Moblin v2 SDK

Open Source Technology Center

Presented by Bob Spencer

Moblin SDK Agenda

- SDK Overview (3 parts)

- Project Creation Demo

- Plans

- QA

Moblin SDK

- ## 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

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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).

Moblin SDK

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)

Moblin SDK

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

- 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.

- **Moblin Overview**
  - 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
  - Pango
  - GConf
  - Glib
  - GObject
  - Dbus

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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.

- Sync with next releases

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

Moblin SDK

Your Projects and Code
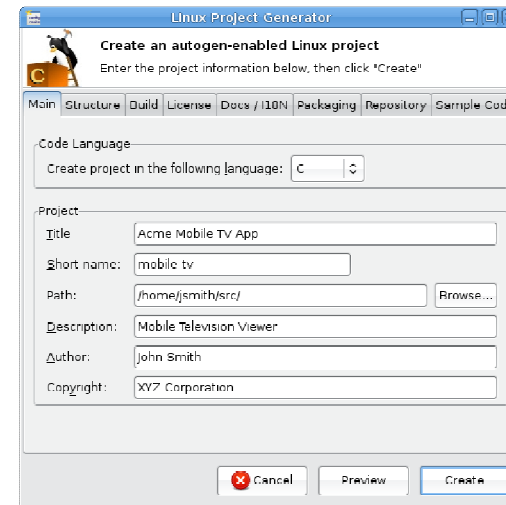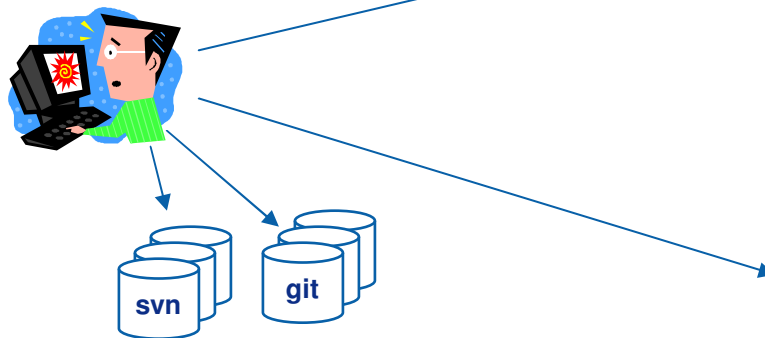
Moblin SDK

What do you want in the SDK?

Backup
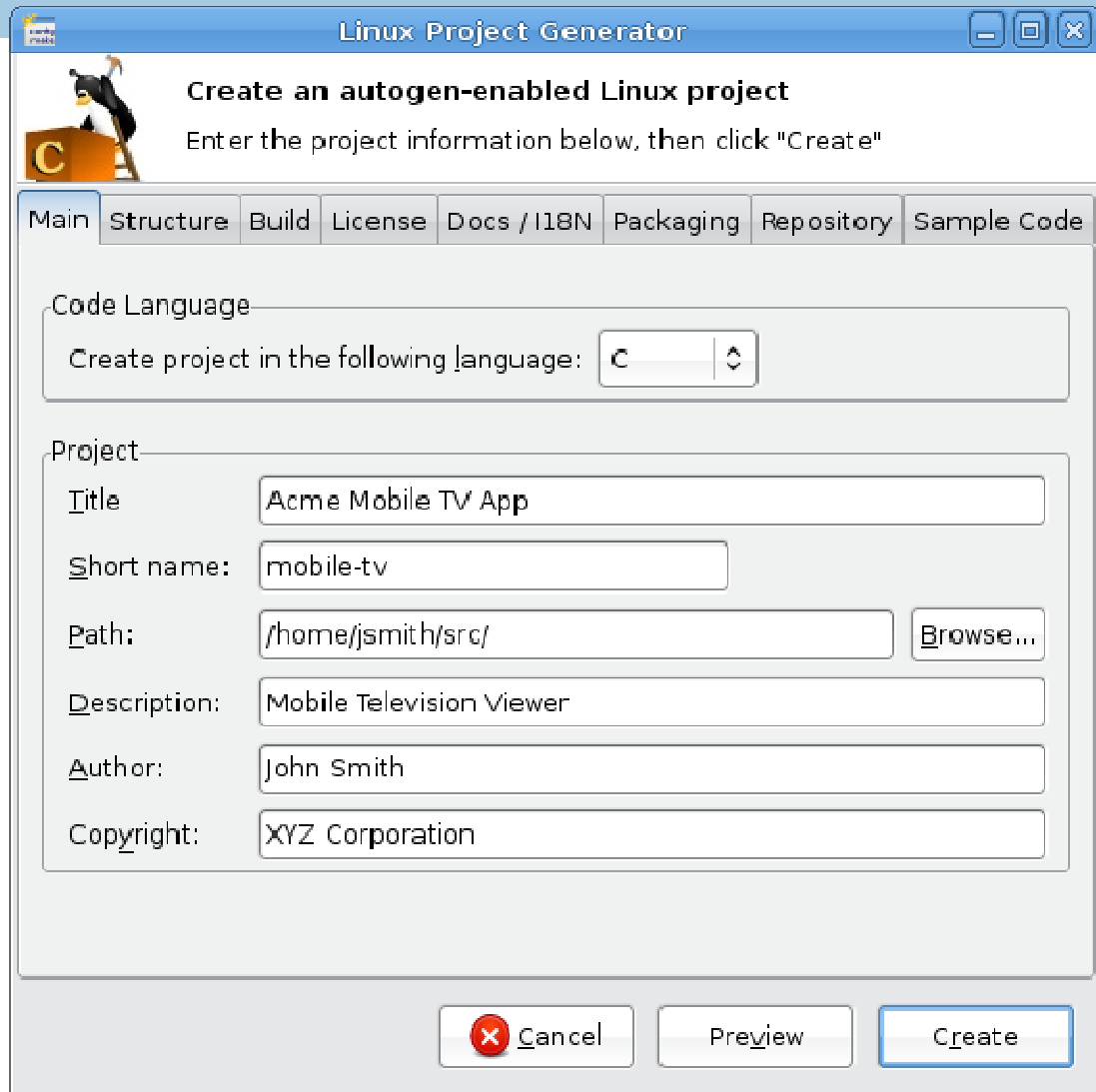
Provide feedback to

bob.spencer@intel.com

Moblin 2.0 SDK – Linux Project Generator

Screenshot 1/8

Enter project basics

Moblin 2.0 SDK – Linux Project Generator

Screenshot 2/8

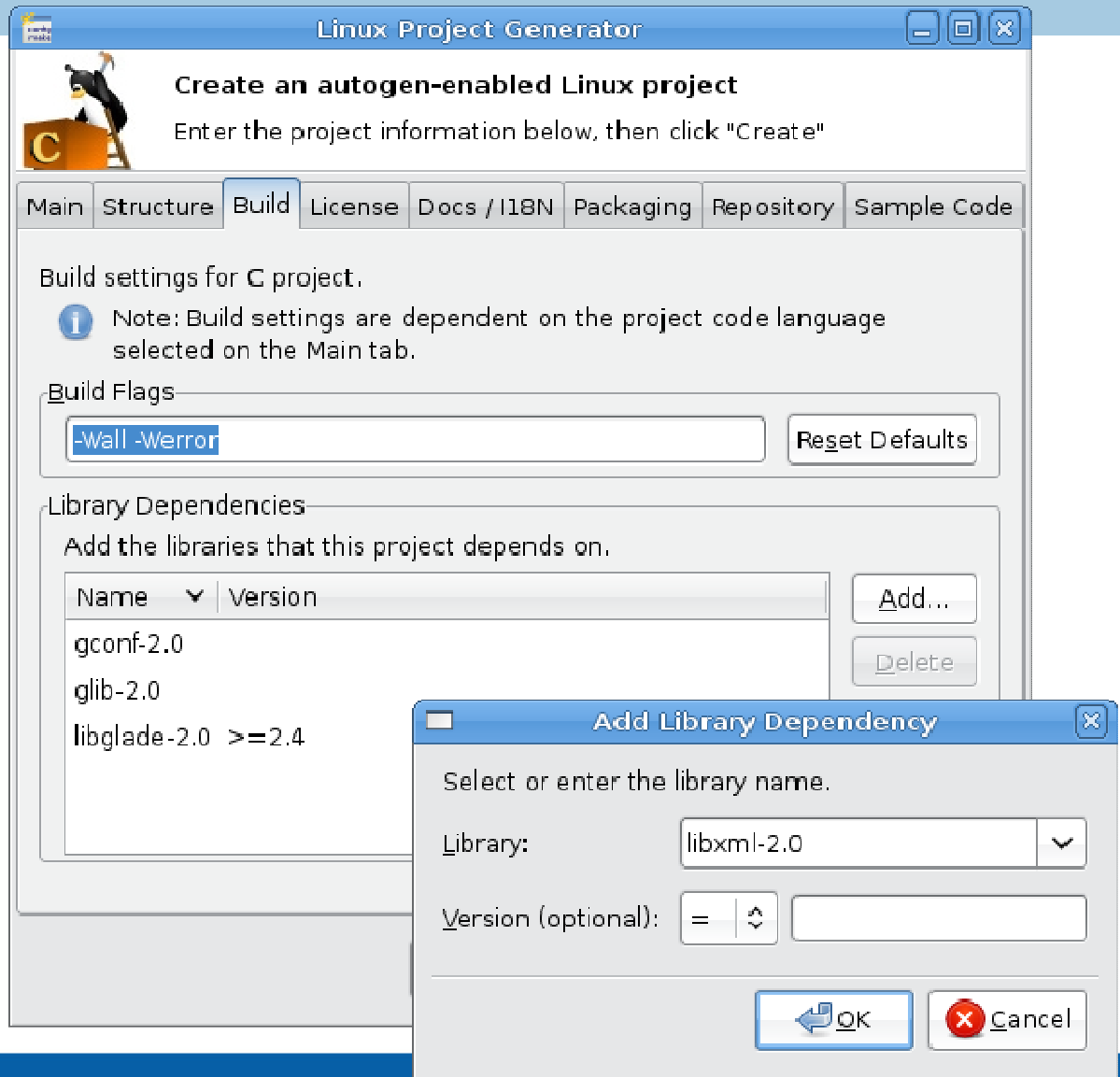Is the new project an application, library, or combination
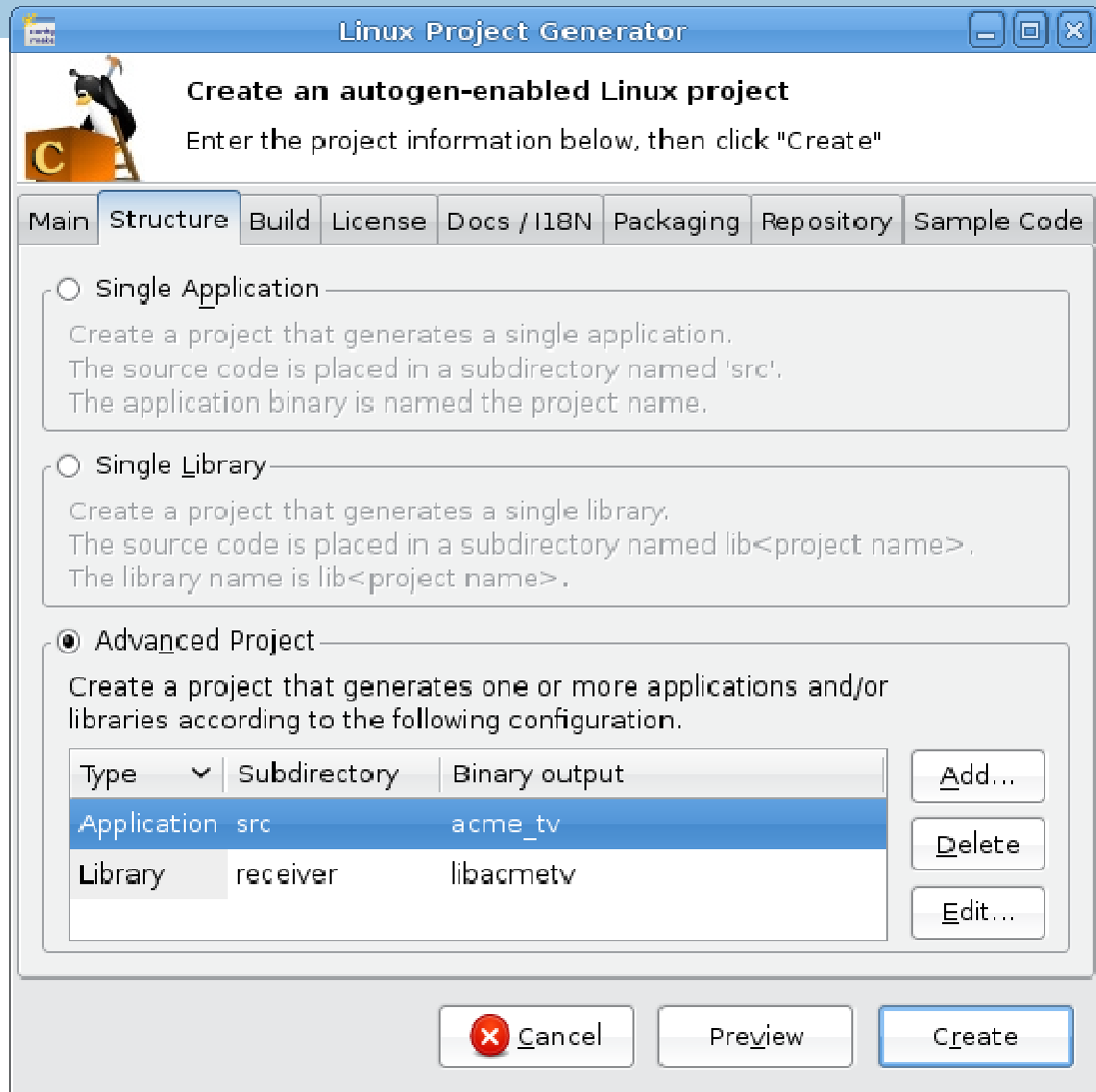
Moblin 2.0 SDK – Linux Project Generator

Screenshot 3/8

Select pkg-config-enabled library dependencies

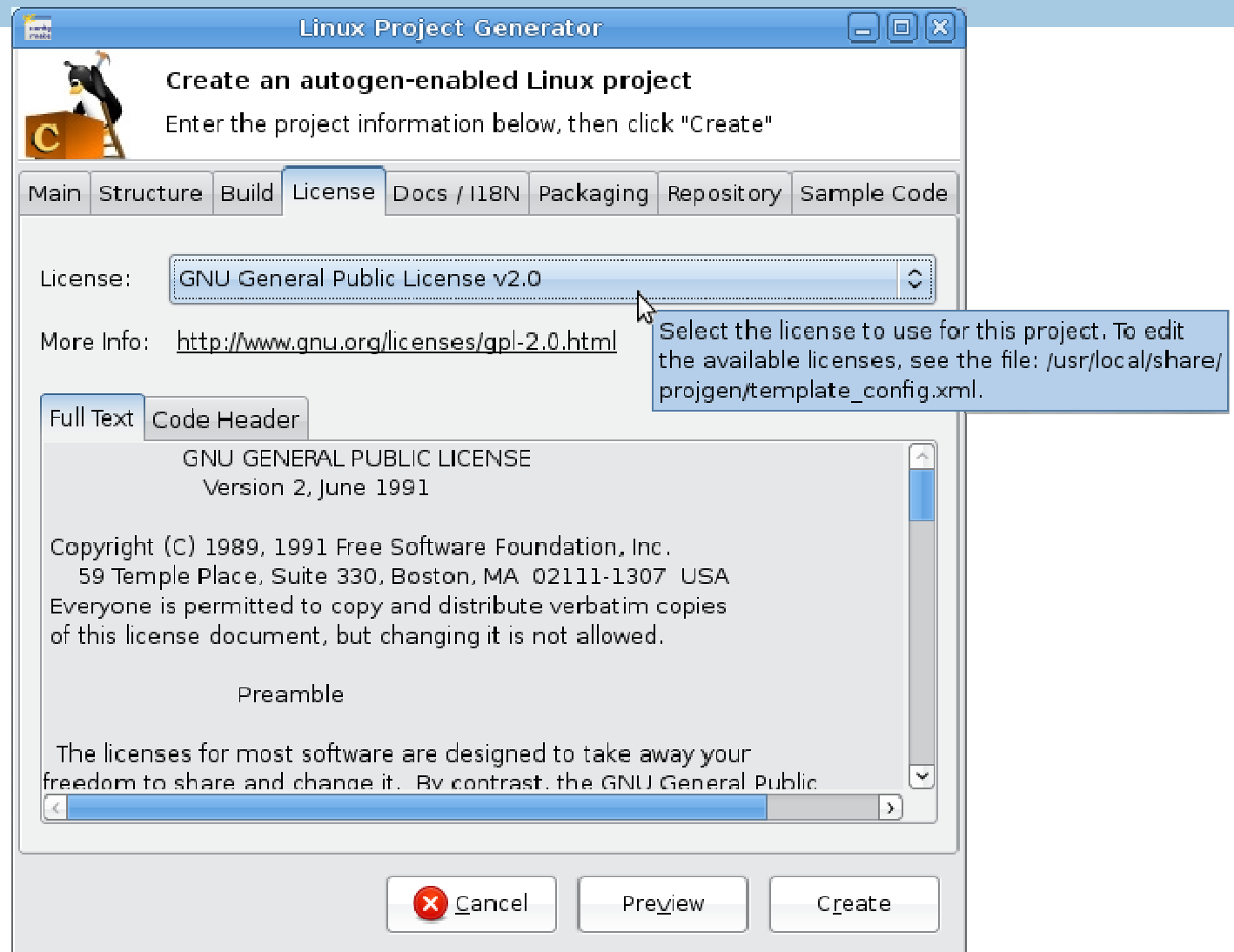Can filter on moblin-compliant libraries and versions. (configurable)

Moblin 2.0 SDK – Linux Project Generator

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.
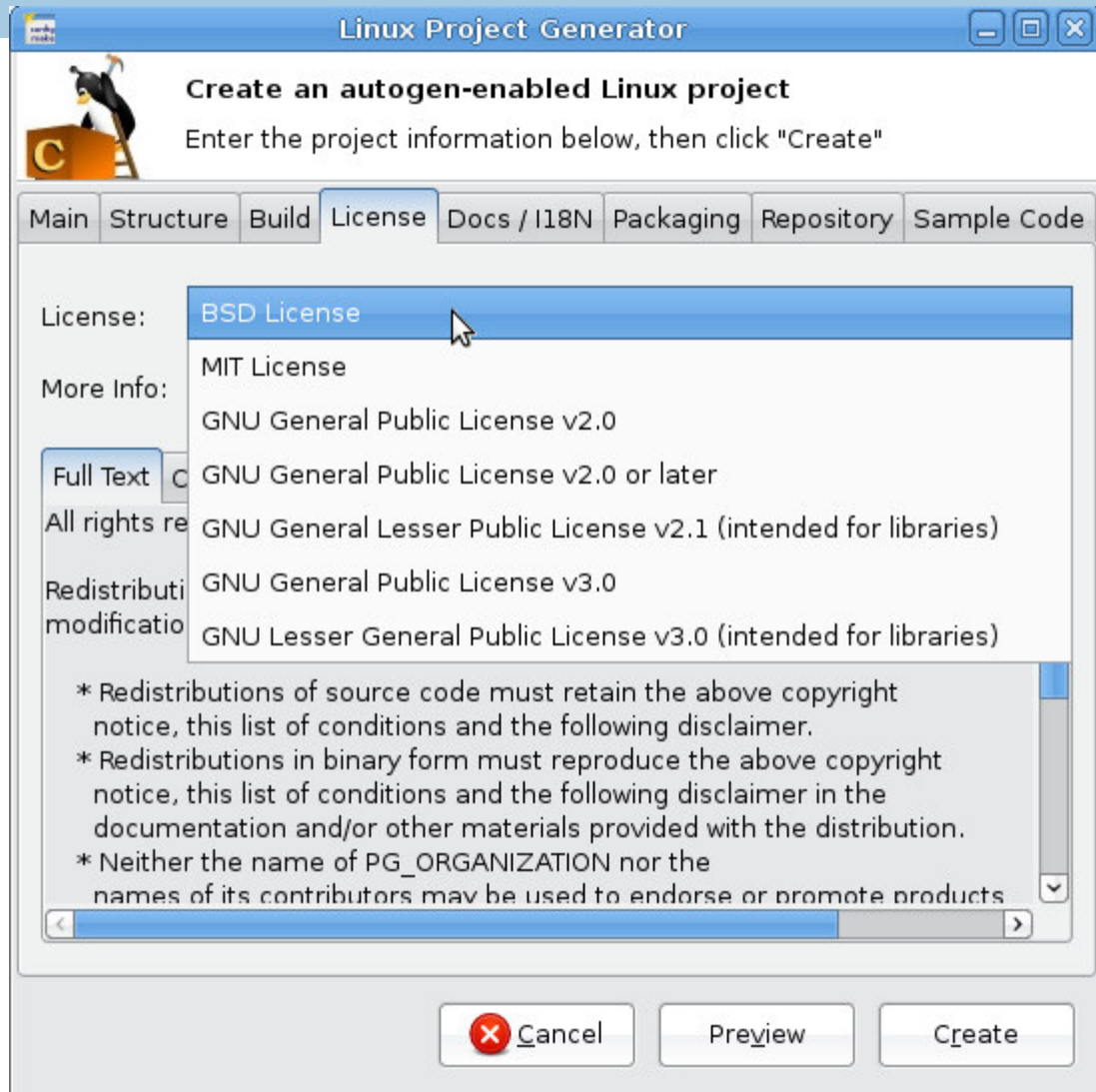
Moblin 2.0 SDK – Linux Project Generator

Screenshot 5/8

License selection (cont)

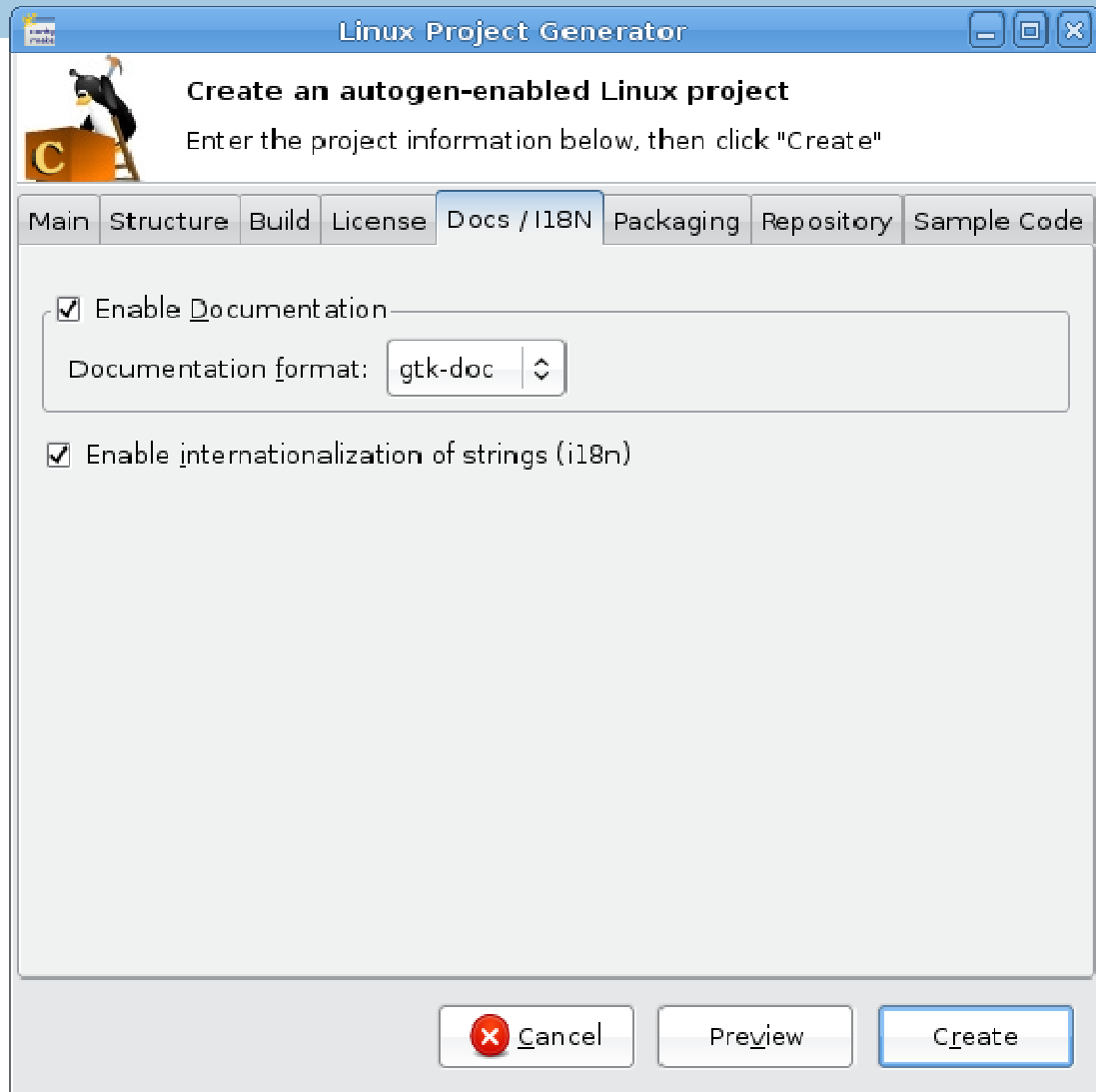Common OSS licenses available. List is customizable outside GUI

Moblin 2.0 SDK – Linux Project Generator

Screenshot 6/8

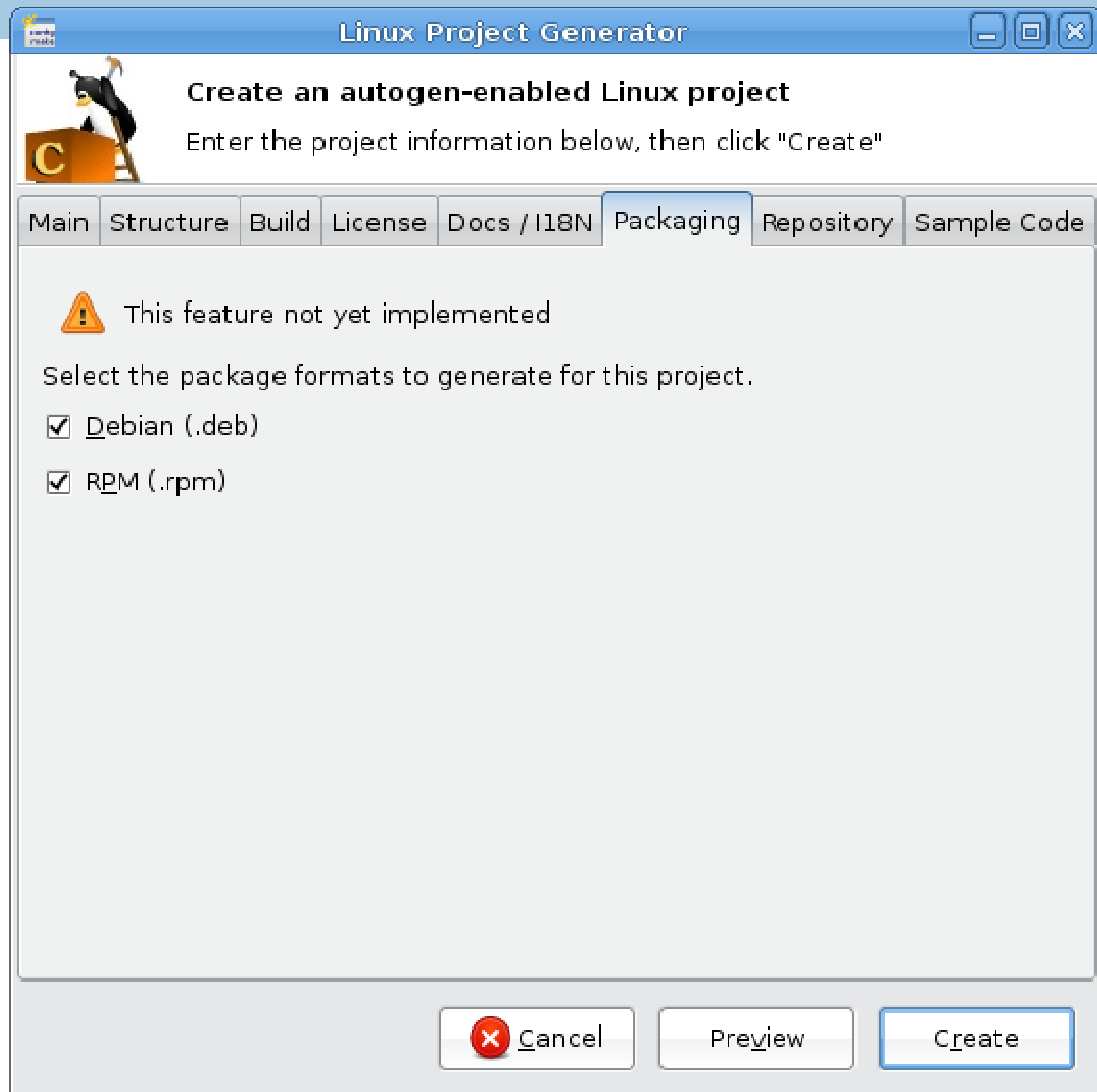Add gtk-doc formated comments which auto-generate html APIs during build.

Add internationalization support and example code

Moblin 2.0 SDK – Linux Project Generator

Screenshot 7/8

Package new project

Moblin 2.0 SDK – Linux Project Generator

Screenshot 8/8

Select code samples pertaining to areas you plan to use