# Harmattan:Platform Guide

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This is the Beta version of the Harmattan Platform Guide, and it may contain information that is out of date. For the most up-to-date developer documentation on the Harmattan platform, see:

- MeeGo 1.2 Harmattan Developer Library (Offline)
- Platform SDK user guide in the MeeGo 1.2 Harmattan Developer Library.

## MeeGo 1.2 Harmattan Platform Guide

**Version 1.0**

For MeeGo 1.2 Harmattan platform, we offer two alternative software development kits:

- Qt SDK is a quick and easy way to start developing applications for Harmattan devices. For more information on MeeGo 1.2 Harmattan target for the Qt SDK, see MeeGo 1.2 Harmattan Developer Library.
- MeeGo 1.2 Harmattan Platform SDK is mainly recommended for developing platform components and features, but you can also use it for creating applications for Harmattan devices. Harmattan Platform SDK is based on a Scratchbox cross-compilation environment. For more information, see the sections listed below.

**Note**: This version of the Platform Guide is a preview of the documentation that will be available for the final version of the Harmattan platform. Thus, the information is still subject to change and some of the links may not work.

### Legal notice

### Harmattan platform and Platform SDK overview

Provides an overview of the Harmattan platform and an introduction to the tools available for Harmattan application development.

- Changes since Fremantle lists the completely new implementations and reimplementations of existing functions provided by Harmattan compared to Fremantle (Maemo 5).
- Security domain overview gives a high-level architectural description of the Harmattan platform security framework.

### Application development framework

Introduces the basic concepts and available frameworks for Harmattan application development.

- Application lifecycle with Harmattan Platform SDK
- Data storage
  - Using Backup Framework

### Getting started with Harmattan Platform SDK

Provides instructions on how to install and configure Harmattan Platform SDK on your workstation and instructs how to enable a connection between your workstation and your device.

- Installing Harmattan Platform SDK
  - Configuring Platform SDK for Harmattan
- Using Harmattan Platform SDK
- Setting up and using USB connection
- Setting up and using WLAN connection
- Creating and running your first application with Harmattan Platform SDK
- Integrating Qt Creator with Scratchbox in Linux environment
- Integrating Qt Creator with Scratchbox in Mac OS X environment

### Developing with Harmattan Platform SDK

Provides instructions and recommended best practices that a developer needs to refer to during the development process.


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- Activating developer mode describes how to activate developer mode to connect your MeeGo 1.2 Harmattan device and the SDK running on the host.
- Debugging with GNU Debugger explains how to set up and use GNU Debugger (GDB) in Harmattan Platform SDK environment.
- Debugging tools lists the available tools for debugging your application on the Harmattan device.
- Using QEMU explains how to run and test applications in an environment practically identical to the Harmattan device.
- Security guide describes Harmattan application and platform security.
  - Harmattan APIs that require security credentials
  - Aegis manifest file generation tool
  - Creating a manifest file manually
  - Aegis manifest syntax
  - Harmattan security FAQ

## Troubleshooting Harmattan Platform SDK

Explains how to solve potential problems that you may encounter when using Harmattan Platform SDK.

## Publishing with Harmattan Platform SDK

Describes how to submit your application for publishing in the Ovi Store.

- Packaging your application with Harmattan Platform SDK explains how to provide the mandatory and optional metadata for a Debian package with Harmattan Platform SDK.
- Meeting Ovi Store entry requirements describes the Ovi Store quality assurance process and the entry requirements for Harmattan applications.
- Submitting your application to Ovi Store explains how to submit your Harmattan application to Ovi Store for publishing.

## Best practices for application development

Provides recommended practices for application development.

- Selecting the resource application class explains how to use the Resource Policy Framework provided by the Harmattan platform.
- Optimising power management describes the most common causes for excessive power consumption of an application and gives practical instructions for developing applications for Harmattan devices.
- Performance management describes performance issues that should be considered when developing applications for mobile devices.
  - Designing for performance describes how to ensure optimum performance by designing the application carefully.
  - Coding for performance describes how you can enhance the performance of your application by optimising the code.
  - Optimising performance for OpenGL applications describes how to increase the parameter buffer of games that use OpenGL ES directly or generate lots of geometry.
- Implementing IPC provides guidelines for inter-process communications (IPC).
- Performance testing tools lists the available tools for verifying the performance of your application.
- QML performance tips and tricks provides best practices for QML development.
- Using Resource Policy to enhance games describes how to classify your application as a game.
- UI guidelines provides overall visual guidance, interaction rules, and user experience guidelines for developers who design and develop native applications for Harmattan devices.

## Reference information for Harmattan Platform SDK

Contains links to API reference documents on all APIs that can be used with Harmattan Platform SDK, including MeeGo 1.2 Harmattan API and additional Platform APIs and other useful reference information and general links for Harmattan application development.

- MeeGo 1.2 Harmattan API reference library describes the APIs recommended for application development in the Harmattan platform.
- Platform API reference library describes the full set of interfaces provided by the Harmattan platform. Platform API contains elements that may be subject to change.
- Flashing tools explains how to install and use OneClickFlasher for Harmattan devices.
- Harmattan Appendix to the Debian Policy Manual describes the additional metadata fields that you can use in the control file of your application on the Harmattan platform.
- General links provides links to material that you may find useful when developing applications on the Harmattan platform.


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- Glossary provides definitions of terms related to Harmattan.


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