interfaces will give us this capability in a far simpler form than what we have now.”**

Jeremy White, CEO of Codeweavers, Inc.



1.0 – Xdg-utils Latest Changes

- **Beta3**
 - Reworked screensaver support
 - Dropped xsltproc dependency (replaced w. AWK)
- **Beta4**
 - Simplified xdg-desktop-menu syntax
 - Improved Xdg-icon-resource syntax
- **RC1**
 - Dropped SVG support



1.0 – Xdg-utils Test Suite

- **Test suite for xdg-utils**
 - See <http://portland.freedesktop.org/wiki/TestSuite>
 - More than 200 tests
 - Tom Whipple, Intel, Bryce Harrington, OSDL
- **3 goals**
 - Ensure xdg-utils works with existing distributions
 - Provide Distros with tests for inclusion in QA process to ensure proper integration of xdg-utils in distro
 - Provide tests for LSB certification
- **Online collection of test results**
 - Distros include Debian, Fedora, KUbuntu, Mandriva, OpenSUSE, RedFlag, Ubuntu, Xandros



Test Findings

- **Panel or file-manager not noticing new icons or menu-entries**
 - Typically when the install directory had to be created
- **Distribution using non-standard directories**
 - `/etc/xdg/menus/kde-applications-merged` instead of `/etc/xdg/menus/applications-merged`
- **Distribution using non-standard menu categories**
- **SVG icon support not usable**



Wish List

- **Allow automated testing:**
 - Command line tool to access desktop and menu entries
- **Better documentation on focus-stealing prevention**
- **Package manager integration:**
 - Improve package managers (rpm and friends) so that files can be registered dynamically with a package
 - Take a look at installf (UNIX SVr4 tool)



Portland Roadmap

- **Portland 1.0 – Xdg-utils**
 - Command line based integration tools
 - Easy to add to existing systems
- **Portland 1.1 – Xdg-utils extensions**
 - New tools
 - Improved coverage for older distros
- **Portland 1.5 – XSettings**
 - Display related desktop settings
- **Portland 2.0 – Desktop API (DAPI)**
 - IPC based services
 - Technology preview used custom protocol
 - Will be based on DBUS in future



Road Ahead: 1.1 – Xdg-utils Extensions

- Increase support for older distros
- Improve integration with packaging system
- Add additional tools
 - Xdg-su – become root
 - Xdg-file-dialog – file dialog
 - Xdg-auto-start – auto start app on login



Road Ahead: 1.5 – XSettings

- **Display related desktop settings**
 - Used by Gnome, but not interoperable
 - Can be used by applications running as different users
 - Can be used by applications running on different hosts
- **Potential functionality**
 - Button Order in dialogs
 - Current Icon Theme
 - Colors
 - Fonts
 - Accessibility settings (e.g. high contrast, large icons)
 - ...
- **Functionality typically provided by toolkit (GTK+ / Qt) already**
 - Toolkit currently not always in sync with desktop settings



Road Ahead: 2.0 DBUS Desktop APIs

- **Service Interfaces based on DBUS 1.0**
- Potential functionality
 - Screensaver
 - Power-management
 - Recent files
 - Keyring access
 - Address book
 - Proxy settings
 - Keyboard shortcuts
 - Extensible system provided file & print dialog

