Moblin v2 SDK

Open Source Technology Center

Presented by Bob Spencer

Open Source **Technology** Center

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Moblin SDK Agenda

- SDK Overview (3 parts)
- Project Creation Demo
- Plans
- QA





- Development environment
 - Moblin 2.0 Distribution
 - KVM, VMWare, Full Moblin 2.0 distribution
- Development Tools
 - Moblin Image Creator 2, Powertop, Linux Project Generator
 - Eventual IDE integration
- Documentation
 - Website
 - Developer Guides (Getting started, architecture, How-to's, etc.)
 - API Reference





Development environment

- Moblin v2 Distribution
 - Development build with libraries, headers, development tools
 - Prebuilt, validated images
 - API documentation generation
- Development environment (KVM, VMWare, Moblin v2)
 - KVM
 - Linux OSs
 - GL-enabled KVM required
 - VMWare
 - All OSs
 - Use free VMWare player
 - GL performance may not be stellar
 - Full Moblin 2.0 distribution
 - Boot on netbook or development workstation
 - Includes development libraries, headers, dev tools
 - Intel workstation, processor, graphics device
 - Only makes sense for desktop-like UI (e.g. netbook).





Tools

- IDE (Eclipse, Anjuta, etc.)
 - Minimal usage documentation in Q1 2009
 - Tighter integration in Q2/Q3 2009 Development Tools
- Moblin Image Creator 2 (MIC2)
 - Optional for software development. Use prebuilt images
- Powertop and other OSS tools
 - Pointers on the web to their respective home page
- Linux Project Generator
 - Tool to help create an application template
 - Features: autogen-based, app or lib, moblin compliant
- Moblin.org doesn't reference proprietary tools (VTune, ICC, etc)





Documentation

- Website http://moblin.org/documentation/moblin-sdk
- Developer Guides
 - Moblin-specific, cross-project documentation
 - Task-oriented
 - How-to's, BKMs, guides, recommendations
 - Compliance
 - Tools

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- API Reference
 - Moblin and community projects
 - Project APIs generated from code (gtk-doc, doxygen)
 - API Reference generated from Moblin build
 - Initial Key Projects
 - Clutter, GTK+, Cairo, Pango, GConf, Dbus, Glib, GObject, QT T Glib



- Overview of Moblin
- Foundations
- UI design for small devices
- High-level app dev, Clutter usage, etc.
- Compliance
- Development / Tools
 - Moblin Image Creator 2
 - Powertop
 - Linux Project Generator
- Tutorials / Tasks
 - Getting Started
 - Trying out a live image
 - Using SDK to build app
 - Deploy to device
 - Application Development
 - How to's (Porting, app dev, debugging, etc.)
 - Settings
 - How to's (set date/time, bkgd image, proxy, gconf
 - Mobile SDK
 - How to's (Am I plugged in, connected to network, how much storage, ...)
- API Reference
 - Clutter
 - GTK+
 - Cairo Pando
 - GConf
 - GObiect • Dbus



Linux Project Generator

- Quick start to Moblin 2.0 project creation
- Autogen-based projects
- Application and/or library creation
- Includes Moblin Compliance aides (lists correct library versions)
- License selection (GPL, LGPL, BSD, MIT)
- GUI, Console, and command-line options for automation
- Sample code for common tasks
 - Clutter, GTK, Pango, Cairo, i18n, UI design, compliance, settings, etc.
 - Tied to "How-to" documentation and code snippets

git clone git://git.moblin.org/projgen.git

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Plans

- Debugging tutorial
- More app feature how-to's (autogen, gtk-doc, packaging)
- Linux Project Generator features (packaging, sample code)
- How to achieve common tasks:
 - Widgets / UI (GTK / QT / Clutter)
 - Configuration data storage (gconf)
 - Content management (bickley)
 - etc.

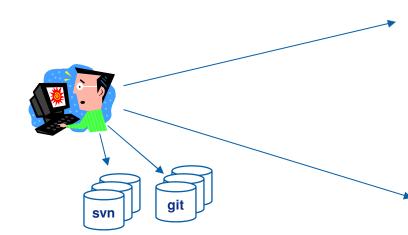
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- Sync with next releases
- IDE integration: Step through code in Anjuta or Eclipse that is running on Netbook or MID. UI simulators.

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Your Projects and Code







Documentation

Getting Started Guides

Project Documentation

Moblin Overview

API References Participate in a Project Distro Developer's Guide

Mobin SDK

Home > Documentation > **Coding Tutorials**

Submitted by: bspencer on 02/04/09 (0 comments)

Welcome to the Moblin Coding Tutorials. This page is a launching point for common developer topics and tutorials.

Note: This page will hold upcoming Moblin v2 tutorial content and be populated over the next few months.

Brief Tutorials



How to prepare your application to be localizable Writing applications that are Mobin Compliant

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| Main | Struct | ure | Duild | License | Docs / I18N | Packaging | Repository | Sample Code | | | | |
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| Cr | eate pr | olec | t in the | e followin | g language: | c 🔷 |] | | | | | |
| Proj | ect | | | | | | | | | | | |
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| De | escripti | on: | Mobile Television Viewer | | | | | | | | | |
| Δu | thor: | | John | Smith | | | | | | | | |
| C.c | Copyright: XYZ Corporation | | | | | | | | | | | |
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What do you want in the SDK?





Backup

Provide feedback to bob.spencer@intel.com





Screenshot 1/8

Enter project basics

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| Project- | | | | | | |] | | | | |
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| <u>S</u> hort | name: | mob | ile-tv | | | | | | | | |
| Path: //home/jsmith/src/ | | | | | | | Browse | | | | |
| Descri | iption: | Mobi | ile Televis | ion Viewer | | | | | | | |
| <u>A</u> utho | r: | John | Smith | | | | | | | | |
| Cop <u>y</u> ri | Copyright: XYZ Corporation | | | | | | | | | | |
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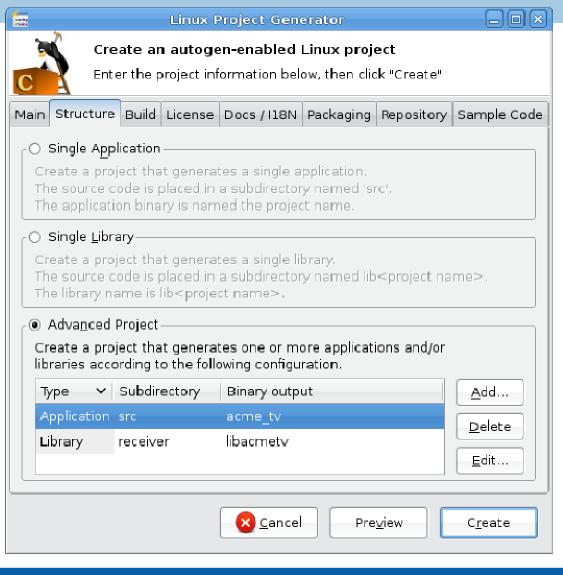






Screenshot 2/8

Is the new project an application, library, or combination







Screenshot 3/8

Select pkg-configenabled library dependencies

Can filter on moblincompliant libraries and versions. (configurable)

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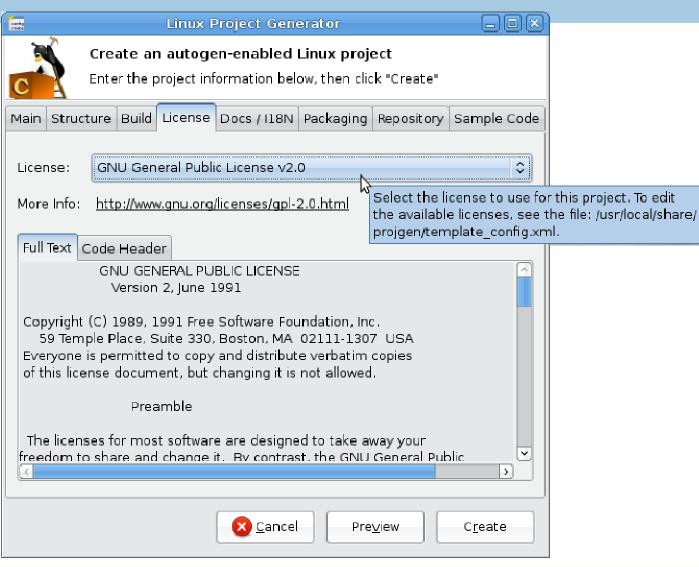
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Screenshot 4/8

License selection

Will put code header at top of all generated code files and create a COPYING file with the Full Text.









Screenshot 5/8

License selection (cont)

Common OSS licenses available. List is customizable outside GUI

| tardag reaks | Linux ProjectGenerator 📃 🗖 | | | | | | | | | | |
|---|---|-----|--|--|--|--|--|--|--|--|--|
| Create an autogen-enabled Linux project | | | | | | | | | | | |
| Enter the project information below, then click "Create" | | | | | | | | | | | |
| Main Struct | ture Build License Docs / I18N Packaging Repository Sample Co | ode | | | | | | | | | |
| License: | BSD License | | | | | | | | | | |
| More Info: | MIT License | | | | | | | | | | |
| Full Text | GNU General Public License v2.0 GNU General Public License v2.0 or later | | | | | | | | | | |
| | GNU General Lesser Public License v2.1 (intended for libraries) | | | | | | | | | | |
| Redistributi modificatio | GNU General Public License v3.0 | | | | | | | | | | |
| GNU Lesser General Public License v3.0 (intended for libraries) * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. * Neither the name of PG_ORGANIZATION nor the names of its contributors may be used to endorse or promote products | | | | | | | | | | | |
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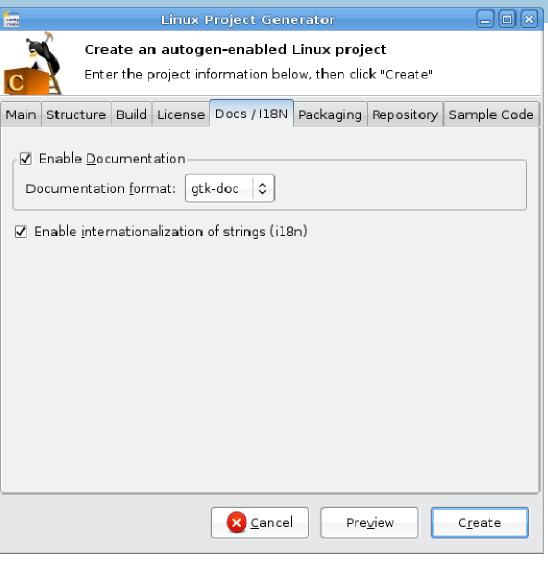




Screenshot 6/8

Add gtk-doc formated comments which auto-generate html APIs during build.

Add internationalization support and example code







Screenshot 7/8

Package new project

| Larda raske | Linux Project Generator | | | | | | | | | | | | |
|----------------|---|--|---------|----------|----------------|---------------|--------------|-----------------|--|--|--|--|--|
| 3 | Create an autogen-enabled Linux project | | | | | | | | | | | | |
| C | X | Enter the project information below, then click "Create" | | | | | | | | | | | |
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Screenshot 8/8

Select code samples pertaining to areas you plan to use

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