

Developing Tizen Apps with the Tizen Studio



* This document is based on Tizen Studio 1.0

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Prerequisites for the Tizen Studio

System Requirements for Tizen Studio

Operating Systems

The following table lists the operating systems supported by the Tizen Studio.

OS	Version	Bit
Ubuntu	16.04/14.04	32 and 64
Microsoft Windows®	10/8/7	32 and 64
Mac OS® X	10.11 (El Capitan) / 10.10 (Yosemite) / 10.9 (Mavericks) / 10.8 (Mountain Lion)	64

For more instructions on how to check the system specifications, see [Appendix: Checking System Specifications](#) (pages 83–84).

System Requirements for Tizen SDK

Processor and Memory

The following table lists the processor and memory requirements for the Tizen SDK.

Component	Minimum	Recommended
Processor Speed	2 GHz	3 GHz and above
Processor Type	Intel Dual-Core	Intel Core i5 and above
Memory	3 GB	4 GB and above
Disk Space	6 GB free	6 GB and above
Note		

The Tizen Studio can be installed on AMD processors, but may not perform properly due to absence of the Intel Hardware Accelerated Execution Manager (HAXM), which accelerates the speed of Tizen application emulation.

System Requirements for Tizen Emulator

CPU &
Screen Resolution

The following table lists the CPU and screen resolution requirements for the Tizen Emulator.

Component	Requirement
CPU	Recommended: support for Intel VTx* (Virtualization Technology)
Screen resolution	Recommended: 1280 x 1024

* For more instructions on how to check for Intel VTx support, see Appendix: Checking CPU VTx Support (pages 85–86).

System Requirements for Tizen Emulator

Graphics Card

The following table lists the Graphic Card requirements for the Tizen Emulator.

Brand	Product
NVIDIA	GeForce 8300 GS, GeForce 8500 GT, GeForce GT 220, GeForce GT 430, GeForce GT 530, GeForce GT 330M, GeForce GTX 550Ti, Quadro NVS 290 and later versions
ATI	RADEON HD 4850, RADEON HD 5450 and later versions
Intel	HD Graphics 2000, HD Graphics 2500, HD Graphics 4000 and later versions

For more instructions on how to update the graphic card driver, see [Appendix: Checking and Updating the Graphic Card Driver](#) (pages 87–88).

Tizen Studio requires the JDK (Java Development Kit) installation for using the Java Runtime (VM).

Java 8 or higher is required for the Tizen Studio to work properly, and it is recommended to install Oracle JDK 8 for the Tizen.

Do not install Open-JDK.

Note

Tizen Studio is a development tool based on the Eclipse IDE, which essentially requires the JDK installation as well.

For instructions on how to check and uninstall the existing JDK in your system, see [Appendix: Checking and Uninstalling the JDK \(page 89\)](#).

Download Oracle JDK 8 from <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>.

1. Select Accept License Agreement .
2. Download the installer (.exe file) according to your system environment.

Java SE Development Kit 8u65

You must accept the Oracle Binary Code License Agreement for Java SE to download this software.

click Accept License Agreement Decline License Agreement

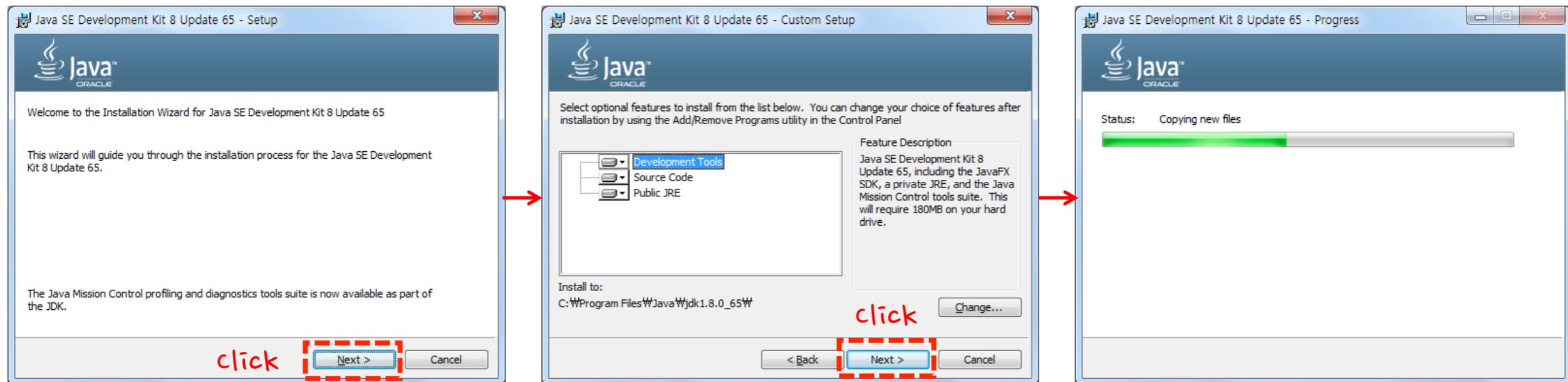
Product / File Description	File Size	Download
Linux ARM v6/v7 Hard Float ABI	77.69 MB	jdk-8u65-linux-arm32-vfp-hflt.tar.gz
Linux ARM v8 Hard Float ABI	74.66 MB	jdk-8u65-linux-arm64-vfp-hflt.tar.gz
Linux x86	154.67 MB	jdk-8u65-linux-i586.rpm
Linux x86	174.84 MB	jdk-8u65-linux-i586.tar.gz
Linux x64	152.69 MB	jdk-8u65-linux-x64.rpm
Linux x64	172.86 MB	jdk-8u65-linux-x64.tar.gz
Mac OS X x64	227.14 MB	jdk-8u65-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	139.71 MB	jdk-8u65-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	99.01 MB	jdk-8u65-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	140.22 MB	jdk-8u65-solaris-x64.tar.Z
Solaris x64	96.74 MB	jdk-8u65-solaris-x64.tar.gz
Windows x86	181.24 MB	jdk-8u65-windows-i586.exe
Windows x64	186.57 MB	jdk-8u65-windows-x64.exe

Choose the right version, 32bits (x86) or 64bits (x64).

JDK Requirements

Installing the JDK

Install the JDK by following the instructions.



Do not change the installation folder from the default location.



Tizen Studio Installation

Tizen Studio Installation

Downloading the installer

Download Tizen SDK installer from

<https://developer.tizen.org/tizen-studio/download>.

Choose the Tizen Studio with IDE installer according to your system environment.

Tizen Studio 1.0 Download



Tizen Studio 1.0 with IDE installer



Tizen Studio 1.0 with CLI(command line interface) installer

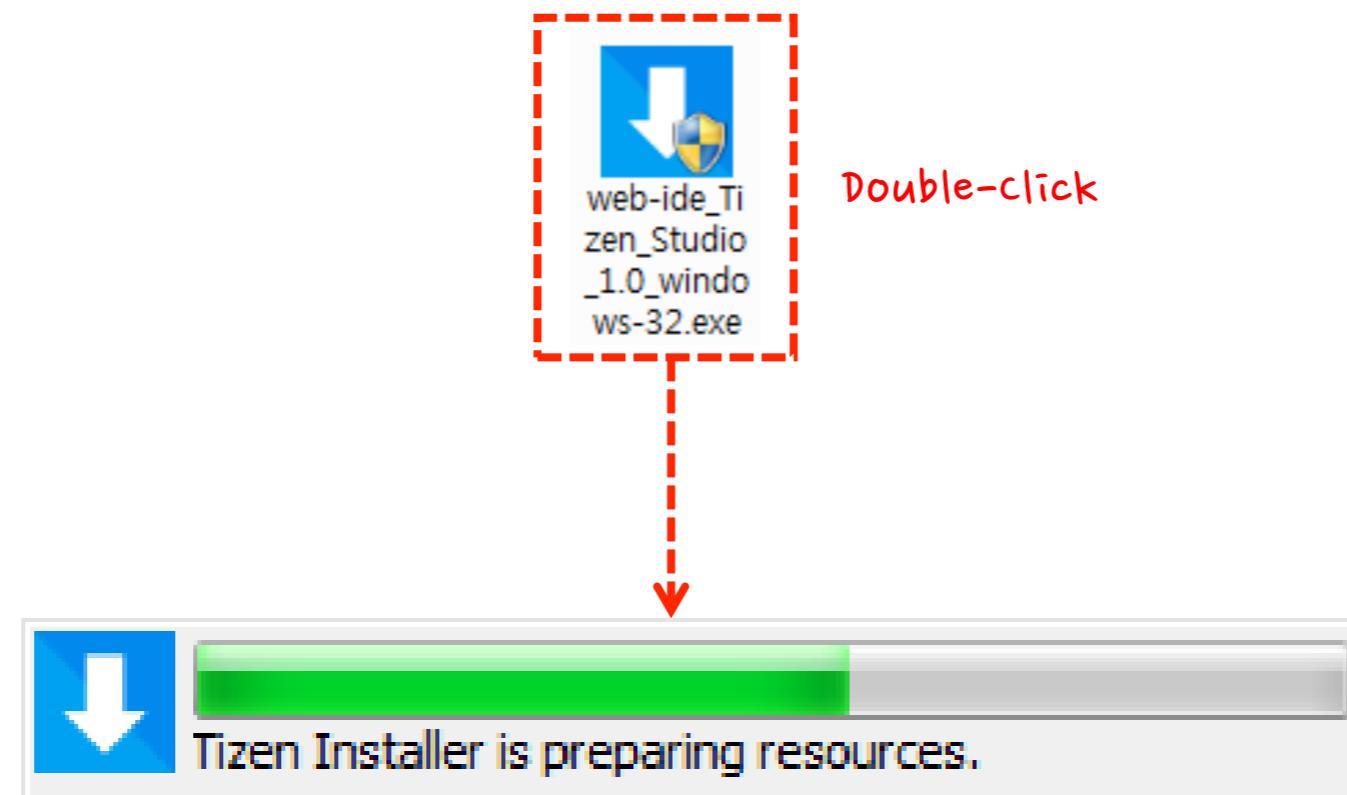


For more information about the IDE and CLI options, see [Appendix: Tizen Studio Installation Options – IDE and CLI](#) (page 90).

Tizen Studio Installation

Installing the Tizen SDK

Double-click on the installer (.exe file), and the installer starts verifying the system requirements prior to the installation of Tizen Studio.



If the JDK is not installed on your computer, the following pop-up appears.

Click OK and install the JDK before installing the Tizen SDK.

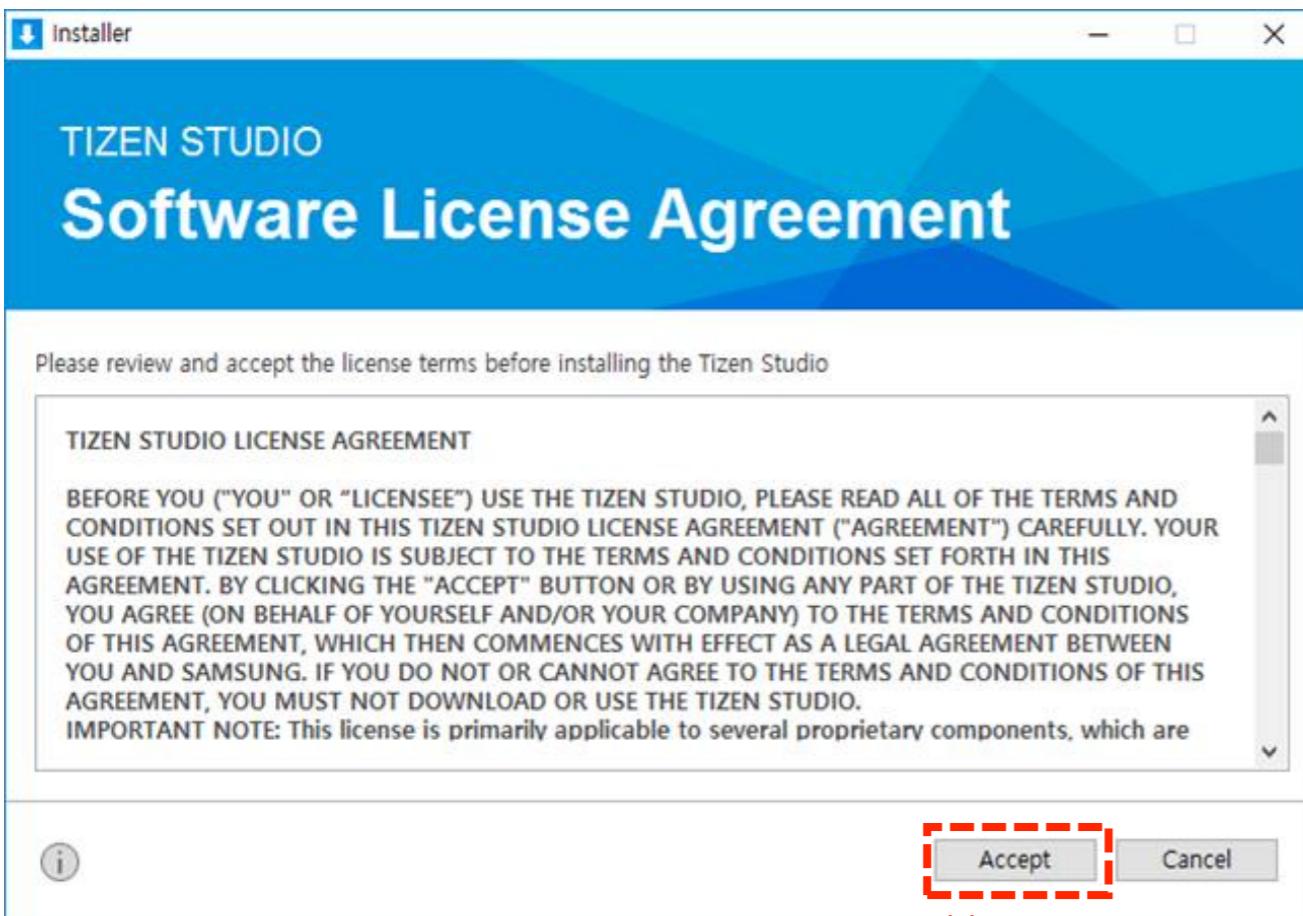
For more information about the JDK requirements and how to install JDK, see [JDK Requirements](#) (page 7–9).

Tizen Studio Installation

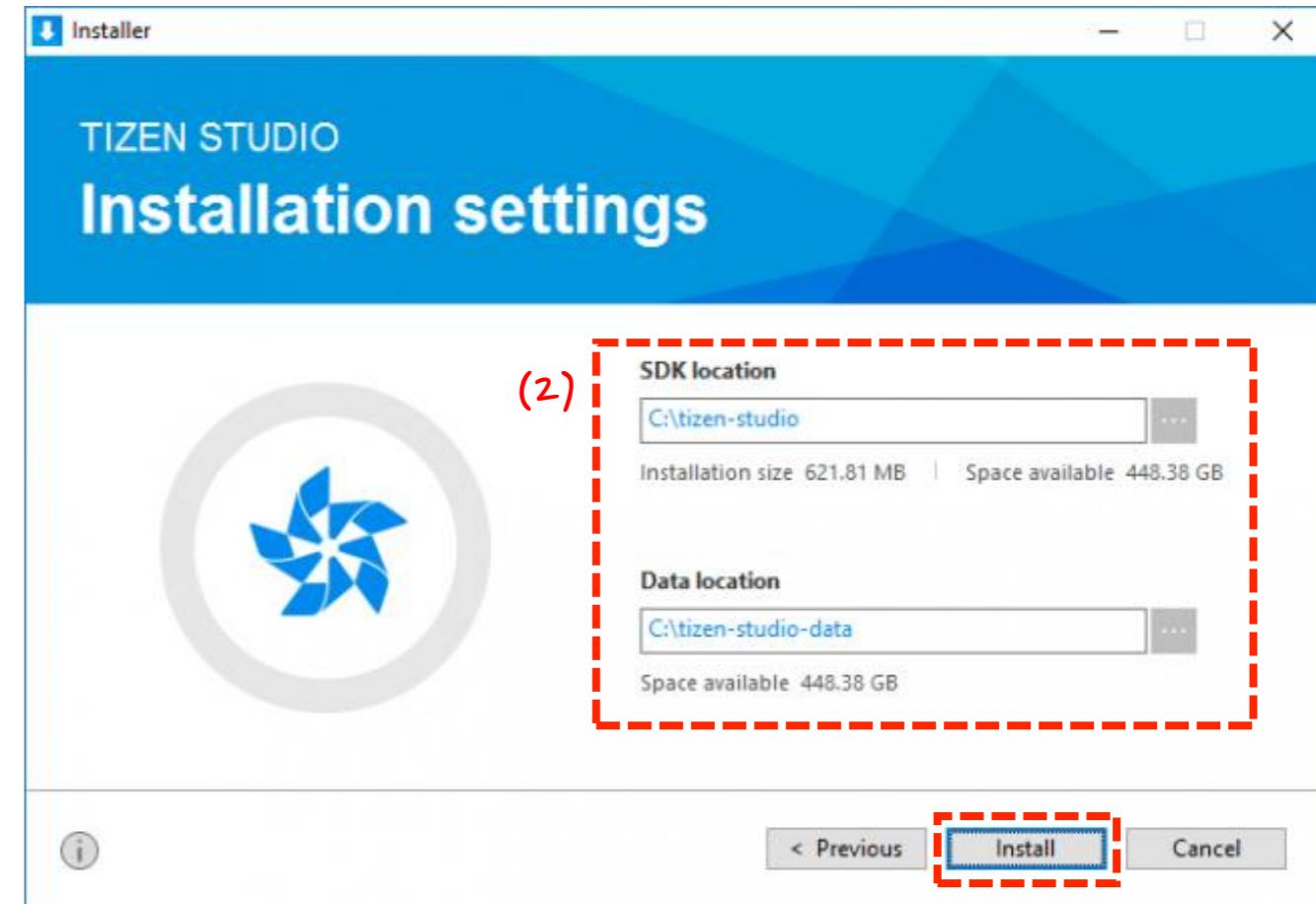
Installing the Tizen SDK

When the installer window appears, start installation by following the steps:

1. Accept the Software License Agreement.
2. Confirm the Installation Location. The directory must be empty.
3. Click the Install button on the right to continue.



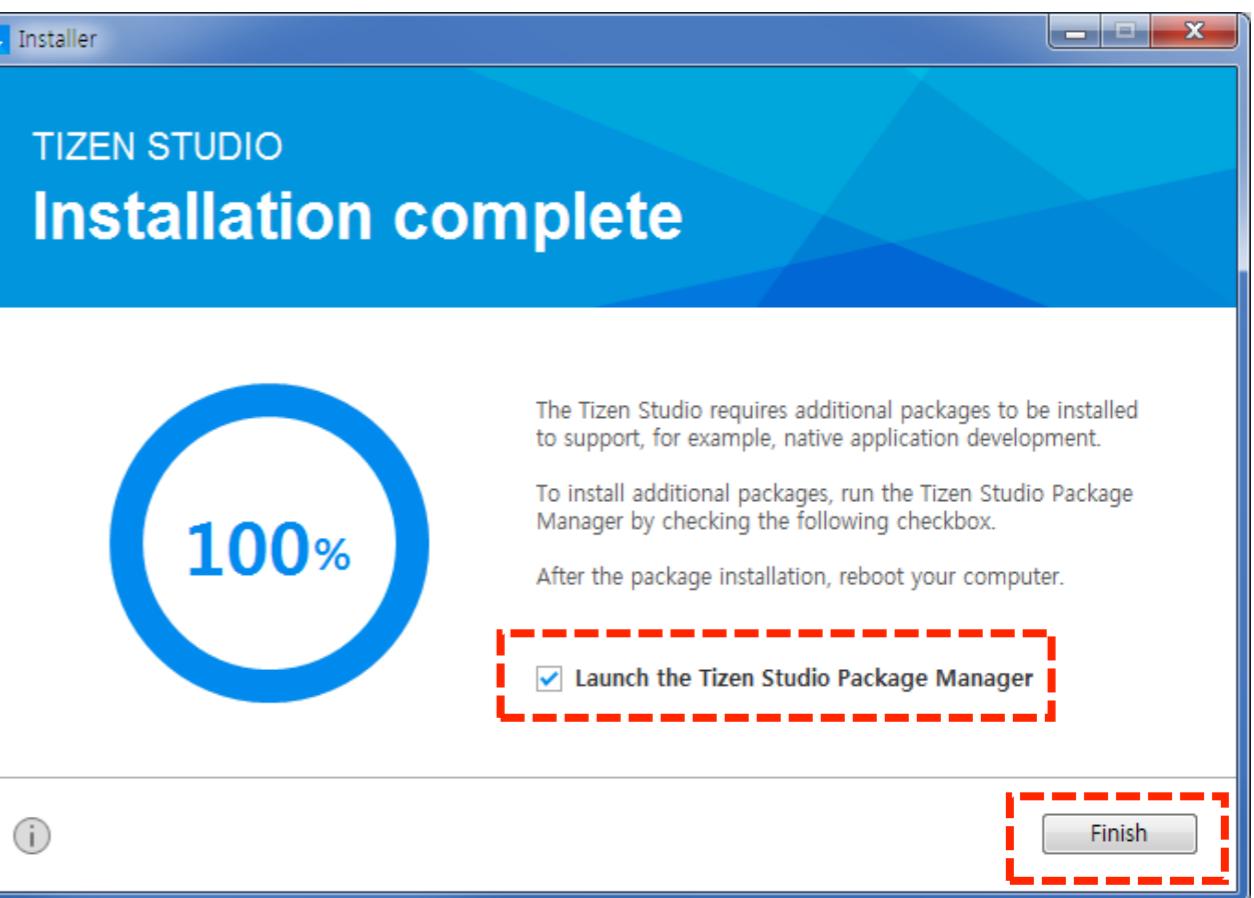
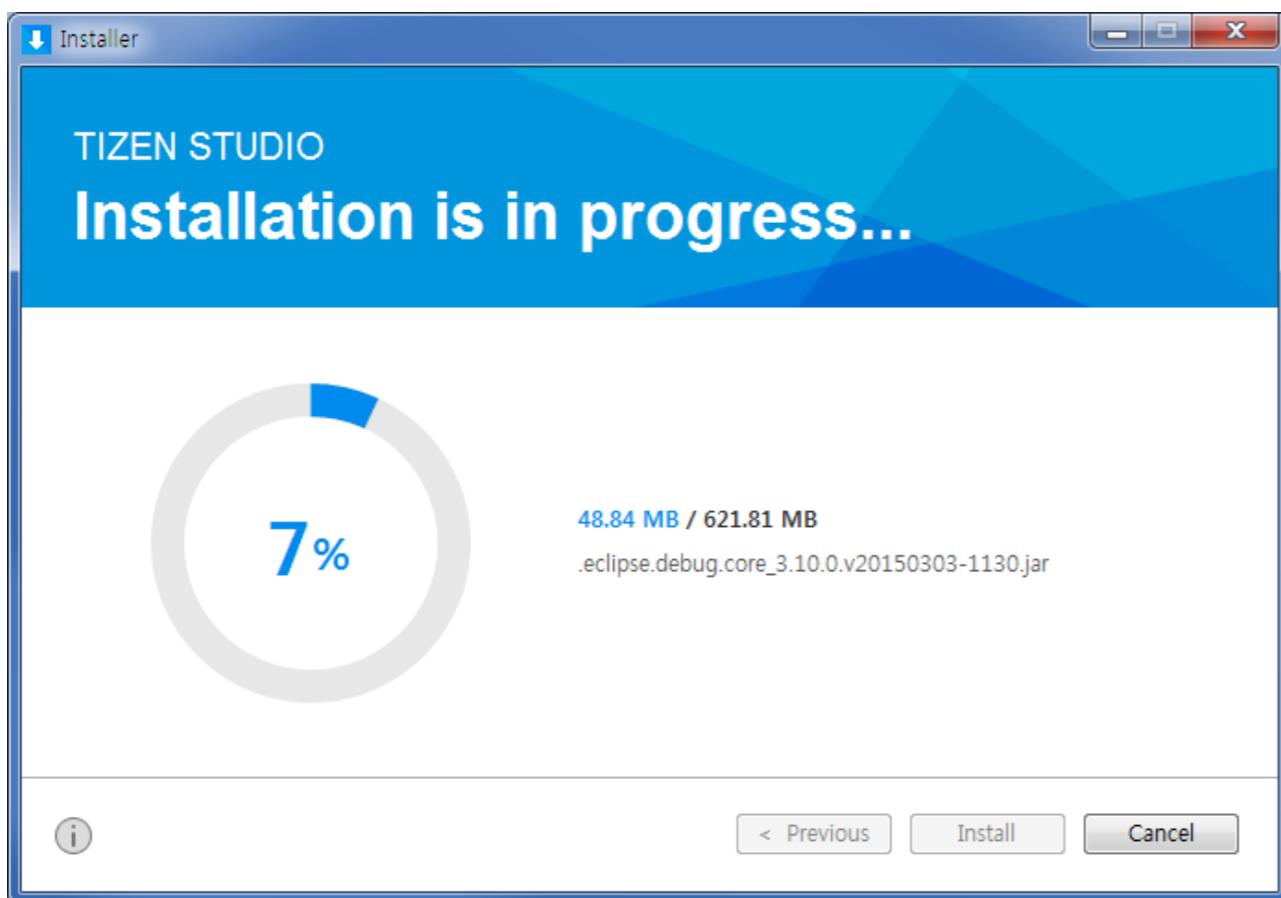
(1) click



(3) click

Tizen Studio Installation

The installer installs the basic packages (IDE for Web application development) for the Tizen Studio.



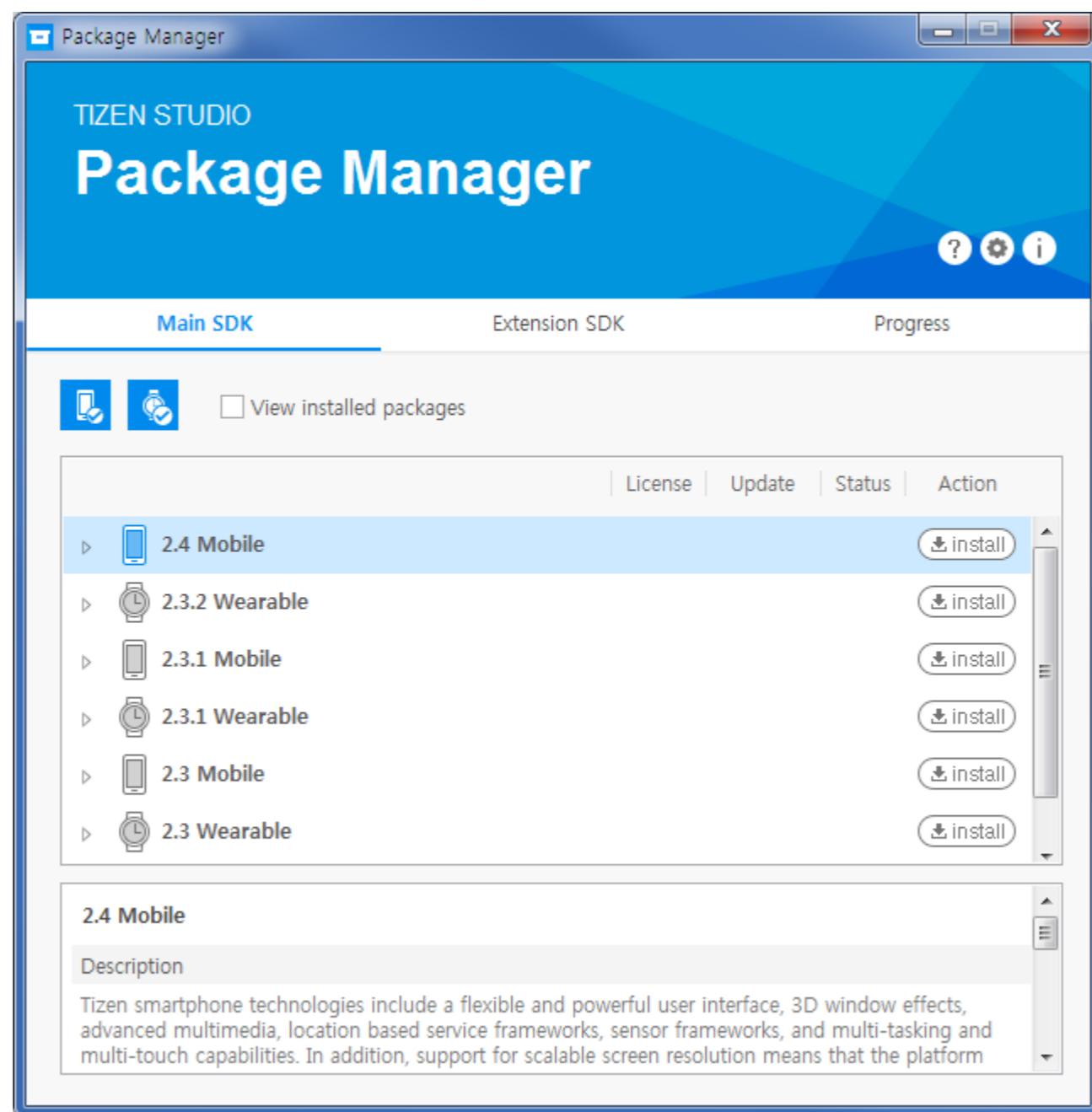
Installing the Tizen SDK

When the installation is completed, click **Finish**, and Package Manager is launched.

Tizen Studio Installation

Installing Additional Packages

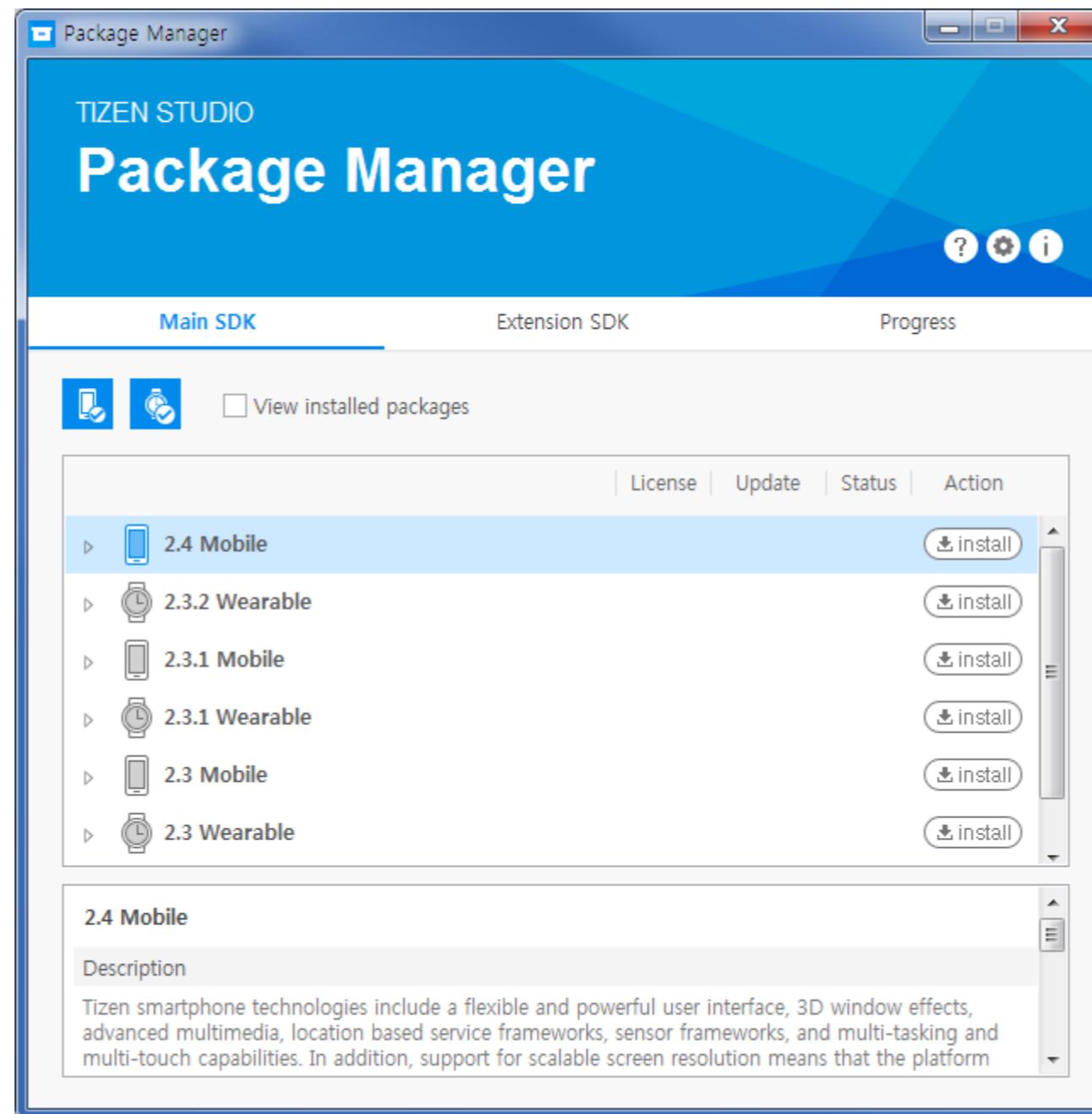
Run the Package Manager to install additional packages required for the development of Tizen applications. Later, you can launch the Update Manager from Windows Start Menu > All Programs > Tizen Studio > Tools > Update Manager.



Tizen Studio Installation

Installing Additional Packages

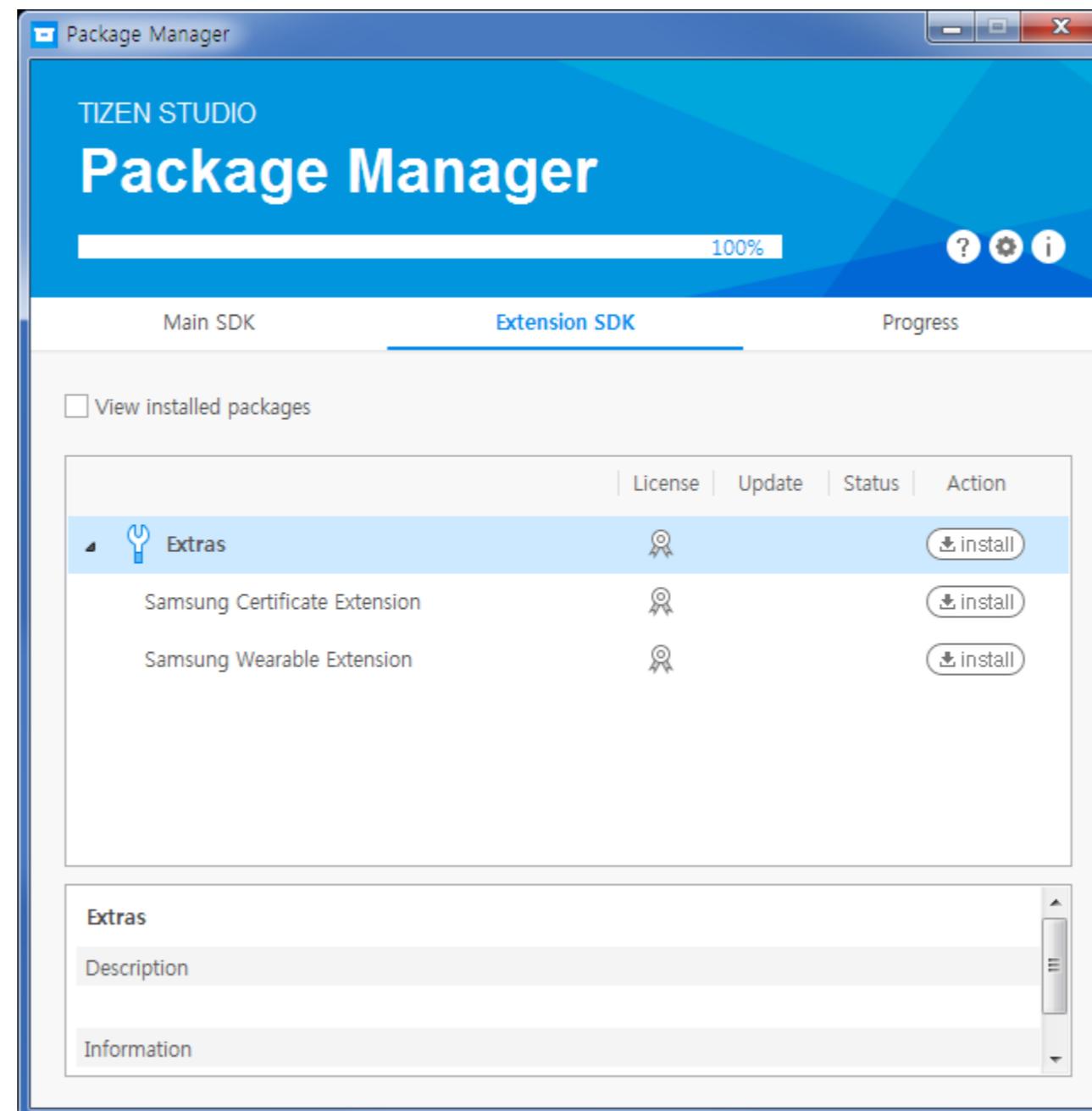
Package Manager has 3 tabs: Main SDK, Extension SDK, Progress.
Main SDK tab shows all platforms and tools that can be installed.



Tizen Studio Installation

Installing Additional Packages

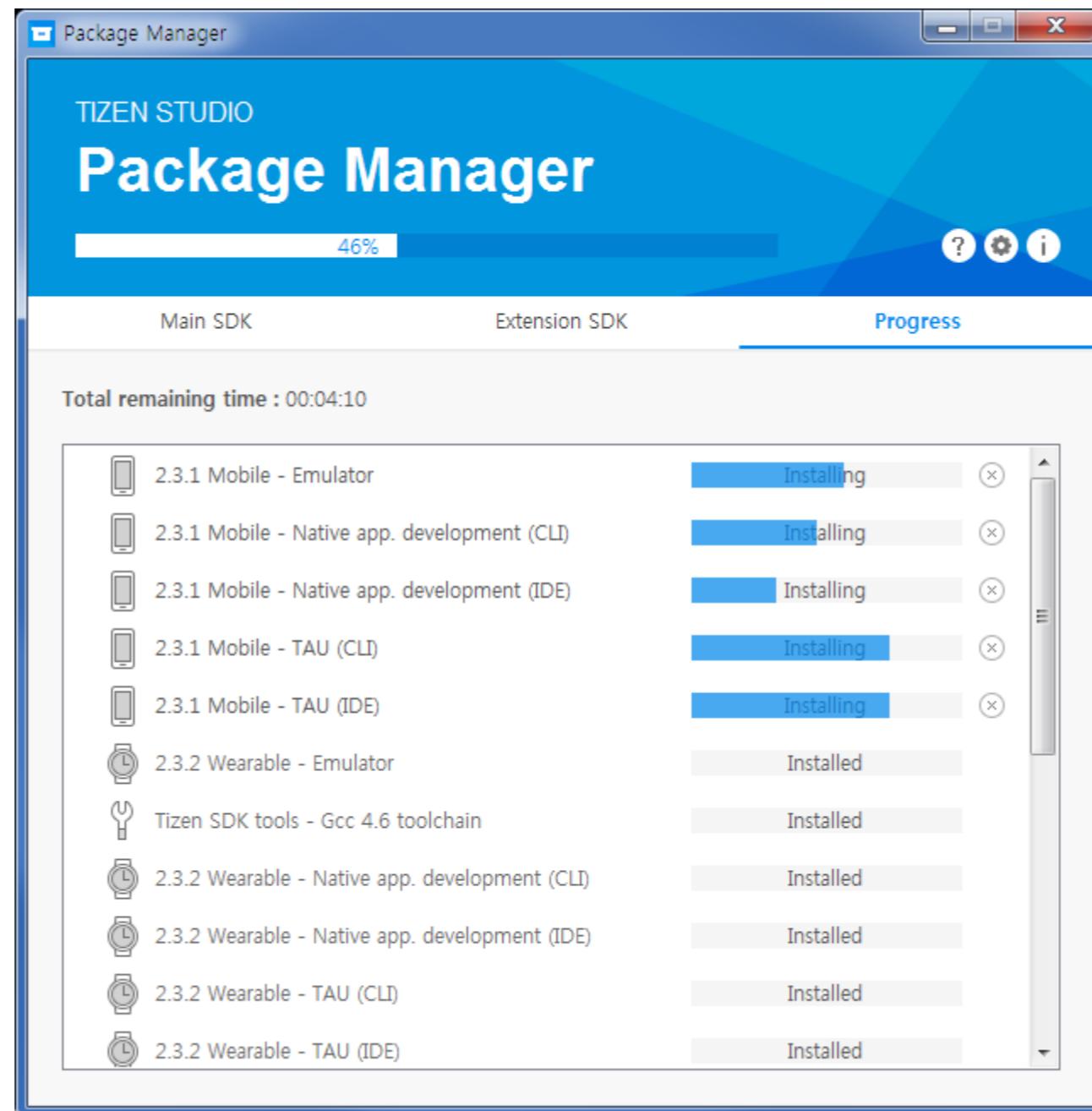
Extension SDK tab shows the list of extra tools and packages for Tizen Studio.



Tizen Studio Installation

Installing Additional Packages

Progress tab shows the detail installation status of each package.

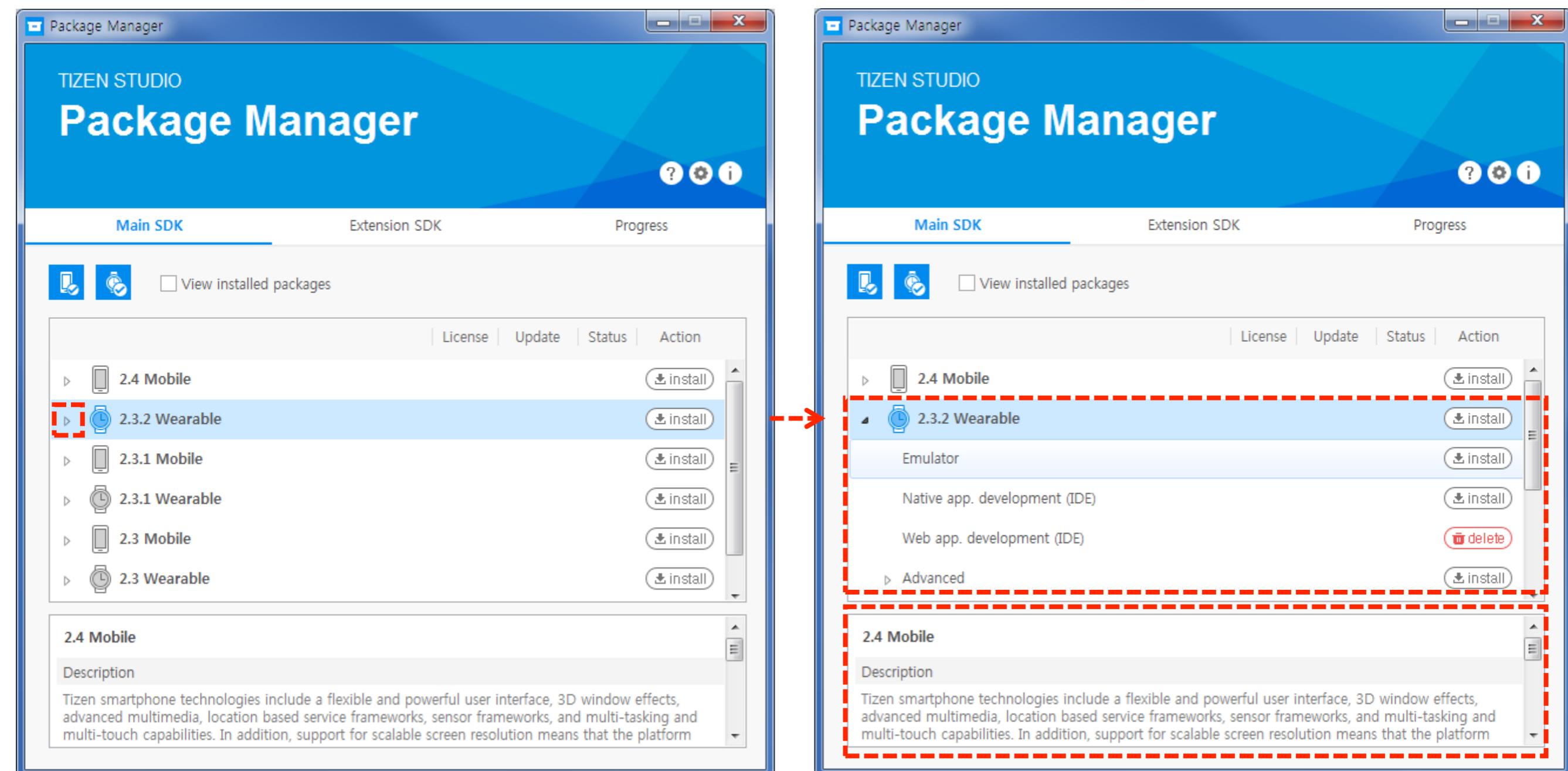


Tizen Studio Installation

Installing Additional Packages

Click the arrow on the left and expand to view the components of the package.

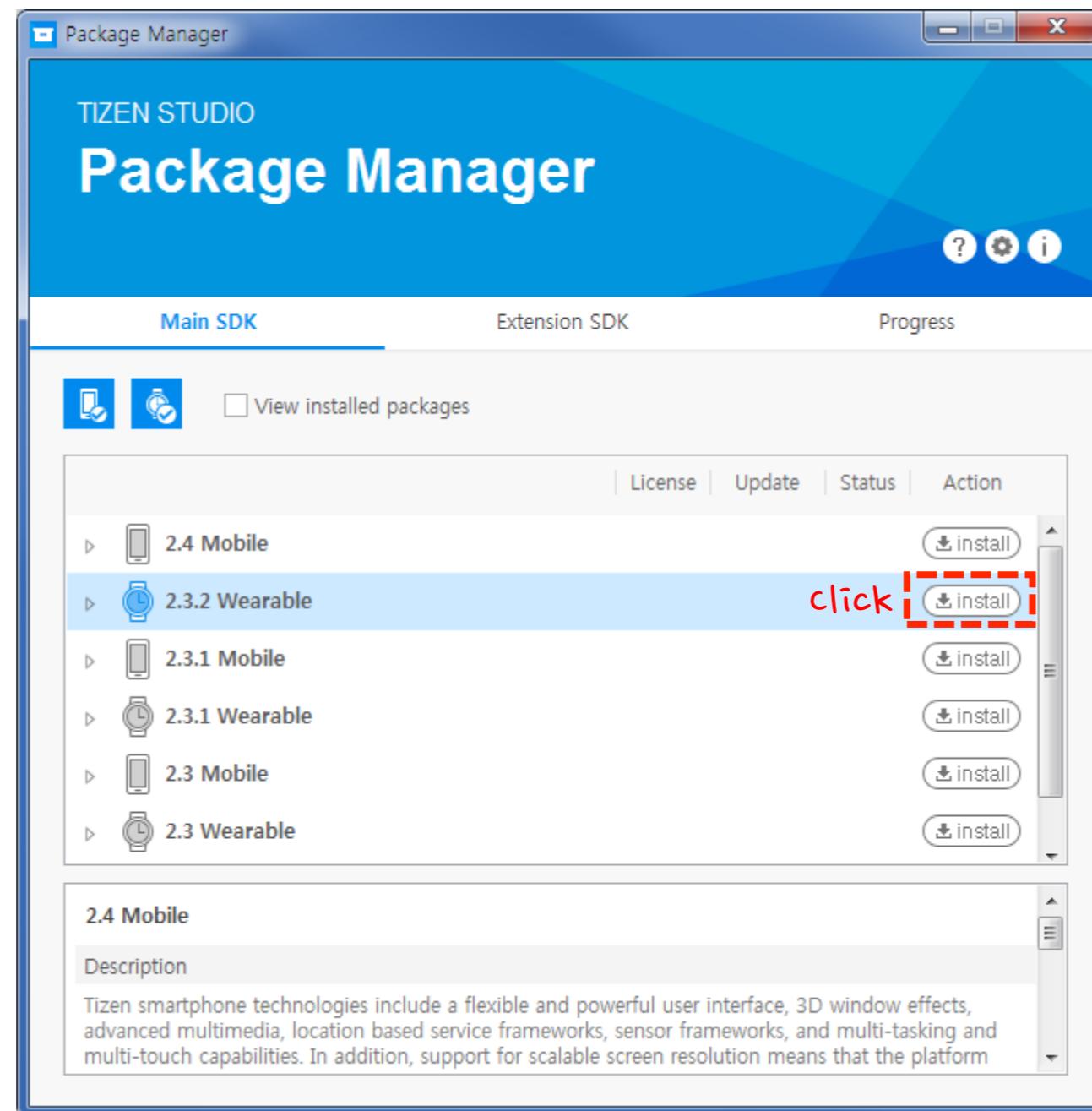
The description of each component is provided at the bottom of the window.



Tizen Studio Installation

Installing Additional Packages

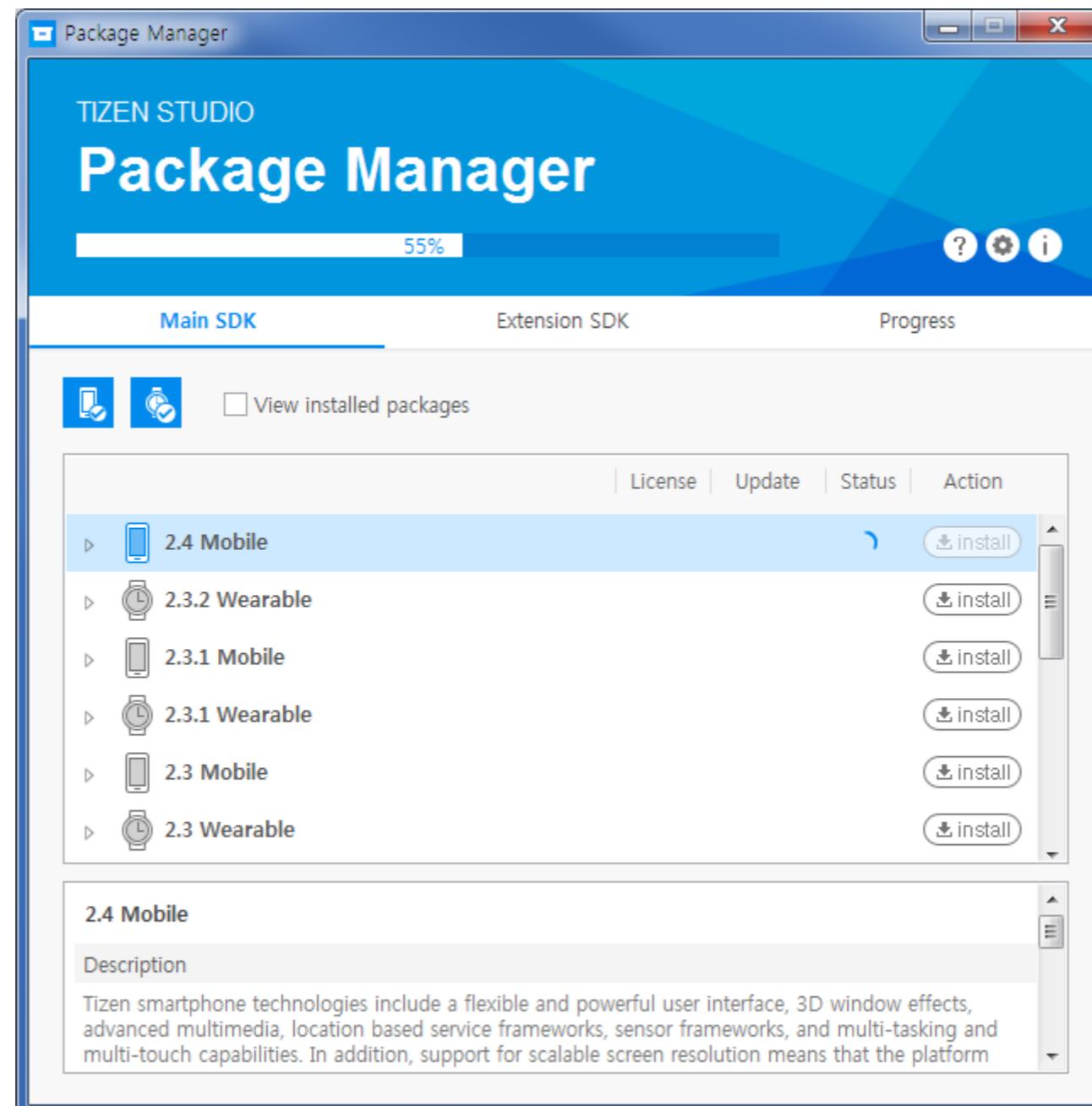
For the purpose of this tutorial, install all components of the 2.3.2 Wearable package by clicking install.



Tizen Studio Installation

Installing Additional Packages

Do not switch off the Package Manager while it is downloading and installing packages. Downloading and installing may take a few minutes.

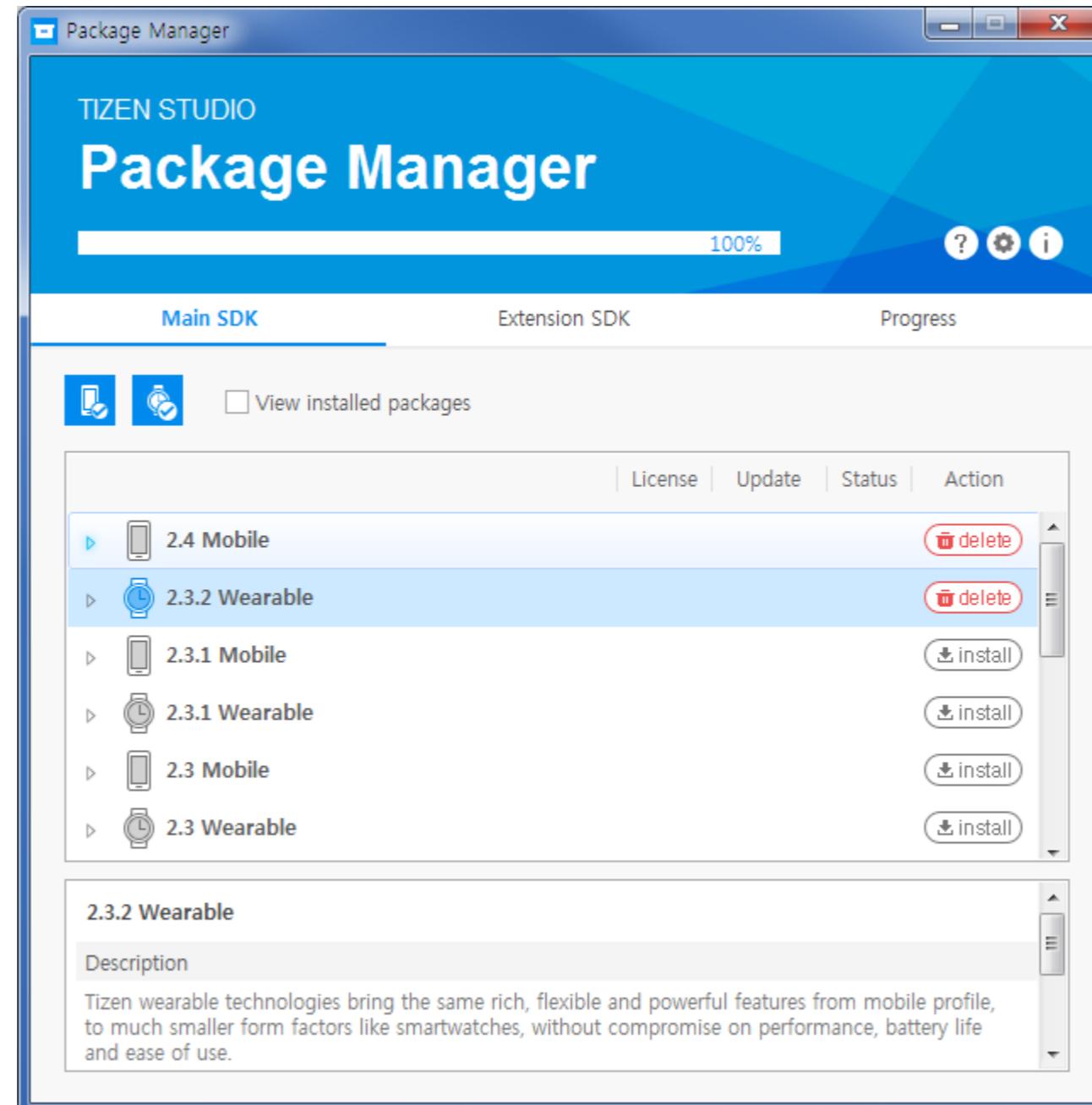


Select the **Progress** tab to view the detailed progress of the installation.

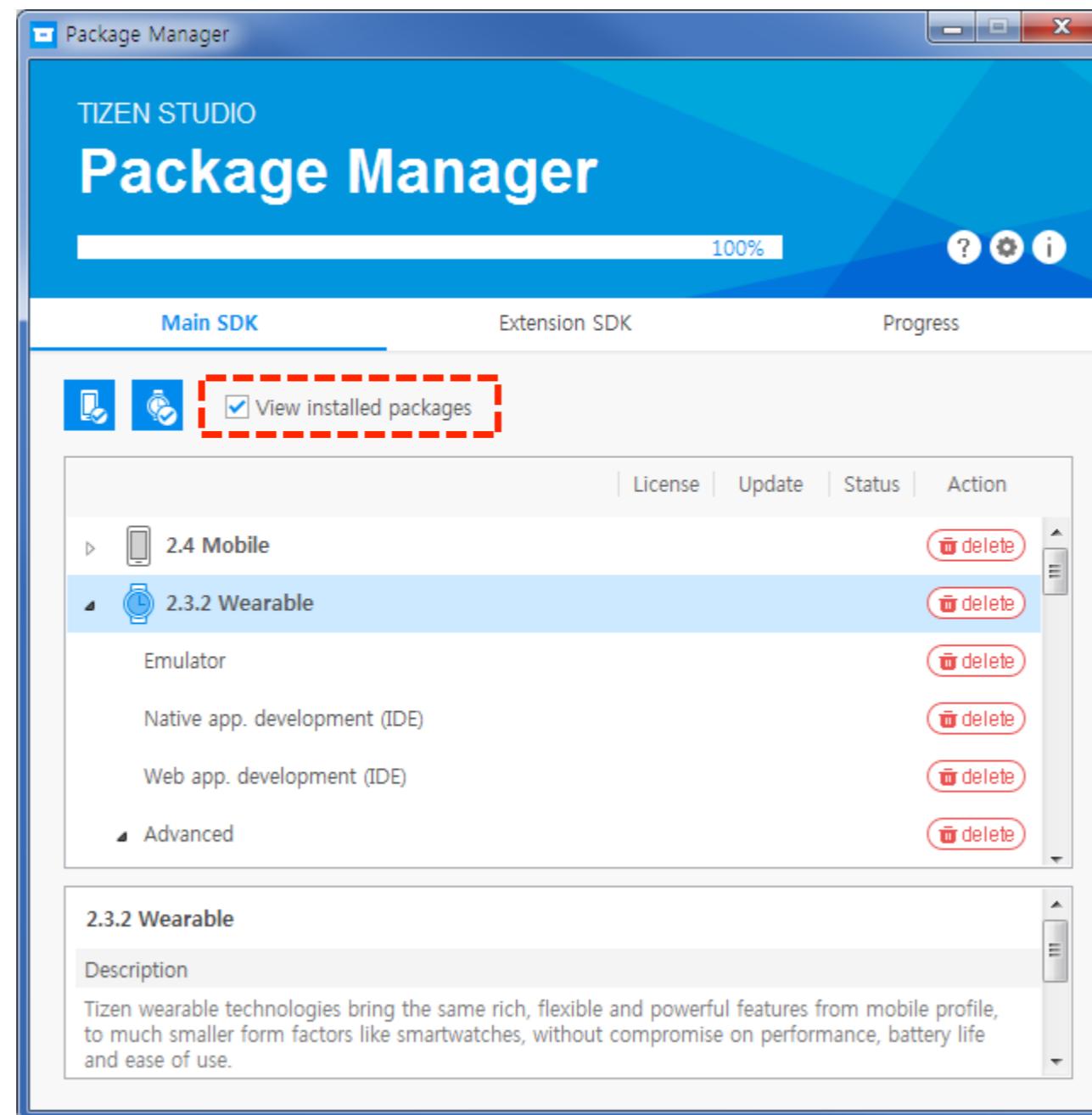
Tizen Studio Installation

Installing Additional Packages

The install button changes to delete when the packages are installed.



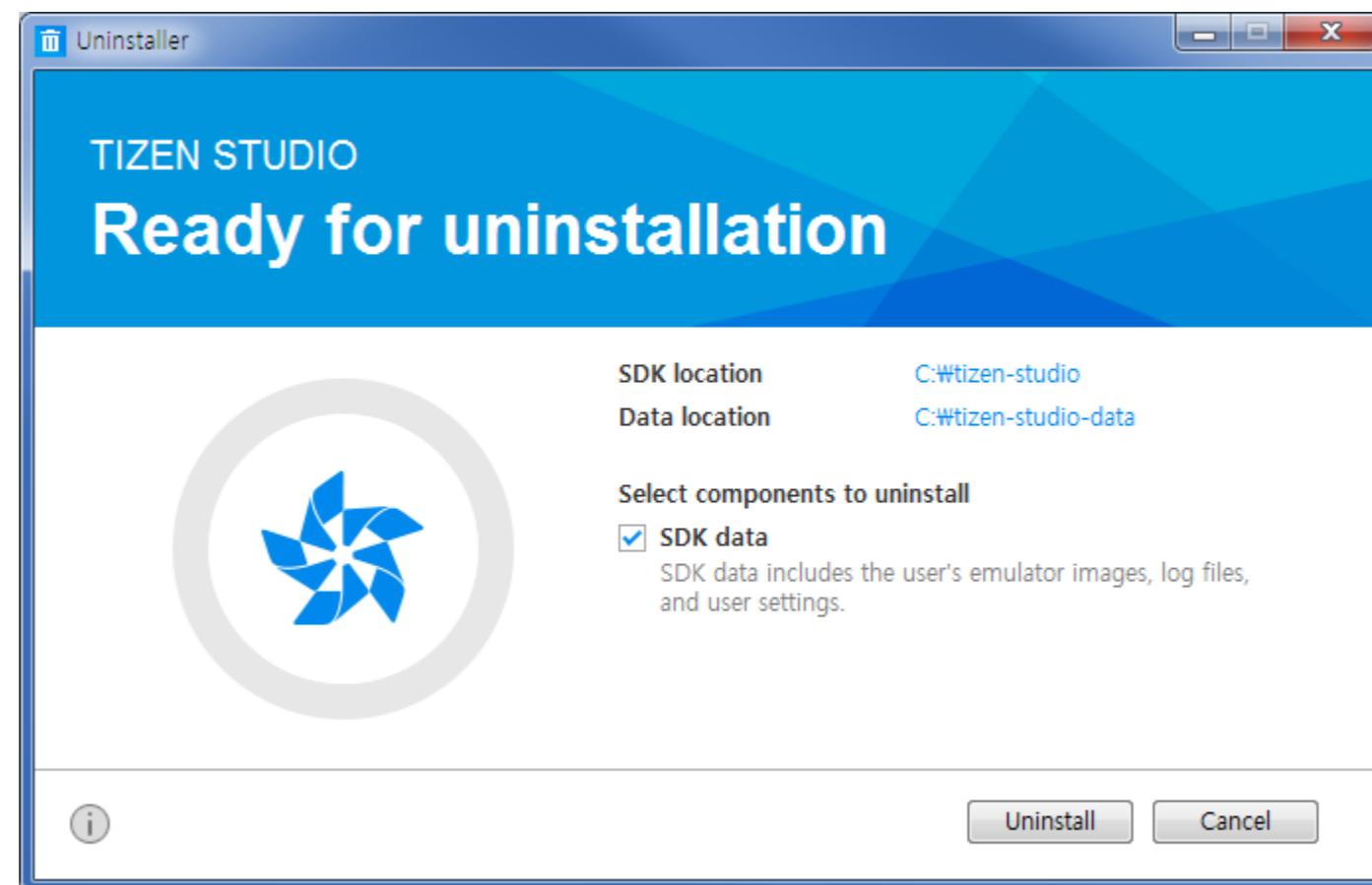
Check **View installed packages** to confirm the installed packages.
You can also remove a package if you want.



Tizen Studio Installation

Uninstalling the Tizen Studio

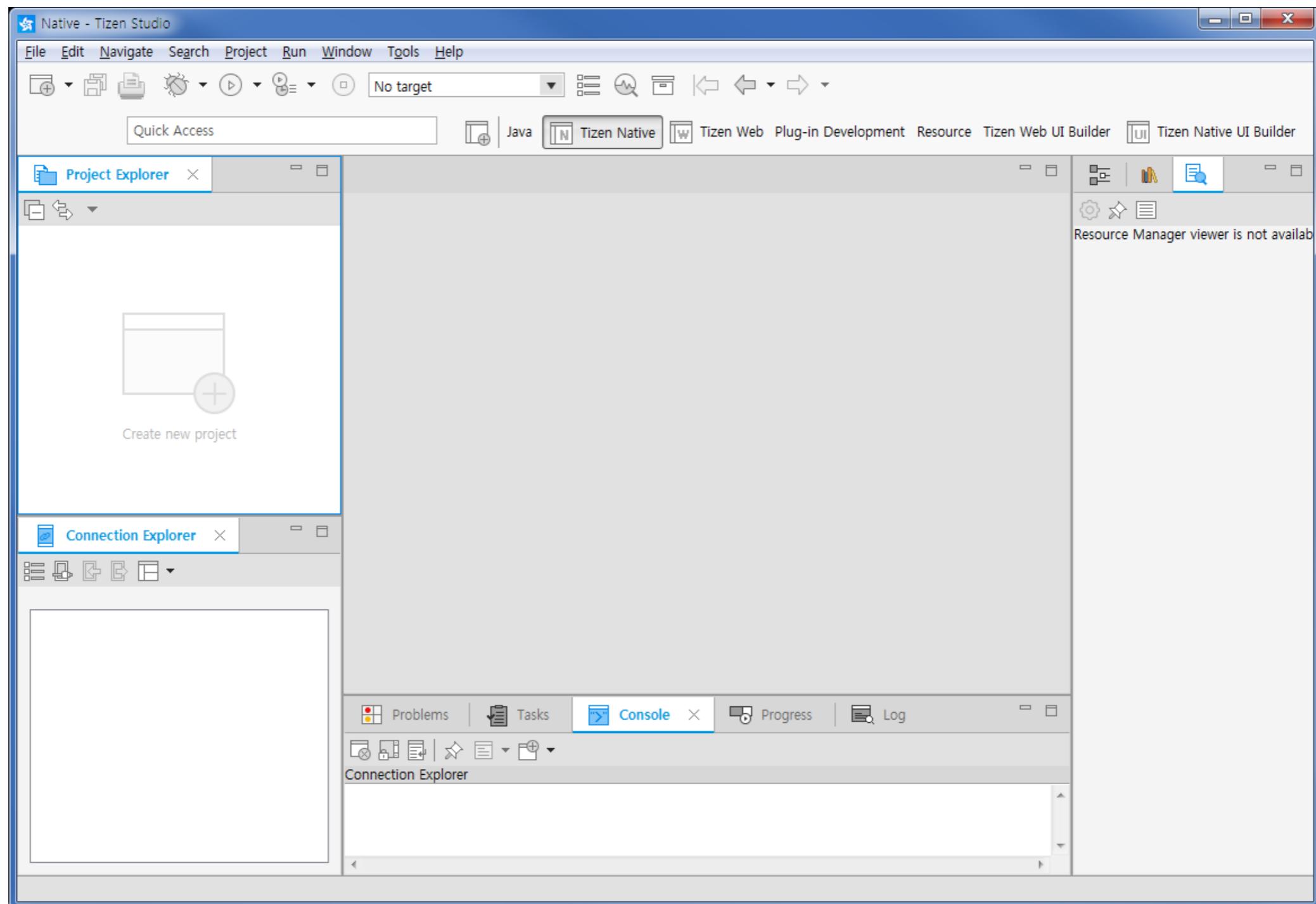
To uninstall the entire Tizen SDK, launch the Uninstaller from Windows Start Menu > All Programs > Tizen Studio > Tools > Uninstaller.



Running Applications on the Emulator

Running Applications on the Emulator Launching the Tizen Studio

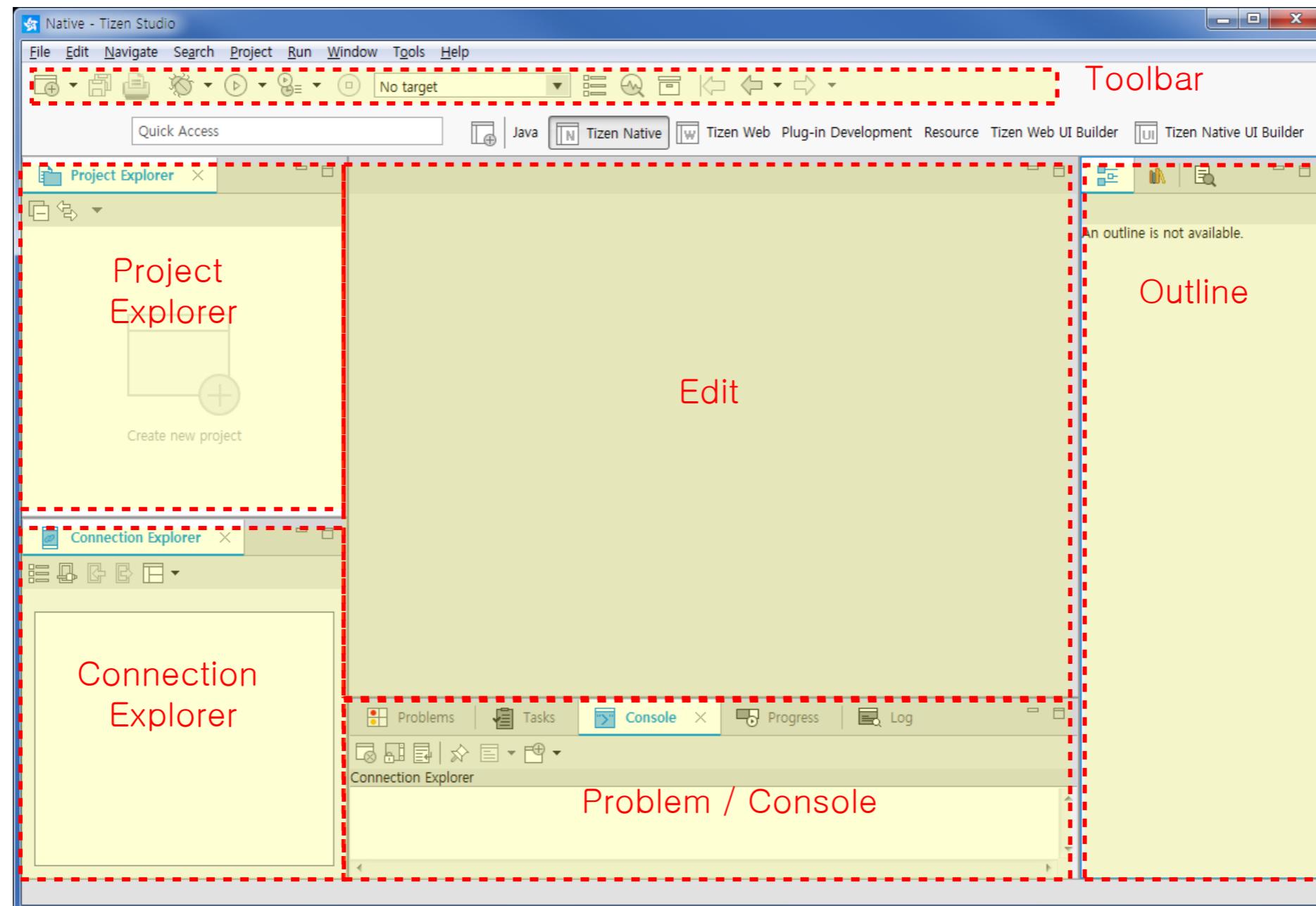
Launch Tizen Studio from Windows Start Menu > All Programs > Tizen Studio. The Tizen Studio is launched successfully as below.



Running Applications on the Emulator

Launching the Tizen Studio

Tizen IDE is composed of the following sections.

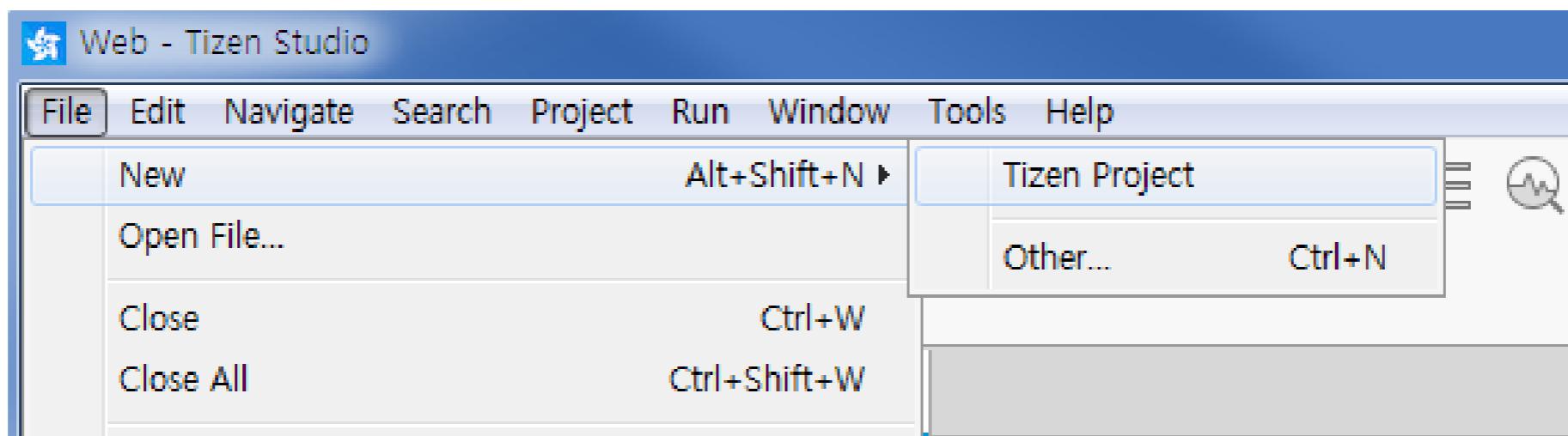


For more information about each section, see the [Appendix: Tizen IDE Views](#) (page 99).

Running Applications on the Emulator

In this tutorial, a Tizen Web application project is created.

Go to File > New > Tizen Project.



Creating the Application Project

Generating the Author Certificate

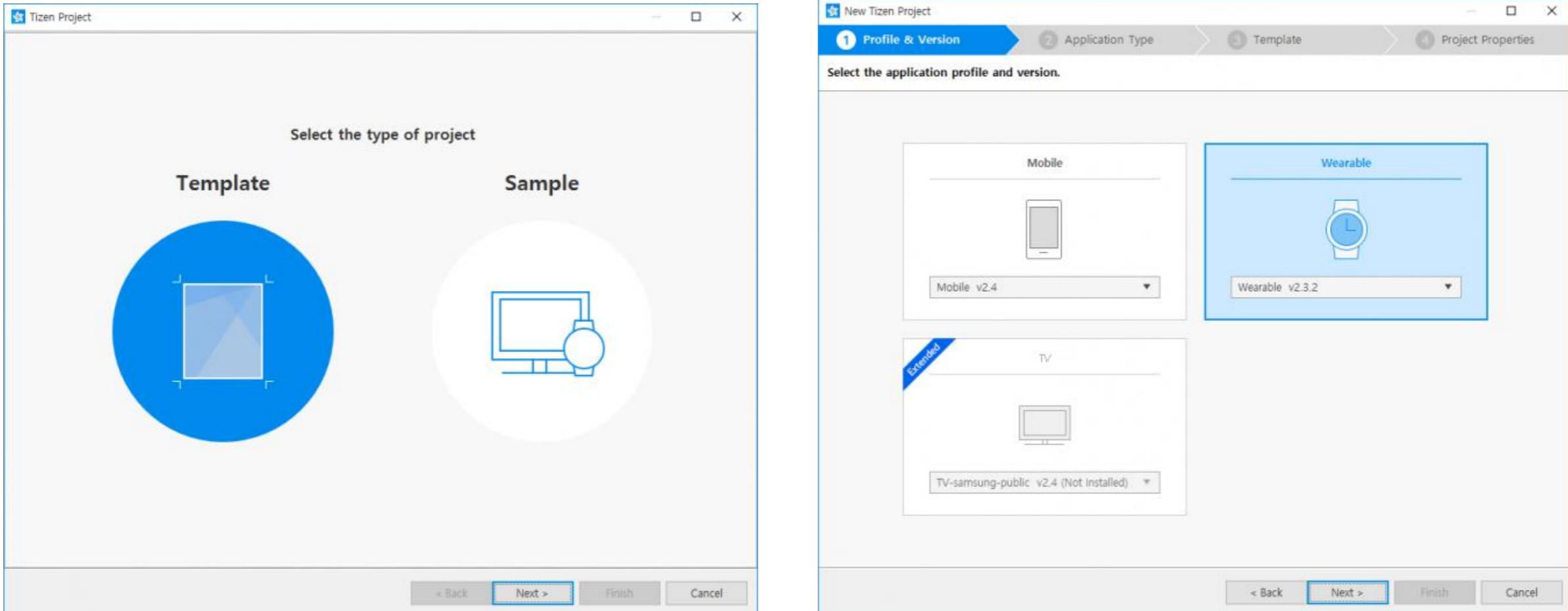
Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

The Project Wizard is used to create the basic application skeleton with the required folder structure and mandatory files.

Select Template and click Next. Then select profile and version.



For more information about each project type, see [Appendix: Tizen Studio Project Types](#) (pages 100–102).

Creating the Application Project

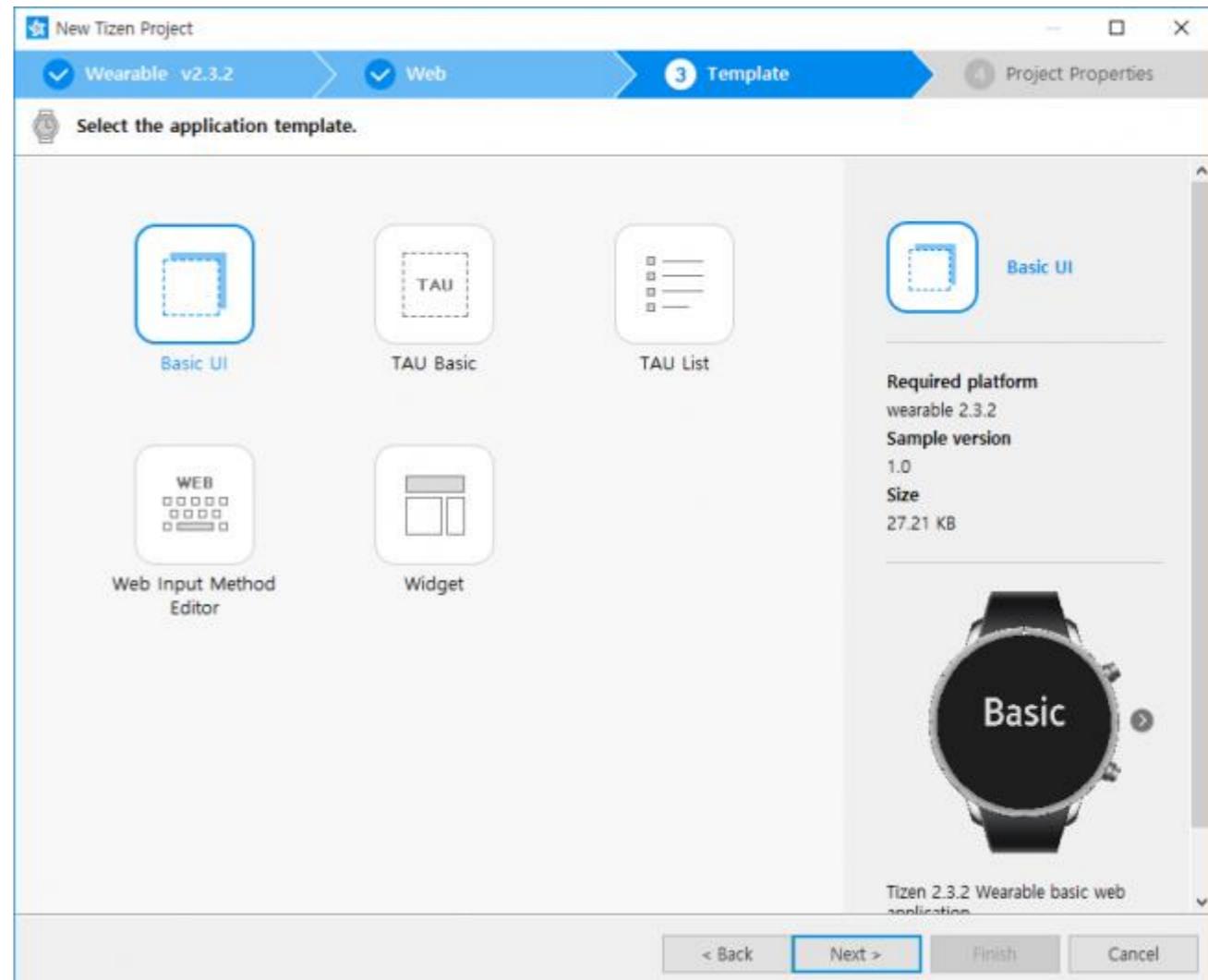
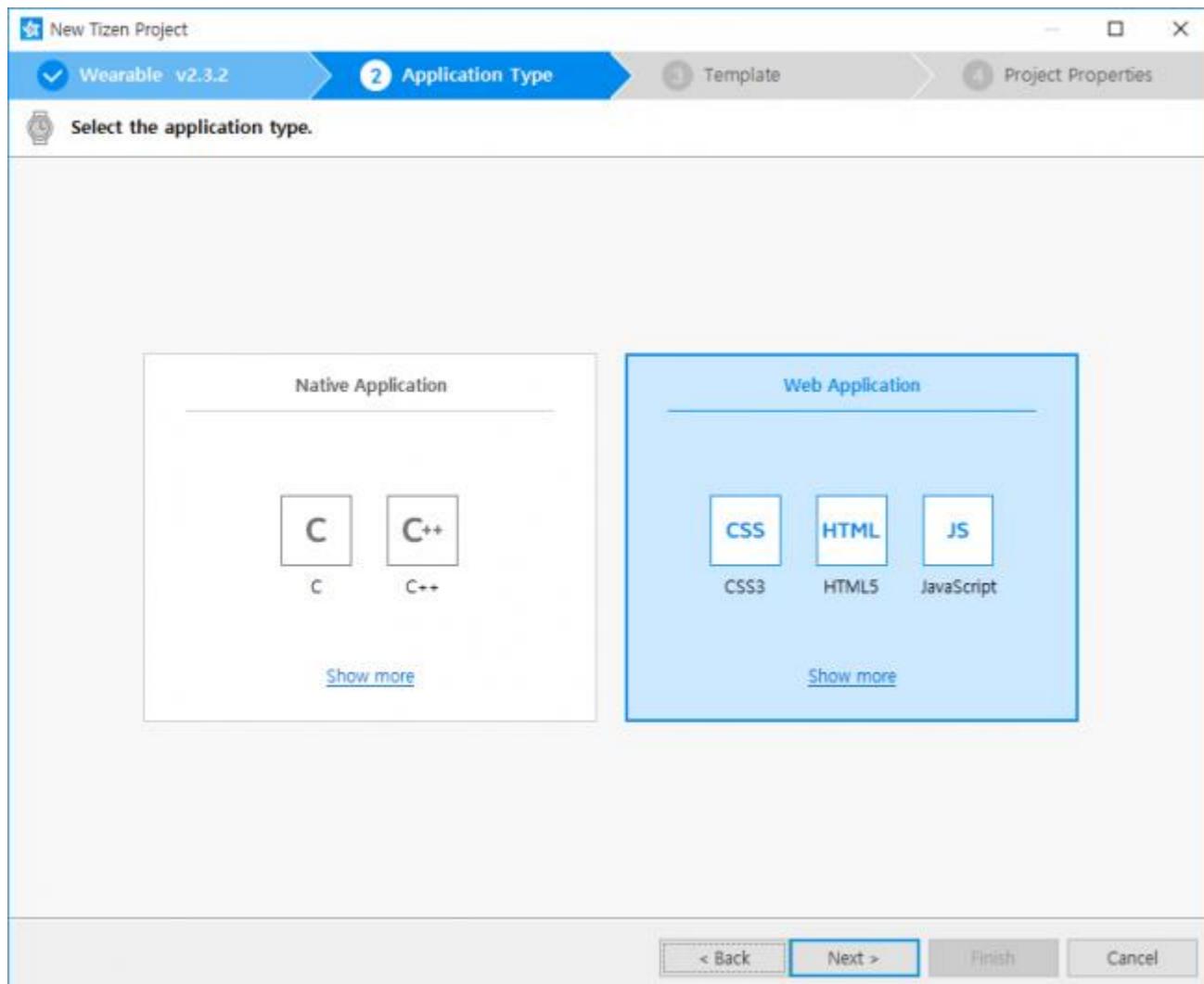
Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

Select Web Application and click Next. Then select the application template.



Creating the Application Project

Generating the Author Certificate

Creating the Emulator Instance

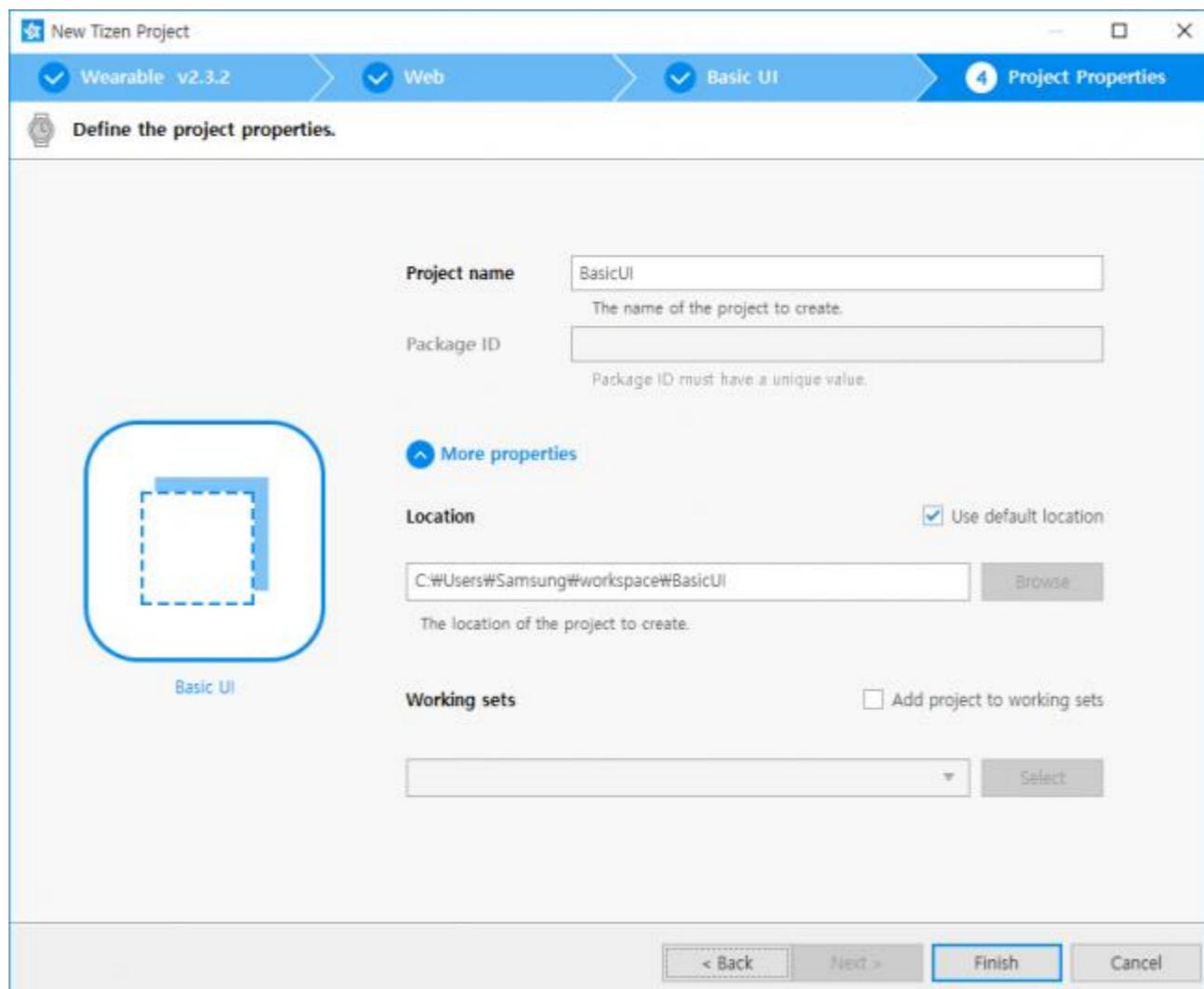
Running the Application on the Emulator

Running Applications on the Emulator

Change the project name, if you want.

Click More properties, if you want to change more properties.

Leave all other fields in the Project Wizard to their default values, and click Finish.



Creating the Application Project

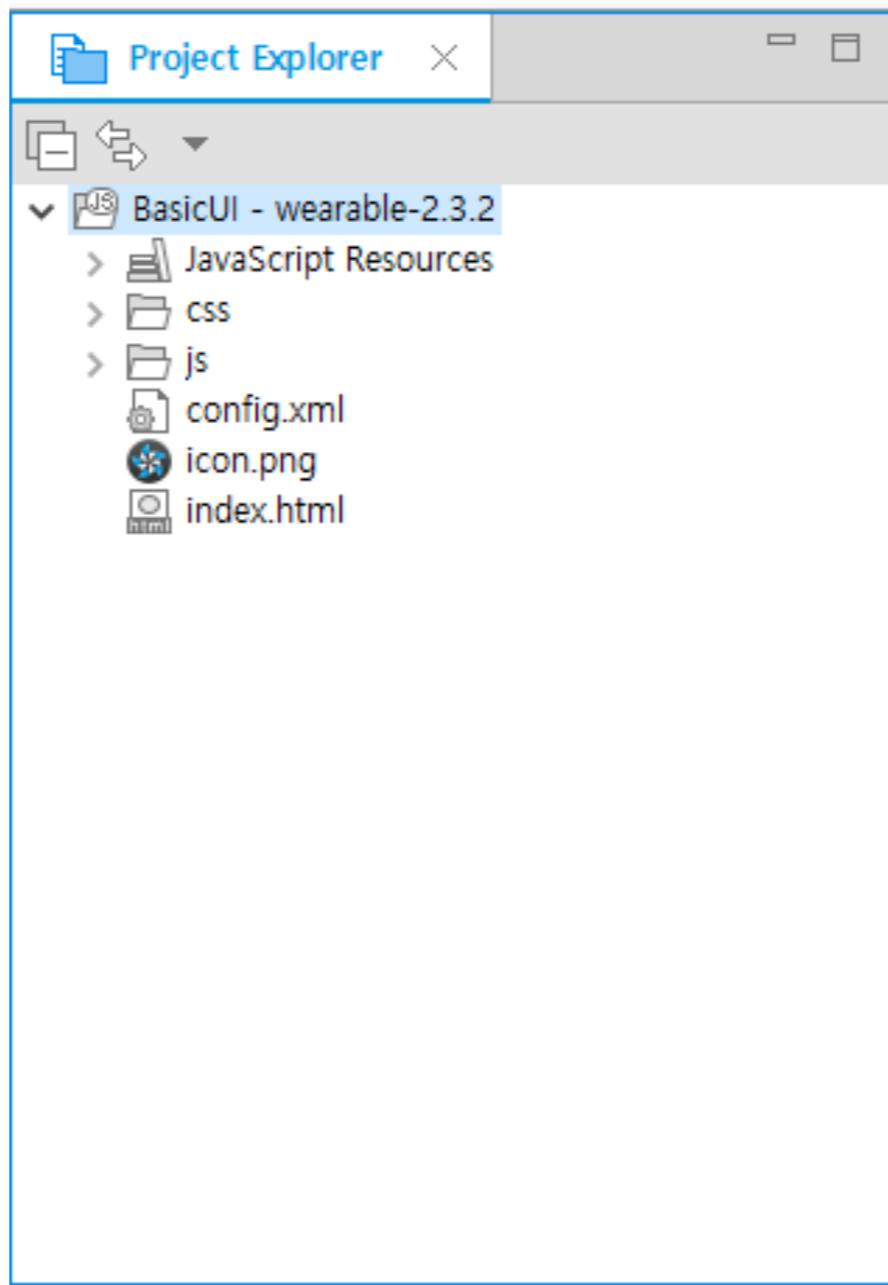
Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

The new project is created and shown in the Project Explorer.



Creating the Application Project

Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

To install and run applications on devices, you must sign the application package by generating a vendor-specific certificate and registering it in the IDE. (The certificate policy may vary between different vendors and/or models.)

Since an emulator is a pseudo device as well, applications to be installed and run on the emulator must also be signed with certificates generated from the Tizen SDK.

Security profile is a tool for managing certificates and it helps generating, registering, and activating certificates in Tizen SDK.



Running Applications on the Emulator

Open Tizen Tool > Certificate Manager to set a security profile for generating certificates.



Creating the Application Project

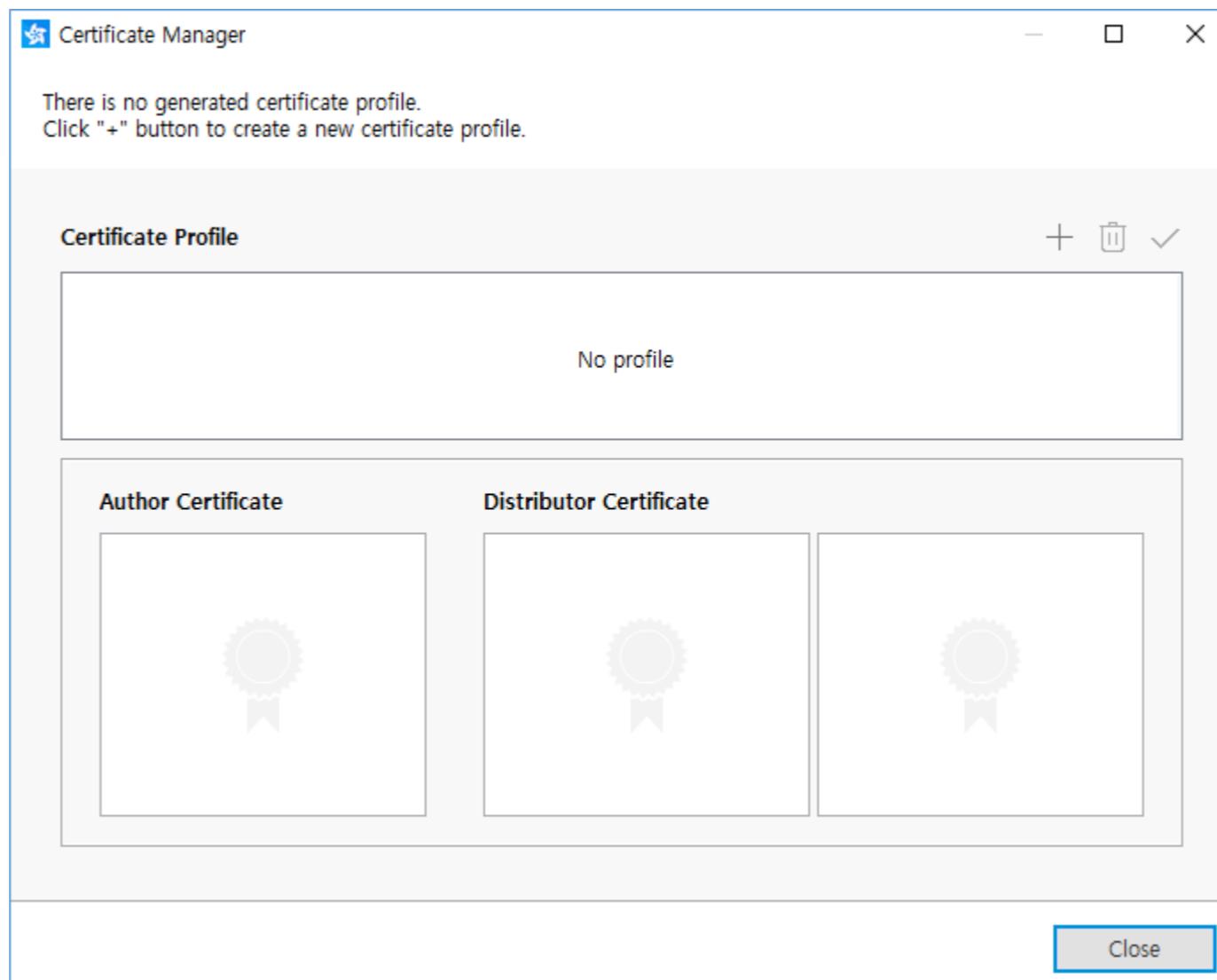
Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

In the Certificate Manager, click the plus icon (+) to create a new profile.



Creating the Application Project

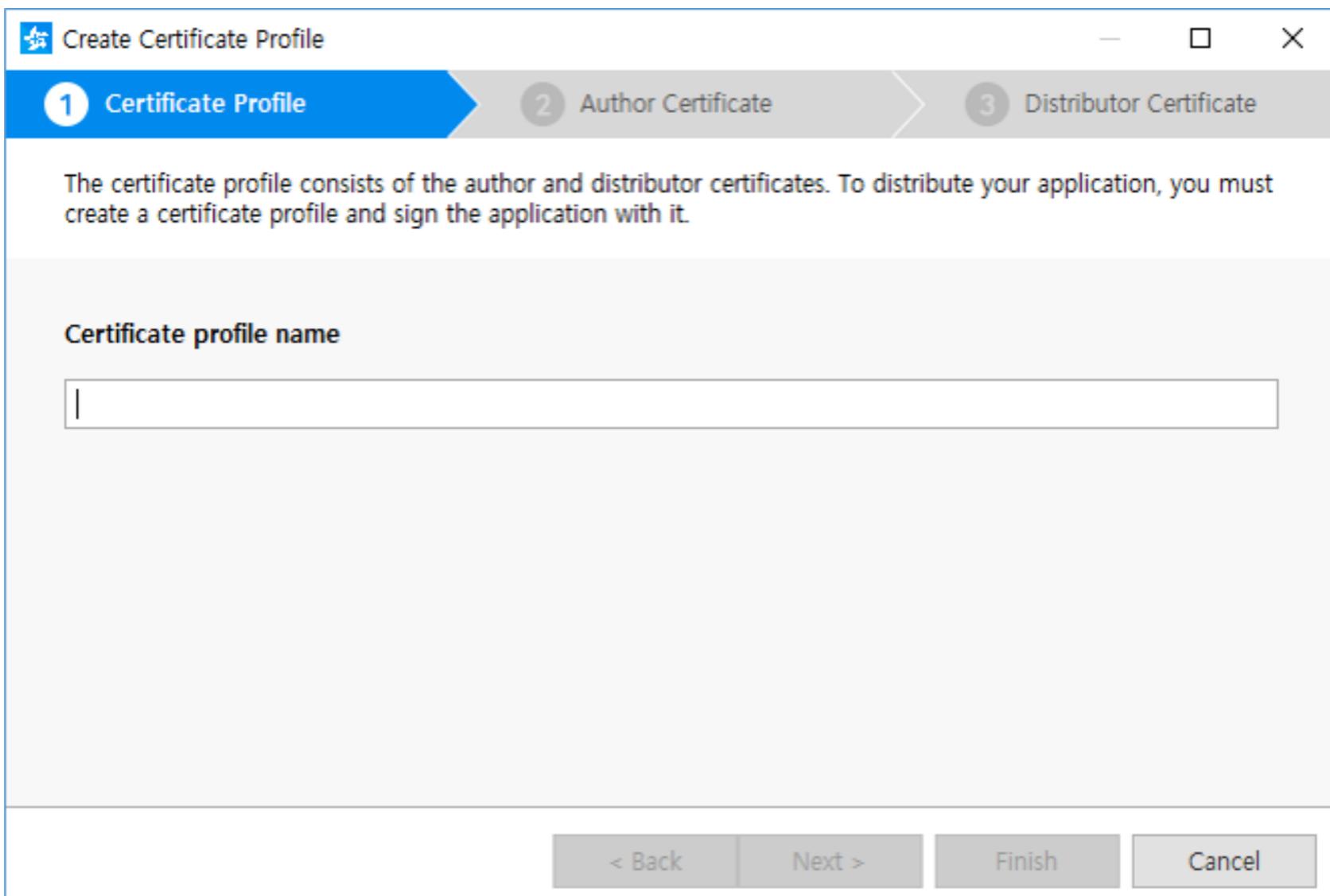
Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

Enter a profile name and click **Next**.



Creating the Application Project

Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

Create a new author certificate or use a previously created author certificate and click Next. Then, fill in the required information.

The screenshot shows two windows of the 'Create Certificate Profile' wizard, specifically the 'Author Certificate' step (step 2). Both windows have a blue header bar with the title 'Create Certificate Profile' and three tabs: 'Certificate Profile' (selected), 'Author Certificate' (highlighted in blue), and 'Distributor Certificate'. Below the tabs is a progress bar with three steps: 1. Certificate Profile (checkmark), 2. Author Certificate (highlighted), 3. Distributor Certificate.

Left Window (General Information):

The text area states: 'The author certificate provides a unique signature that is used when you sign your application with a certificate profile.' Below this are two radio button options:

- Create a new author certificate
- Select an existing author certificate

At the bottom are buttons: '< Back' (disabled), 'Next >', 'Finish' (disabled), and 'Cancel'.

Right Window (Form Fields):

The text area states: 'Create a new author certificate. The fields marked with * are mandatory.' Below this are four form fields:

Key filename*	Enter the key filename
Author Name*	Enter your author name
Password*	Enter your password (at least 8 characters)
Confirm password*	Enter your password again

A 'More details' link is located below the password fields. At the bottom are buttons: '< Back' (disabled), 'Next >', 'Finish' (disabled), and 'Cancel'.

Creating the Application Project

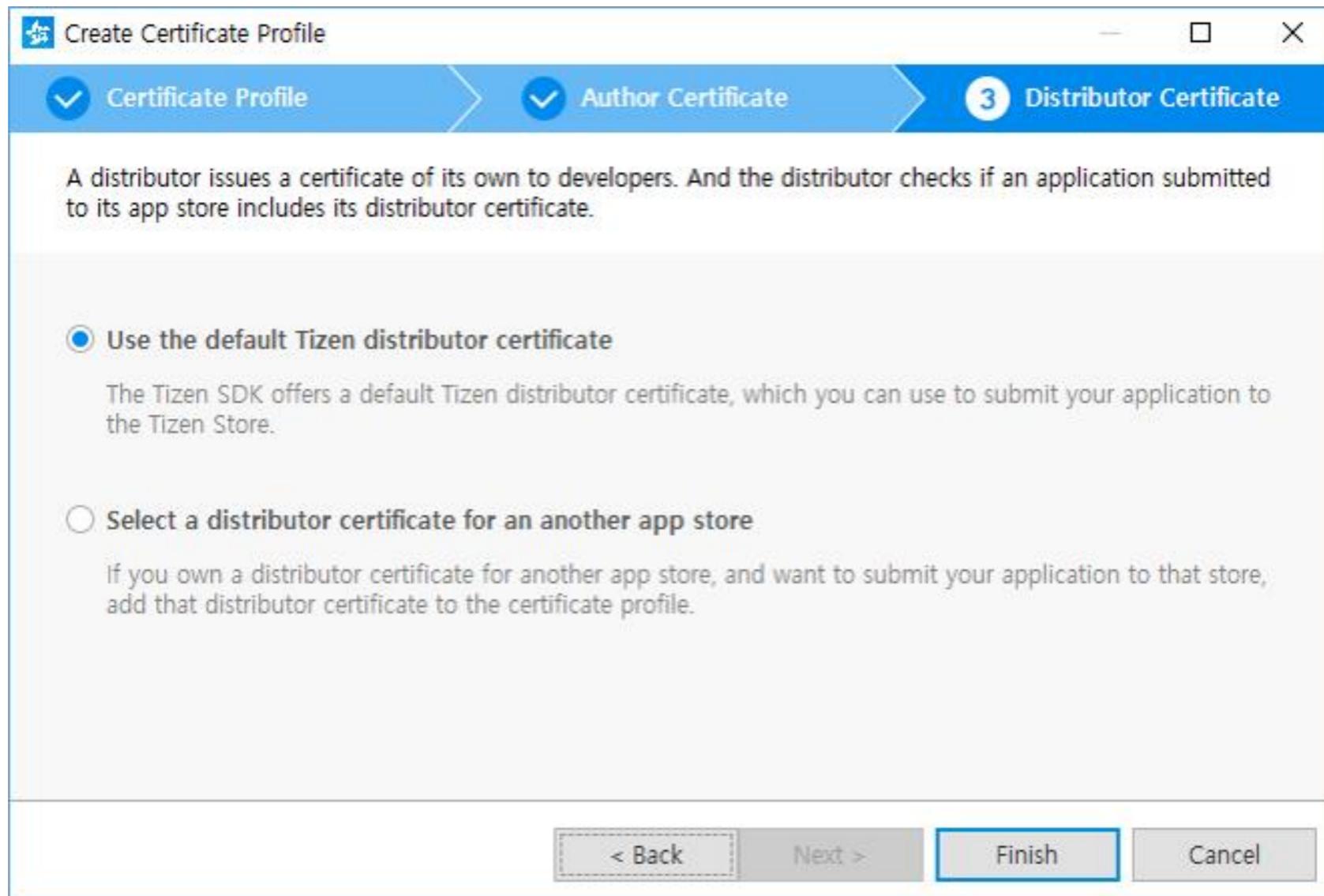
Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

You can use the default Tizen distributor certificate or another distributor certificate if you have one. In general, the default Tizen distributor certificate is used and you do not need to modify distributor certificates.



Creating the Application Project

Generating the Author Certificate

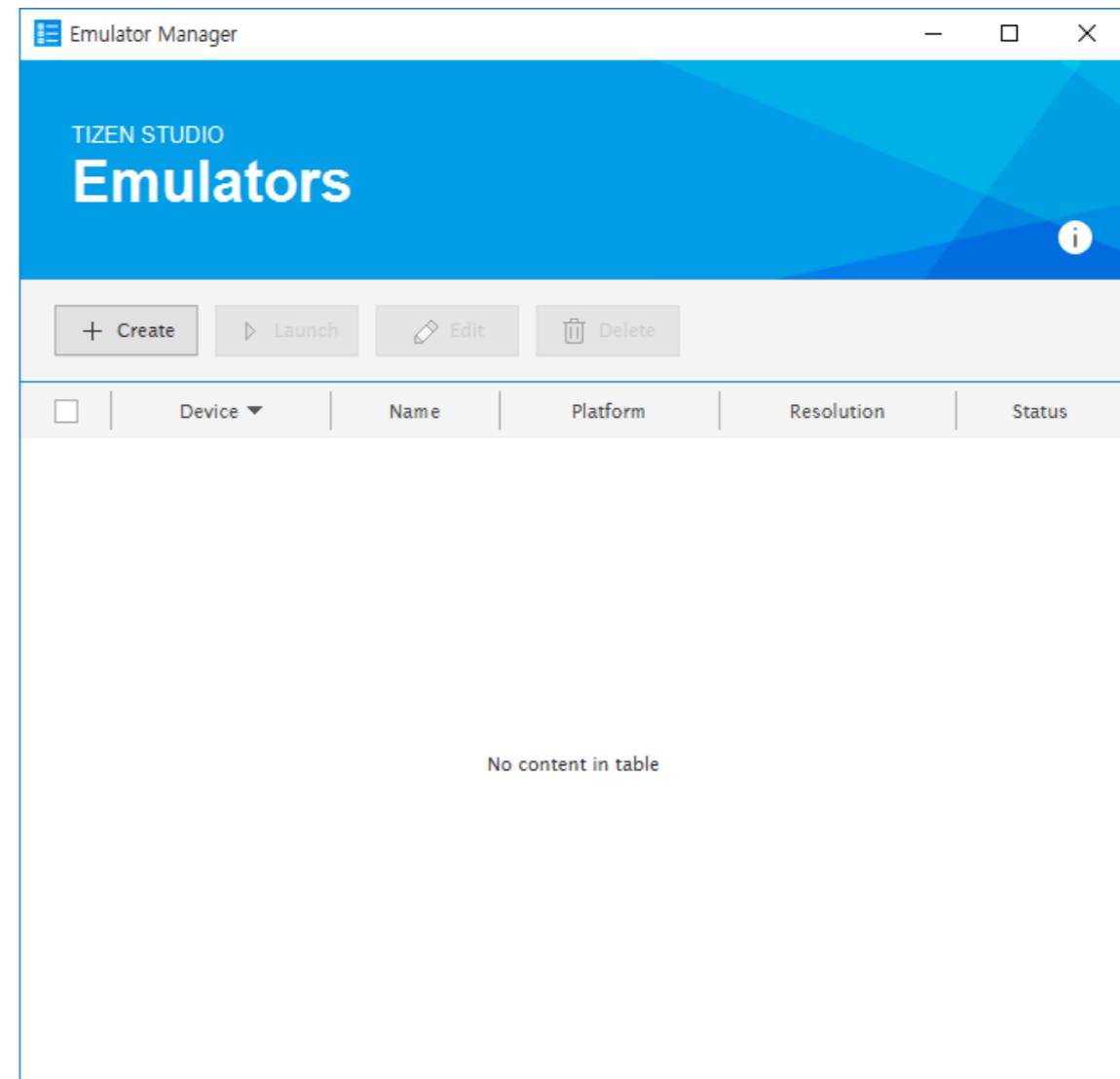
Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

Launch an Emulator instance.

Launch the Emulator Manager by clicking the  icon in the Connection Explorer.



Creating the Application Project

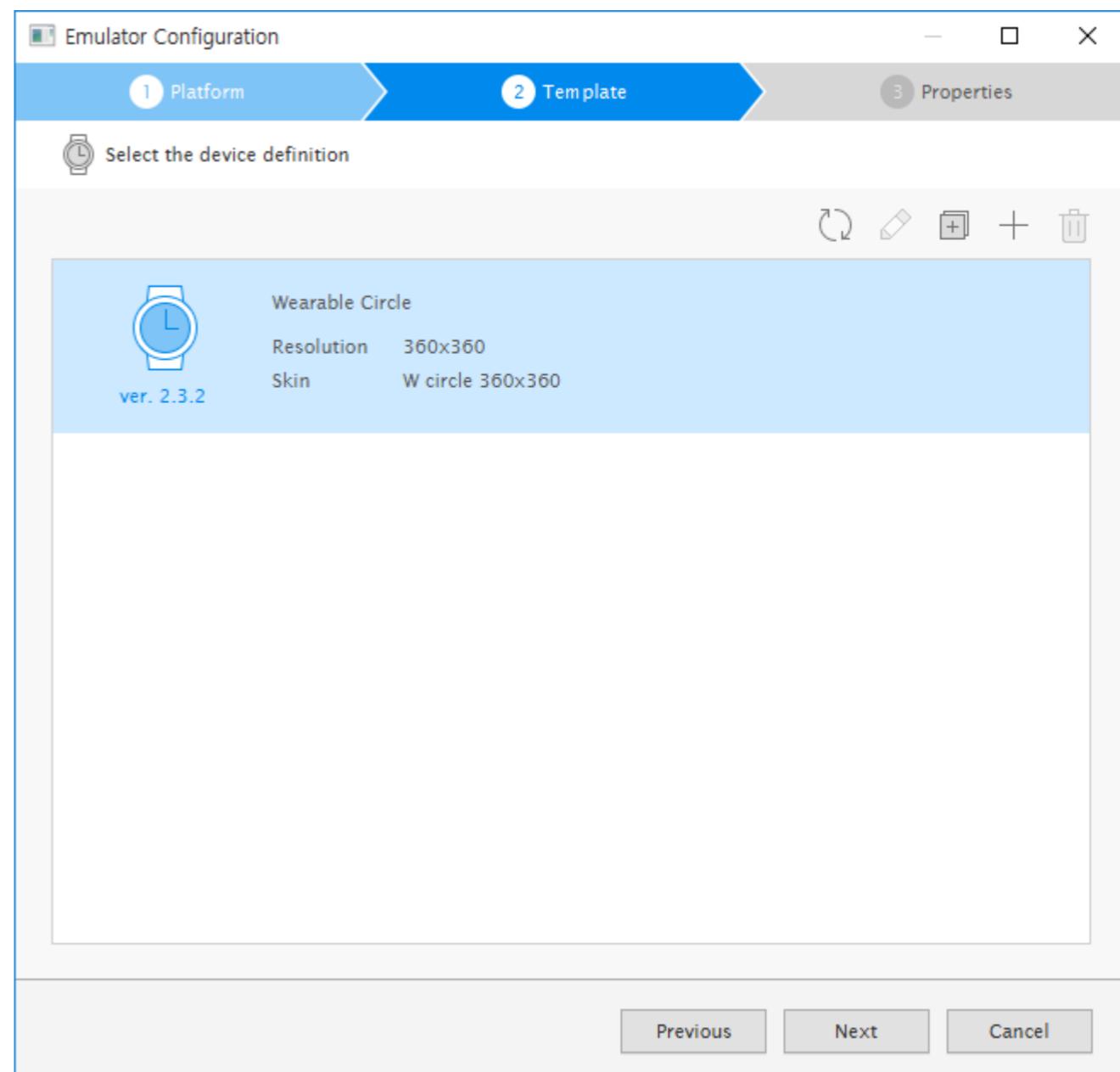
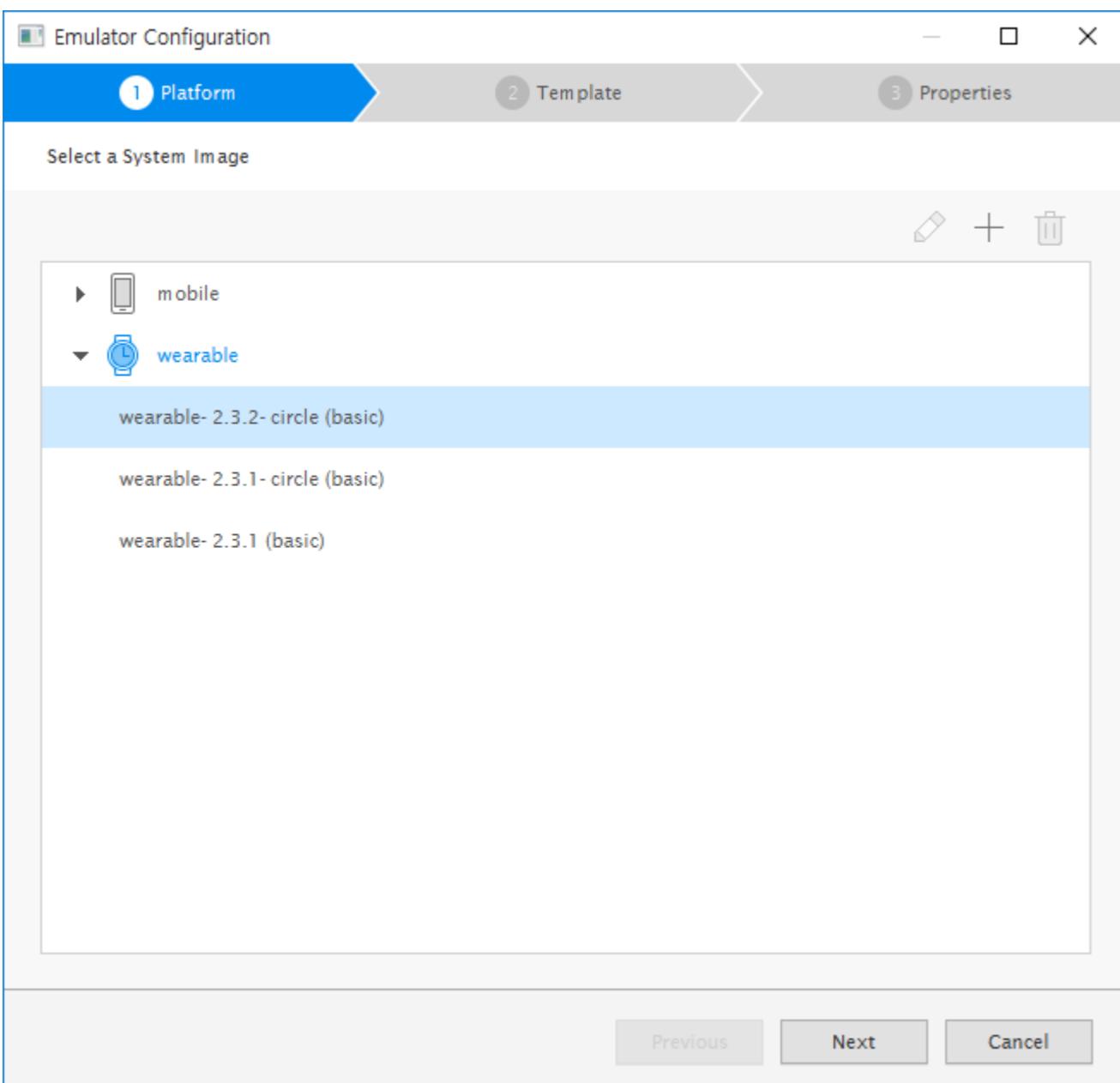
Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

Select wearable 2.3.2 circle.



Creating the Application Project

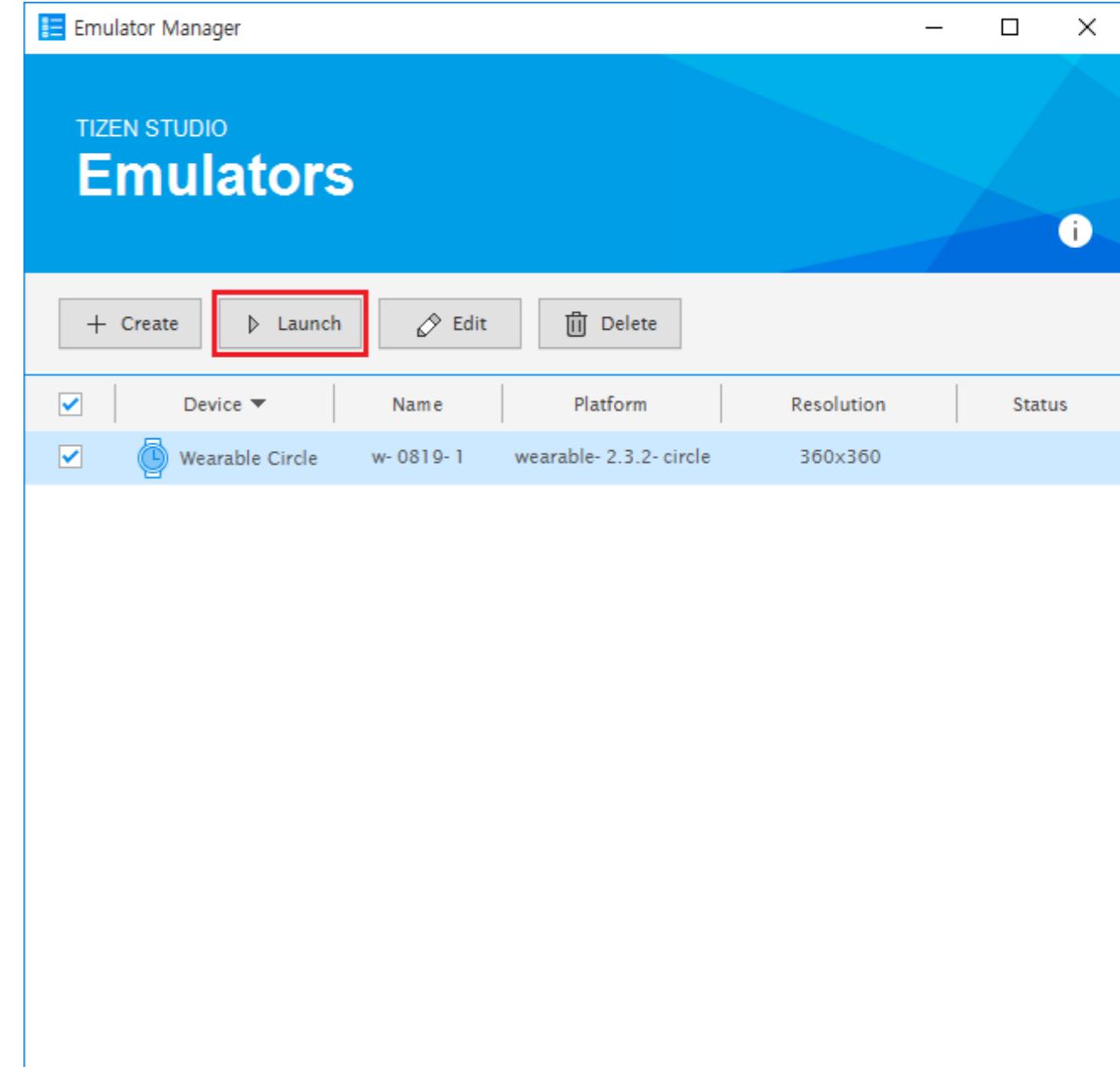
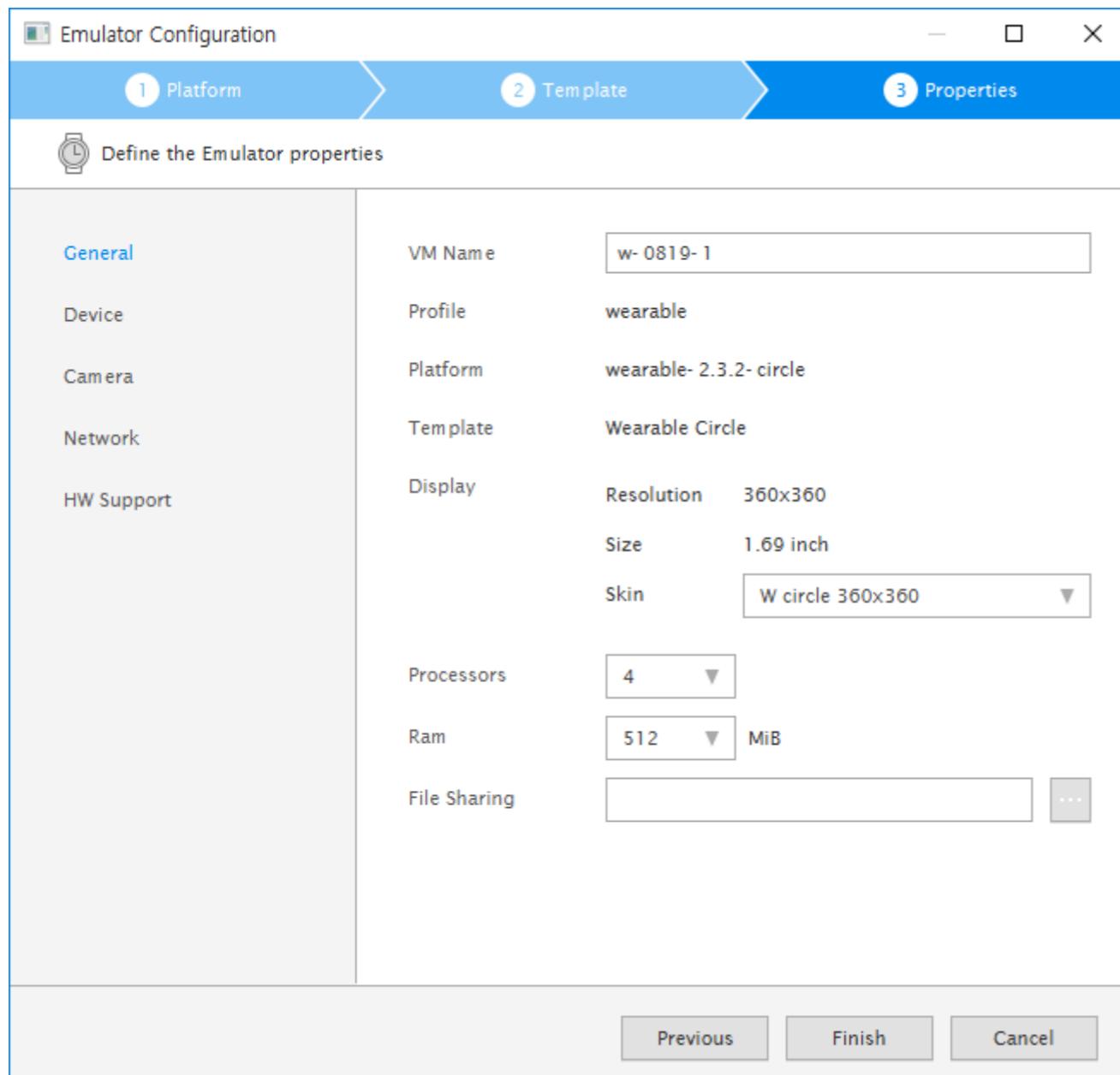
Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

Click the Launch button to launch the emulator instance.



Creating the Application Project

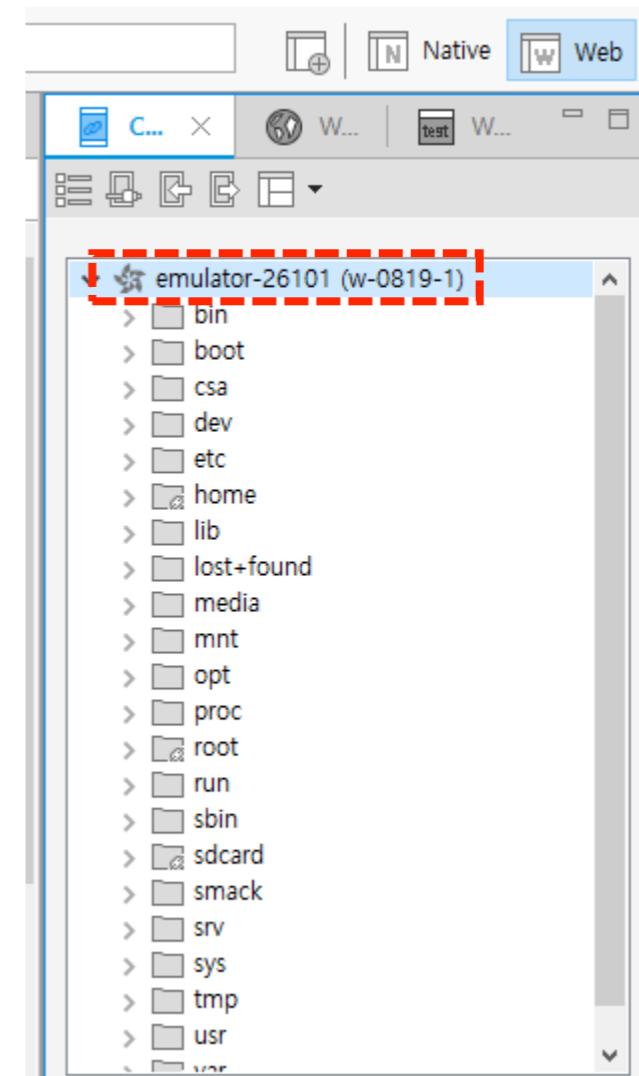
Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

The Emulator is launched in its own window, and the structure of the emulator is shown in the Connection Explorer.



Creating the Application Project

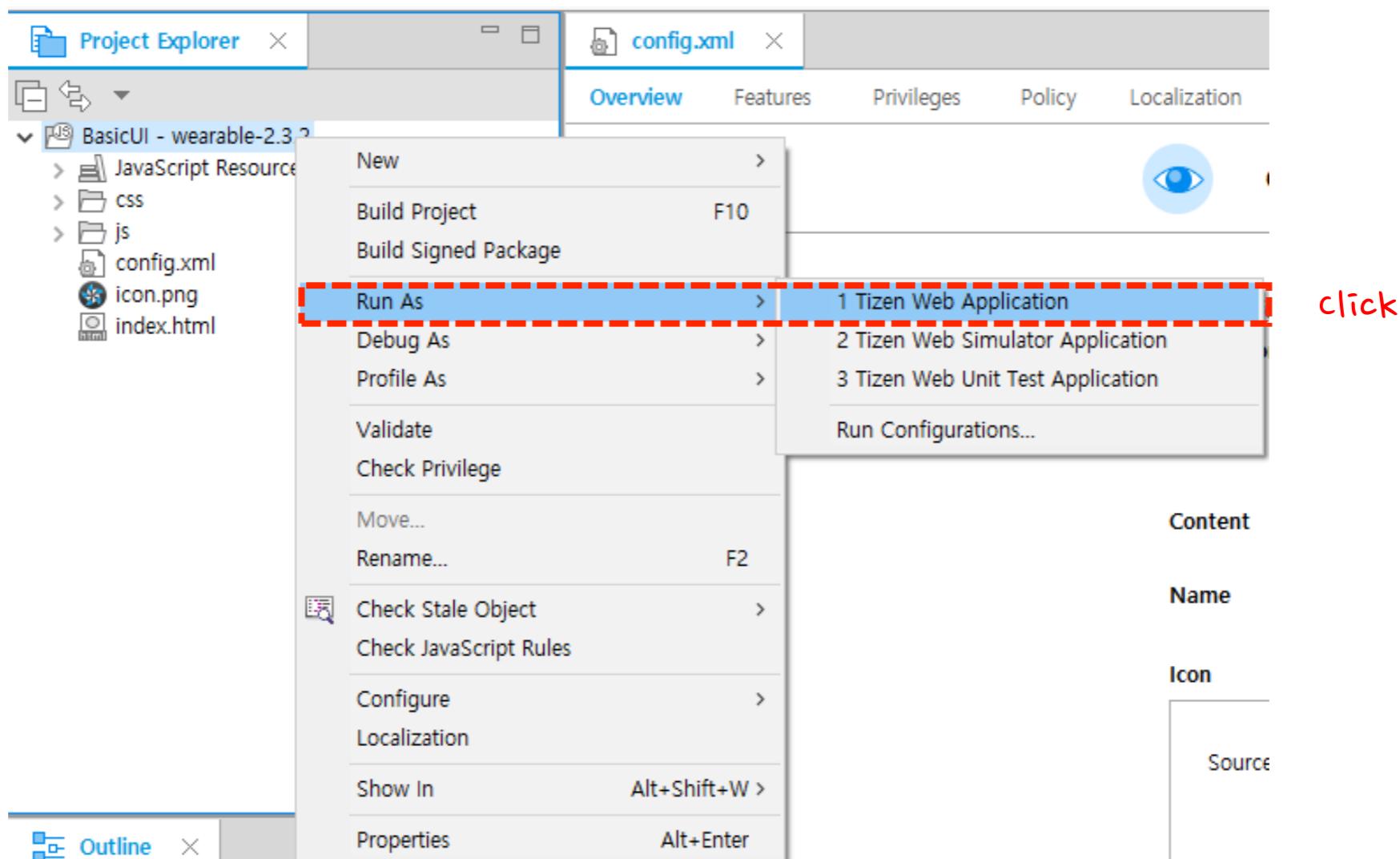
Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

Right-click on the project title, and select Run As > Tizen Web Application while the Emulator display of the is switched on.



Creating the Application Project

Generating the Author Certificate

Creating the Emulator Instance

Running the Application on the Emulator

Running Applications on the Emulator

The application is launched in the Emulator successfully.



Creating the
Application Project

Generating the
Author Certificate

Creating the
Emulator Instance

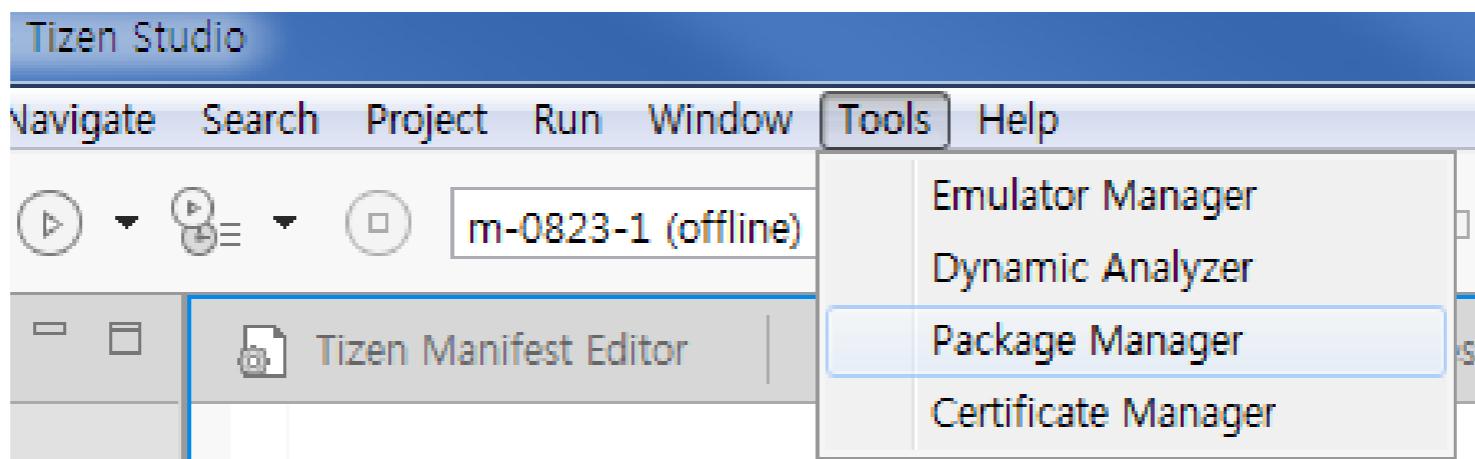
Running the
Application on the
Emulator

Running Applications on the Target Device

Running Applications on a Target Device

The Certificate Extension is an extra package of Tizen Studio. It is required for generating an author certificate for commercial devices, such as Samsung Gear S2, and registering it in the IDE.

To install the Certificate Extension, launch Package Manager from Start > All Programs > Tizen Studio > Tools > Package Manager, or Tools > Package Manager in the Tizen Studio menu.



Installing the
Certificate
Extension

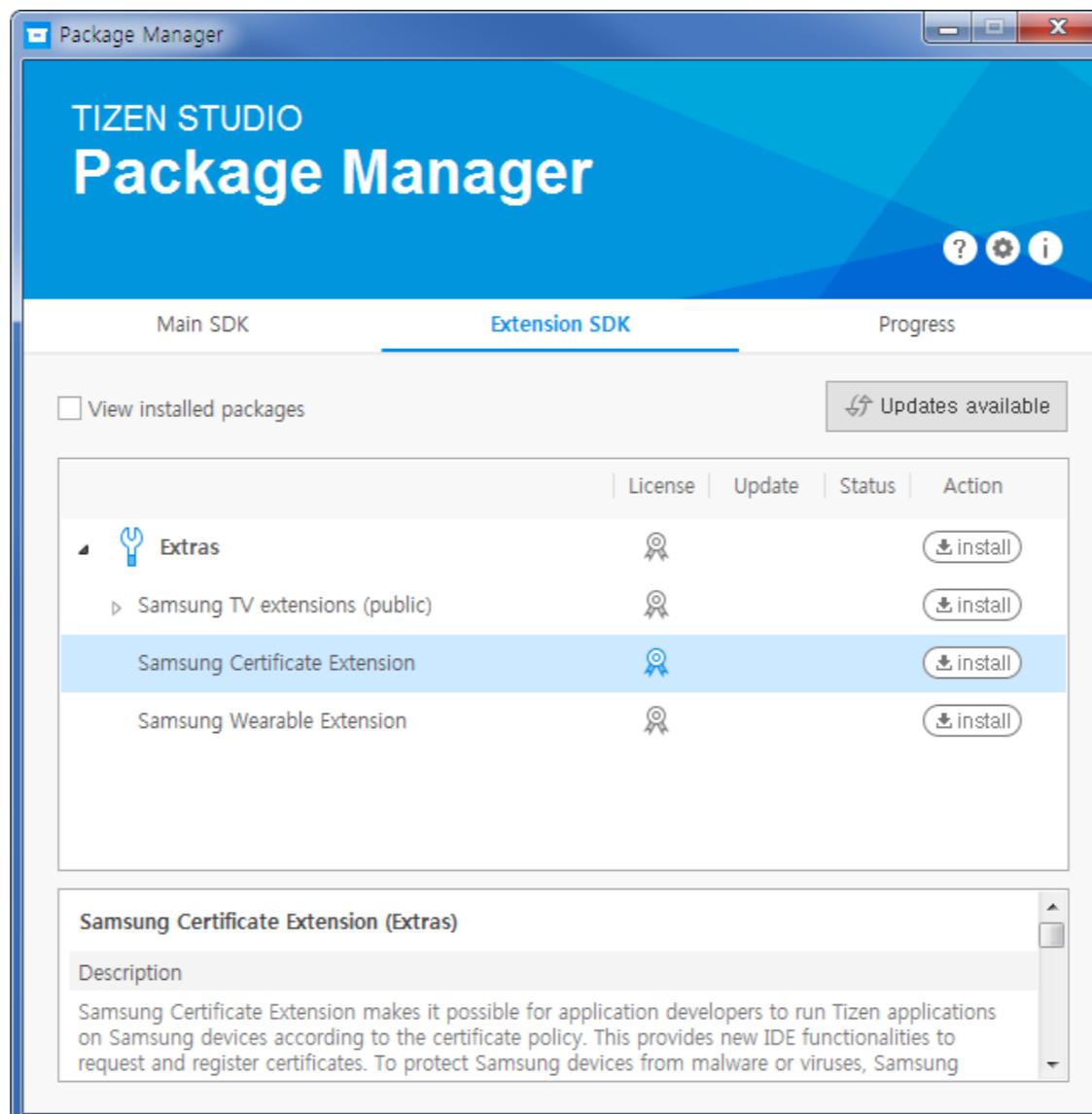
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

In Extension SDK tab, select the Certificate Extension, and click install.



Installing the
Certificate
Extension

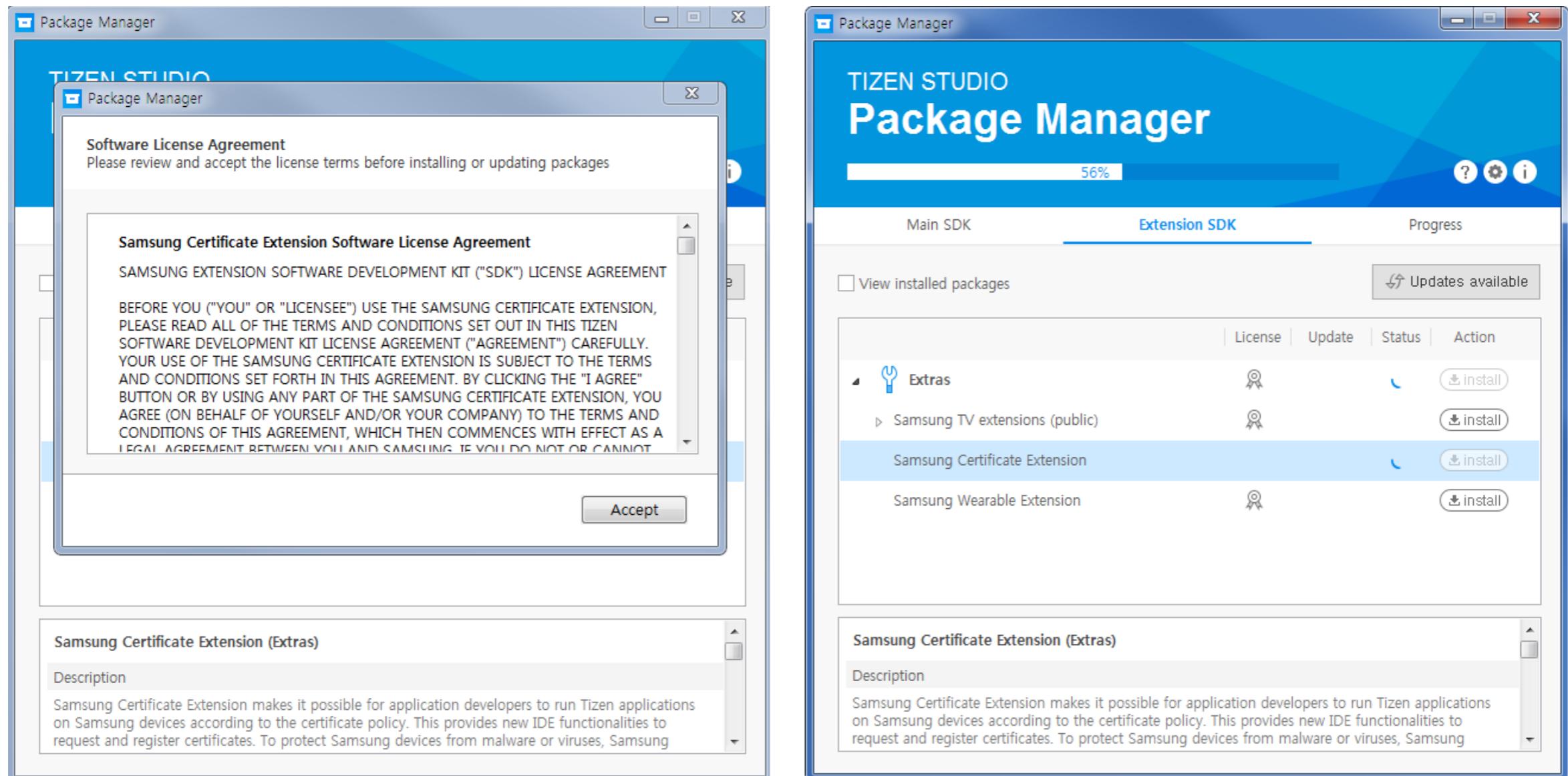
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Click the Accept to accept the EULA (End User License Agreement), then Certificate Extension starts to install.



Installing the
Certificate
Extension

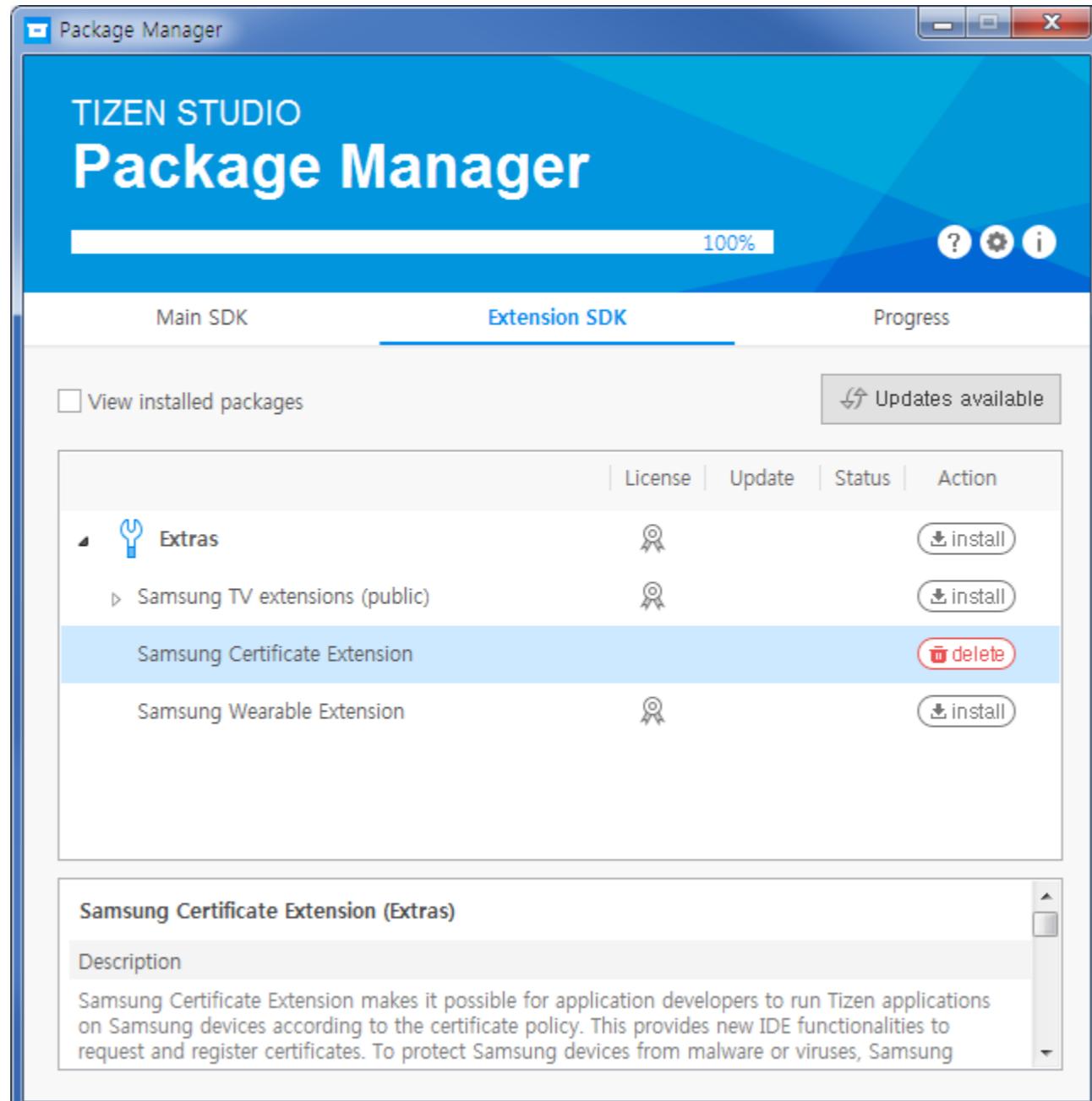
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Close the Package Manager when the Certificate Extension is installed.



Installing the
Certificate
Extension

Connecting the
Target Device

Generating the
Author & Distributor
Certificates

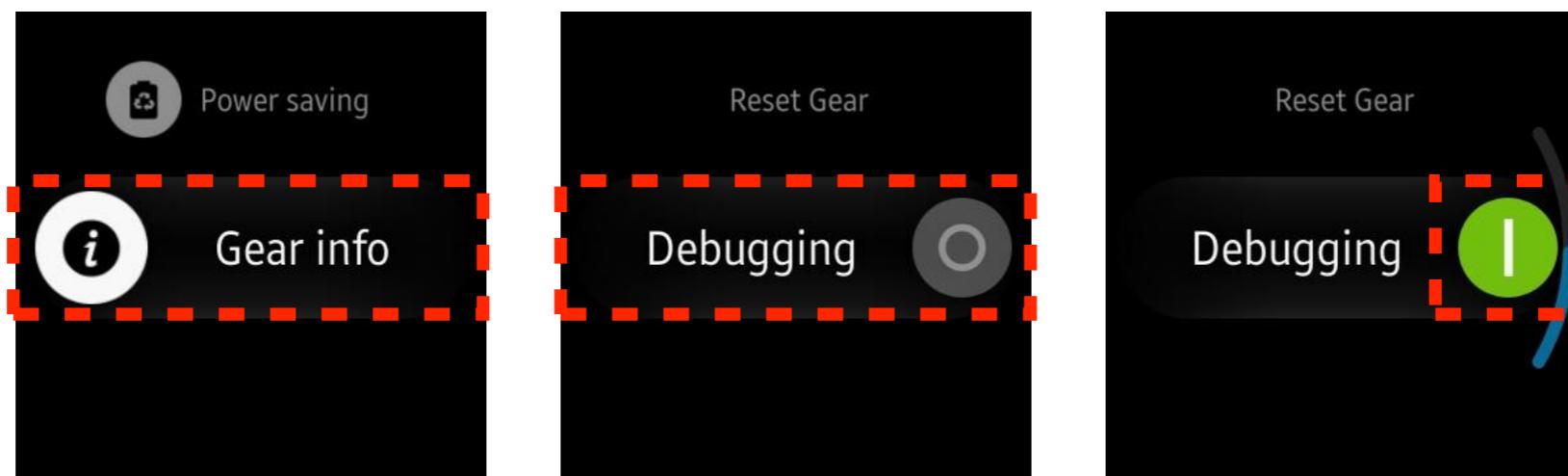
Running the
Application on the
Emulator

Running Applications on a Target Device

For Gear S2, you must connect the device to the computer using Wi-Fi. For devices that can be connected using USB cable, you can simply connect the device to the computer with an USB cable.

For connecting a Gear S2 device using Wi-Fi:

1. Switch on the Debugging mode in **Settings > Gear info**.



Installing the
Certificate
Extension

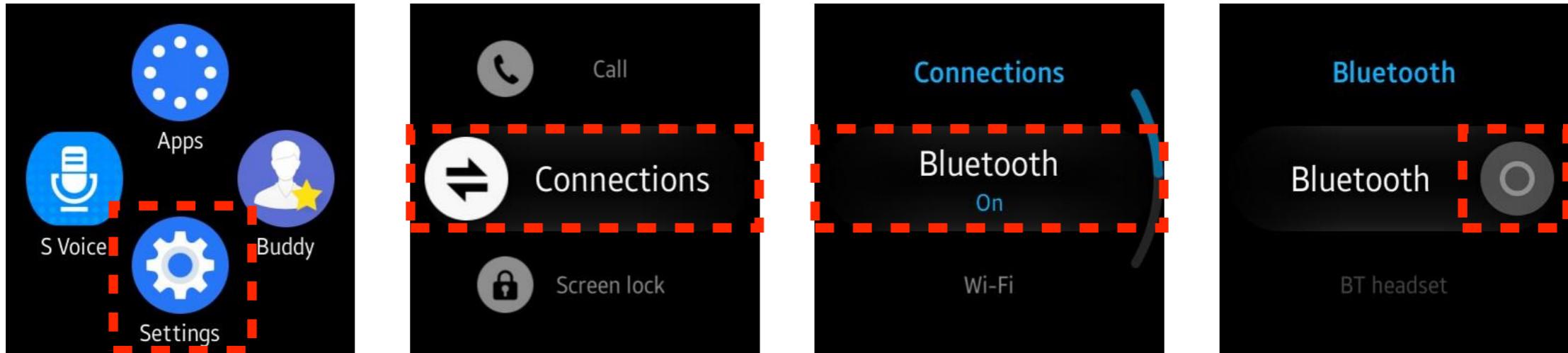
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

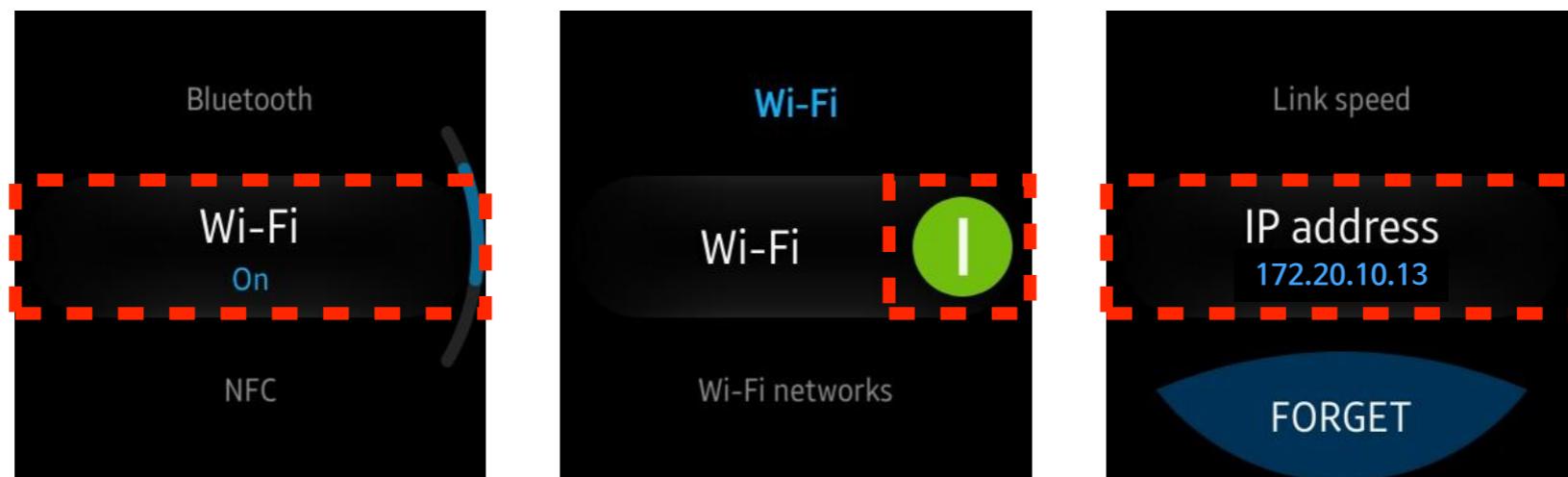
Running Applications on a Target Device

2. Switch off Bluetooth in Settings > Connections.



3. Switch on Wi-Fi in Settings > Connections and note the IP address.

The device and the computer must be connected to the same Wi-Fi network.



Installing the
Certificate
Extension

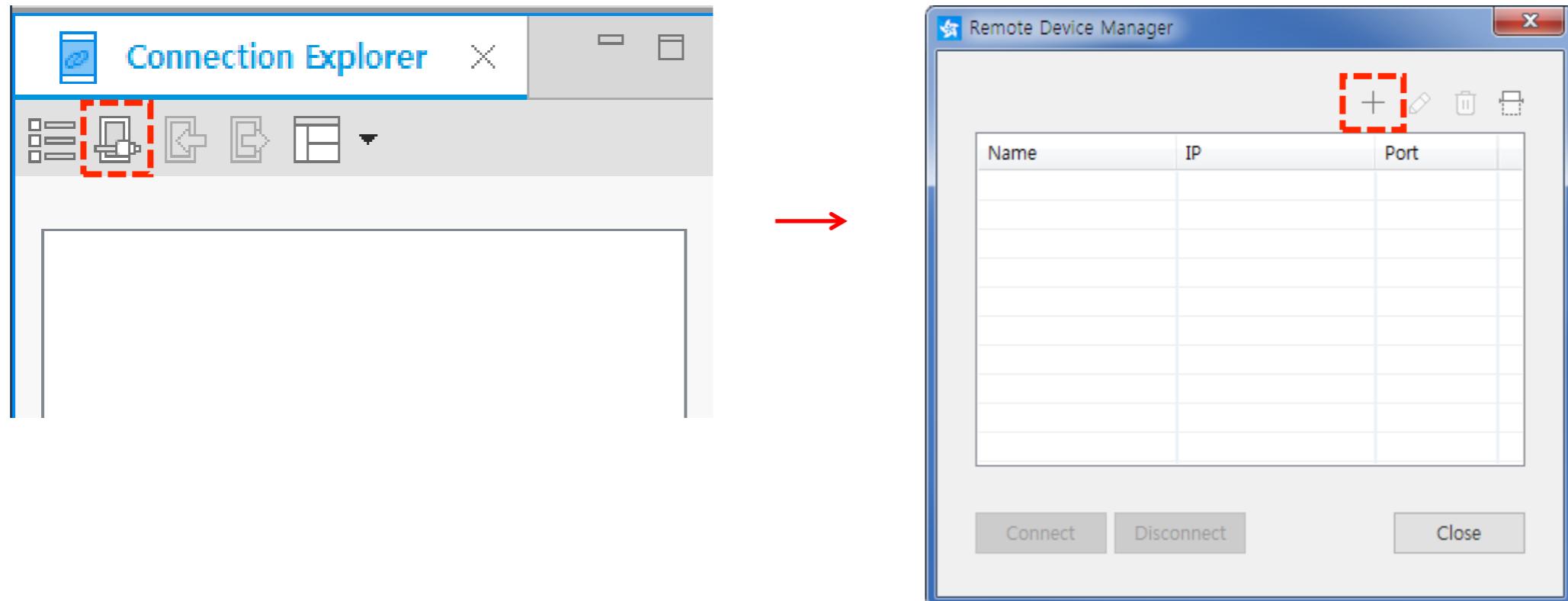
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Launch the Remote Device Manager by clicking the icon  in the Connection Explorer and click +.



Installing the
Certificate
Extension

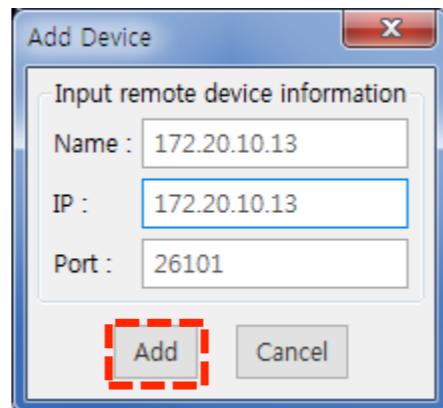
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

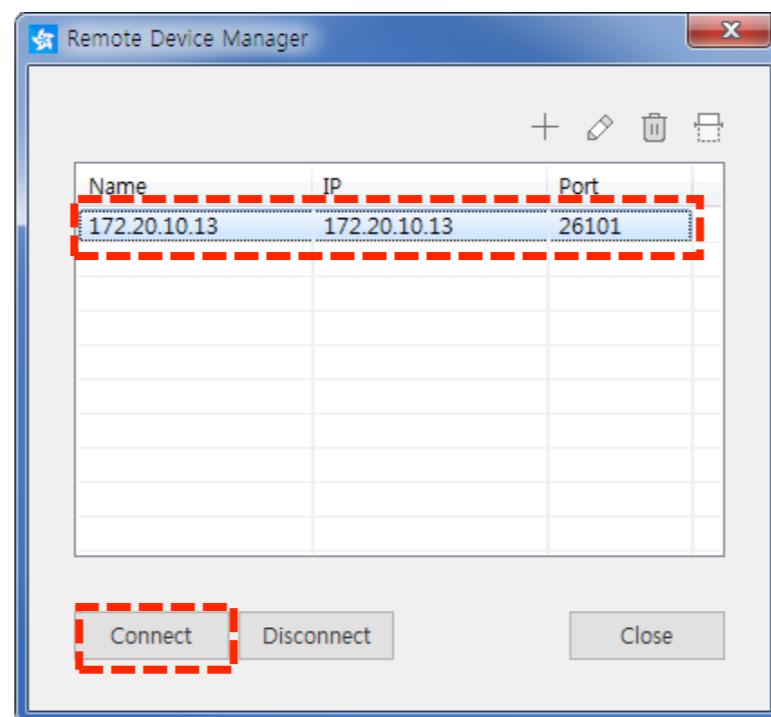
Running the
Application on the
Emulator

Running Applications on a Target Device

Fill in the information about the device and click Add.



Select the device to connect and click Connect button.



Installing the
Certificate
Extension

Connecting the
Target Device

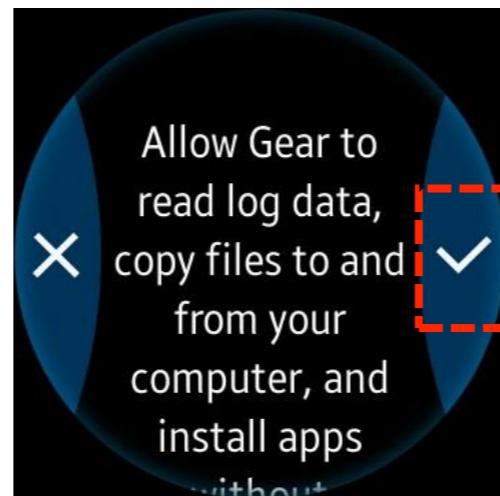
Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

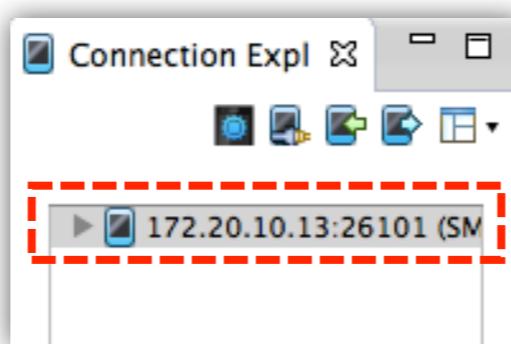
Running Applications on a Target Device

In the first attempt, the connection can fail. In this case, a pop-up appears in the device.

Click the check button to allow Gear to install apps in the device manually.



In the Connection Explorer, note that the device is connected successfully.



Installing the
Certificate
Extension

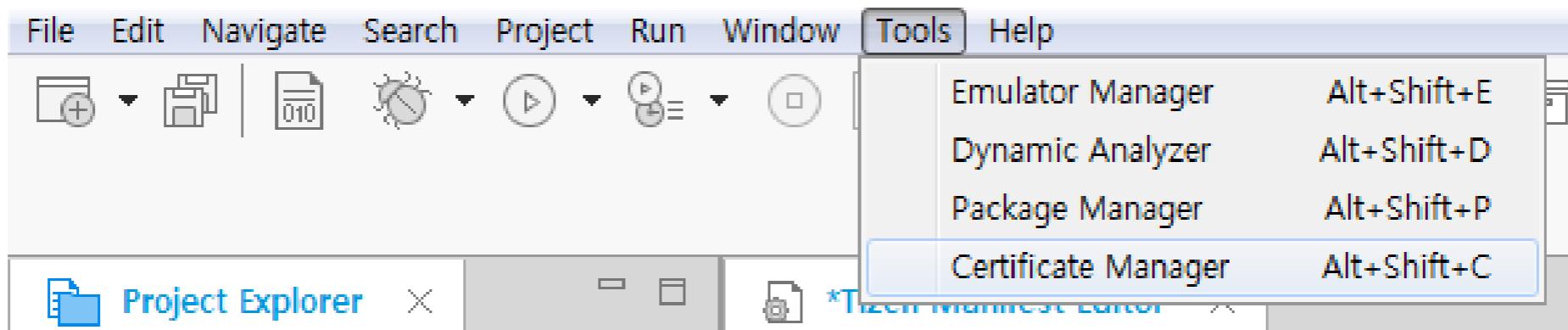
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Select Tools > Certificate Manager to generate and register a developer certificate.



Installing the
Certificate
Extension

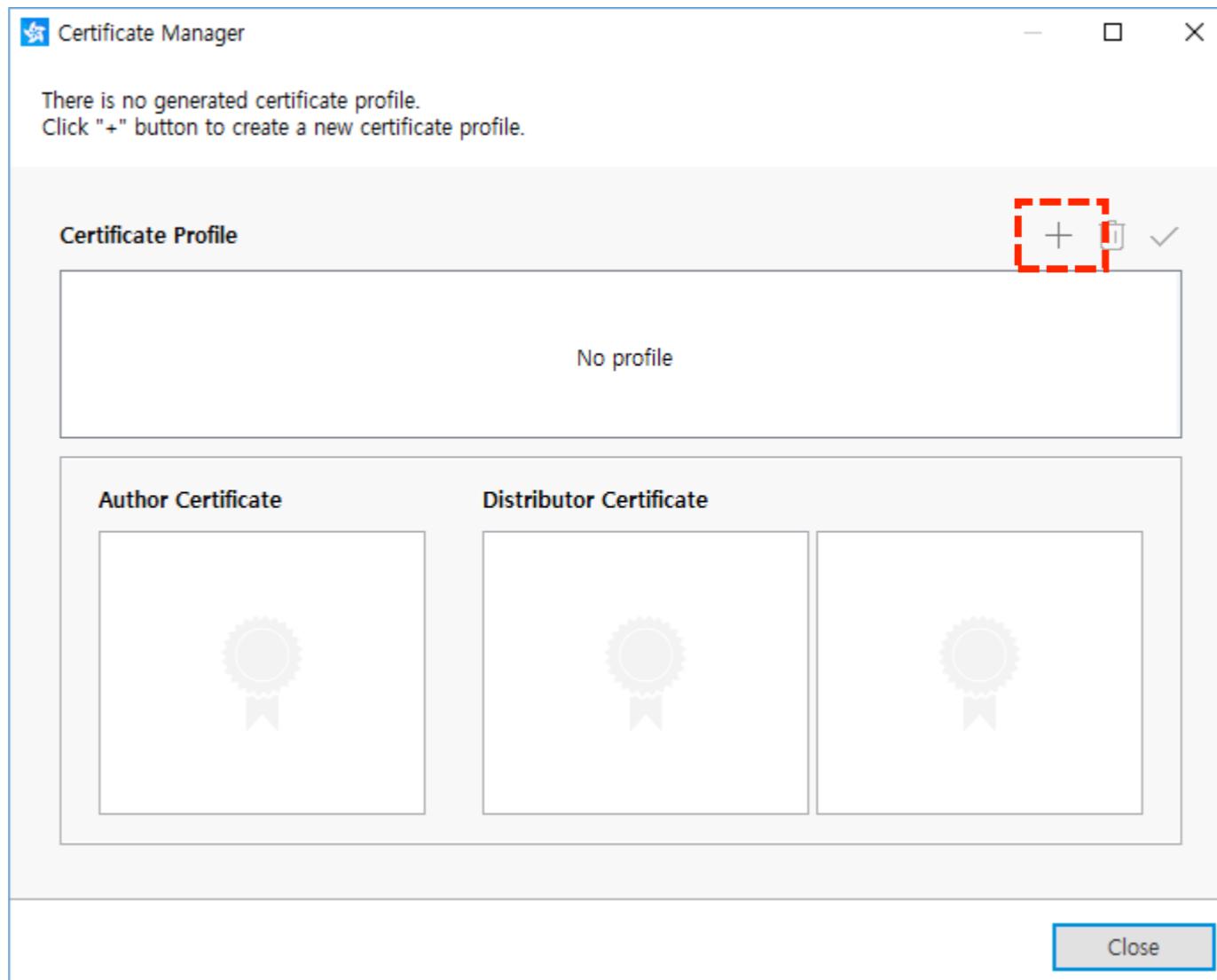
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Click puls icon (+) to create security profile.



Installing the
Certificate
Extension

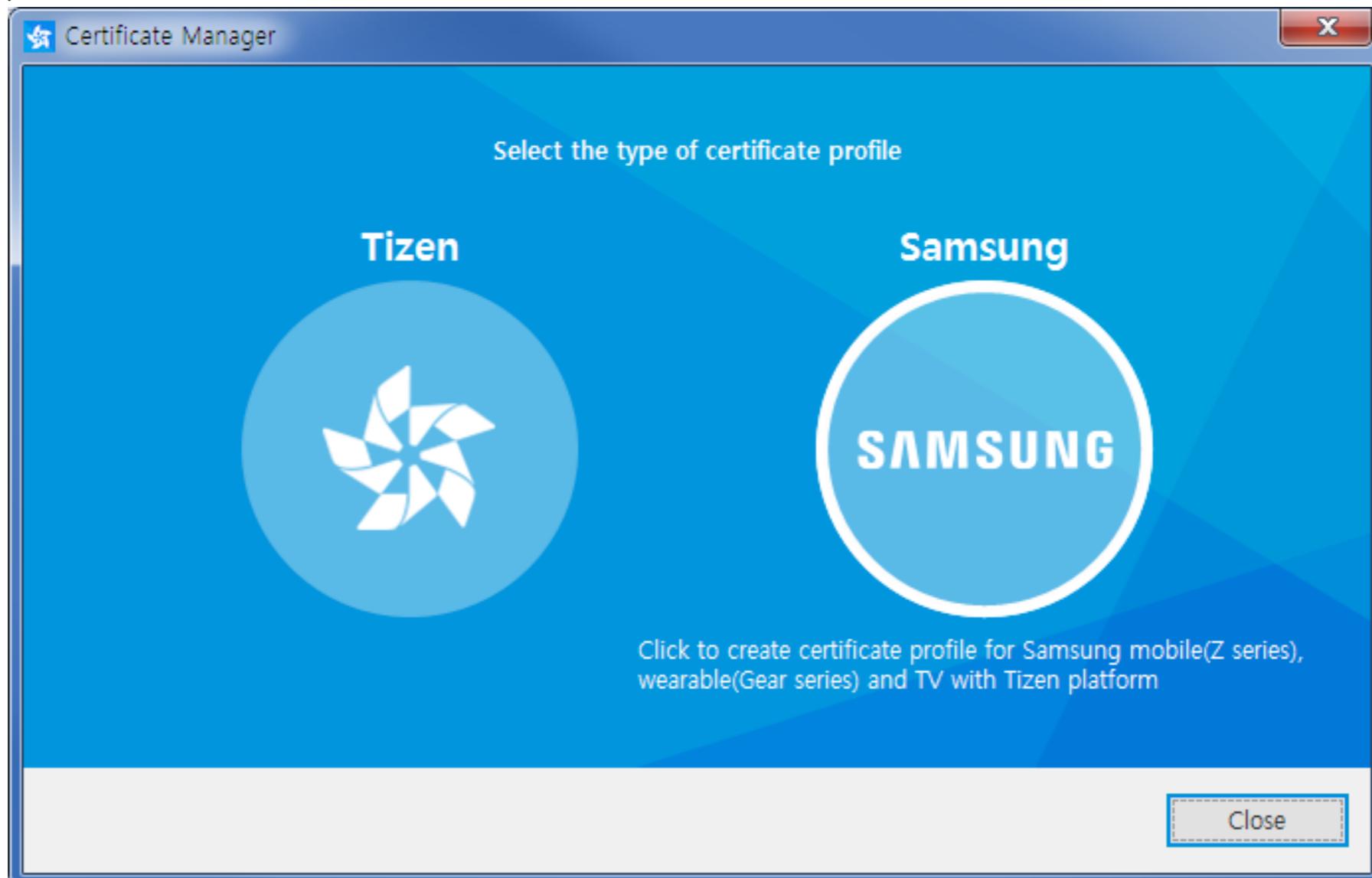
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Samsung profile appears because Certificate Extension is installed. Select Samsung profile.



Installing the
Certificate
Extension

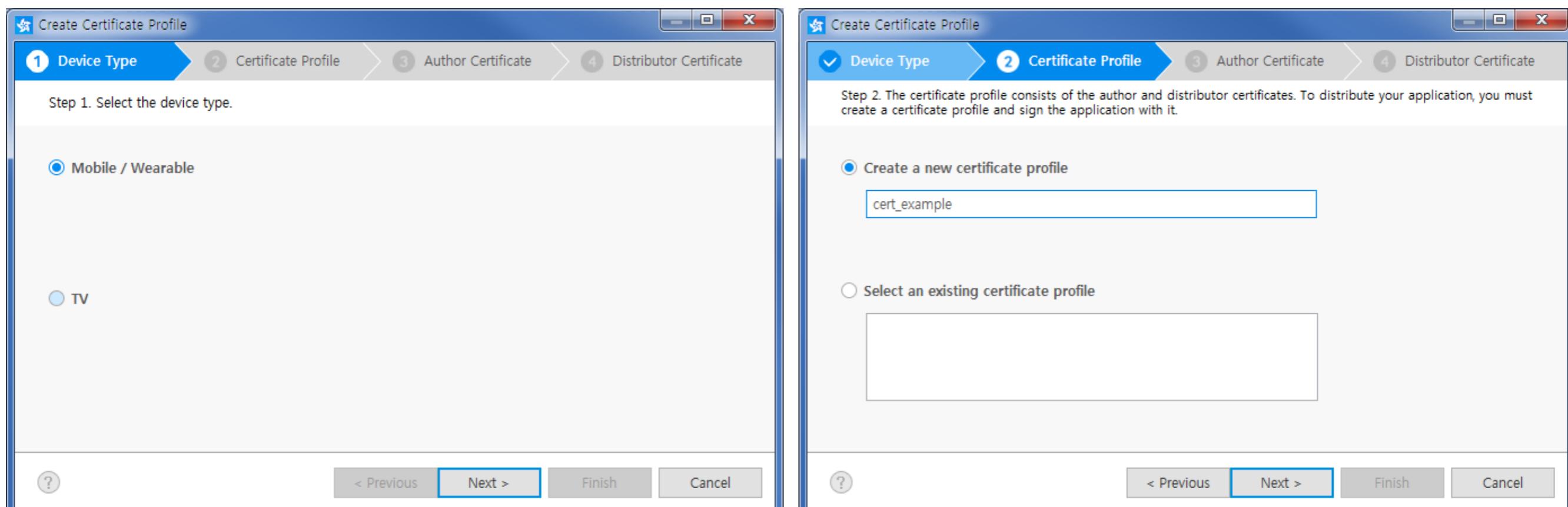
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Select device type. Here we choose mobile/wearable, then click Next for create a new certificate profile.



Installing the
Certificate
Extension

Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Select Create a new author certificate.

Fill the required information.

The image shows two side-by-side screenshots of a software application titled "Create Certificate Profile". The top navigation bar includes "Device Type", "Certificate Profile", "3 Author Certificate" (which is highlighted in blue), and "Distributor Certificate".

Screenshot 1 (Left): Step 3-1

Step 3-1. The author certificate provides a unique signature that is used when you sign your applications with a certificate profile.

Create a new author certificate
 Select an existing author certificate

Advanced options

Screenshot 2 (Right): Step 3-2

Step 3-2. Create a new author certificate. The fields marked with * are mandatory.

Author name* DHL

Password* (showing six dots)

Confirm password* (showing six dots)

Apply the same password for the distributor certificate

Additional Fields

Buttons at the bottom: < Previous, Next >, Finish, Cancel

Installing the
Certificate
Extension

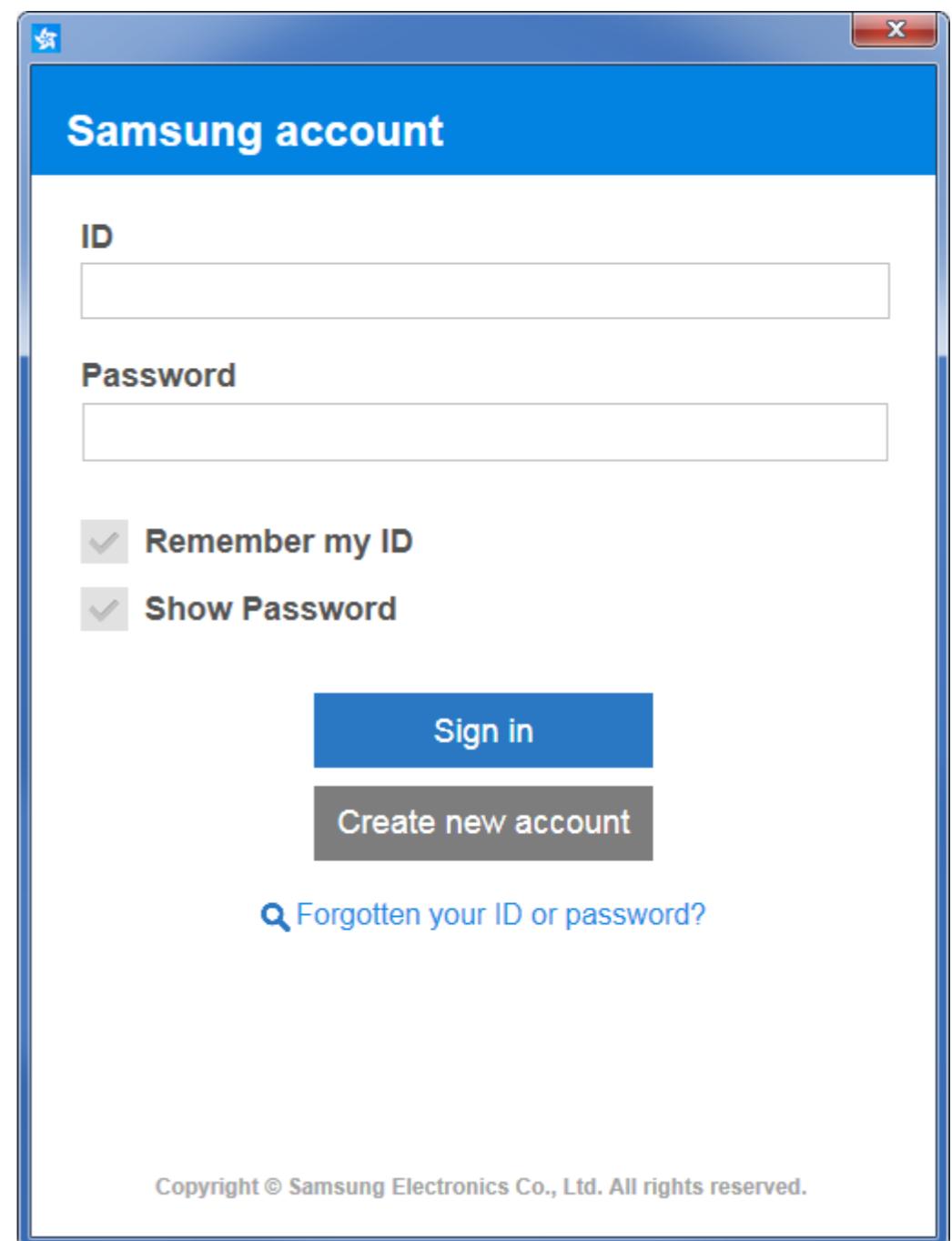
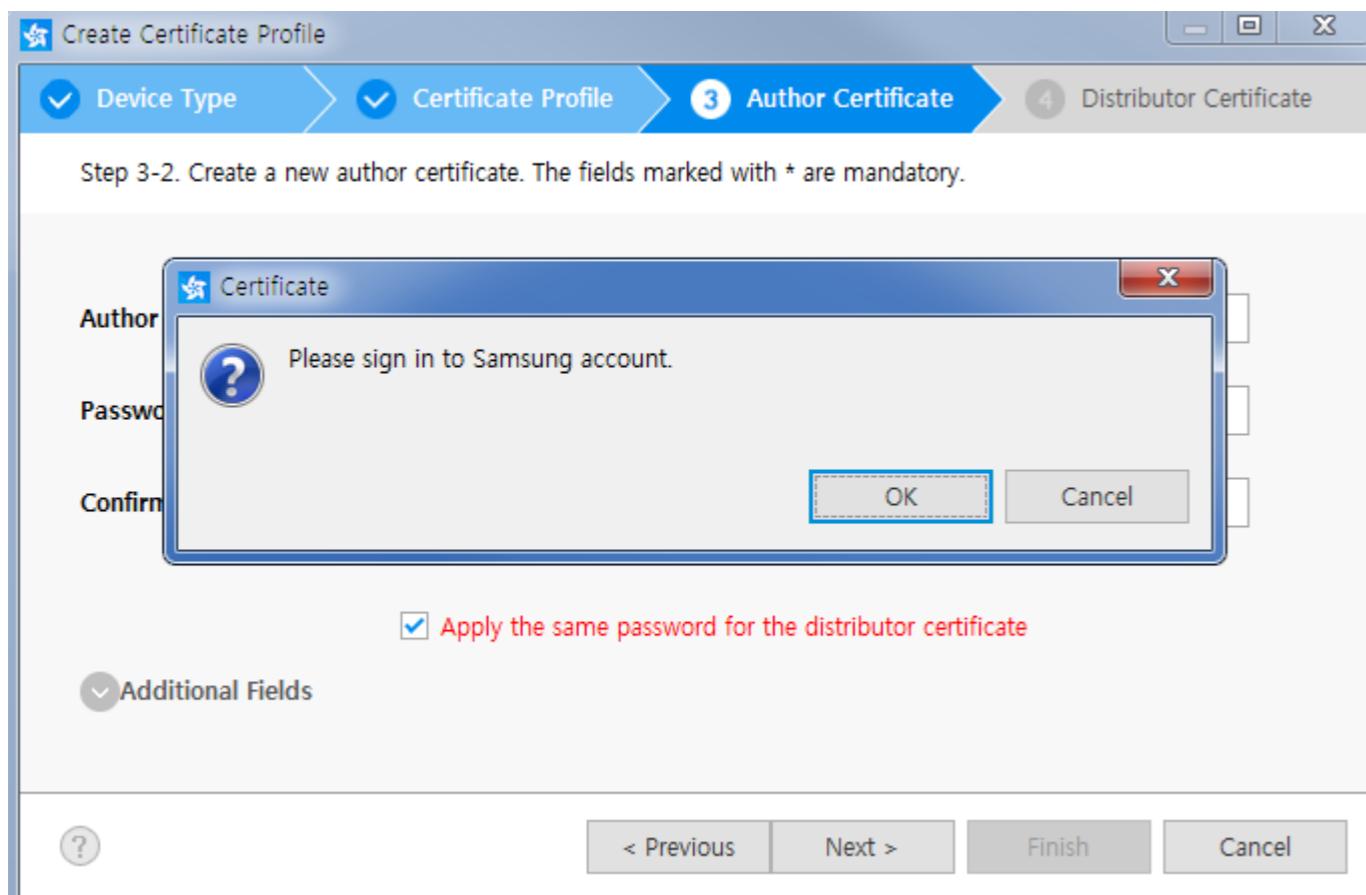
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Sign in with your Samsung account.



Installing the
Certificate
Extension

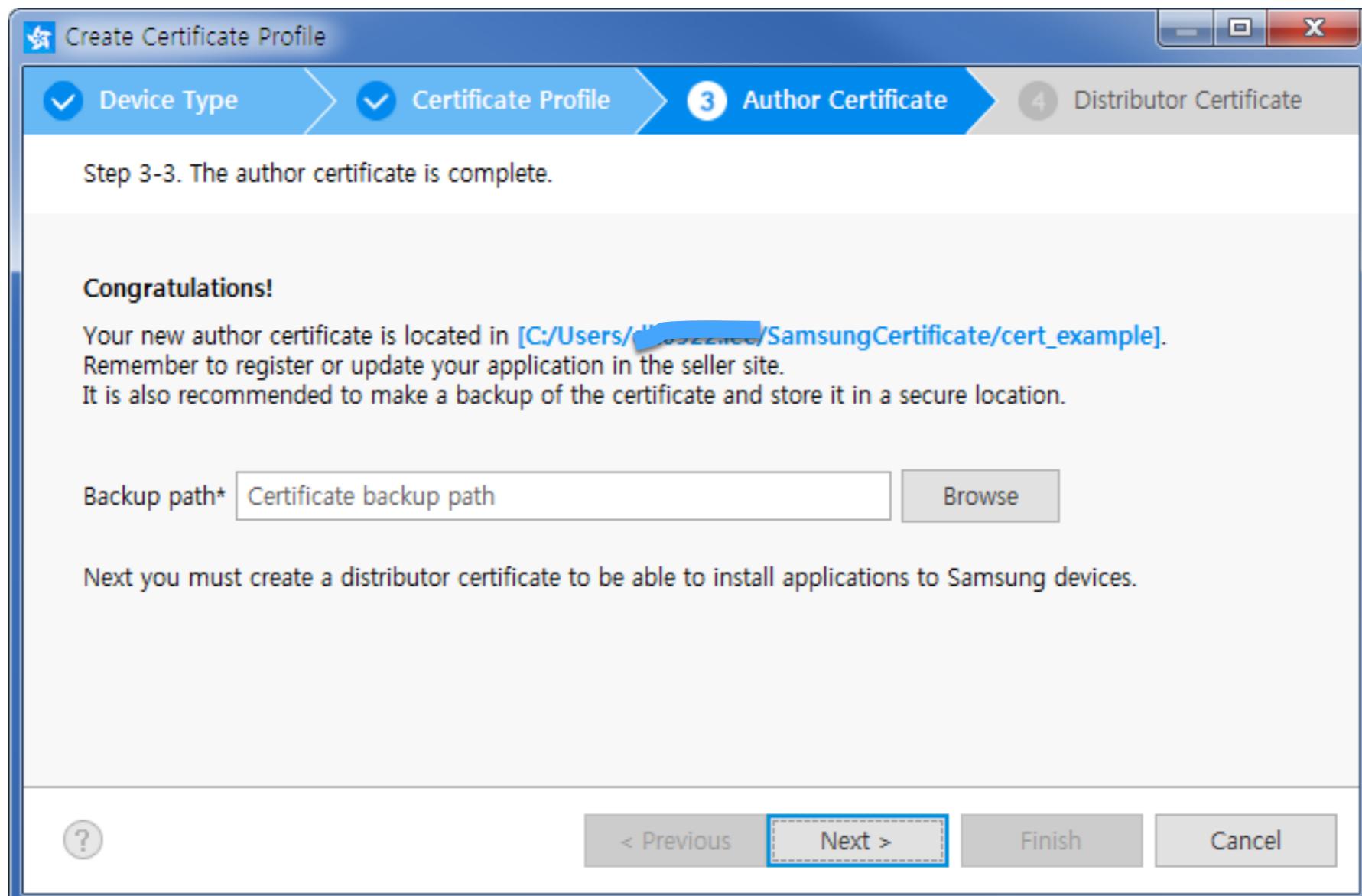
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Author certificate is created. Click **Next** for creating a distributor certificate.



Installing the
Certificate
Extension

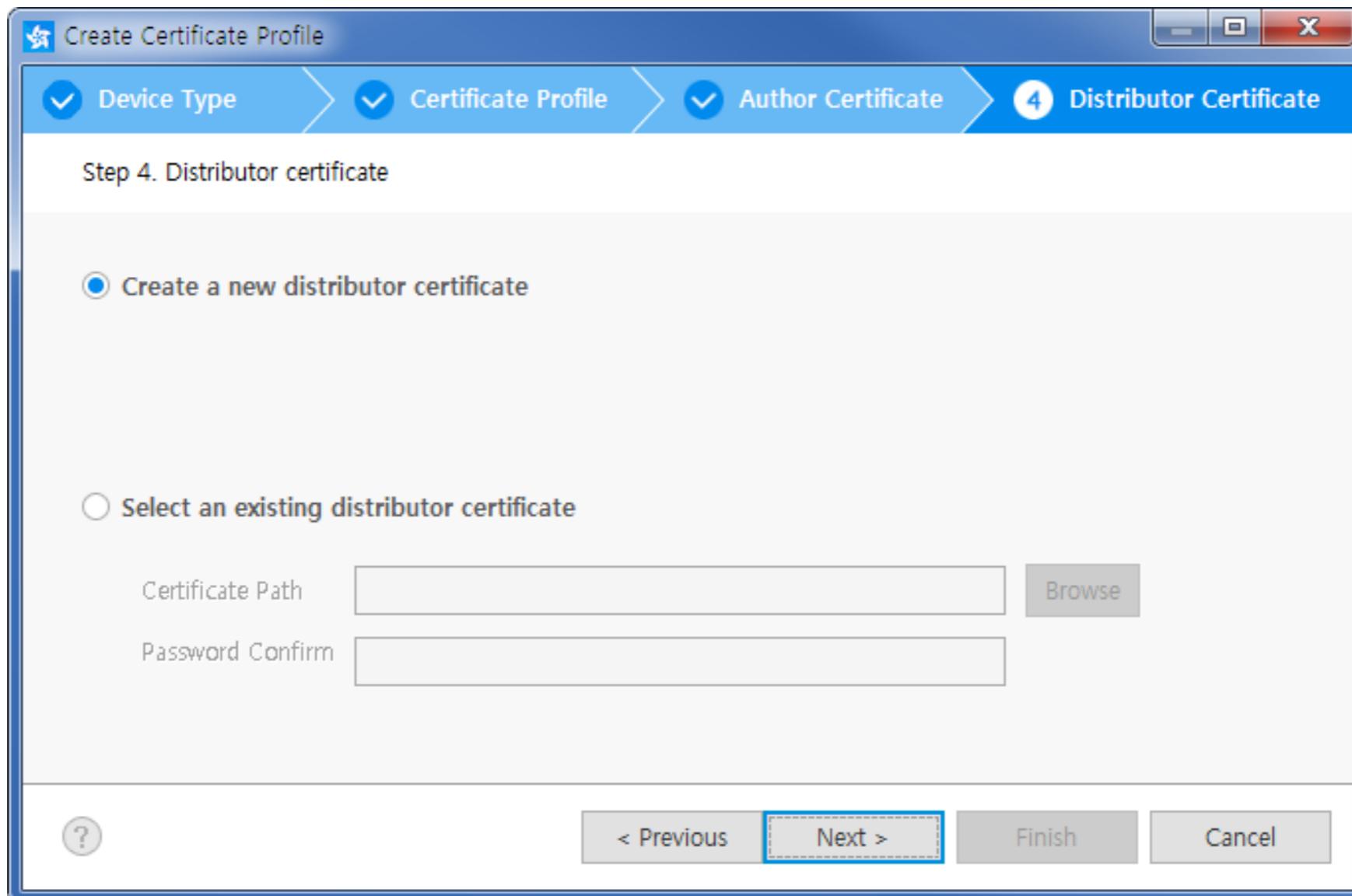
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Select Create a new certificate to create a distributor certificate.



Installing the
Certificate
Extension

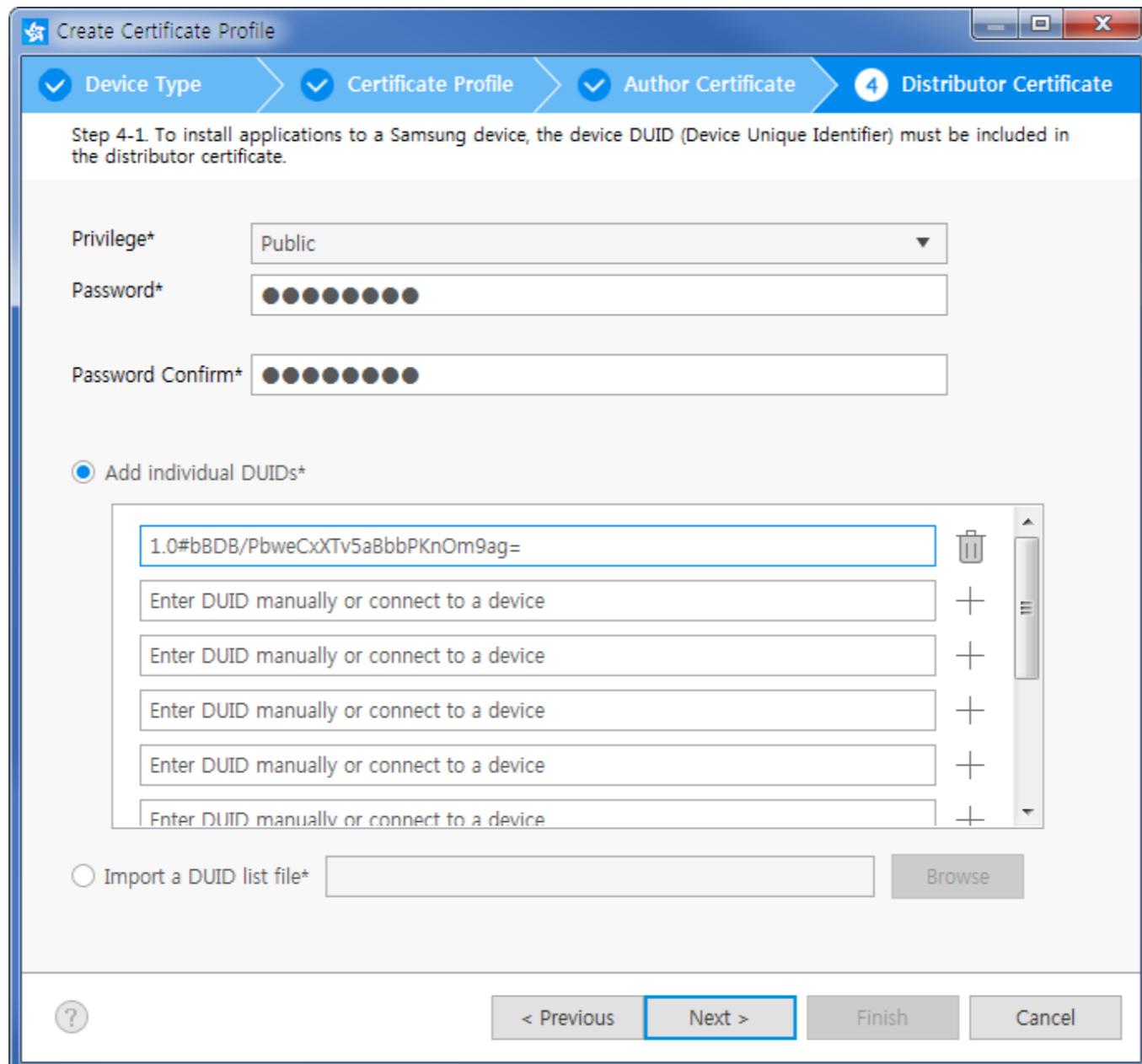
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Enter the Device ID and click Next.



Installing the
Certificate
Extension

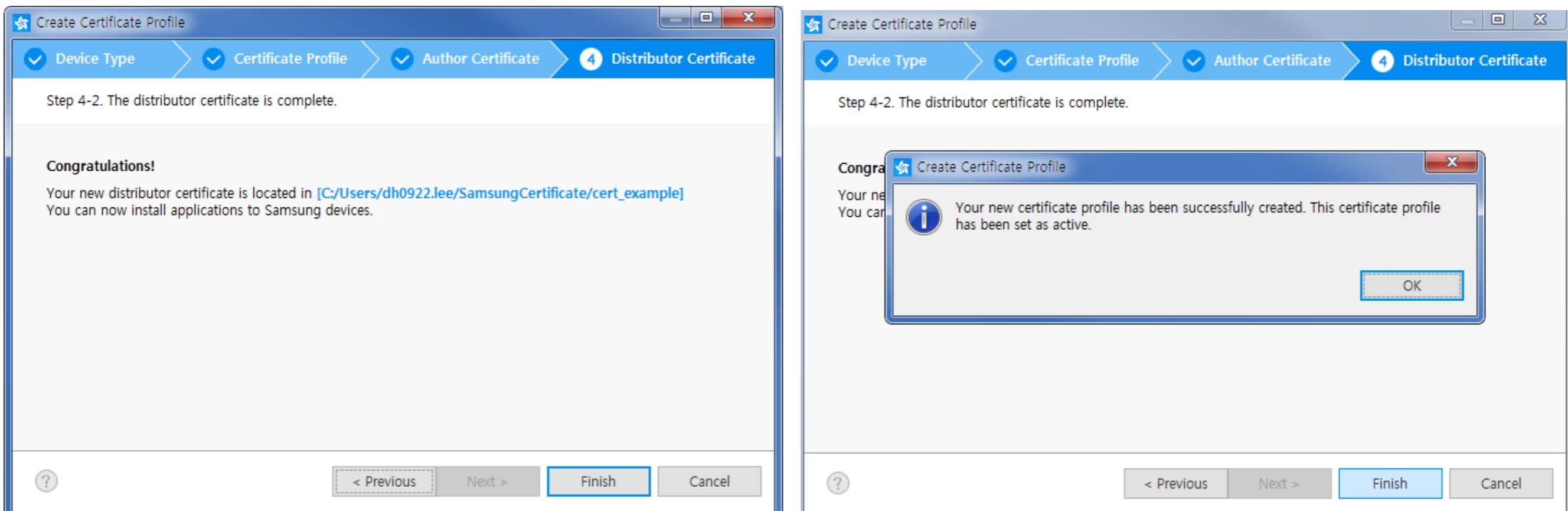
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

The distributor certificate is generated.



Installing the
Certificate
Extension

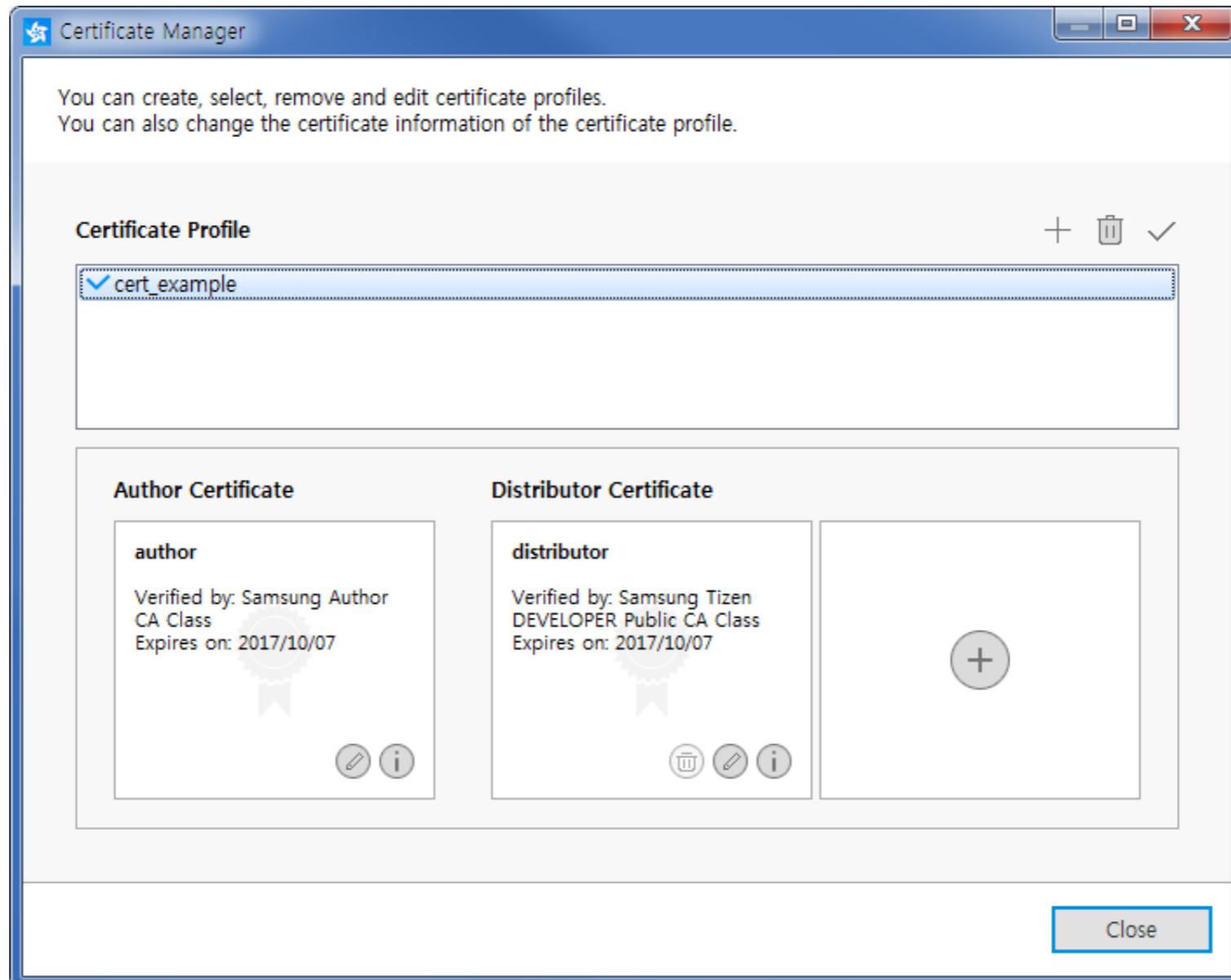
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

You can see generated certificates in the certificate manager.



Installing the
Certificate
Extension

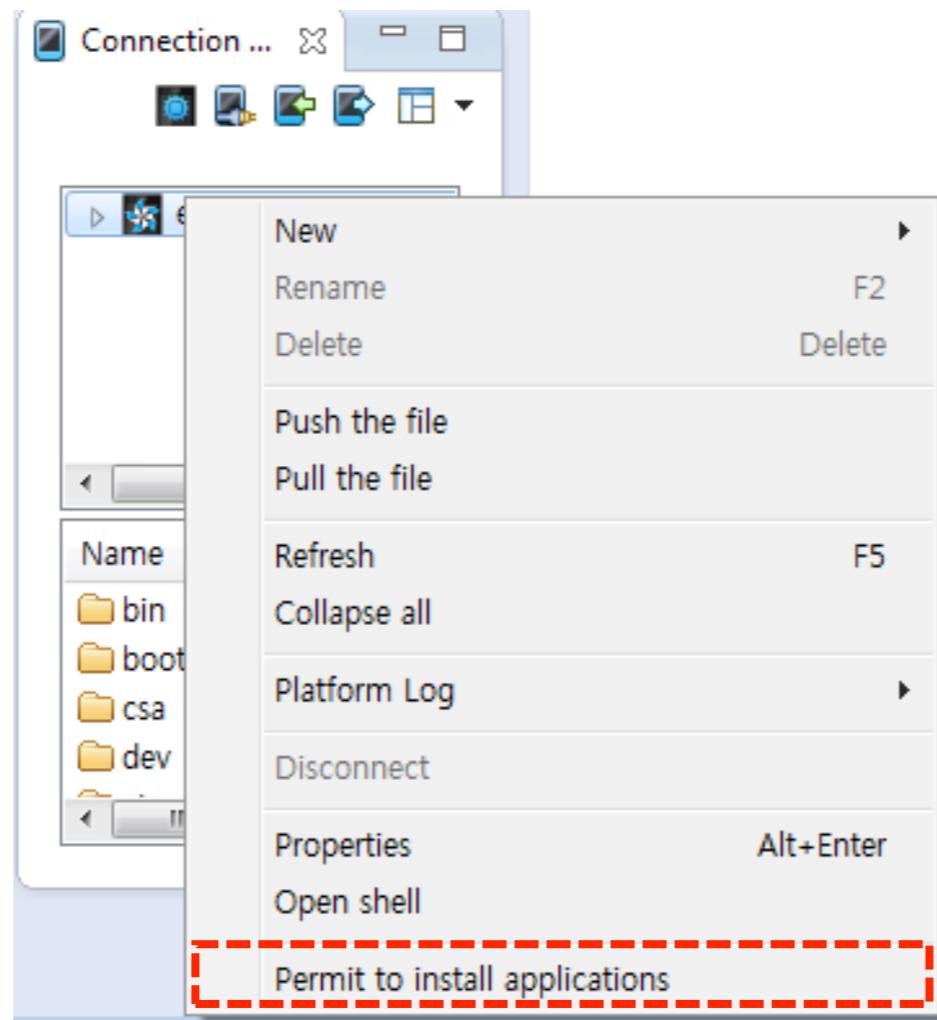
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Right-click on the target device in the Connection Explorer, and go to Permit to install applications.



Installing the
Certificate
Extension

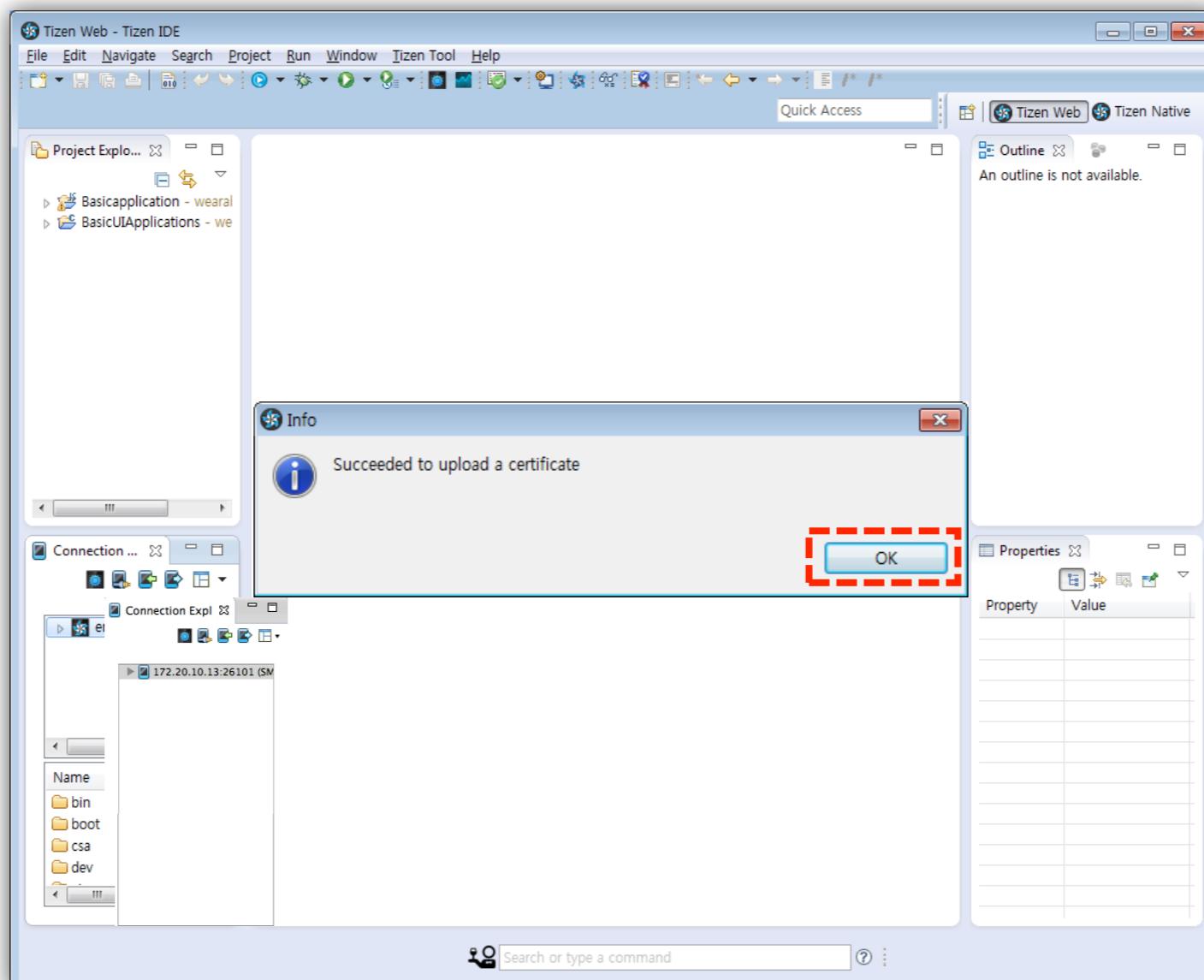
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Click OK when the upload is completed.



Installing the
Certificate
Extension

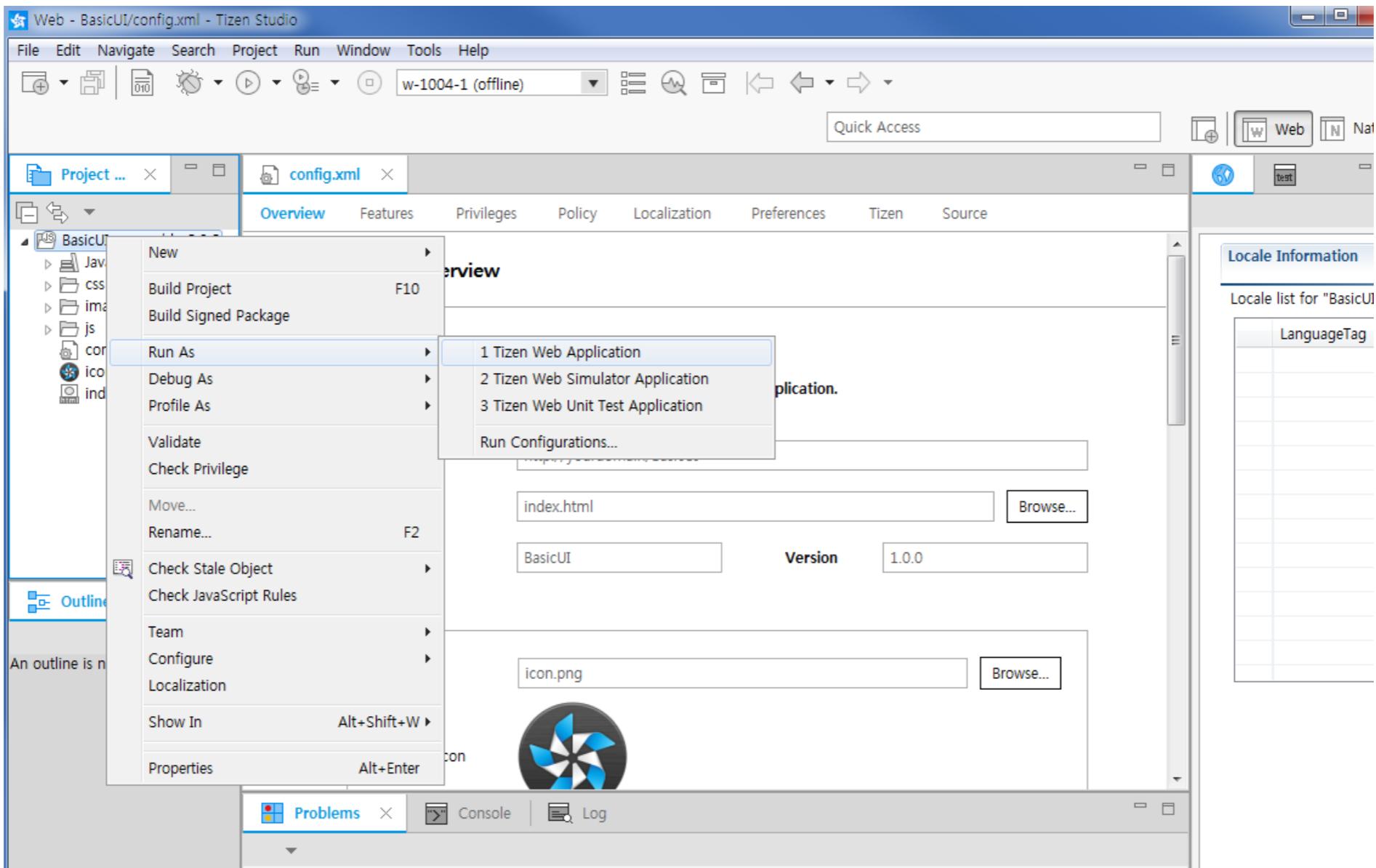
Connecting the
Target Device

Generating the
Author & Distributor
Certificates

Running the
Application on the
Emulator

Running Applications on a Target Device

Right-click on the project title, and select Run As > Tizen Web Application while the Emulator display is switched on.



Installing the
Certificate
Extension

Connecting the
Target Device

Generating the
Author & Distributor
Certificates

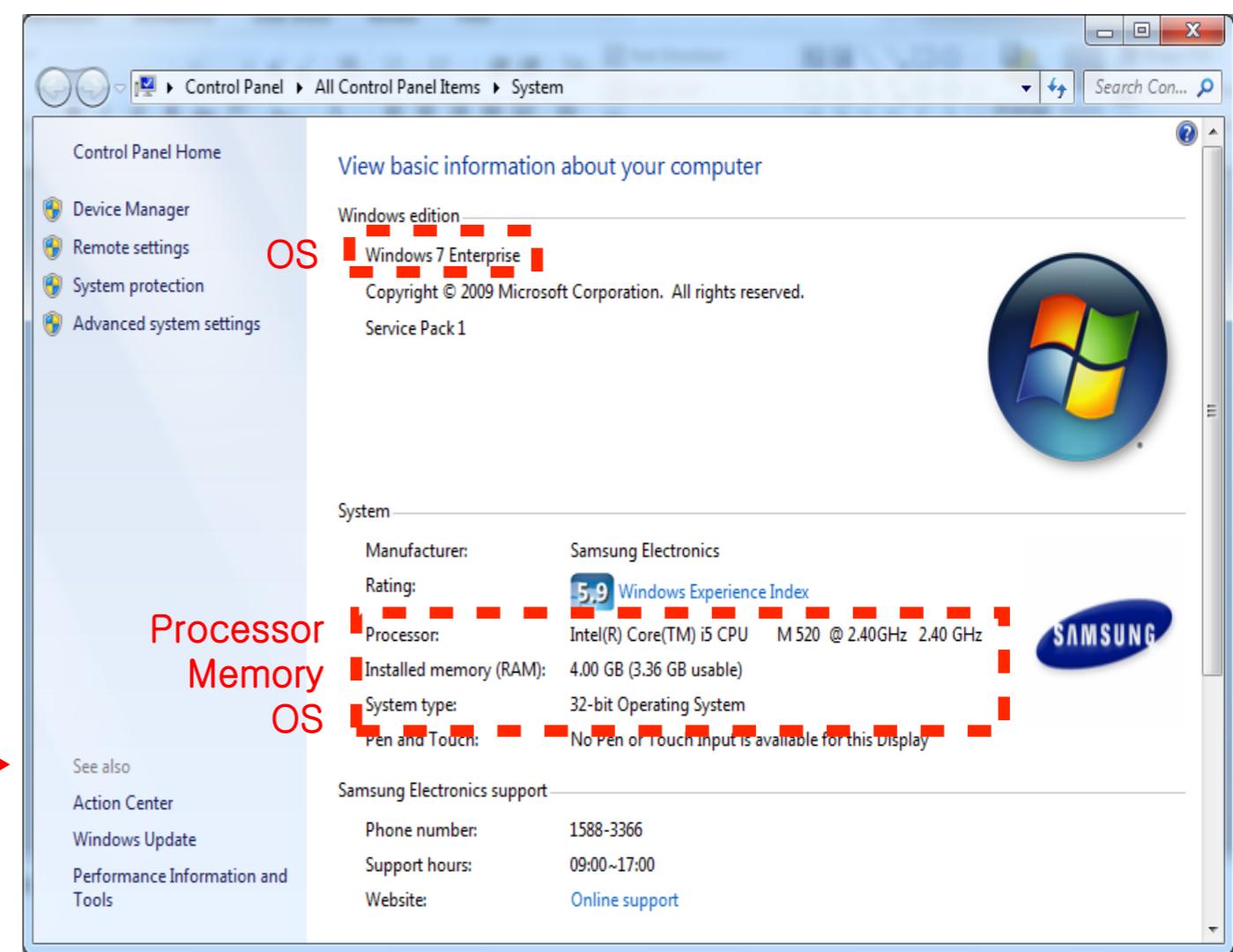
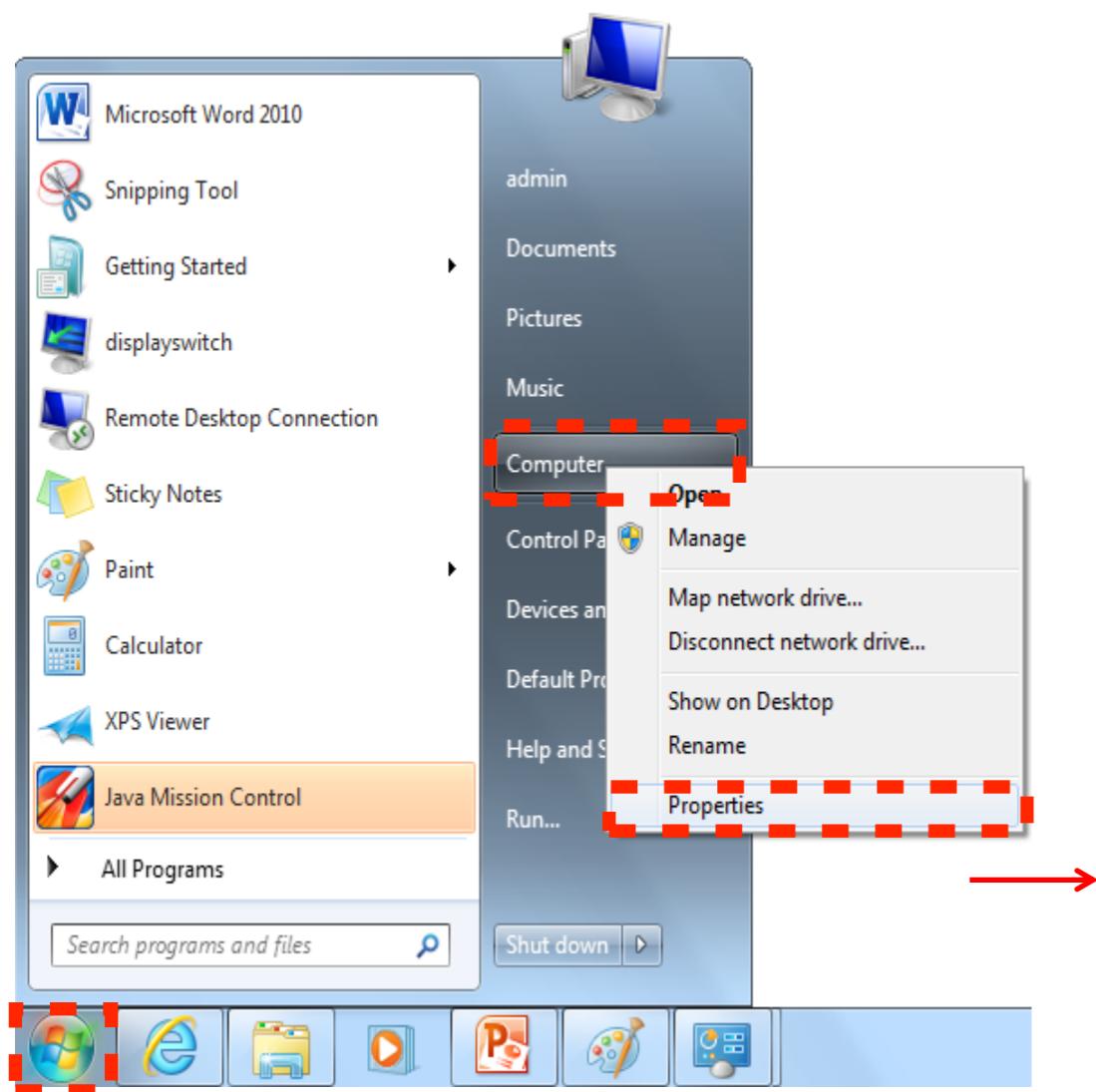
Running the
Application on the
Target Device

Appendix

Checking System Specifications

OS, Processor, and Memory

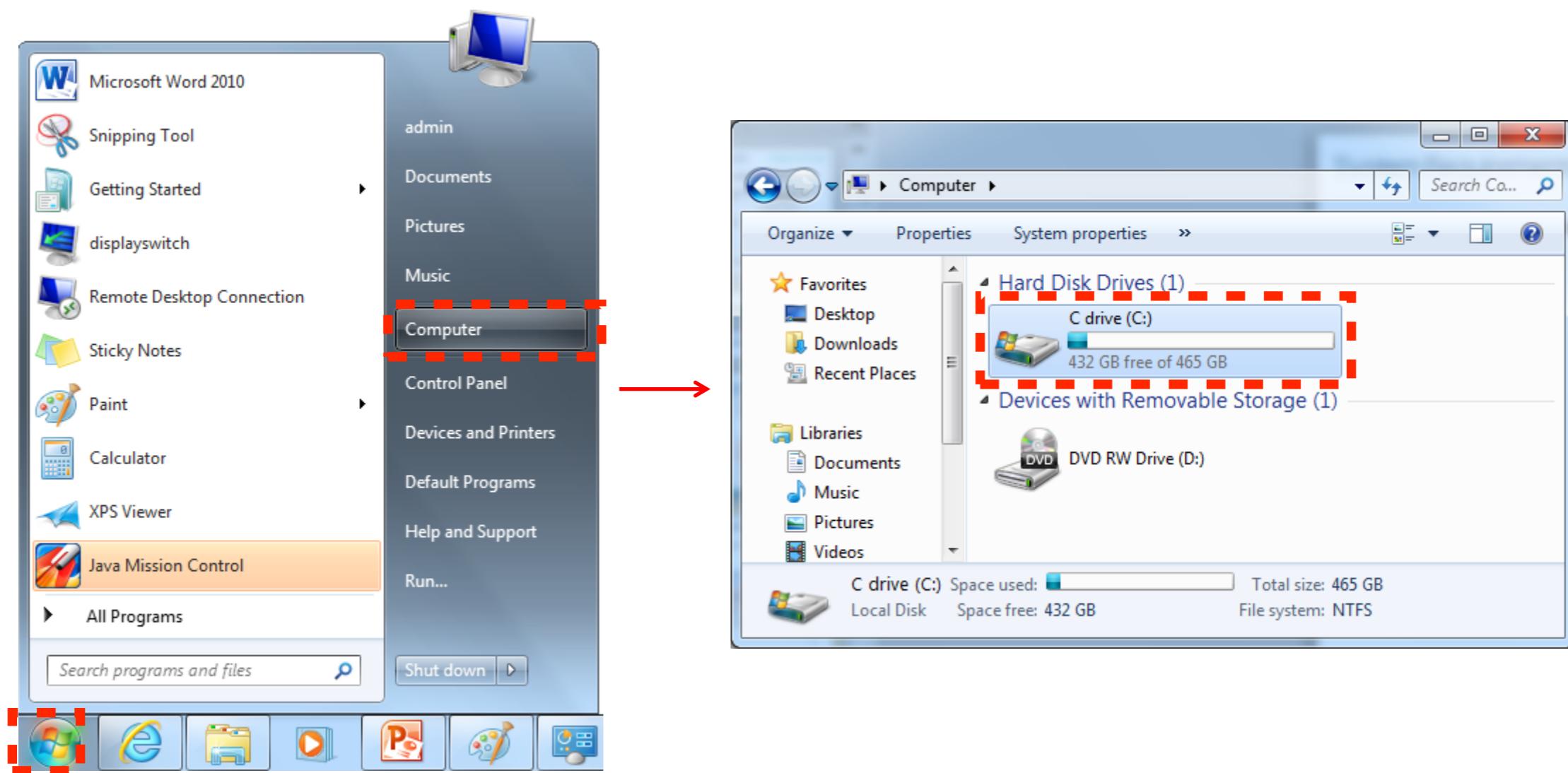
You can view a summary of important information about your computer and operating system by clicking Windows Start  , right-clicking Computer, and clicking Properties.



Checking System Specifications

Disk Space

You can check the available disk space by clicking the Windows Start Menu > Computer.



Checking the CPU VTx Support

SecurAble.exe

Download the SecurAble.exe file from <http://securable.en.softonic.com/> and execute the software.

**VT supported by CPU
but locked off by mainboard**



**CPU VT not supported
and HAXM NOT available**



**CPU VT supported
and HAXM available**



**VT supported
but locked on by BIOS
(BIOS setup required)**

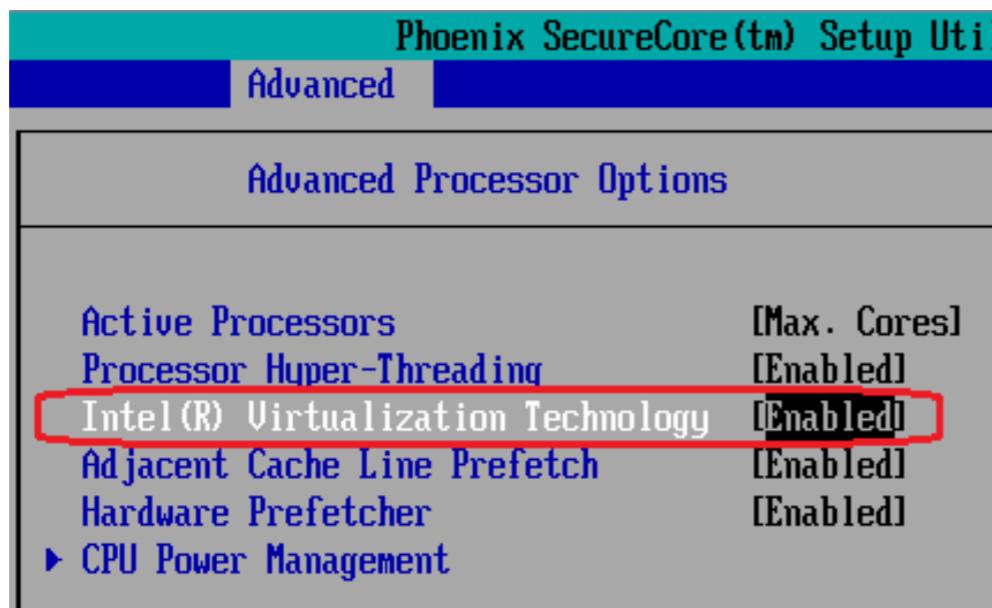
Checking the CPU VT_x Support

VT_x Option in BIOS

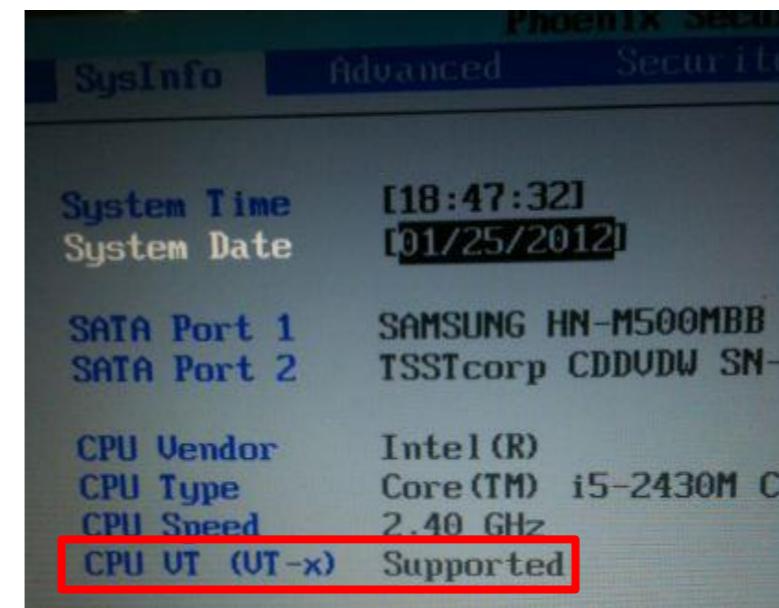
You have to set the VT option to **enabled** in the BIOS menu.

The entrance point of the BIOS menu depends on the type of the PC mainboard.

CPU VT supported
and controllable in BIOS

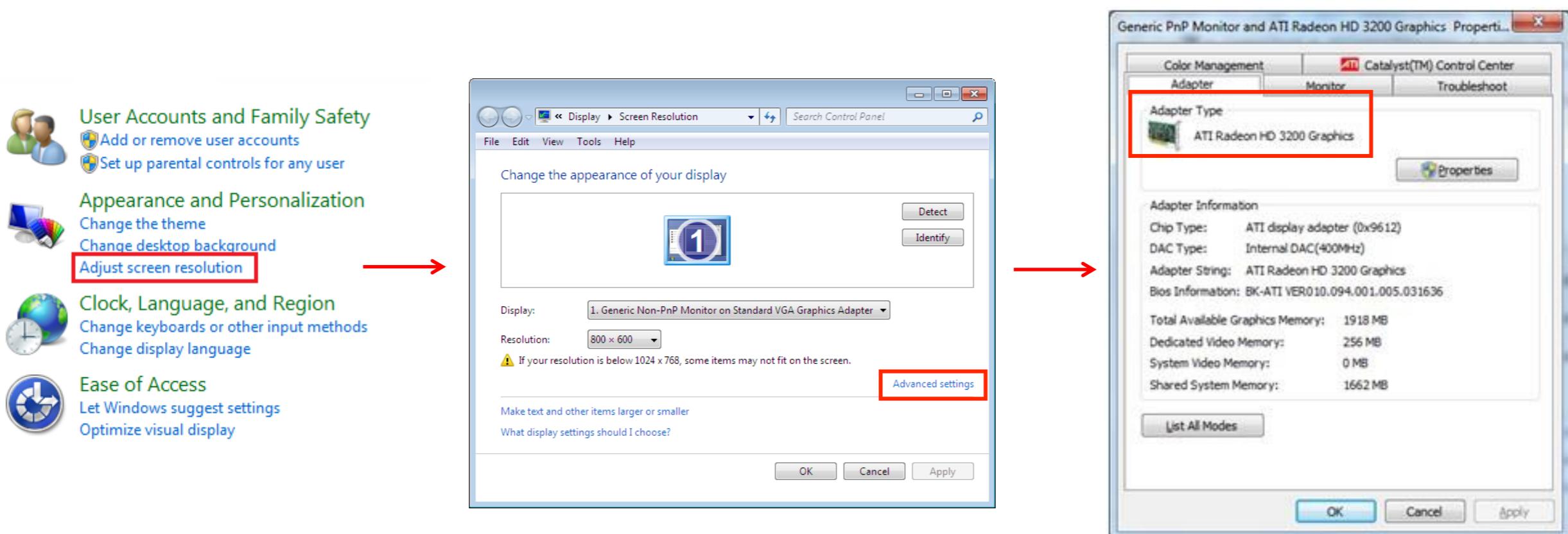


CPU VT supported
but NOT controllable in BIOS



Checking and Updating the Graphic Card Drive

You can check your graphic card driver in your system by clicking Windows Start Menu , right-clicking Control Panel, and clicking Adjust screen resolution > Advanced Settings.

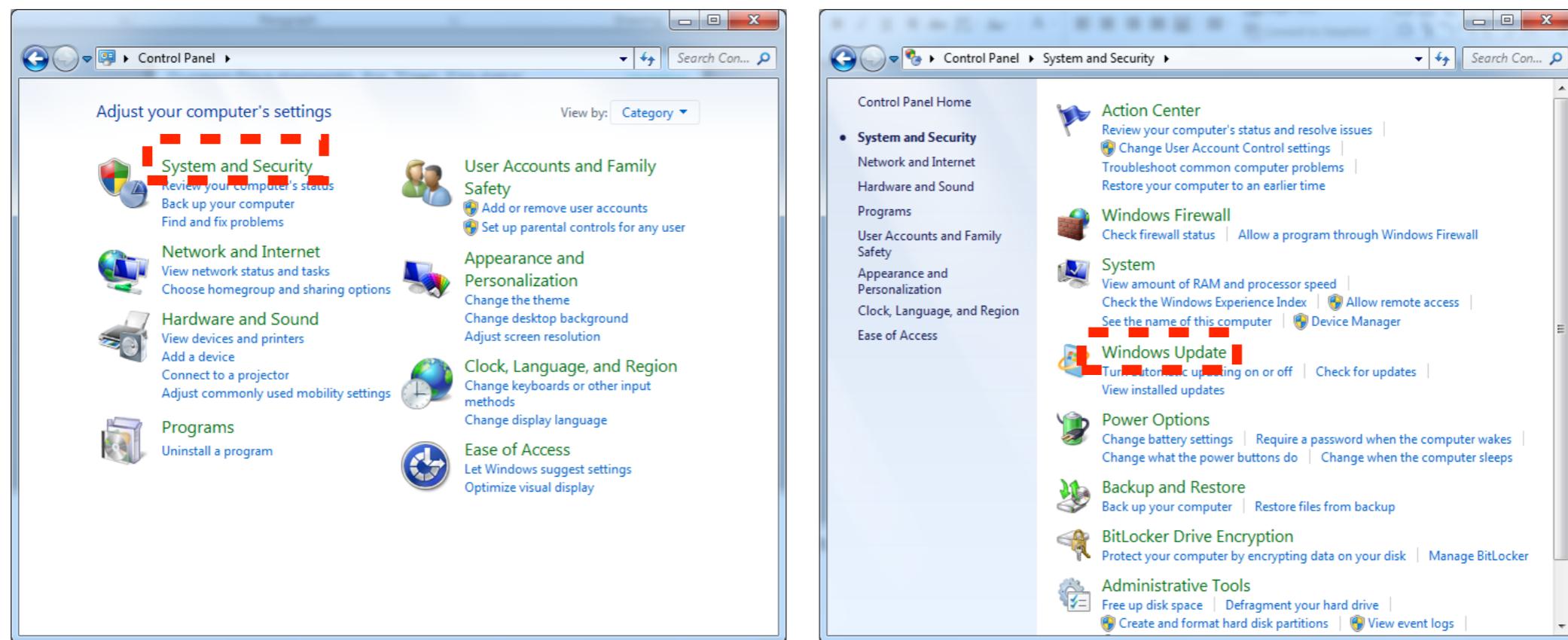


Checking and Updating the Graphic Card Drive

Windows Update

You must update to the latest vendor-provided version of the graphic card driver for OpenGL ES acceleration to use the Tizen Emulator.

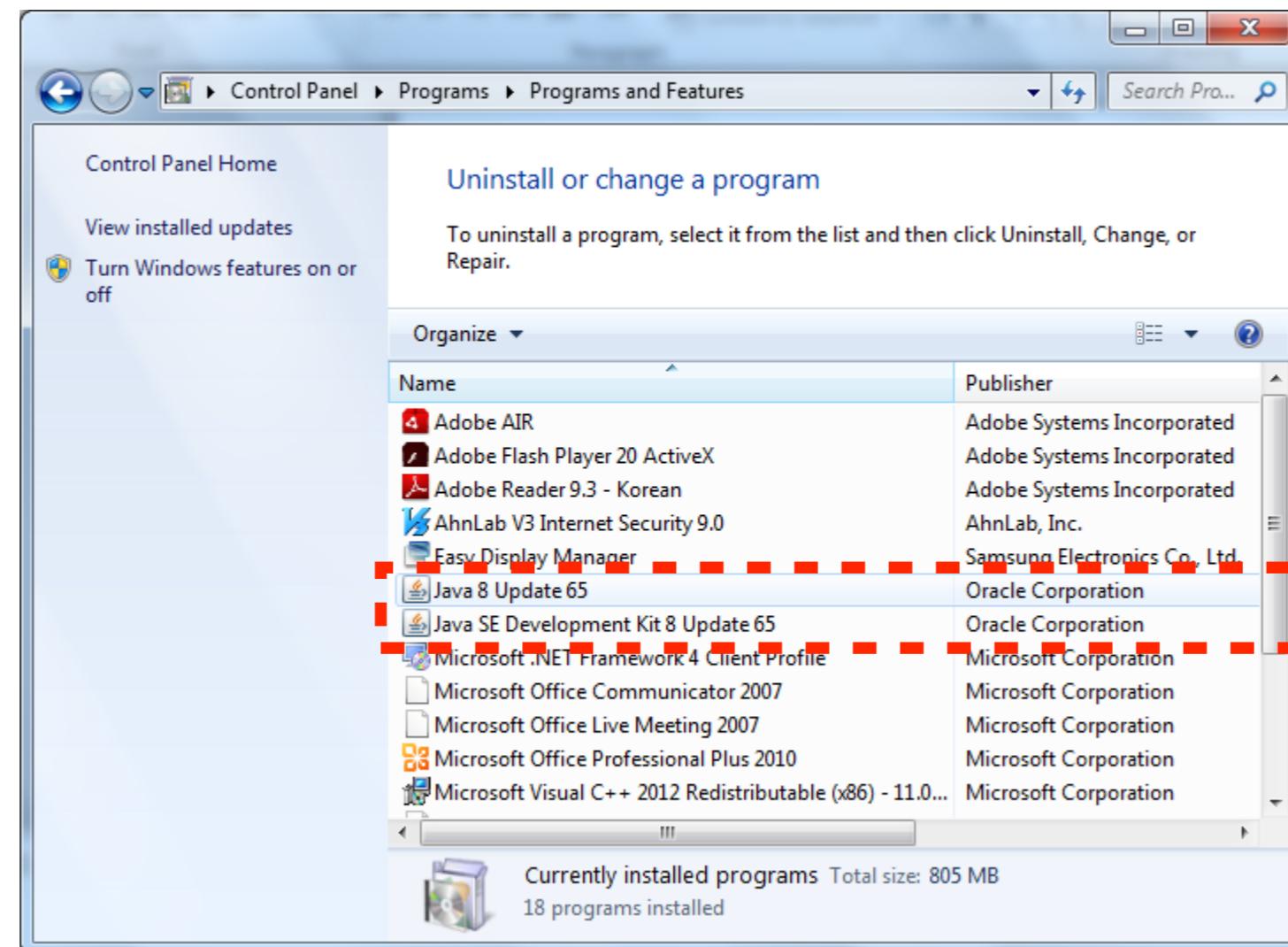
- For Microsoft Windows® 8/7, check and install the necessary drivers in Control Panel > System and Security > Windows Update.



Checking and Uninstalling the JDK

Programs and Features

Confirm the JDK installation in Control Panel > Programs > Programs and Features.



Tizen SDK Installation Options

IDE and CLI

The Tizen IDE (Integrated Development Environments) provides a development tool based on the Eclipse IDE.

- Provides GUI editor and analysis tools with an excellent UX
- Easy for general users and developers
- Requires relatively high system resources

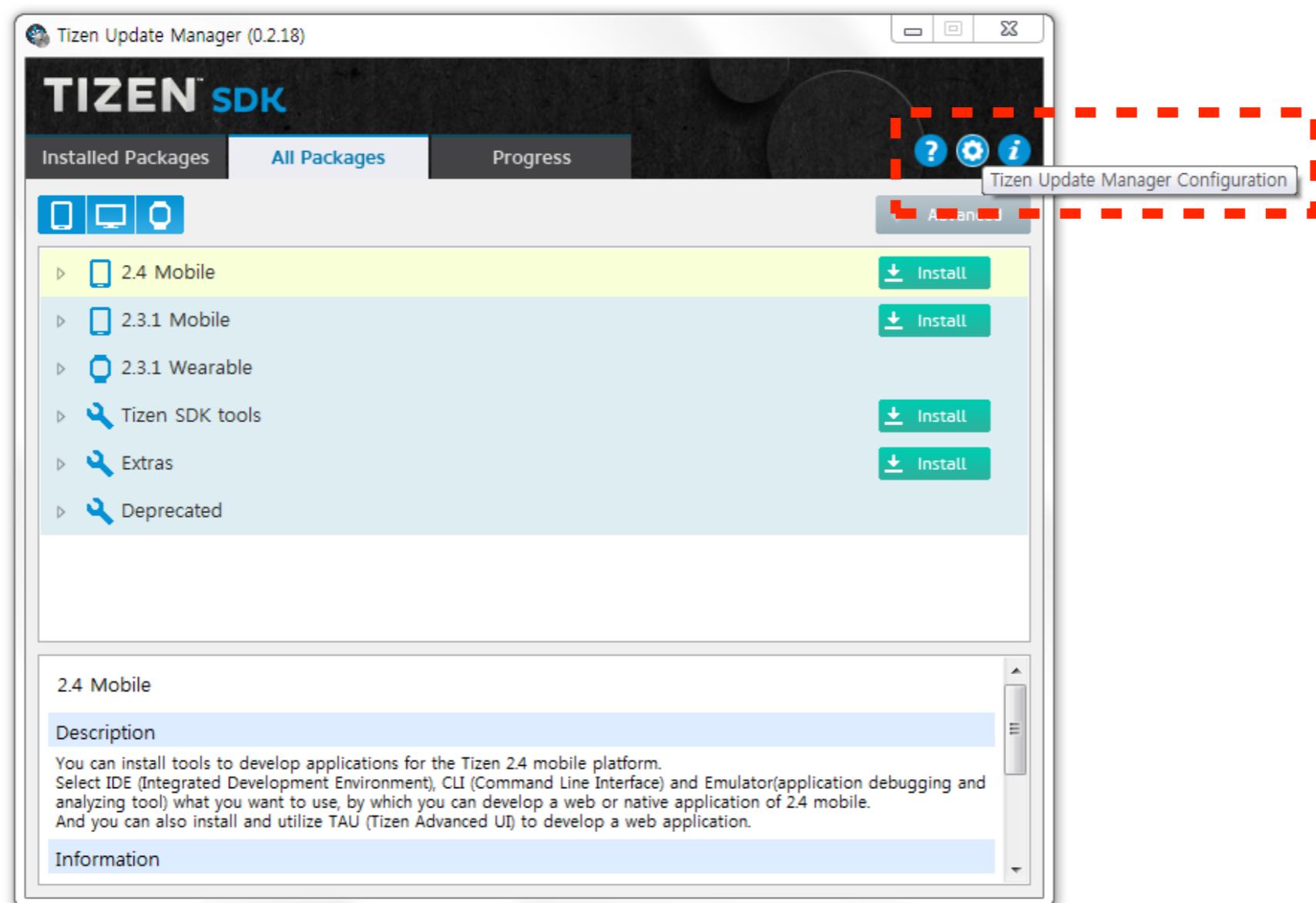
The Tizen CLI (Command Line Interfaces) provides an environment for creating, building, and packaging projects by using commands on a terminal.

- Suitable for high-level developers with automated build system
- Requires relatively low system resources

Tizen SDK Installation Options

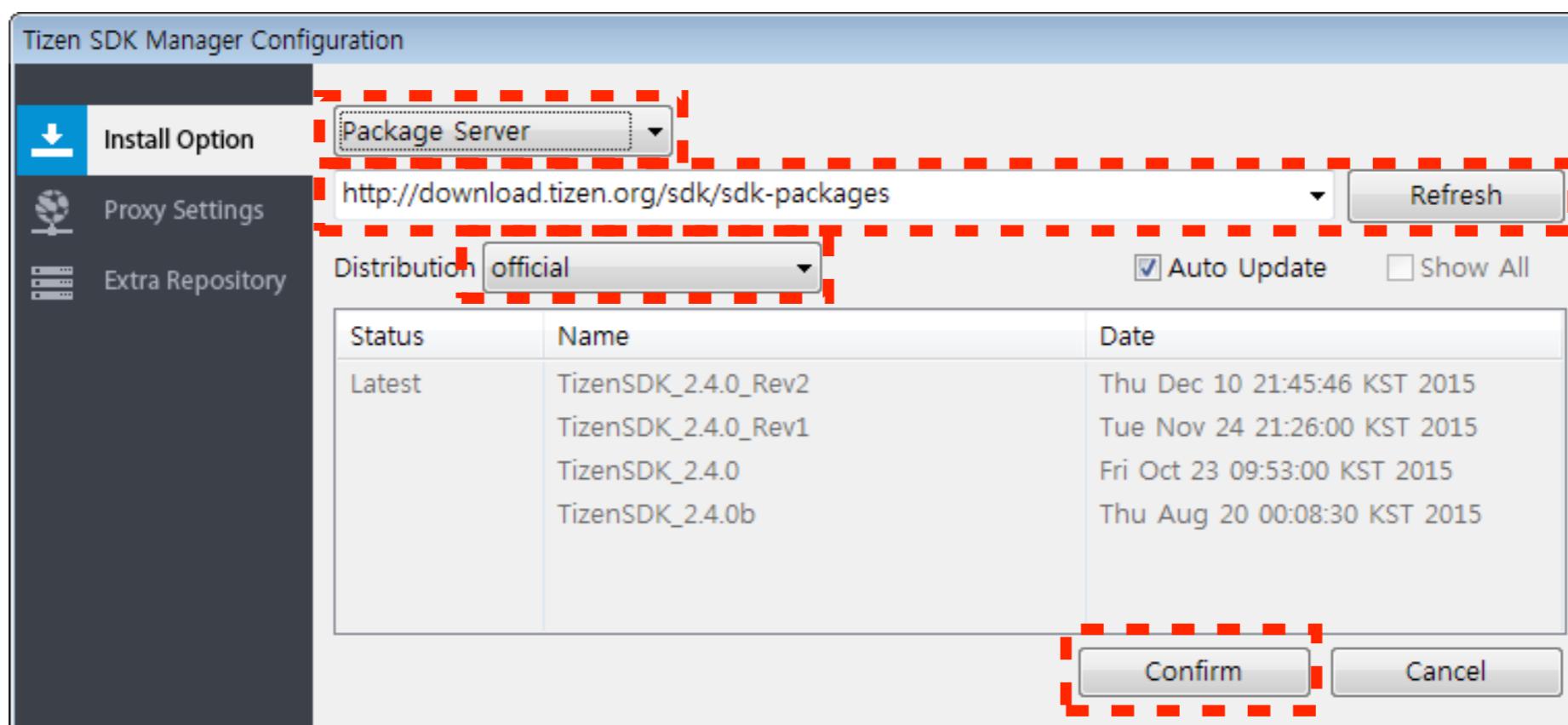
Advanced Configuration

You can change the package server, upload a custom SDK image, change the proxy settings, and add extra repositories in the Advanced Configuration.



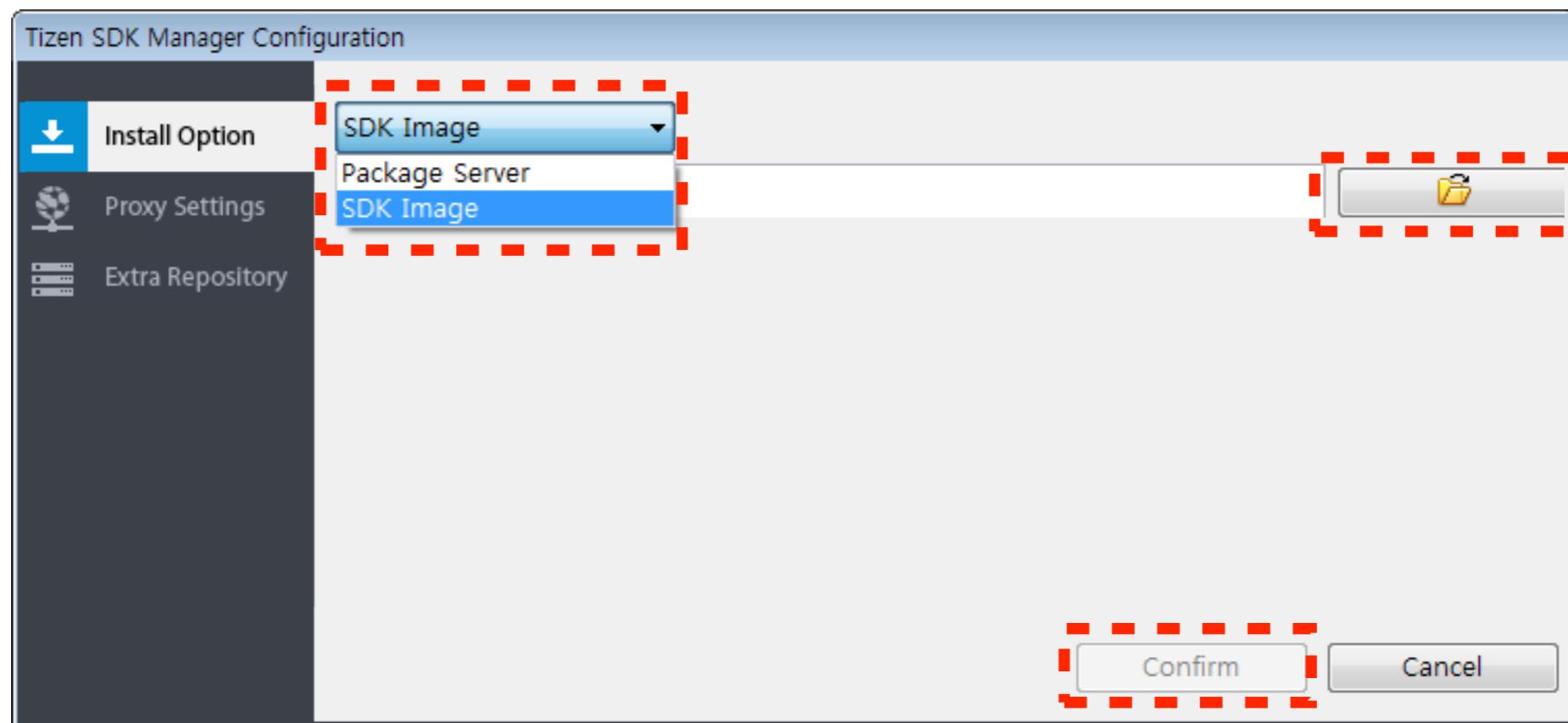
You can install or update the Tizen SDK by using one of the following options.

- Configuring the Package Server
 1. In the combo box at the top, select **Package Server**.
 2. In the text box, type an available repository address and click **Refresh**.
 3. In the **Distribution** box, select the distribution you want to download.
 4. Click **Confirm**.



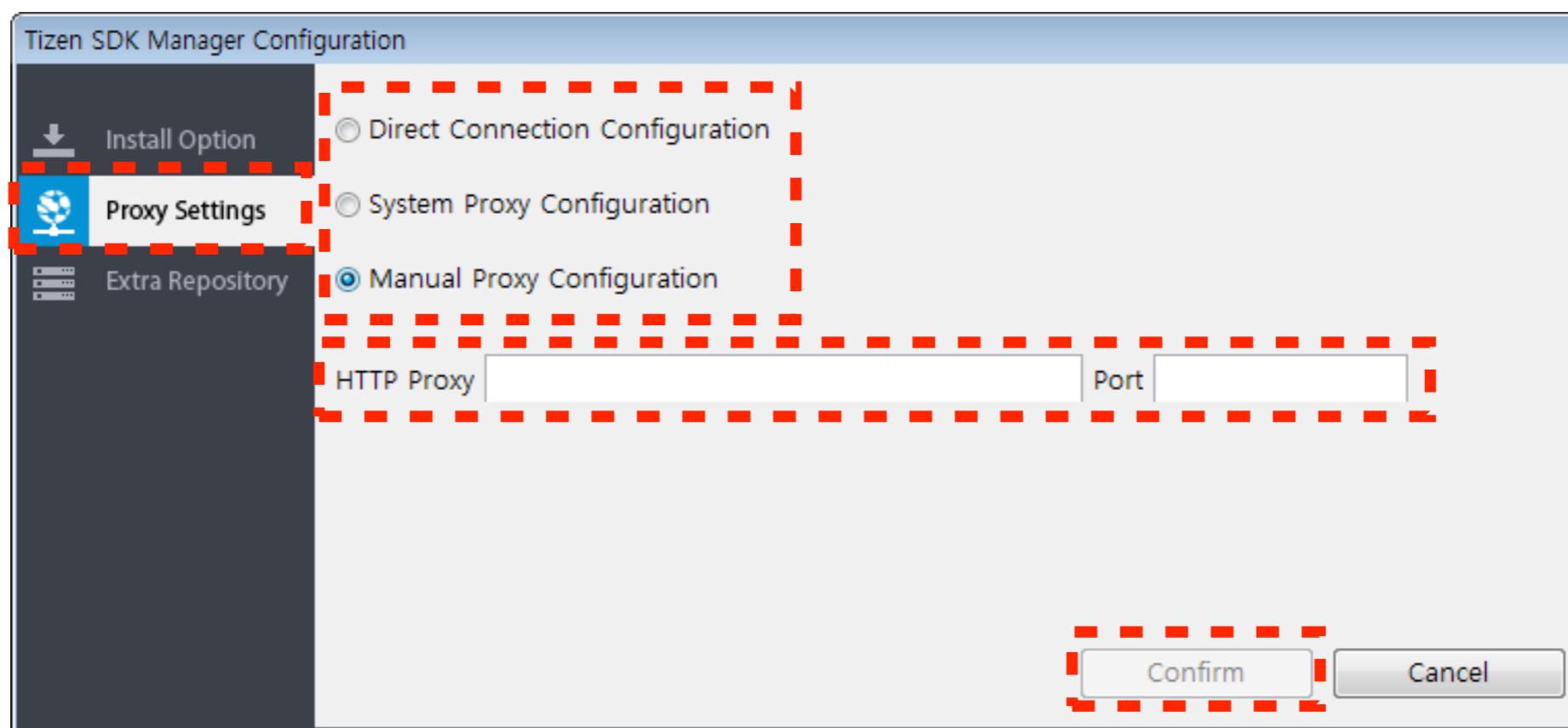
You can install or update the Tizen SDK by using one of the following options.

- Configuring the SDK Image
 1. In the combo box at the top, select **SDK Image**.
 2. Click the folder icon, browse to the SDK image file, and click OK.
 3. Click Confirm.



You can configure a proxy to connect to a repository server.

1. Click the **Proxy Settings** tab.
2. Select the configuration you want to use.
3. If you select Manual Proxy Configuration, enter HTTP Proxy and Port in the fields.
4. Click **Confirm**.

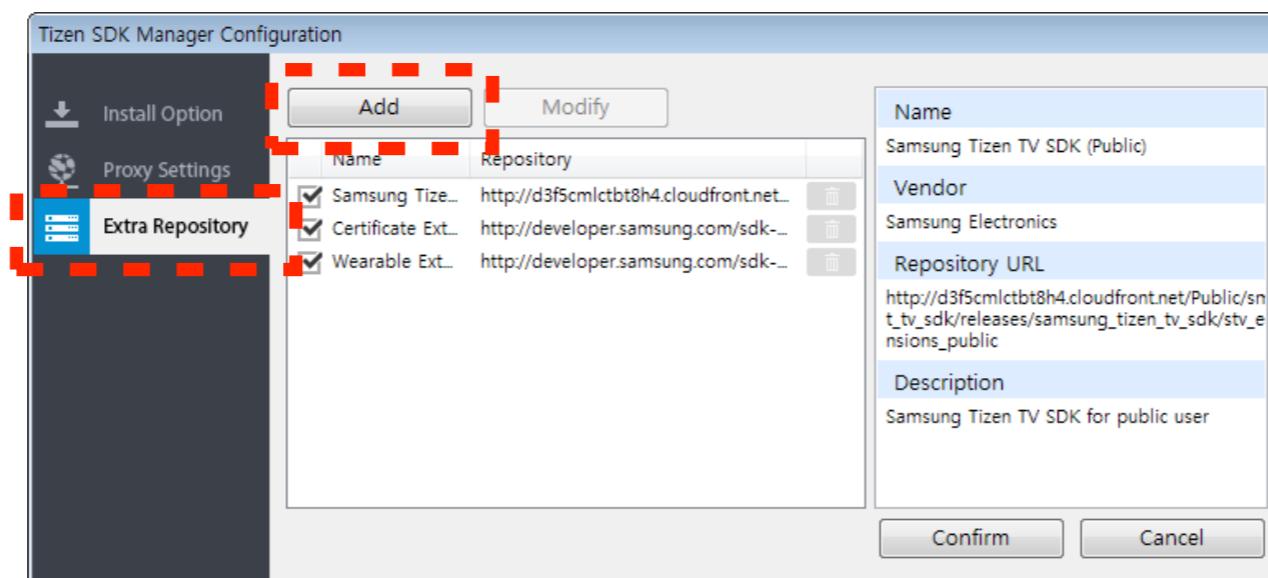


Tizen SDK Installation Options

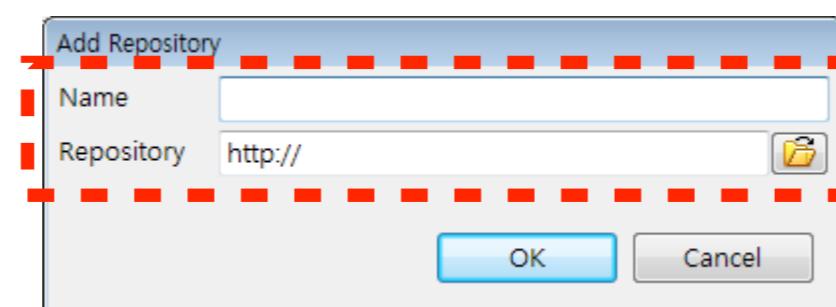
Advanced Configuration

The Tizen SDK supports extension packages, called extra repositories, contributed by external developers and companies.

To add an extra repository, click the **Extra Repository** tab and click Add.



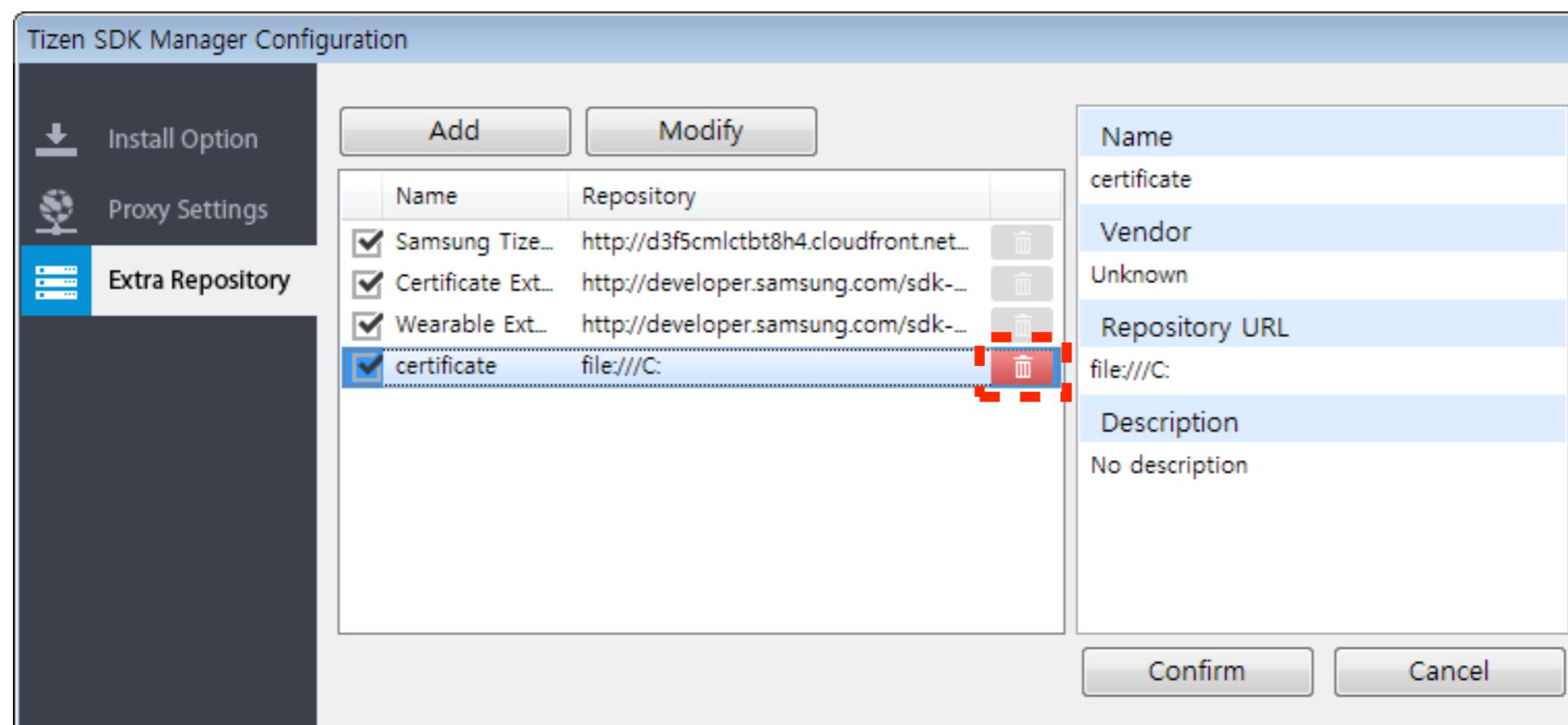
When the **Add Repository** dialog appears, enter the **Name** and **Repository** in the fields. The repository indicates the external server address.



Tizen SDK Installation Options

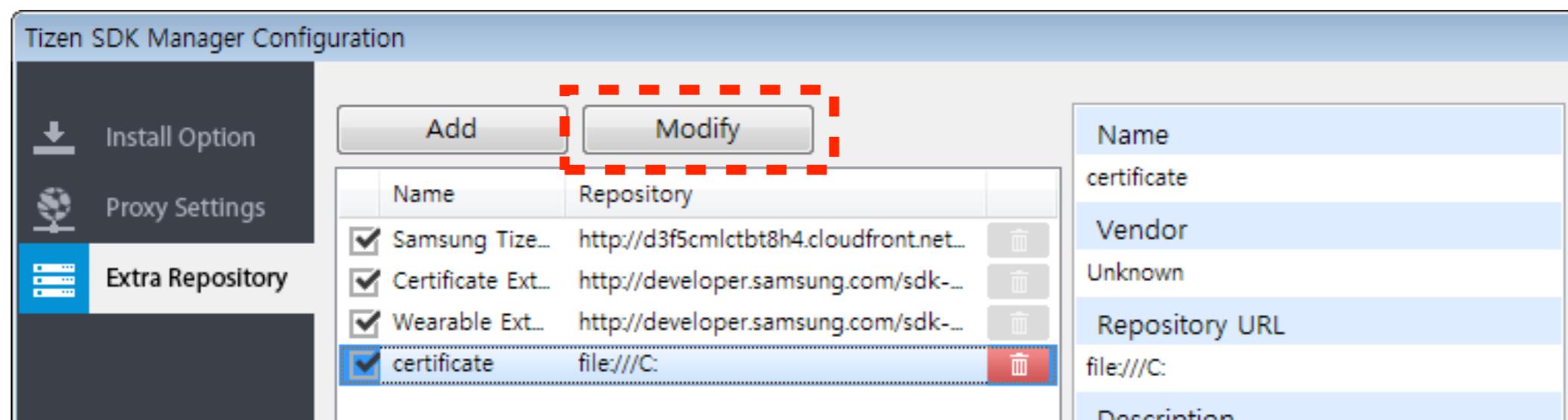
Advanced Configuration

To remove an extra repository, click the Trash icon for the repository in the table, and click Confirm.

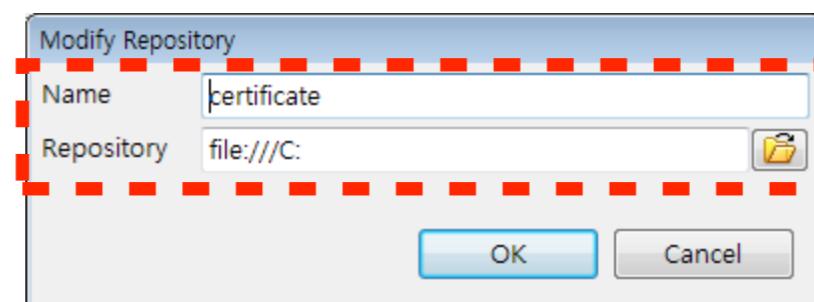


If the external repository is removed, the packages from the external repository are deprecated.

To modify an extra repository, click the target repository and click **Modify** in the table.



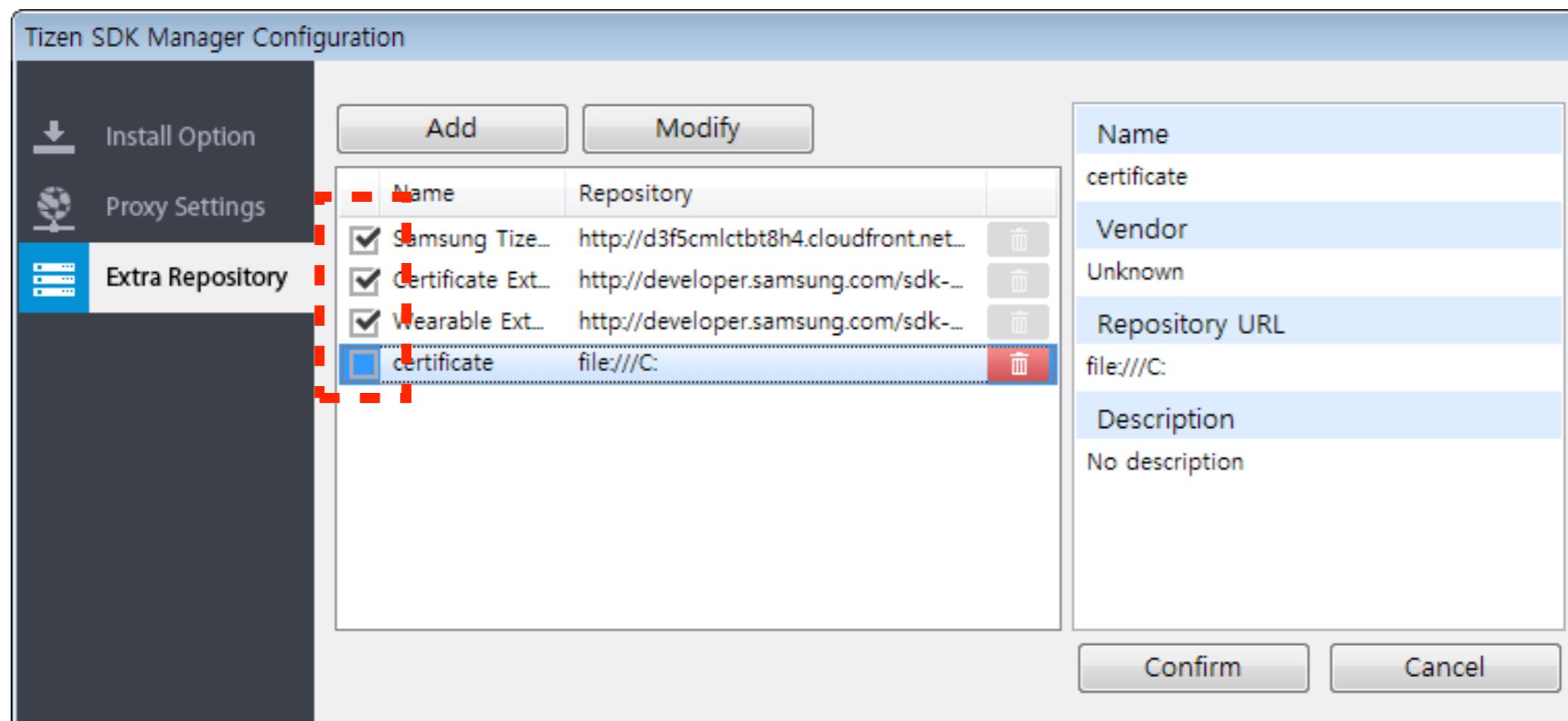
When the **Modify Repository** dialog box appears, modify the **Name** and **Repository** fields. The repository indicates the external server address. You can also click the folder icon on **Repository** to select a local image file or local server location.



Tizen SDK Installation Options

Advanced Configuration

To activate or deactivate an extra repository, select the check box of the repository to be activated, or clear the check box of the repository to be deactivated.



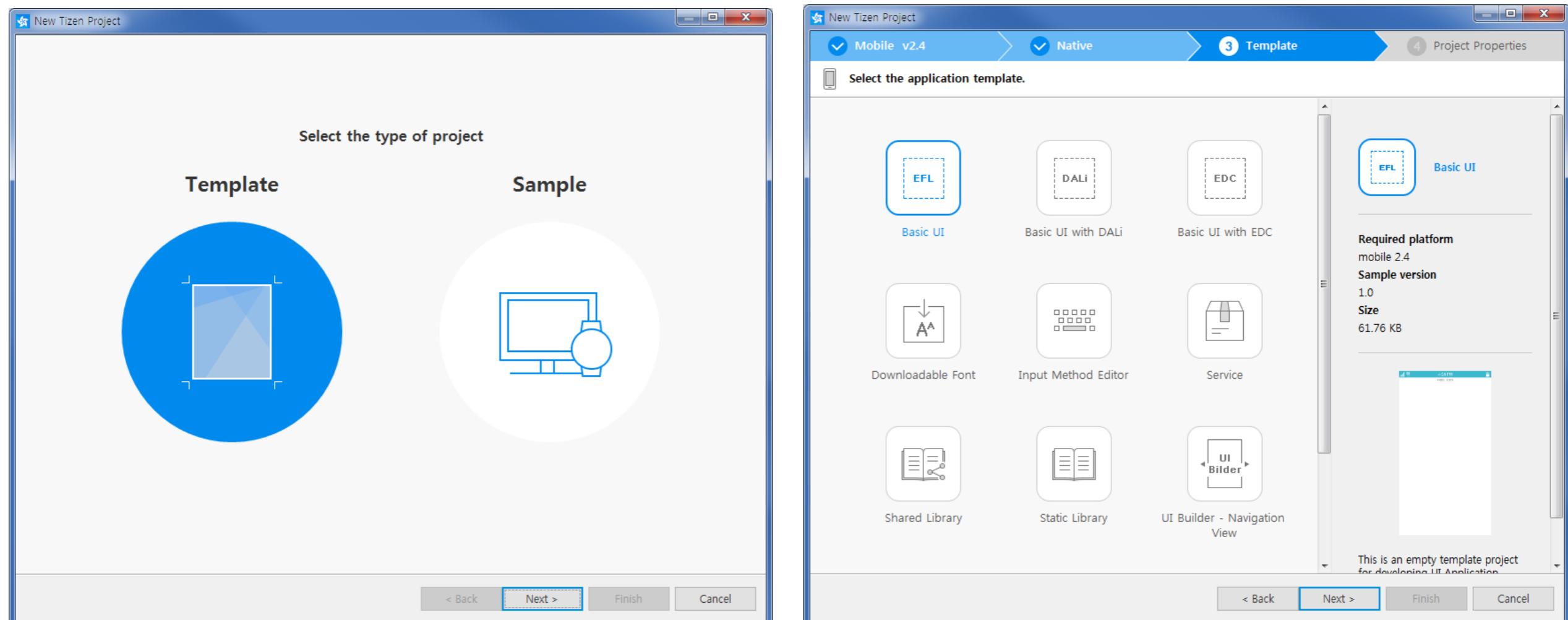
Tizen IDE Views

- The **Project Explorer** view provides a hierarchical view of all resources in the workspace. You can open files for editing, or select resources for operations, such as building, packaging, signing, or validating an application.
- The **Connection Explorer** view shows the devices connected to the system. A list of connected devices is available after connecting a device or launching a Tizen Emulator with a tree view.
- The **Outline** view shows the structure outline and Object hierarchy of C/C++ and Javascript
- The **Property** view shows the property of selected files on **Project Explorer**, such as file path, size, editability, and name.
- The **Problem** view shows the status of build and packaging error or warning.
- The **Console** view shows the target or emulator log when applications are run.
- The **Edit** view is the code editor area.
- The **Toolbar** provides various shortcut icons for building and debugging.

Tizen SDK Project Type

Template

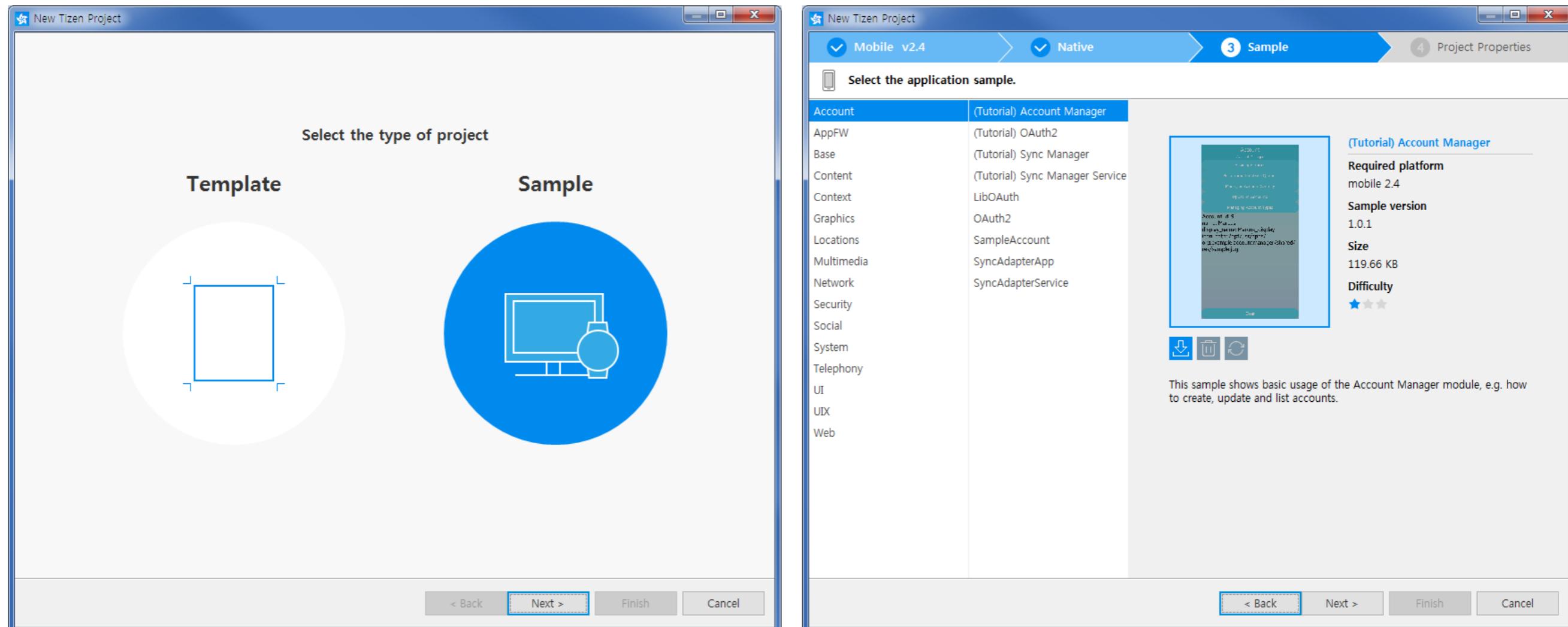
The Template tab provides a list of templates with basic structure the developers can use to create their own Web application project.



Tizen SDK Project Type

Online Sample

The **Online Sample** tab provides a list of sample applications demonstrating the usage of various APIs and UI design which developers can refer to.



Emulator Control Panel

Emulator

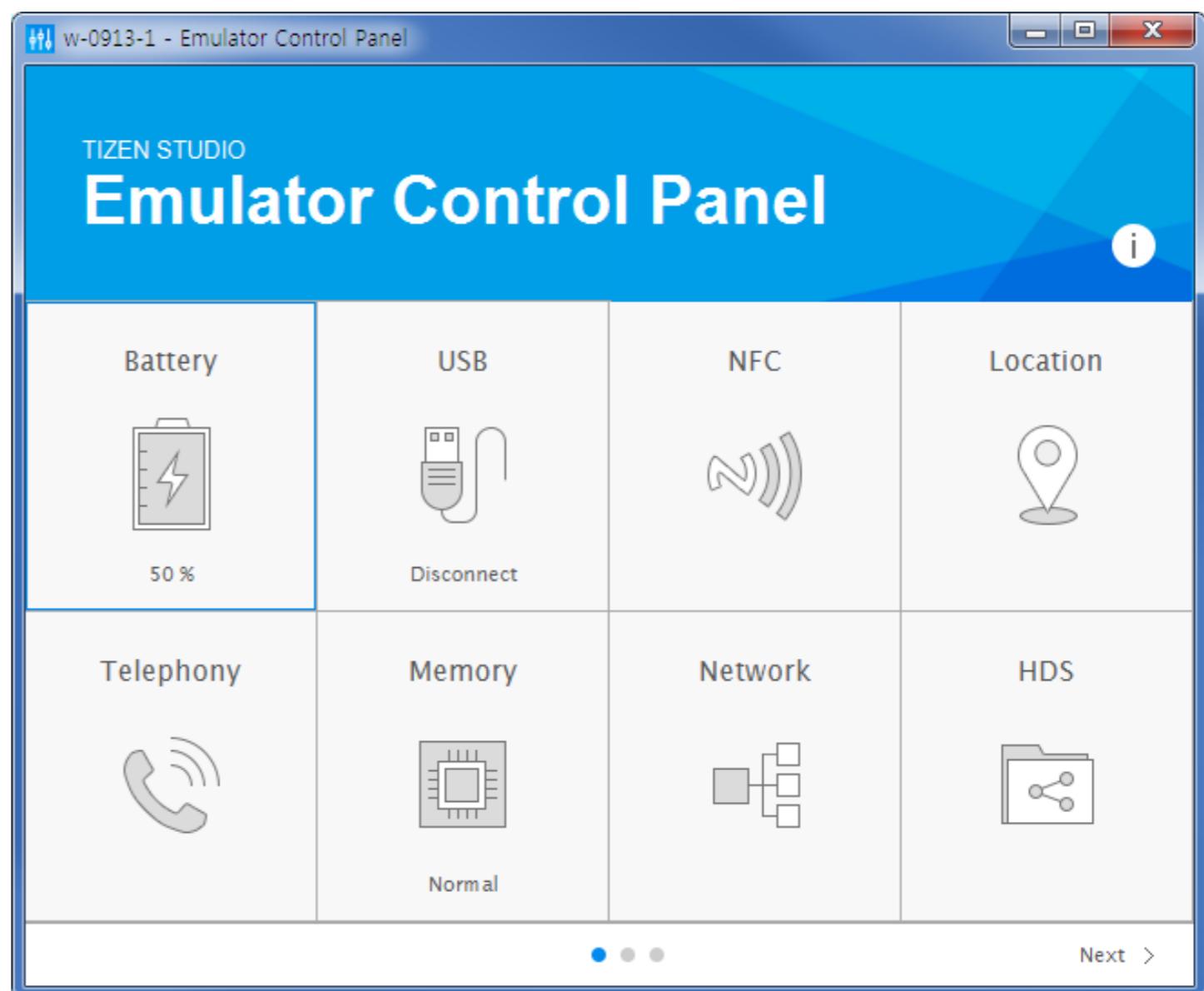
Right-click on the Emulator screen to view more options on the Emulator.
Click Control Panel.



Emulator Control Panel

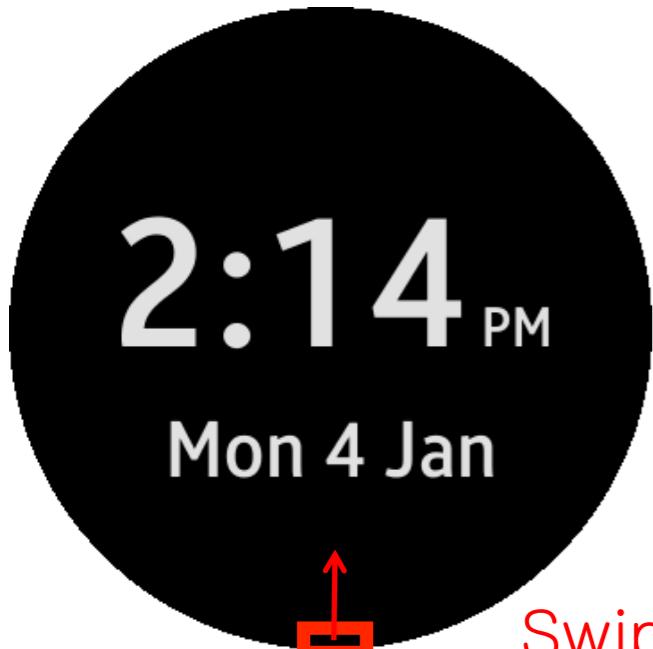
Emulator

In the Emulator Control Panel, developers can create and use any data required during application execution and imitate environmental conditions for the device sensors.

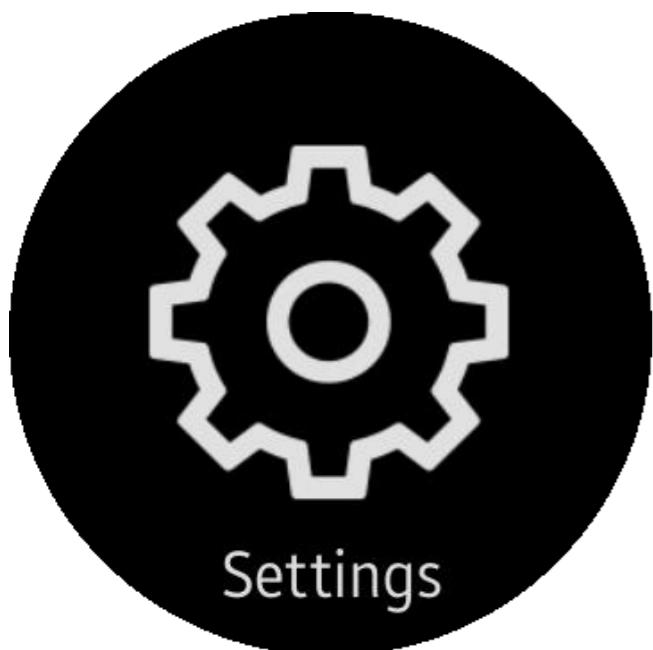


Screen Timeout on the Emulator

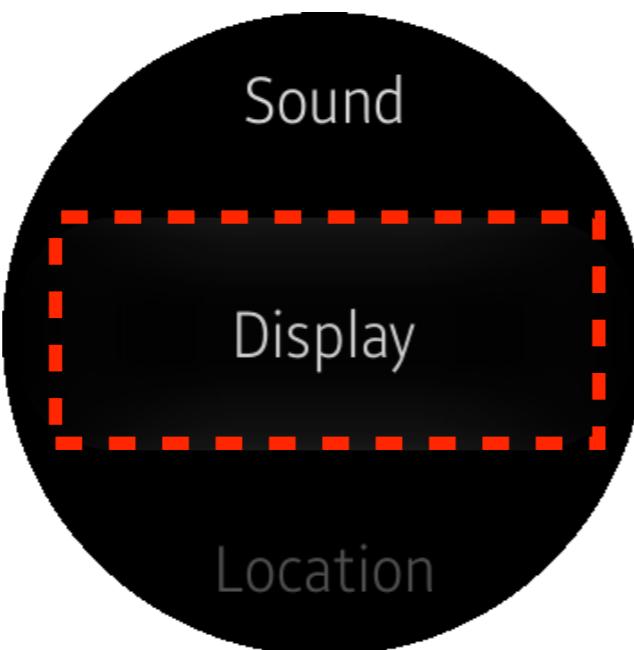
You can adjust the screen timeout of the emulator in **Settings > Display > Screen timeout**.



Swipe-up



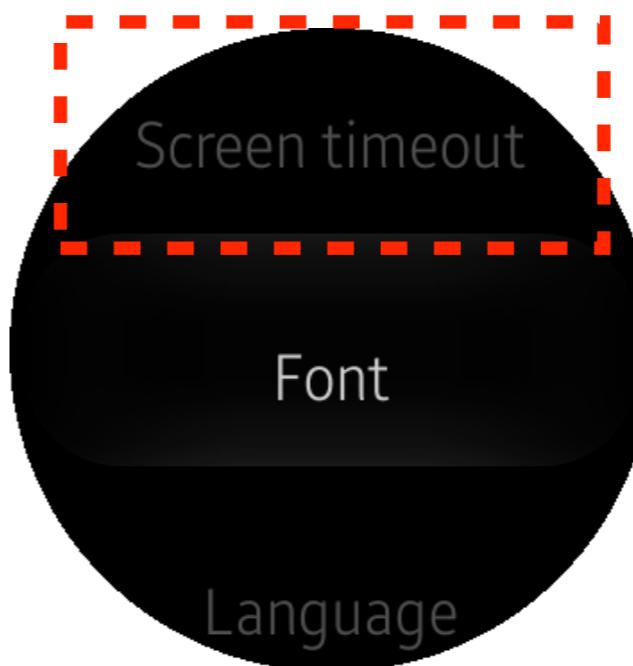
Settings



Sound

Display

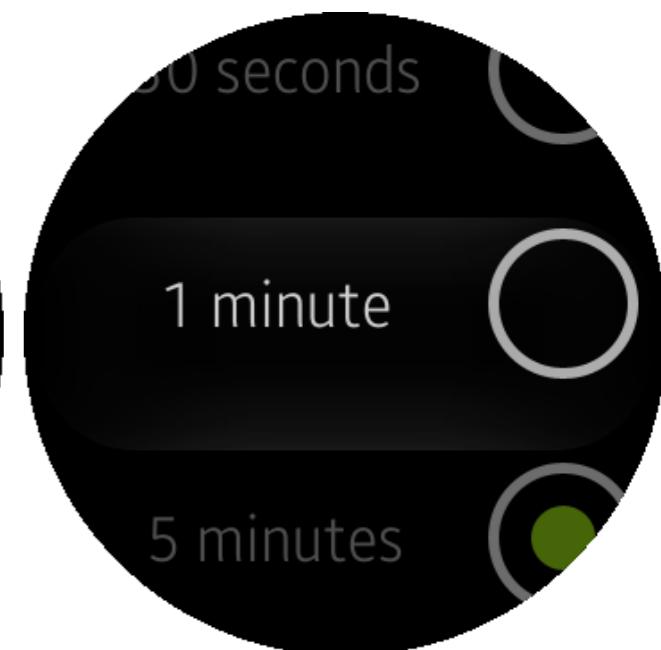
Location



Screen timeout

Font

Language



30 seconds

1 minute

5 minutes

You can troubleshoot your Tizen SDK installation by referring to the installation log file. The log file is located in a different directory based on your operating system:

- Windows® 7: %LOCALAPPDATA%\installmanager\install-log
- Windows® XP: %USERPROFILE%\Local Settings\Application Data\installmanager\install-log
- Ubuntu, MacOS®: \$HOME/.installmanager/install-log

If the Install Manager fails to connect to the SDK package server:

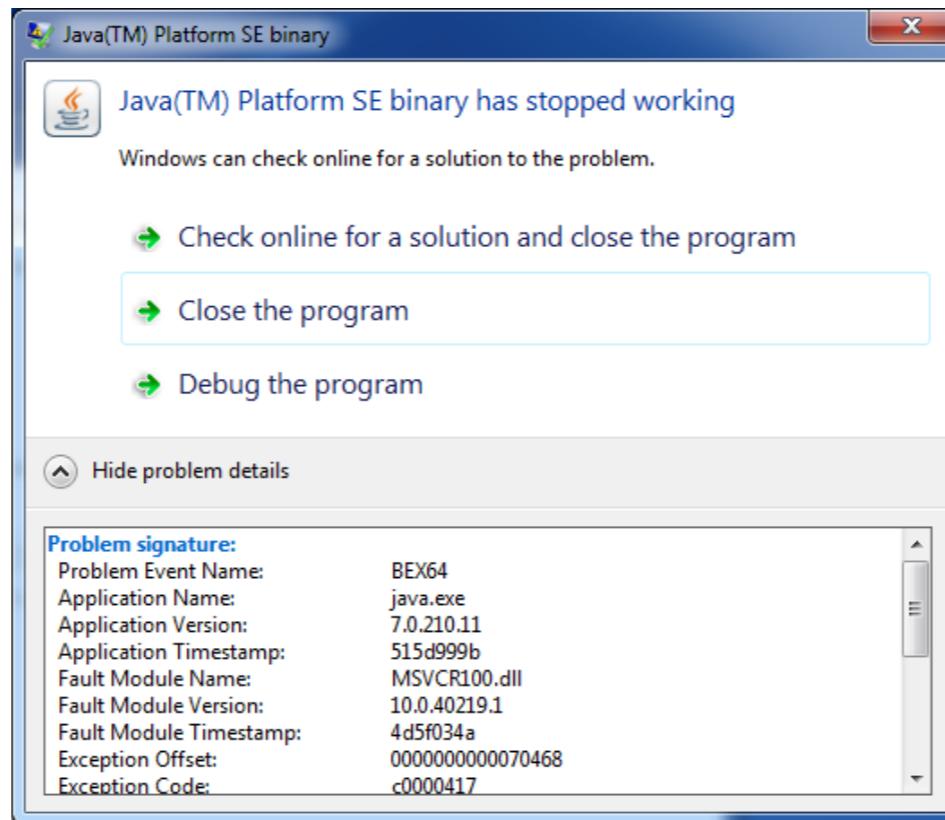
- Check whether you can access the Tizen Web site using the Web browser on the system where you are installing the SDK.
- If not, install the SDK using the SDK image.
- Check whether you are using a network proxy. If yes, run the Install Manager. Click **Settings** and select the desired option. If the proxy server needs authentication, an ID and password dialog appears.
- The proxy option is not provided anymore.

When installing the Tizen SDK using the SDK image, you may see the **Cannot open SDK image file** dialog box.

The box is displayed if you are using the JDK1.6 updates 26 JDK. To avoid this problem, ensure that you are using the latest version of Java.

See **JDK Requirements** (pages 7–9) for the JDK installation guide.

During the Tizen SDK installation, the Java application can crash unexpectedly, and the following window is displayed.



To avoid this problem:

- Ensure that you are using the latest version of the error DLL file, such as MSVCR100.dll. If the error file version is not the latest, upgrade it.
- Update your system with all the Windows-related updates using Windows Update.

If the Install Manager does not appear, an error may have occurred in the JDK installation.

You can check your problem by following these directions:

- Run the Install Manager with the –help options.

```
./install-manager.exe -help
```

- If you see the following message, the Java libraries are not suitable to Java executables.
"Registry key 'Software\JavaSoft\Java Runtime Environment\CurrentVersion' has value 'XXX', but 'XXX' is required."

Troubleshooting

Install Manager Not Appearing

The cause is that Java files in System32 do not match the Java Runtime Environment in the registry.

To avoid this problem, copy the java.exe file to the System32 directory.

If Tizen Emulator does not appear when you launch it, you may face the same trouble log at <TIZEN-SDK-DATA>/emulator/vms/<Emulator name>/logs/emulator.log file.

Troubleshooting

HAXM

If the Emulator does not work properly, there might be an error in the HAXM.

The Intel Hardware Accelerated Execution Manager (Intel HAXM) is a hardware-assisted virtualization engine (hypervisor) that uses Intel Virtualization Technology (VT) to speed up Tizen application emulation on a Windows® or Mac® host machine.

HAXM is supposed to be installed automatically as part of the Tizen SDK installation.

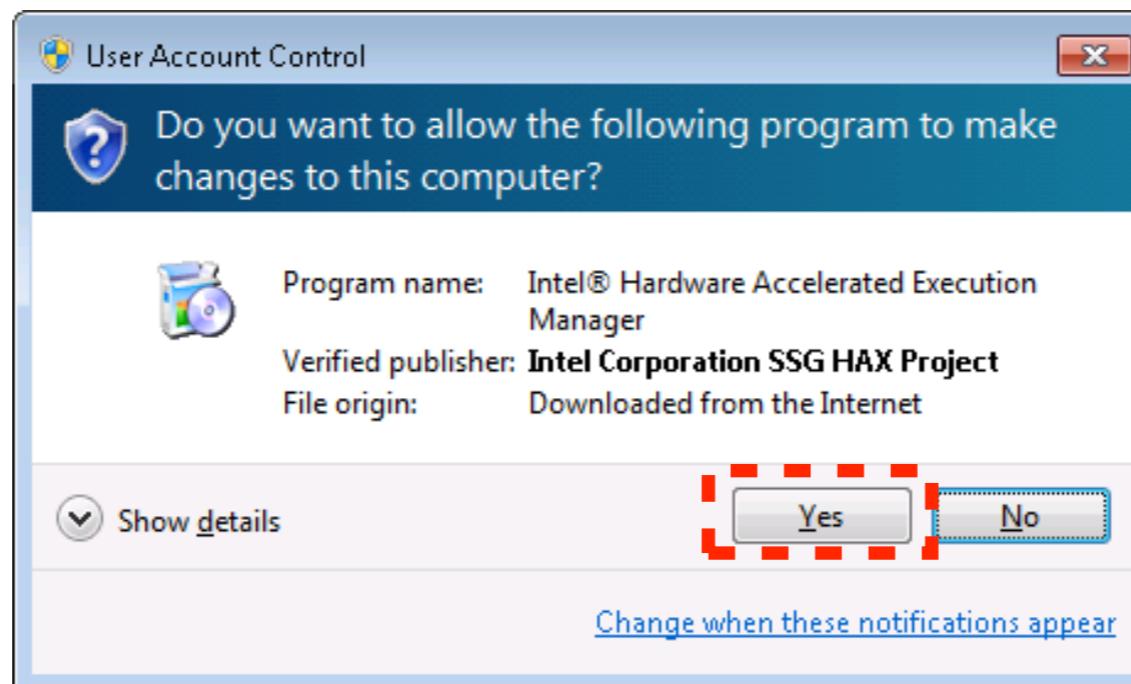
However, to install HAXM separately, you can download the Windows installer package using the link below:

<http://download.tizen.org/sdk/haxm/1.1.9/win/intelhaxm-tizen.exe>

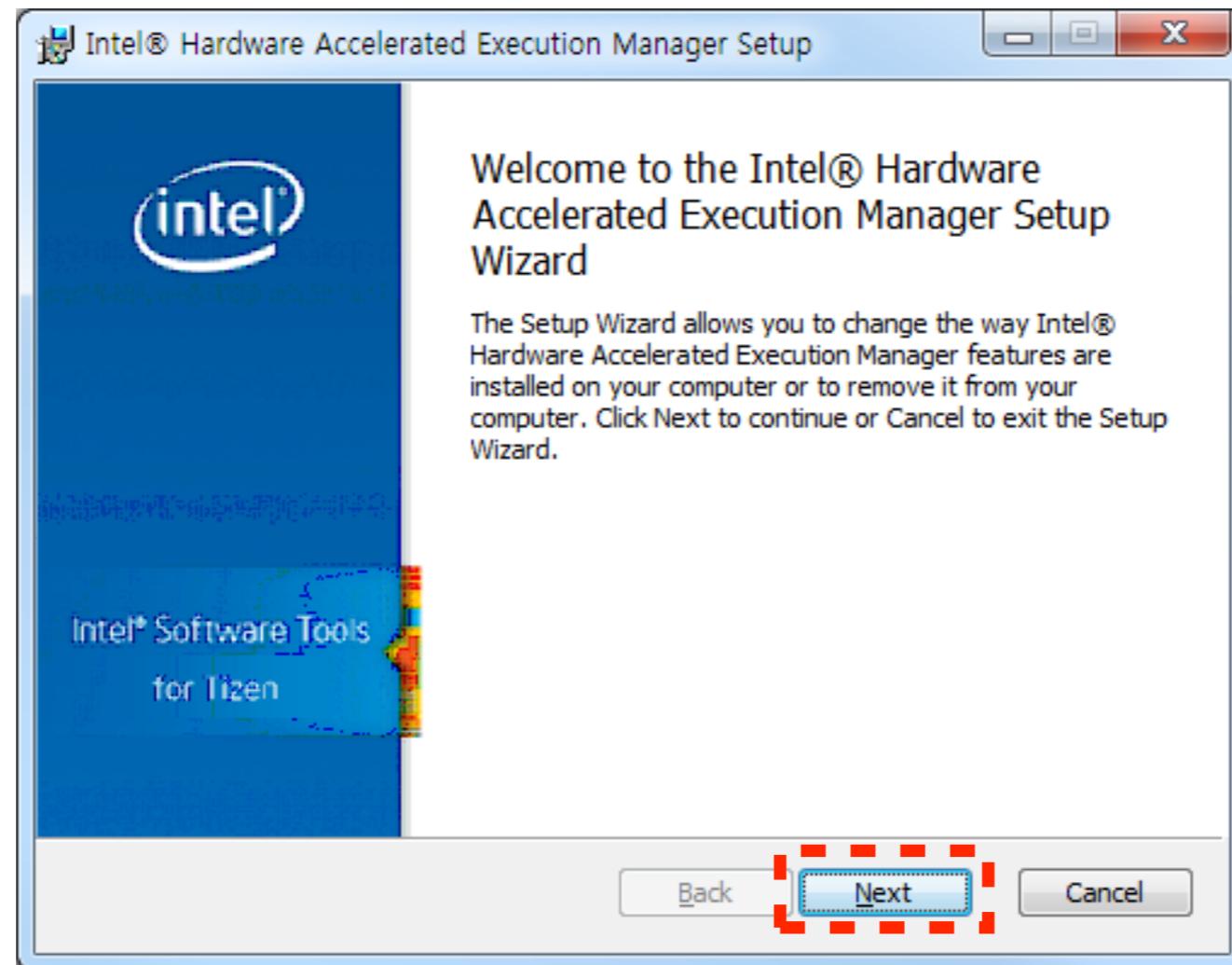
HAXM supports the following Windows® versions:

- Windows® 7 (32/64-bit)
- Windows® Vista (32/64-bit)
- Windows® XP SP2 or later (32-bit only)

Run the installer and accept the UAC prompt, if you are running the stand-alone installer.



When the first HAXM install screen is displayed, click **Next**.



You can access the documentation at any time by clicking **Intel HAXM Documentation**.

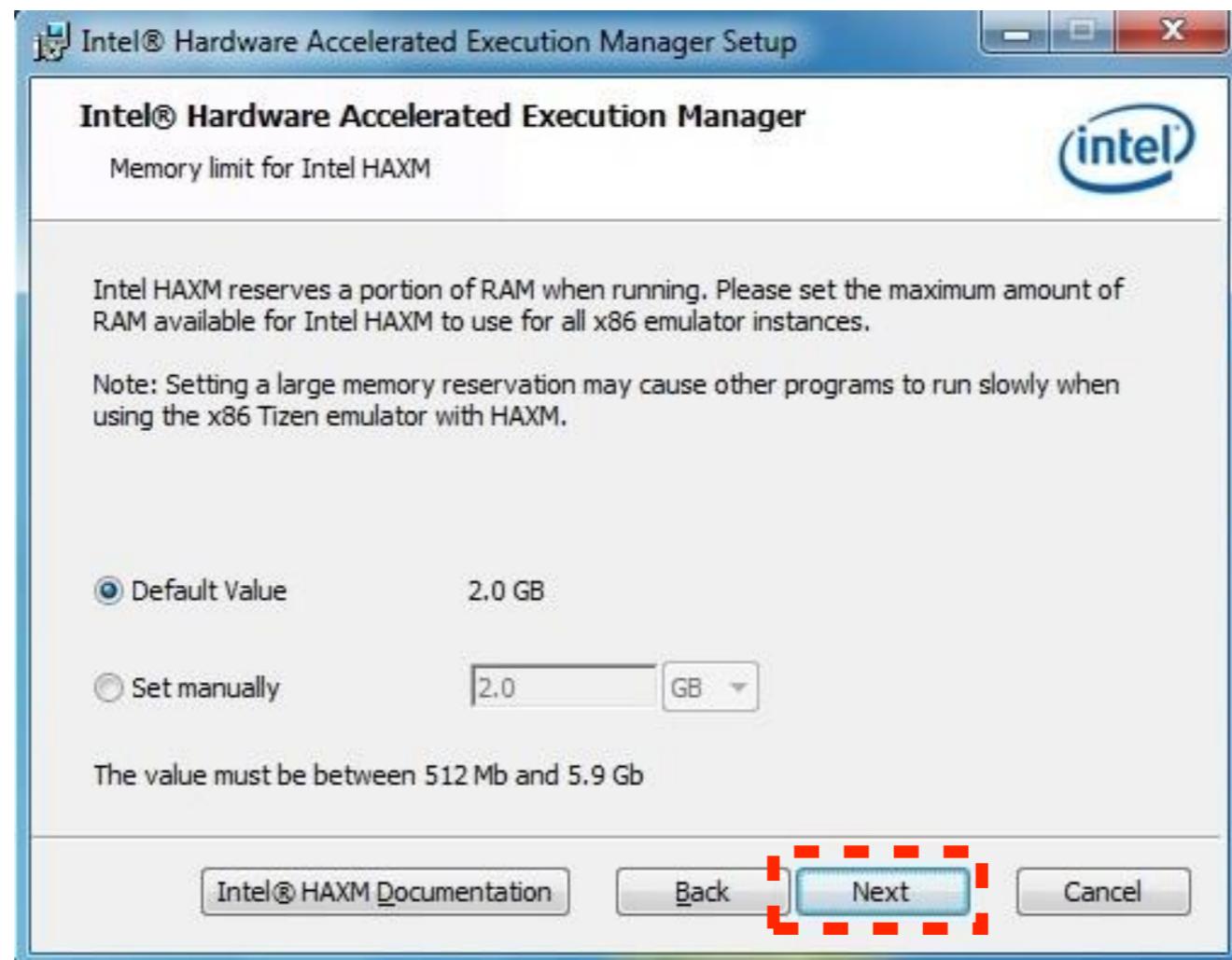
Read and accept the Intel HAXM End-User License Agreement (EULA).



Troubleshooting

HAXM

You are prompted to adjust the amount of RAM to be allocated to Intel HAXM.



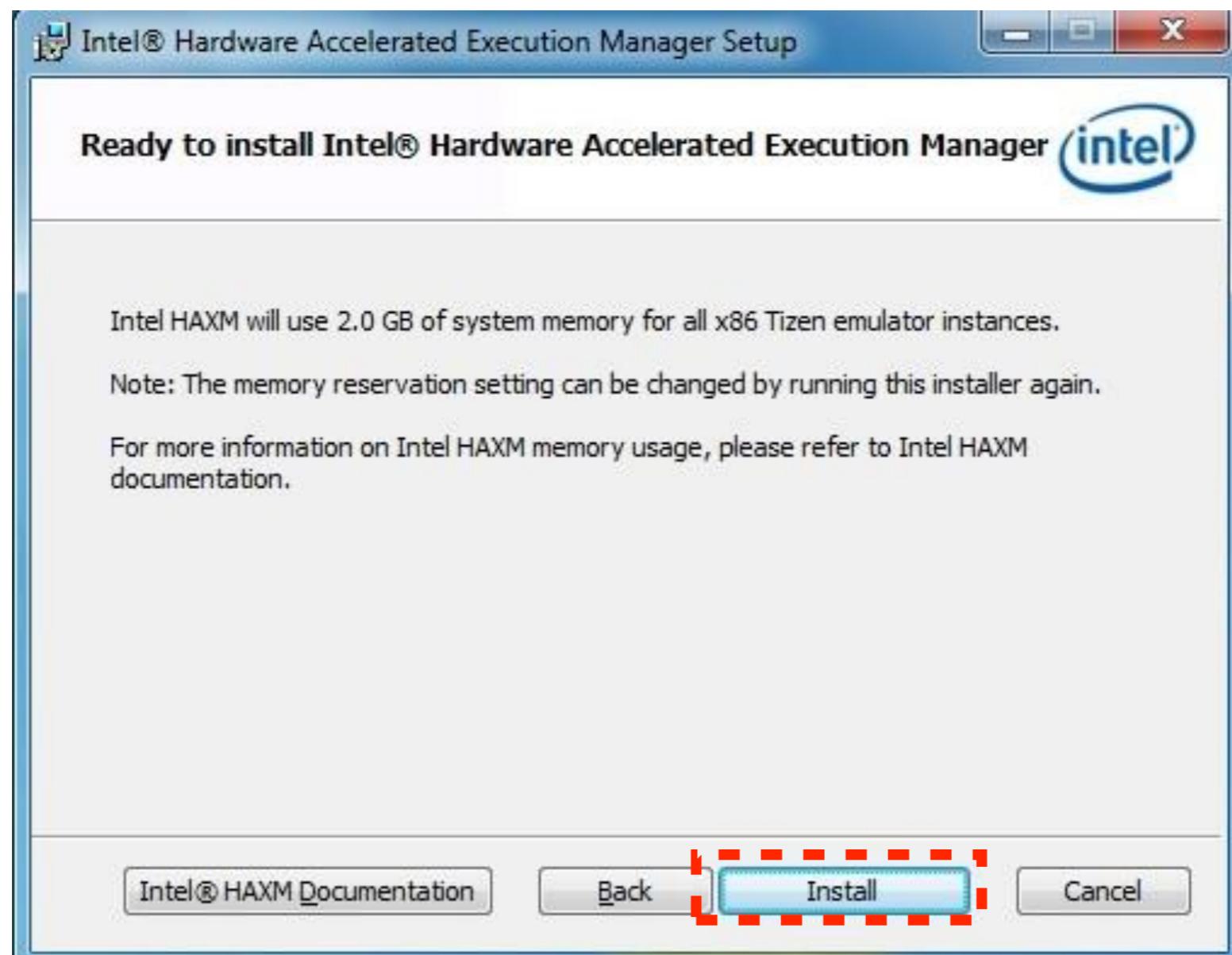
Note

The installer also functions as a configuration tool for Intel HAXM. To change the memory settings, run the installer again.

Troubleshooting

HAXM

The next screen confirms your Intel HAXM memory allocation settings.
Click **Install** to proceed.



Troubleshooting

HAXM

When the Intel HAXM installation is finished, click Finish to exit the installer.

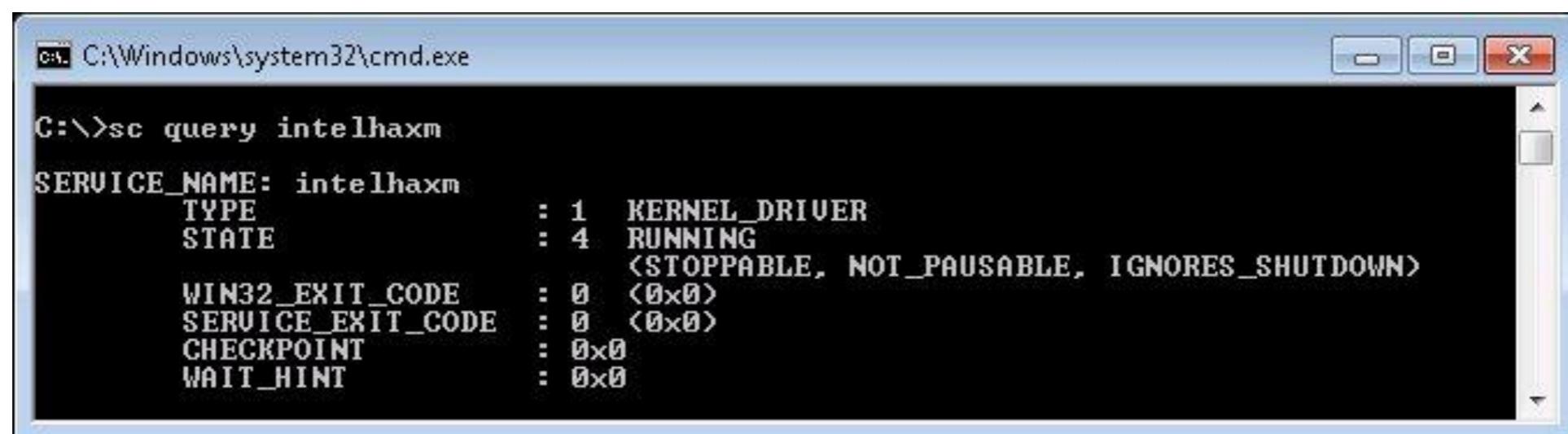


Troubleshooting

HAXM

To verify that Intel HAXM is running, open a Command Prompt window and execute the command: sc query intelhaxm

If Intel HAXM is working, the command will show a status message indicating that the state is 4 RUNNING.



```
C:\>sc query intelhaxm

SERVICE_NAME: intelhaxm
        TYPE               : 1  KERNEL_DRIVER
        STATE              : 4  RUNNING
                               <STOPPABLE, NOT_PAUSABLE, IGNORES_SHUTDOWN>
        WIN32_EXIT_CODE    : 0  <0x0>
        SERVICE_EXIT_CODE : 0  <0x0>
        CHECKPOINT        : 0x0
        WAIT_HINT         : 0x0
```

Starting and Stopping HAXM

To stop or start Intel HAXM, open a Command Prompt window with administrator privileges and execute one of the following commands:

- Stop HAXM: `sc stop intelhaxm`
- Start HAXM: `sc start intelhaxm`

Adjusting Intel HAXM Memory Allocation

To change the amount of memory allocated to Intel HAXM, run the installer again.

Note

Changes to Intel HAXM memory settings take effect when Intel HAXM is restarted. The currently running emulators continue to use the previous memory setting.

Removing HAXM

Warning

Close all instances of the Tizen emulator before removing Intel HAXM.

To uninstall Intel HAXM, run the installer again or use the Control Panel.

Important

Removing Intel HAXM disables the acceleration of all Tizen emulators, but the Tizen emulator still functions. Installing Intel HAXM again re-enables the emulator acceleration.

Troubleshooting HAXM (BIOS/OS Setting)

Hardware feature required by HAXM may be disabled by BIOS or OS. If your installation fails because of a hardware requirement, please check BIOS/OS as followed suggestion:

- Make sure VT is enabled in BIOS.
- Make sure Execute Disable Bit is enabled in BIOS.
- Make sure Data Execution Prevention is enabled in Windows. On the Windows platform, click Control Panel > System > Advanced system settings > Advanced tab > Performance section, Options (or Settings) button > Data Execution Prevention. Make sure that DEP is enabled.