Getting started with Developer Studio

Developer Studio is the Sierra Wireless IDE (Integrated Development Environment) for Open AT and Legato Application Frameworks.
This document describes how to setup a new Developer Studio installation, whatever you are using a Linux or a Windows system.

Prerequisites

Hardware requirements
Please make sure the following hardware requirements are fulfilled by the system where Developer Studio aims to be installed.

- *System performances*
    - **Minimum:**
      CPU: Dual Core @ 2GHz
      RAM: 2Go
      Note: This configuration has been identified as the minimum to run Developer Studio in normal conditions, but some latencies should be experienced when perspectives are loaded for the first time, or when heavy traffic load is received from the target.
    - **Recommended:**
      CPU: Dual Hyperthreaded or Quad Core @ 2,8GHz
      RAM: 4Go
    - **Ideal:**
      CPU: Quad Hyperthreaded Core (8x) @ 3,0GHz
      RAM: 8Go
      Note: This configuration has been identified as the recommended one to run Developer Studio in comfortable conditions, with high performances & reduced latencies.
- *System display*
    - **Minimum:**
      19" display (e.g. 1280x1024px)
    - **Recommended:**
      24" display (e.g. 1920x1080px)

Software requirements
Developer Studio requires Java 7 to be installed on the host system in order to function properly.
Please pay attention to the use the Java version (32 bits / 64 bits) consistent with the one you chose for Developer Studio.
Note: on Windows hosts, a 32 bits Java version has to be installed, even on 64 bits systems.

First time install

Windows hosts

Please use the provided installer for Open AT Application Framework

Notes:

- Legato Application Framework in not supported yet on Windows hosts.
- If you plan to install Developer Studio or Software Packages in the **Program Files** directory, you'll need to update the launch shortcut in order to run Developer Studio in Administrator mode.

Linux hosts

Please download one of the following archives, and extract it to a directory where your user has always complete write permissions:

- Developer Studio base product for 32 bits Linux hosts
- Developer Studio base product for 64 bits Linux hosts

Notes:

- If you're using **Unity** desktop environment, Developer Studio menu bar should not be displayed correctly.
  In order to workaround this issue, the **`UBUNTU_MENUPROXY`** environment variable shall be set to an empty string before starting Developer Studio (it can be set either in a shell script, or in the shortcut used to launch Developer Studio).
- Open AT Target Management handling on Linux supposes to check some requirements on the system: on some distributions, the user running Eclipse/Developer Studio has to belong to **dialout** group.
- Concerning projects build, some native tools (including compilers) are bundled with Developer Studio, and aim to run on 32 bits architectures. On 64 bits architectures, 32 bits libraries support package has to be installed in order to allow these tools to run correctly (on Debian-like distributions: **`sudo apt-get install ia32-libs`**).
- Moreover, some packages are mandatory for build handling. These packages are often installed by default on distributions, but in case of troubles, it can be needed to check they are correclty installed:
  - `zip`
  - `python`

Choosing a workspace

When you'll start Developer Studio for the first time, you'll be prompted to choose a workspace.
Some important things about that:

- You can't reuse a workspace from Developer Studio 2.X; you have to start a fresh new one.
- It is not recommended to locate your workspace on a network drive, for obvious performances reasons.

Adding features

Basic Developer Studio product doesn't provide any feature: you'll need to install the appropriate IDE to start using Developer Studio:

1. Go to **Help > Install New Software** menu.
2. Select the main **Developer Studio** update site in the combo box (http://updatesite.sierrawireless.com/developerStudio3)
3. Use the available categories to select which feature you want to install in Developer Studio:
    - **Developer Studio: IDE**
      Complete IDEs for software development, targeting Open AT, Mini Core or Legato frameworks.
    - **Developer Studio: Toolchains**
      Contains GCC toolchain for Open AT and Mini Core development.
    - **Miscellaneous**
      Contains various internal features; shouldn't be used directly
4. Once the features are selected, click **Finish** and follow the steps. Once Developer Studio is restarted, new features are available.

Upgrade from old versions/Handling of legacy features

Updates are automatically checked at each Developer Studio launch, and it is possible to upgrade to the new version just by following the instructions.
It is also possible to start the updates checking job by using the **Help > Check for Updates** menu.

Important notes concerning existing workspaces/projects compatibility and upgrade:

- Developer Studio upgrade
  It is not possible to upgrade from Developer Studio 2.X or older to Developer Studio 3.0
  Developer Studio 3.0 has to be installed in a separated new directory.

- Workspace compatibility (since 2.X)
  Workspace metadata have changed since Developer Studio 3.0 release, introducing incompatibilities with workspaces used with former Developer Studio releases.
  It is not recommended to start Developer Studio 3.0 with a workspace created by a former version, but to start a fresh new workspace instead, and import legacy projects.

- Project compatibility (since 2.X)
  Projects metadata have **not** changed since Developer Studio 2.X release (2011), and projects created with theses versions can be imported and used in Developer Studio 3.0
  Projects created with older versions (1.X) are not supported in Developer Studio 3.0; new projects will have to be created using the project creation wizard.

- Legacy features
  Some legacy features have been removed from Developer Studio 3.
  Removed features are the ones which were tagged as **[deprecated]** in Developer Studio 2.3.2 release note

Installation over an Eclipse platform

It is possible to install Developer Studio as a set of plug-ins over an existing Eclipse platform.

- Prerequisites: Developer Studio 3.0 requires Eclipse Kepler (4.3.1) version. Download it from

http://www.eclipse.org/downloads/packages/release/kepler/sr1
(Best choice to start is Eclipse for C/C++ Developers)
Developer Studio plug-ins can be installed on Windows and Linux (32 or 64 bits) platforms

- Go to **Help > Install New Software**
- Add the following URL as new update site (drag'n drop the URL to the Eclipse dialog box):
    - http://updatesite.sierrawireless.com/developerStudio3
- Make your choice regarding the features you want to be installed on top of your Eclipse:
    - **Developer Studio: IDE** category: choose the Application Framework you need to support in Developer Studio
    - **Developer Studio: Toolchains** category: choose the toolchain you want to install among the proposed ones
    - **Miscellaneous** category: for advanced users only, allowing to choose Developer Studio components more precisely.
      e.g. if you only want the **Target Management for Open AT devices** features (without the development environment)
- Click **Install** and follow the steps.

Installation of Developer Studio source code (advanced users only)

Developer Studio source code is available for Eclipse developers.
Please follow the steps above to install Developer Studio plug-ins over an Eclipse SDK.
Developer Studio source code can be retrieved by checking the whole **Source code** category, before selecting the **Install** button.