Cross Distro App Installer Meeting

- 19\textsuperscript{th}-21\textsuperscript{th} January 2011 in Nürnberg (SUSE HQ)
  - Yes, last week!
- About 15 People from
  - Debian
  - Fedora / Red Hat (Richard Hughes and me)
  - Mageia (Mandriva)
  - Opendesktop.org
  - SUSE / Novell
  - Ubuntu / Canonical
Motivation

- Finding and Installing applications is difficult
- UIs are lacking
- Additional (meta) data needed
- Various people are already working on “Application Installers” of some kind
- Problem is pretty much the same for everyone
- Joining effort may make things happen earlier and better
My Background

- Red Hat employee for 5 years
- RPM Developer
- Yum developer in former life
- Know most parts of the package stack
  But
- Not a UI person
- Not really a Fedora person
- No clue about Fedora infrastructure
Parts and Pieces

- Application Meta Data
  - Think .desktop files or menu entries
  - Part of the repositories
- Server with comments and ratings
  - Open Collaboration Server API
  - Integrate with PackageDB?
- Screen Shot server
- Client
Architecture

Client

Aggregates multiple sources:
Repositories, OCS servers and possibly
Screen shot servers

Screen Shot Server
- One or one per distro

OCS Server
- Ratings
- Comments
- One server per distro or 3rd party repo

Existing metadata
- app-data.xml
- app-data-icons

Repo on Mirror

Rebuild on repo-compose

Compose server

desktop-files
- package file
Implementation plan

- OCS Server
  - Ratings
  - Comments
- PackageKit
- Existing metadata
- app-data.xml
- app-data-icons.tar.gz
- desktop-files
- package file
- xapian database

Client
- Software Center
- priority, stemming

Mirror
- Rebuild on repo-enable, etc

Compose server
- extract metadata
- construct metadata

_oauth_
Setup Example

- Fedora Repo
- Debian Repo
- OpenSUSE Repo

App Installer instance:
- Fedora OCS
- Debian OCS
- OpenSUSE OCS

Fedora Screen shots
Debian Screen Shots
OpenSUSE Screenshots
Application data

- Generated from menu files
- Distribution independent XML format
- Distribution depended details added
  - Package name
- TODO: Extend standard on opendesktop.org
  - Ask upstream to add needed bit
    - Works for all distros
- Put into repository (createrepo)
  - Distro dependent transport
Client

- GUI Application
  - OCS client
  - Distribution dependent backend (PackageKit)
- Web front end
  - (Guy from Magaia working on this)
- Ubuntu Software Center
  - Still legal issues
- MeeGo App Store
Avogadro is a molecular graphics and modelling system targeted at molecules and biomolecules. It can visualize properties like molecular orbitals or electrostatic potentials and features an intuitive molecular builder.

Features include:

- Molecular modeller with automatic force-field based geometry optimization
- Molecular Mechanics including constraints and conformational searches
- Visualization of molecular orbitals and general isosurfaces
- Visualization of vibrations and plotting of vibrational spectra
- Support for crystallographic unit cells
- Input generation for the Gaussian, GAMESS and MOLPRO quantum chemistry packages
- Flexible plugin architecture and Python scripting

File formats Avogadro can read include PDB, XYZ, CML, CIF, Molden, as well as Gaussian, GAMESS and MOLPRO output.

Website
Open Collaboration Server

- Software already exists
- Small list of changes needed
- Each distribution will need to run one of its own
  - Keep politics and religion within one distro
- Client can connect to several servers
- Add syncing and comparing later
  - If needed or wanted
- Still looking for people within Fedora to run it
Screen Shot Server

- Debian already have one
- We probably can use it if we put an proxy in front
- But we probably want one on our own
- OCS data points to screen shots
  - Screen shots in the App Installer
- GUI integration for Uploading might be fancy
Other Things

• ... not yet part of the overall plan:
  
• Matching packages between distributions
• Debtags
Matching Packages

• ... across distributions
• Enrico Zini is working on this
• Needs
  • Source to binary package list
  • Files per package
  • May be more in the future
• Each distro can offer their list in a simple format
• Each distro can run its own matching service
Matching Packages

• Binary packages
  • Use others descriptions or translations
  • Dynamic fall back for OCS data
  • Import Debtags data into an own database

• Source packages
  • Browse others' patches and spec files
  • May be integrated into PackageDB
Debetags

- Library science categorization
- Facet based
- Closed tag and facet set
- About 50% of Debian tagged
- Tools to suggest / autodetect tags
- Requires brain power and algorithms
  - World writable UI works fine for them
- Can be used for subdividing search results or categories
Example Facets

- Admin: Accounting, Automation, Backup, ...
- Field: Arts, Astronomy, Aviation, Biology, ...
- Devel: buildtools, code-generation, compiler, lang:ada, lang:c, lang:c++, ...
- Made-of: Audio, Dictionary, Font, HTML, XML
- Interface: 3d, Cli, Daemon, Shell, Web, X11
- Role: App-data, Devel-lib, Example, Source, ...
- Use: Browsing, Calculating, Chatting, Login, ...
Links

- http://distributions.freedesktop.org/wiki/AppStream
- http://distributions.freedesktop.org/wiki/Meetings/AppInstaller2011
- http://socialdesktop.org/ocs/
- http://screenshots.debian.net/
- http://debtags.alioth.debian.org/