



TELINK SEMICONDUCTOR

Application Note : Quick User Guide For Telink IDE

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Brief:

This document is the user guide for Telink Integrated Development Environment (IDE) version 1.5.

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Revision History

Version	Major Changes	Date	Author
1.0.0	Initial release	2016/3	Tim, Cynthia

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1 Brief Introduction

This guide is applicable to all engineers who develop wireless or embedded applications based on Telink RF SoC or Telink MCUs using the Telink Integrated Development Environment (IDE).

The Telink IDE is built on top of the Eclipse IDE with additions of the Telink toolchains.

This guide mainly introduces fast installation and interface of Telink IDE, and gives an example of project development process beginning from project import/creation to firmware burning. Some common problems and solutions are listed for reference.

2 Fast Installation and IDE Interface

2.1 Fast installation

Double click Telink SDK setup file.

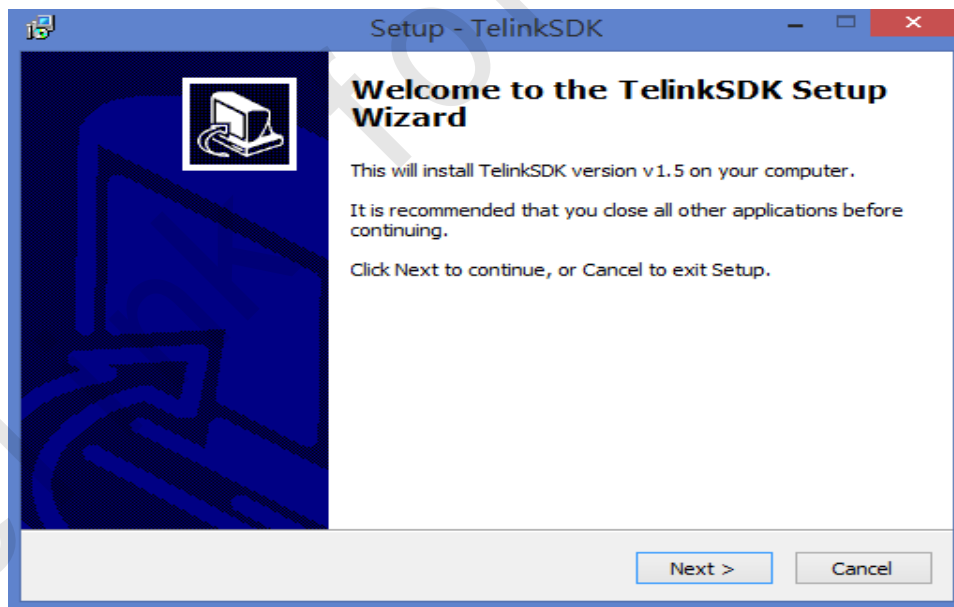


Figure 1 Installation interface 1

In the installation interface of Figure 1, click the “Next” button.

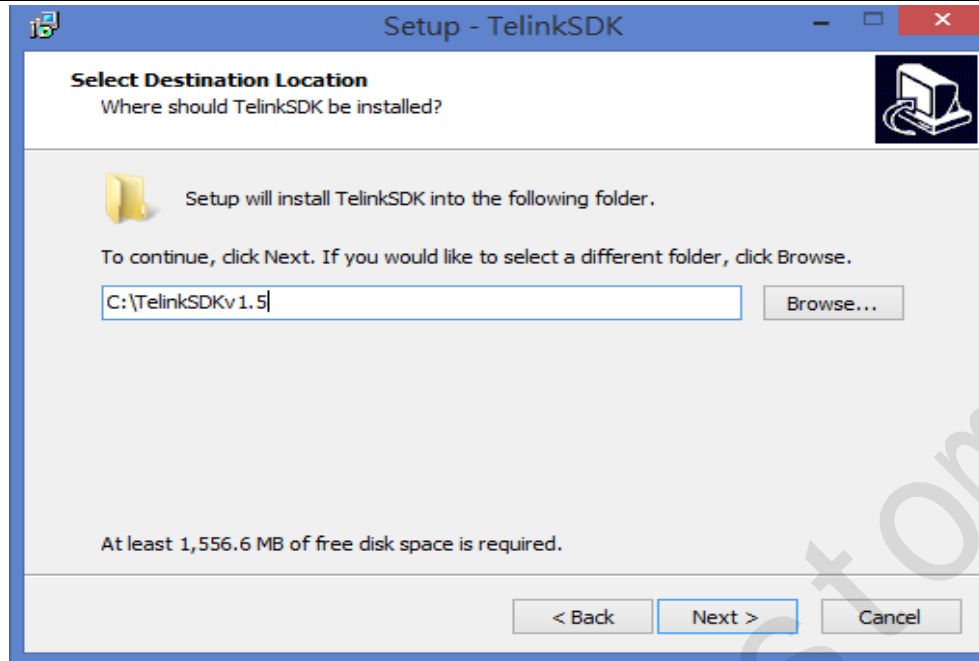


Figure 2 Installation interface 2

In the installation interface of Figure 2, click the “Browse” button to select destination folder, then click the “Next” button.

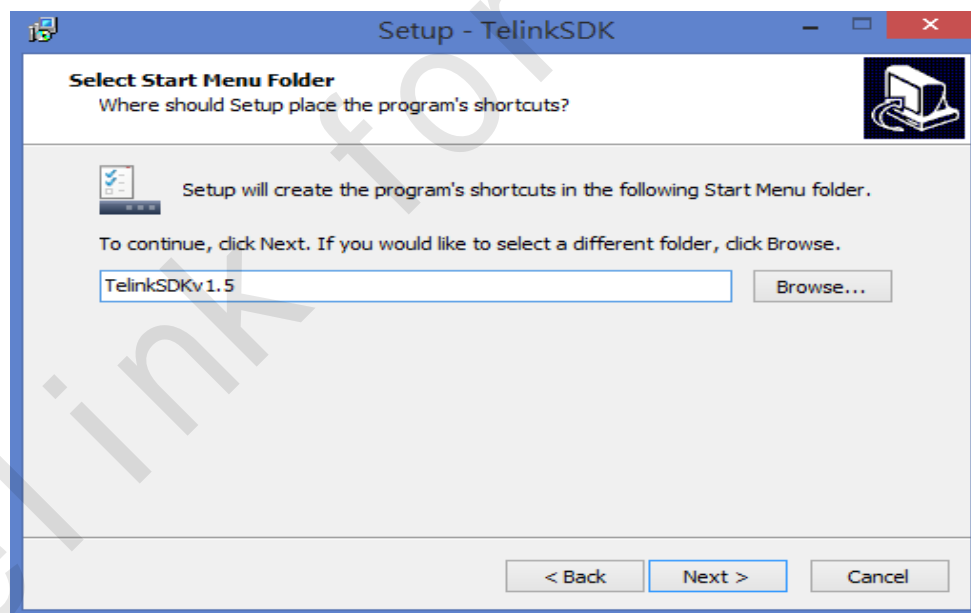


Figure 3 Installation interface 3

Click the “Next” button in the installation interface of Figure 3.

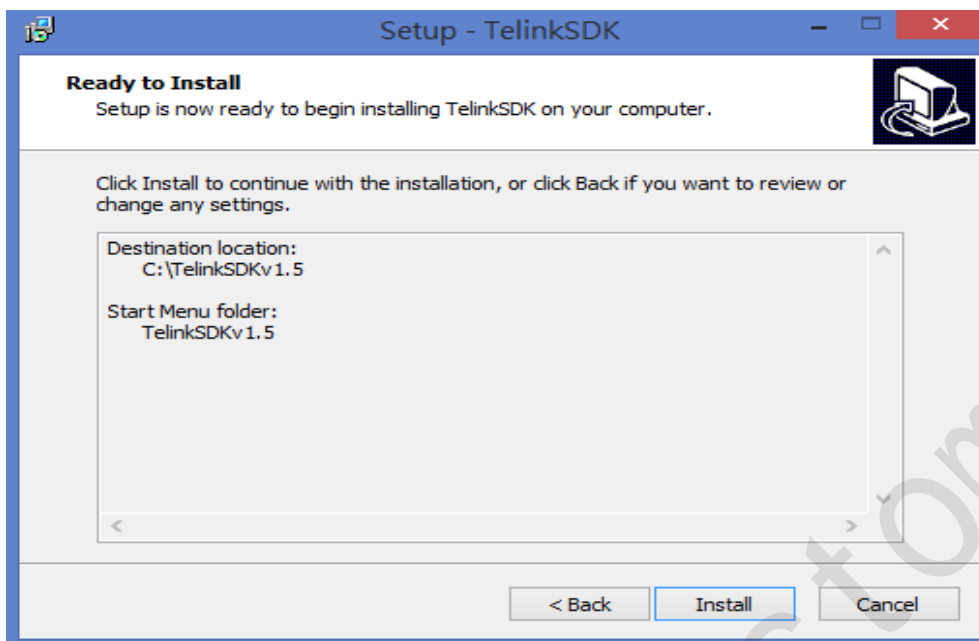


Figure 4 Installation interface 4

Click the “Install” button in the installation interface of Figure 4.

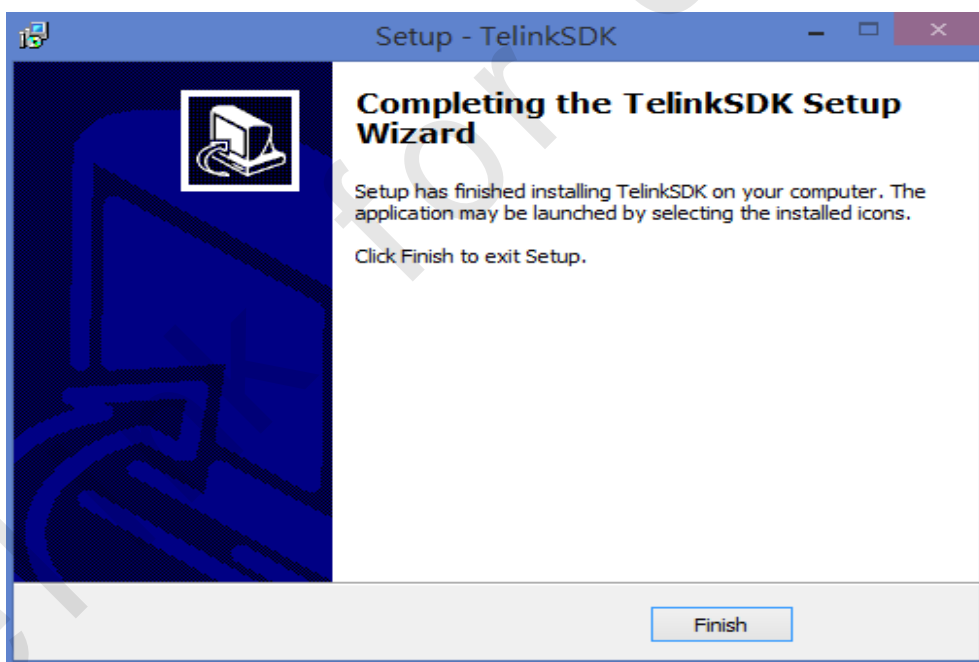


Figure 5 Installation completed prompt interface

Click the “Finish” button in the interface of Figure 5, Telink IDE, Telink Console and Telink Programmer shortcut icons will be available on the desktop.

2.2 Start IDE



Double click the icon to start Telink IDE.

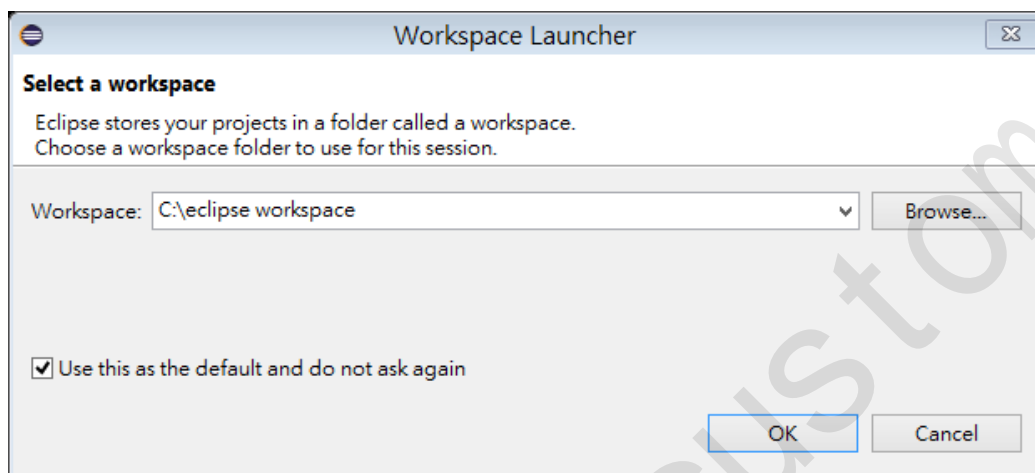


Figure 6 Workspace selection interface

In the interface of Figure 6, choose a different workspace folder using the “Browse” button, then click the “OK” button.

Figure 7 shows the welcome interface.

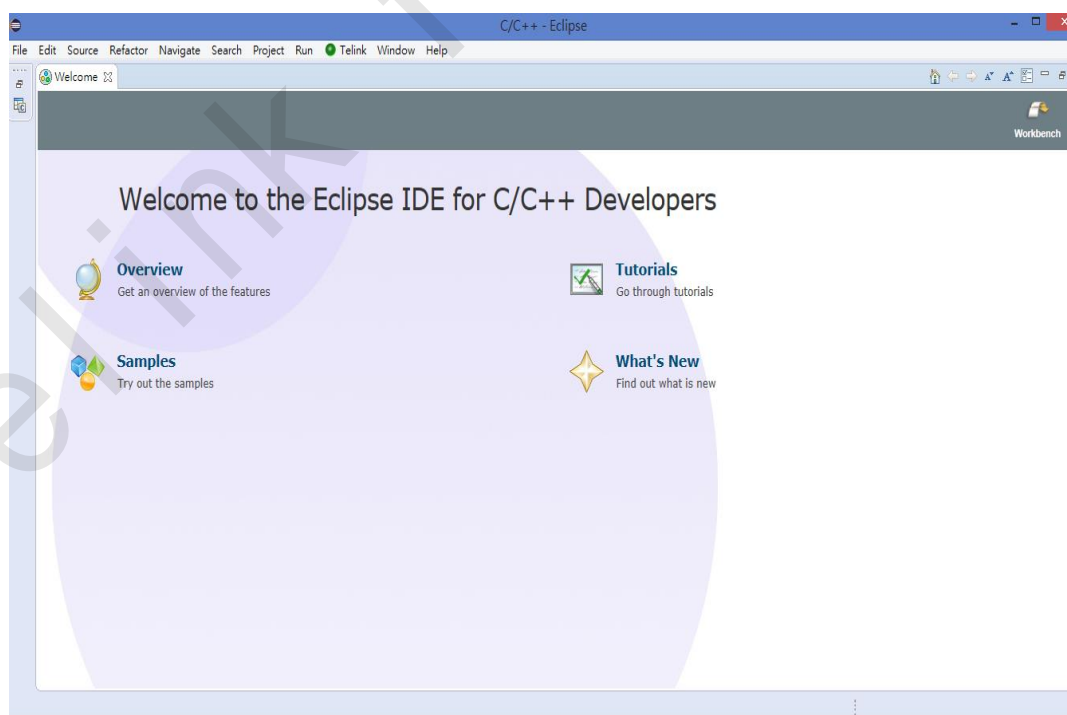




Figure 7 Welcome interface

Click the icon  to get an overview of Telink IDE;

Click the icon  to learn about new update of Telink IDE;

Click the icon  to try out samples;

Click the icon  to get tutorials;

Click the icon  to enter workbench interface.

Note: After Telink IDE installation was done, environment variables of “Make” command and “tc32-elf-size” command should be configured via system setting to point to the bin folder under the IDE installation directory. If command missing problem occurs during subsequent compiling process, the relevant environment variable may not be configured properly and should be checked first.

2.3 IDE interface

Telink IDE is Telink-built integrated development environment based on Eclipse platform. Its interface is shown as Figure 8.

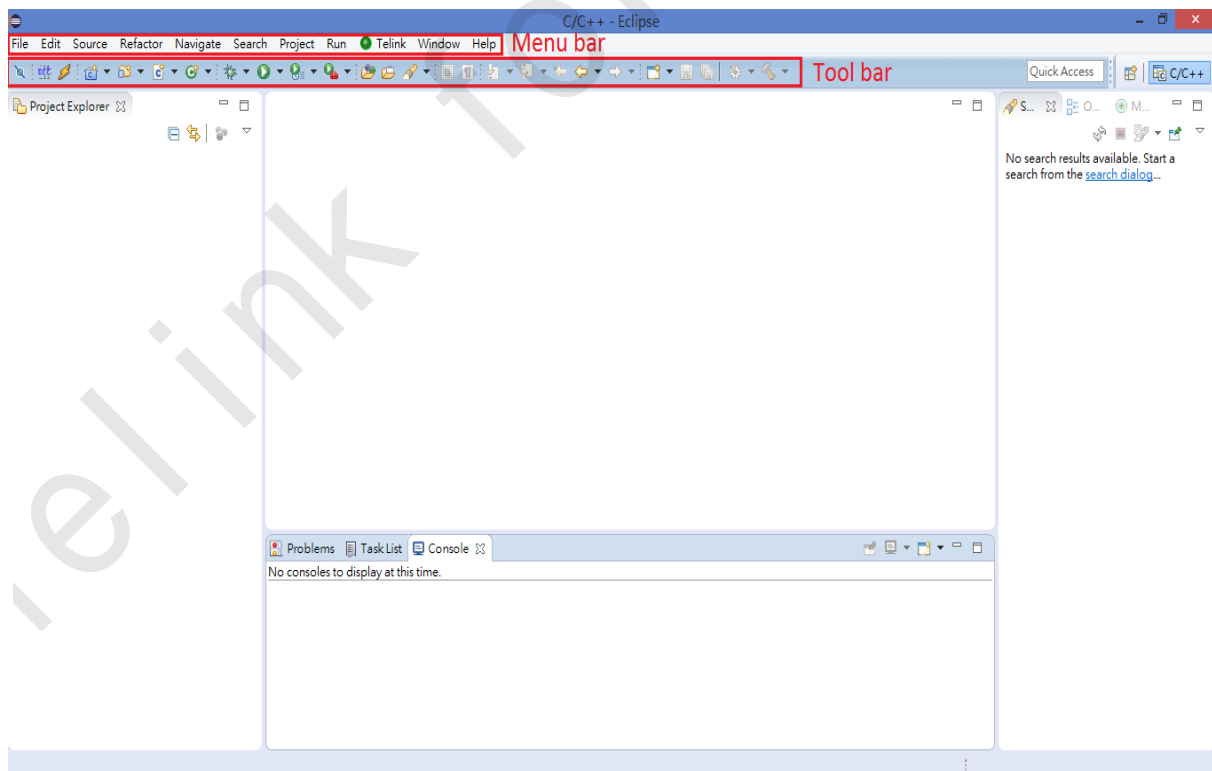


Figure 8 Telink IDE interface

Telink IDE interface mainly contains menu bar and tool bar. Icons in the tool bar are shortcuts of common operations in the menu bar.

Other visible windows including C/C++ Projects, Console, Include Browser, Make Target, Navigator, Outline, Problems, Project Explorer, Properties, Search, Task List, Tasks can be freely opened/closed via pull-down menu "Show View" of "Window".

2.3.1 Menu bar

The menu bar contains 11 main menus.

- File menu: Pull-down menus including New/Open File/Close/Save/Import/Export (Project), Switch Workspace, etc.
- Edit menu: Pull-down menus including (source) Copy, Cut, Paste, Delete, Select All, etc.
- Source menu: Pull-down menus including Toggle Comment, Add Block Comment, Remove Block Comment, Shift Right, Shift Left, Correct Indentation, Format, etc.
- Refactor menu: Pull-down menus including Rename, etc.
- Navigate menu: Pull-down menus including Go Into, Go To, etc.
- Search menu: Pull-down menus including C/C++, File, Text. etc.
- Project menu: Pull-down menus including Build All, Build Configurations, etc.
- Run menu: Pull-down menus including Run, Debug, Breakpoint operation, etc.
- Telink menu: Telink Tools menu;
- Window menu: Pull-down menus including Show View, etc.
- Help menu: Pull-down menus including Welcom, etc.

For usage of all menus other than "Telink" menu, please refer to Eclipse User Guide which are available from website of <http://www.eclipse.org/documentation/>.

This document mainly introduces the "Telink" menu. The "Telink" menu contains some options, which contains common tools Telink Programmer and Telink WTCDB.

Click the "Telink Programmer" option to directly burn firmware to target board via EVK.

Click the “Telink WTCDB” option to open the Telink WtcdB tool interface. For guide on the WtcdB tool, please refer to the document “AN_FBD-EVK-UG_Firmware burning and debugging User Guide”.

2.3.2 Tool bar

- File operation icons: New, Save, Save All, New C/C++ Project, New C/C++ Source Folder, New C/C++ Source File, New C++ Class.



- Compiling operation icons: Build All, Management configurations for the current project, Build the active configurations of selected projects.



- Run and debug operation icons: Debug, Run, Profile, External Tools.



- Cursor location switch icons: Next Annotation, Previous Annotation, Last Edit Location, Back, Forward.



- Other icons: Telink WTCDB, Telink Programmer, Open Element, Open Task, Search.



3 Example Project

3.1 Import project

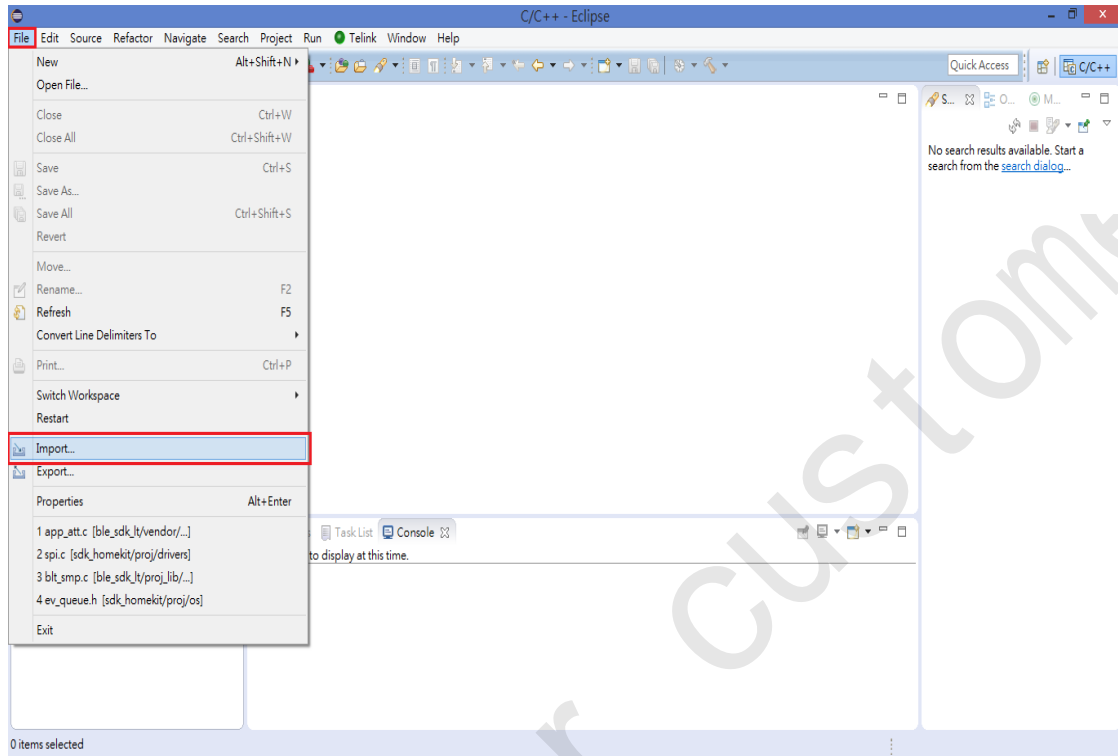


Figure 9 Import project: Menu

As shown in Figure 9, click the pull-down menu “Import” of “File”.

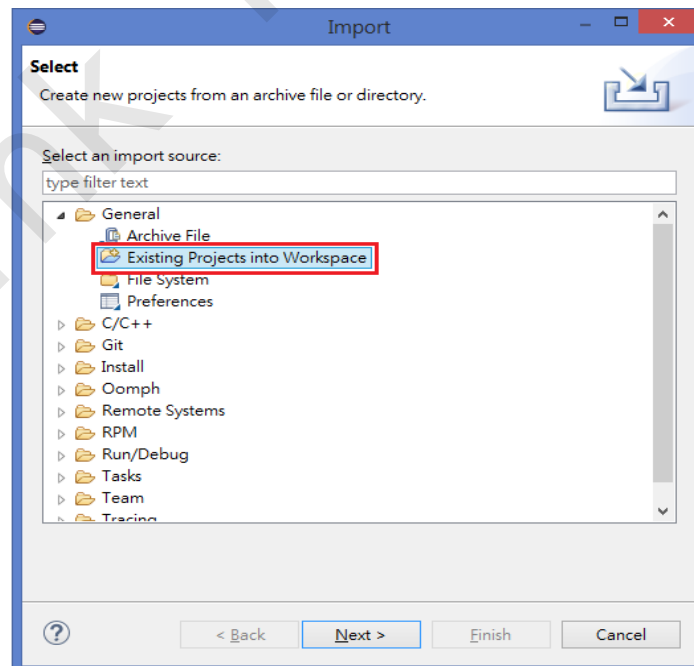


Figure 10 Import project: Source Selection

As shown in Figure 10, select “Existing Projects into Workspace” contained by the “General” folder, then double click the left button of mouse or click the “Next” button.

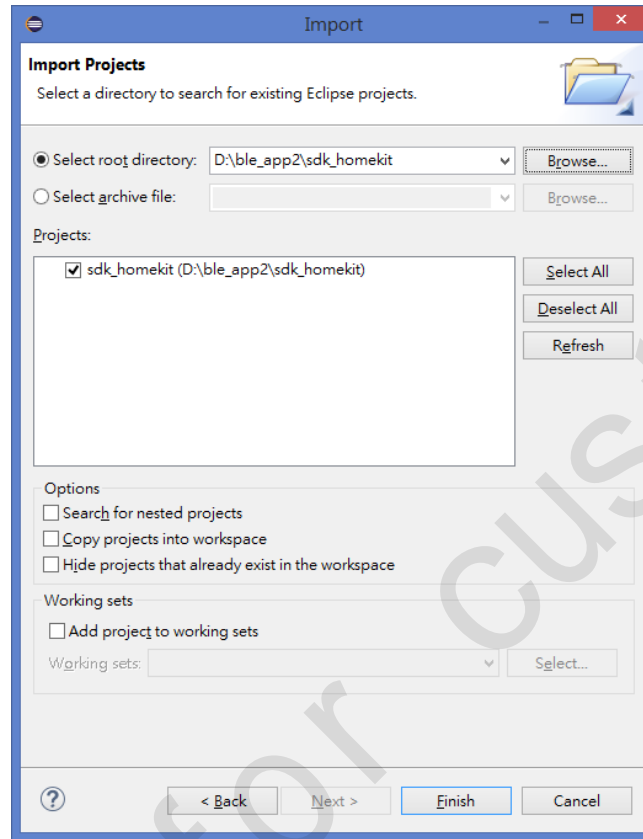




Figure 11 Import project: Search existing project

As shown in Figure 11, click the “Browse” button, select the project (e.g. “sdk_homekit”) to be imported, finally click the “Finish” button to complete import. As shown in marker 1 of Figure 12, imported project “sdk_homekit” can be found in the left window “Project Explorer”.

3.2 Compile project

Select the project to be compiled.

Click any branch under the  icon (as shown in marker 2 of Figure 12), e.g. 1homekit_accessory, to carry out automatic compiling for corresponding firmware branch. Click the  icon (as shown in marker 3 of Figure 12) to carry out

automatic compiling for overall firmware.

Information “Finished building: sizedummy and Build Finished” (as shown in marker 4 of Figure 12) is available in the “Console” window to indicate successful compiling of “1 homekit_accessory” branch, and a “homekit_accessory” folder (as shown in marker 5 of Figure 12) containing a bin file (as shown in marker 6 of Figure 12) is also available in the “Project Explorer” window.

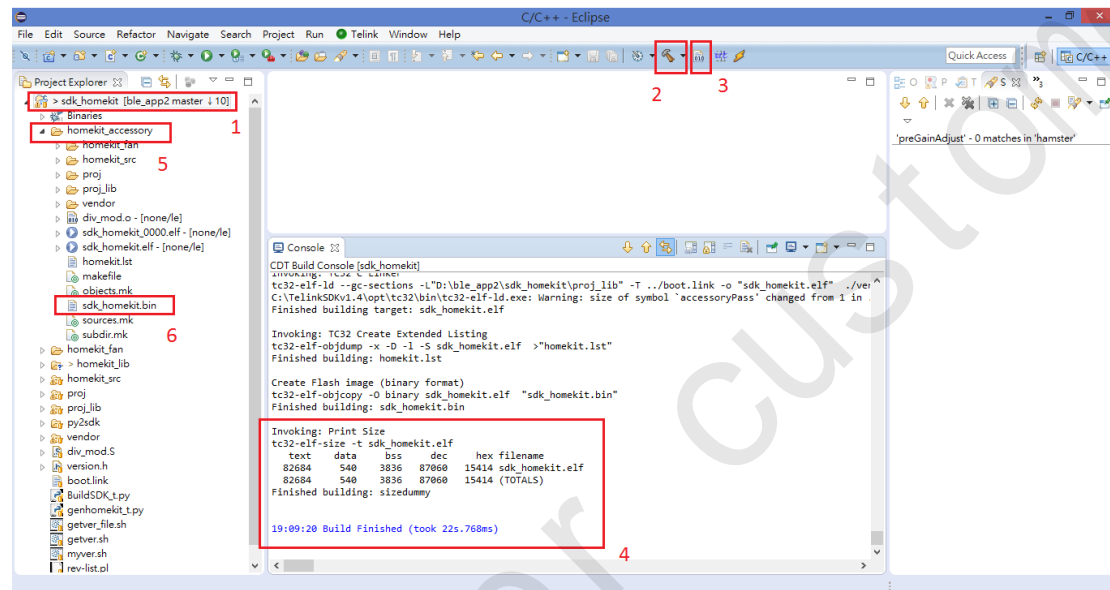


Figure 12 Successful compiling: Console output

If firmware compiling fails, relevant problem indication will be available in the “Console” window.

4 FAQs

- Q: Code jump fails after updating project name, i.e. xxx symbol can't be found in the index?

A: Select Window → Preferences → C/C++ → Indexer, tick the options including “Index source files not included in the build” in the interface of Figure 13 and click the “OK” button. Refresh or open the file.

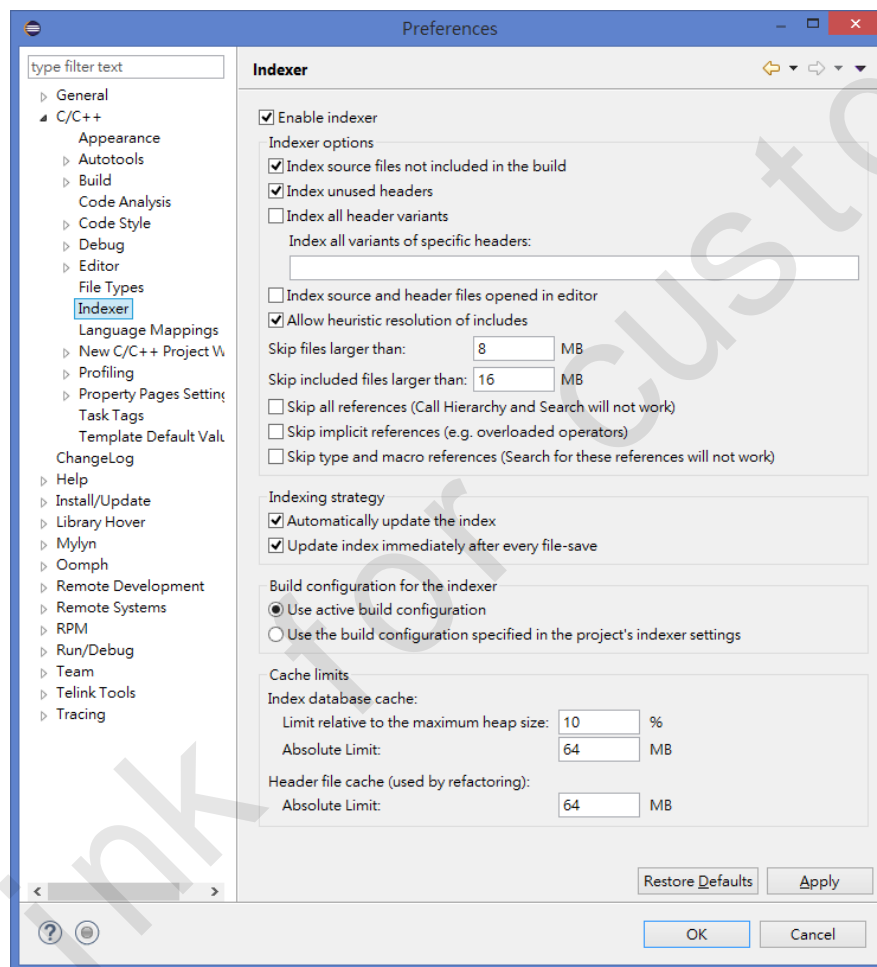


Figure 13 Indexer option

- Q: Wrong code execution result due to improper code optimization level selection during compiling process?

A: Click the “Properties” drop-down menu of “File” to open the Properties option, and select proper optimization level in the drop-down box of C/C++ Build → Settings → Optimization.

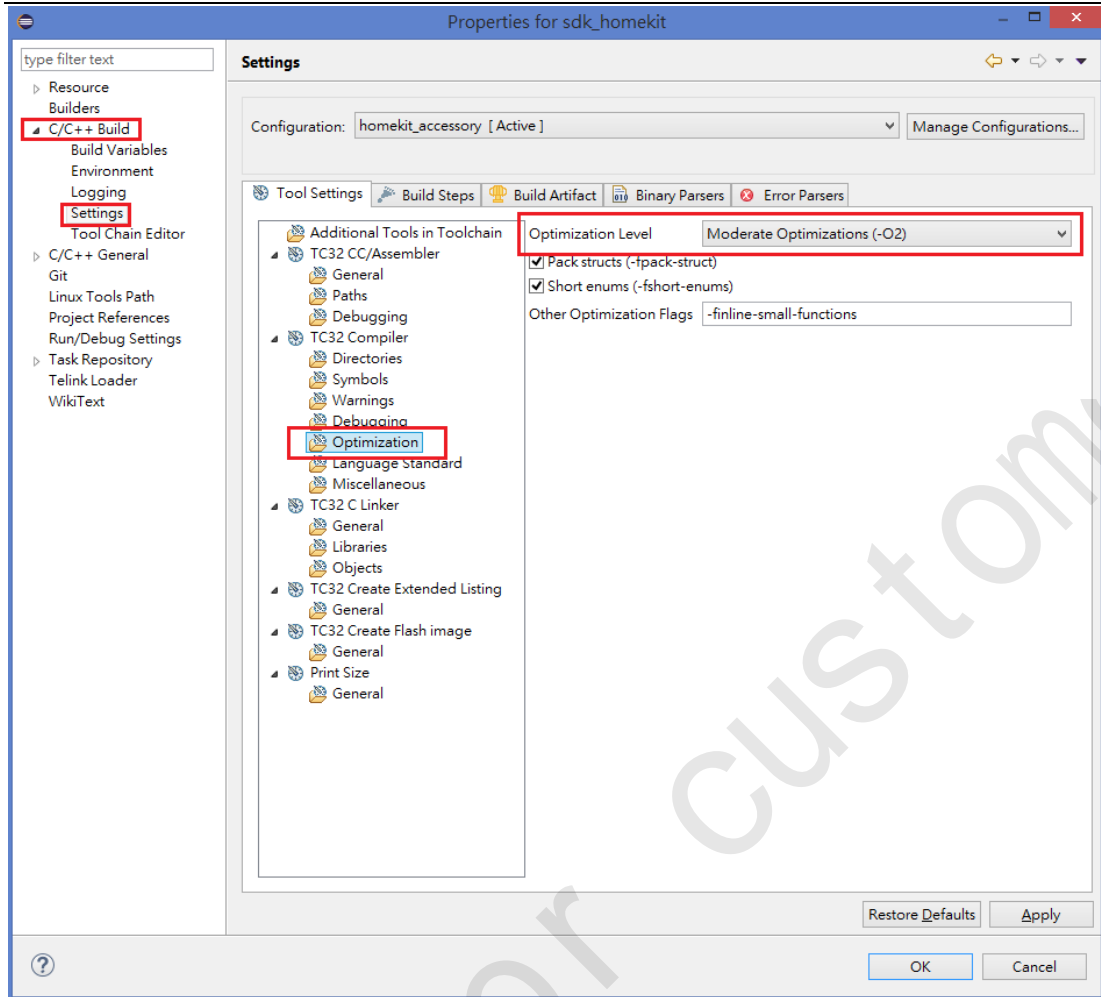


Figure 14 Optimization level option

➤ Q: Updated header file fails to take effect?

A: Right click the project, click the “Clean Project” option, and recompile the project.

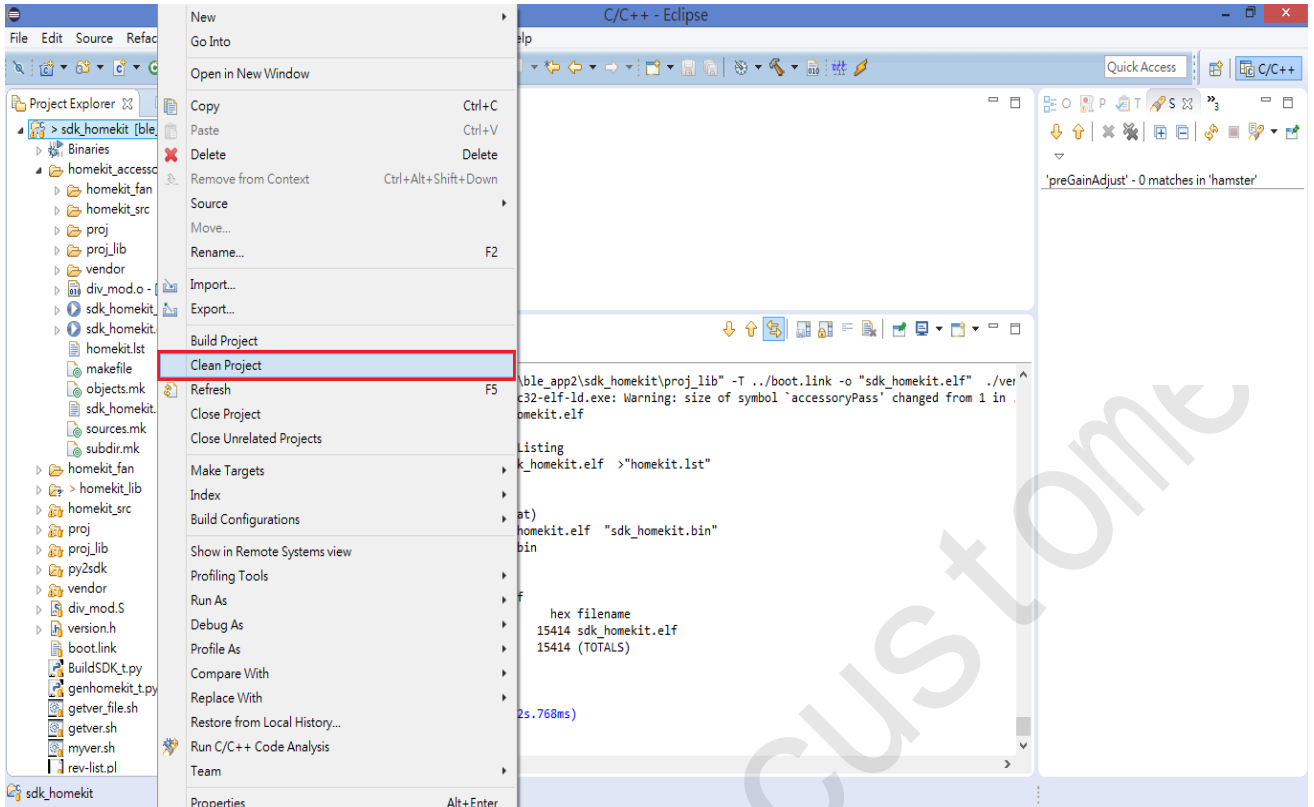


Figure 15 Clean project option

- Q: When opening program, there is a prompt that indicates Java failed in loading?
A: The system has installed and used other java editions. Put JRE path of IDE into the system path.
- Q: Project fails to be imported due to duplicate name?
A: Edit the .project file to rename the project.