Intel® Firmware Engine 5.0 Application Release Notes

September, 2018

DISCLAIMER

FILE LIST

1. "Application_Release_Note_R5.0.pdf"
   This File. Release note for the Intel® Firmware Engine 5.0 application install package.
2. "IntelFirmwareEngineApplicationSetup_5_0.exe"
   User Interface Installer Package (Windows). Note that a platform package installation is also required
3. "IntelFirmwareEngineApplicationSetup_5_0.bin"
   User Interface Installer Package (Linux*). Note that a platform package installation is also required
4. "Quick_Start_Guide_R5.0.pdf"
   (Directories: ./English, ./French, ./German, ./Simplified Chinese, ./Traditional Chinese)
   - Quick start guide for the User Interface Application

INSTALLATION INSTRUCTIONS

Note: Previous installations of the Intel® Firmware Engine must be removed prior to installing this release. If the previously installed version is 5.0 or greater, then previously installed platforms must also be uninstalled. Please backup any prior work before performing the uninstall operations.

Windows*

1. Under 'Control Panel', use the 'Uninstall a program' menu to uninstall any previous versions of Intel® Firmware Engine. Check the Quick Start Guide for system requirements prior to installing the latest version.
2. Execute the "IntelFirmwareEngineApplicationSetup_5_0.exe" file and follow the click through menus.
3. If the previous version of Intel® Firmware Engine is 5.0 or greater, the previously installed platforms must also be uninstalled.
4. Install the desired Intel® Firmware Engine Platform package compatible with this release. For release 5.0 the MinnowBoardTubotB21Setup_1_0.exe is compatible.
   A. Execute the 'MinnowBoardTubotB21Setup_1_0.exe' file and follow the click through menus.

Linux*

To uninstall previous:

1. Open a command Terminal in the directory to the directory where the Intel® Firmware Engine was installed (typically `/opt/Intel/Intel(R) Firmware Engine/5.0.xxxxxx`)
2. Execute the command "Change Intel(R) Firmware Engine Installation" from a command Terminal, type:
   'sudo ./Change\ Intel\(R\)\ Firmware\ Engine\ Installation'. Follow the uninstall instructions and keep any prior work desired.
3. If the previous version of Intel® Firmware Engine is 5.0 or greater, the previously installed platforms must also be uninstalled.
   A. Open a command Terminal in the directory to the directory where the platform was installed (typically `opt/Intel/MinnowBoard TurbotB21 Reference Platform 1.0.0`)
   B. Execute the command from a command terminal, type:
   'sudo ./Change\ Intel\(R\)\ Firmware\ Engine\ Platform\ Project\ Installation'

To install :

1. Check the Quick start guide for system requirements.
2. Open a command Terminal in the directory where the downloaded program file (`.bin`) is located.
3. Change the .bin file properties to include 'execute' using the '`chmod +x`' command.
4. To install, type 'sudo ./IntelFirmwareEngineApplicationSetup_5_0.bin' on the command line.
5. Follow the installer click-through menus to complete installation.
6. Install the desired Intel® Firmware Engine Platform package compatible with this release. For release 5.0 the MinnowBoardTubotB21Setup_1_0.bin is compatible.
   A. To install, change the file properties using the '`chmod +x`' command and then type:
   'sudo ./MinnowBoardTurbotB21Setup_1_0.bin'

NEW FEATURES AND CHANGES

1. CAD to CAM data exchange format (ODB++) schematic import feature
2. Separate installers for platforms and the Intel Firmware Engine application. Note: requires an installation of a platform designed to be used on the Intel® Firmware Engine for the Application to be productive.
3. Common Settings for entering SHA256 hashed RSA to support .pem files
4. Prohibit adding hardware to the wrong side of a peripheral
5. More specific warning message from the RMT and UPT tools if packages in the repository containing PCDs with the same name and token space name
6. Additional Search for all modules for a given string value
7. Bug fixes and issues deferred from previous releases
8. Screen for Security issues.

KNOWN LIMITATIONS

Installation

Virus scanner issues

1. MacAfee 8.008* has a recent security update that requires the addition of the following directory and sub-directories to the Exception list: C: Users\Public\Repository. This will reduce the install length.

2. Avast Virus* needs to have the following directory added to the exceptions list will not open a project unless the repository directory is added to the exception list: C: Users\Public\Repository

3. Kaspersky* virus scanner needs the following file added to the exceptions: C: Users\Public\Repository. To exclude a file or folder from Kaspersky please see Article ID 11146: http://support.kaspersky.com/us/11146?cid=pe#block2 *Note: the article steps are applicable to 2018. You may also add your program to the exclusion rules for trusted applications. To do so please Article ID 11390: http://support.kaspersky.com/us/11390?cid=pe#block2

4. Anti-virus software Sophos* gives an error on installation. From Sophos Support on how to disable for Installing:
Once you have signed into home.sophos.com and accessed the protection features, you can disable the key features being Real-Time Protection. Then under Exploits, you would disable Exploit Mitigation. Once these two items have been disabled, you should be able to continue the installation

Linux installation issues

1. Ubuntu Software* "Remove" option from the Intel Firmware Engine icon menu will not uninstall the application. Uninstall with the command in Terminal "Change Intel(R) Firmware Engine Installation" using 'sudo'.

Application

Issue opening the application

1. If the project is trying to be opened by a double click on a Chinese OS, the project may fail to open. The work around is to copy the project to the C:\ Root then the project can open by double clicking.

Project naming and Notes

1. There are restriction on project names based on reserved characters in Linux and Windows operating systems.
   A. The names must be less than 100 characters.
   B. The following characters cannot be used in project names (Windows and Linux) and repository name (Linux):
      I. Windows: back-slash, forward-slash, colon, asterisk, question mark, double quotes, left angle bracket and right angle bracket
      II. Linux: forward splash

  III. Linux has an additional restriction as non-ascii characters are not allowed in repository names.

2. If the string entered is over 1 MB in length in the Project notes field when creating a new project, the Project notes cannot be viewed in the Project properties menu and the Project notes pane. It is however, stored with the .bimx file.

Issues with the project file (.bimx)

1. Setting a restore point will fail if the following:
    a. Windows* if the .bimx file resides in C:\Program Files\(x86)\Intel\Intel(R) Firmware Engine or C:\Users\Public\Repository\ MinnowBoardTurbotB21_1_1
    b. Linux* if the .bimx file resides in opt/Intel/Intel(R) Firmware Engine/etc.

GPIO issues

1. Long delays may occur if the table has a majority of it connections occupied.

Adding your own source drivers

1. When adding a driver from "UEFI driver from source build" option, first make sure the UEFI driver builds properly under the EDI II build environment.

2. If adding a driver using "UEFI driver with metadata" fails, try adding a driver from source build.

3. When adding a driver from "UEFI driver from source build" option the driver will not appear in the Firmware Inventory report.

4. When adding a driver from "UEFI driver from source build' option the build will only build once from the source files. Subsequence changes to the source will not be recognized. Removing the build directory will also cause the build to fail. The work around is to remove the source file from the "UEFI driver from source build" option before making a modification to the source code driver and/or removing the build directory. Then re-add using "UEFI driver from source build" option.

Linux*

1. There is no Graphical user application for Repository Maintenance tool under Linux. Use the command line tool in Terminal at /opt/Intel/Intel (R) Firmware Engine /5.0.xxxx/bin/RMT

2. After completing the installation on Linux Ubuntu* there is no icon in the Ubuntu Software menu. After a re-boot the icon will be displayed.

Search

1. For searching using the advanced search feature to search the entire project, if there are over 400 results from a given string then the error message in English is: "There were too many results. Only 400 result are displayed" is displayed. However, on a Chinese OS error message is not translated correctly. Please refine your search using a more specific string or only search the modules concerned.

Platform associated

1. The Windows API has a default maximum file path length of 260 characters. As a result of this limitation and the definition of various items in the Intel Firmware Engine, the following limits need to be observed for Windows:
   Installed repository path: <=209 characters
   Installed tool path: <=144 characters
   Installed project path: <=232 characters
   New project path: <=236 characters

2. To install newer versions of a platform package, it is required to uninstall previous versions of the package.

3. If a project is manually deleted outside of the application tool then there could be an error message "Unable to open project". This is because the application tool still has references to the previous projects. Also check the file:
   C:\Users\SSID\AppData\Roaming\Intel\IntelFirmwareEngine\UiFiles\OC.sav if this error message occurs.

4. For other project specific issues, please check the project release notes compatible with this release.

Interactions with Third Party applications

1. The project file (.bimx) cannot be opened via Windows Remote Desktop*.

2. For third party tools such as the DediProg* flash programmer, there is no support for file name paths with non-ASCII characters. Recommend directory path names must use ASCII formatting.

3. The build process is extremely slow when the Avast Virus* scanner is installed and enabled.

Recommendations

1. It is recommended that an imported BIM file (.bmx) be modified only by the Intel Firmware Engine application tool. Modifications from other applications and/or tools could cause the .bimx file to become corrupt or invalid.

2. It is NOT recommended to flash a built .FD image into a system under test if there is a warning from the build: "WARNING: The selected components exceed the available flash space." Doing so could result in a non-bootable system under test. This symptom occurs by Enabling the Symbolic Debug Support and Enabling Recovery File Generation in the "Project properties" menu. The work around is to remove components until the build does not have the exceeded flash space warning message.

3. It is recommended to save your project before making several successive changes in a row (i.e. adding, removing devices and making configuration changes in succession.

* Other names and brands may be claimed as the property of others.