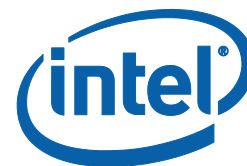


Intel® Platform Flash Tool Lite

User guide

August 2018

Revision 5.8.9.0



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Revision History

Revision Number	Description	Revision Date	Author
4.0.0	<ul style="list-style-type: none">• Updates for PFT 4.0.0 release	May 13 th , 2013	BROQUERE, Xavier
4.1.0	<ul style="list-style-type: none">• Updates for PFT 4.1.0 release	May 27 th , 2013	BROQUERE, Xavier
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4.2.0	<ul style="list-style-type: none">• Updates for PFT 4.2.0 release	October 7 th , 2013	BROQUERE, Xavier
4.2.1	<ul style="list-style-type: none">• Updates for PFT 4.2.1 release	October 23 th , 2013	BROQUERE, Xavier
4.2.2	<ul style="list-style-type: none">• Updates for PFT 4.2.2 release	Nov. 20 th , 2013	BROQUERE, Xavier
4.3.0	<ul style="list-style-type: none">• Updates for PFT 4.3.0 release	Jan. 15 th , 2014	BROQUERE, Xavier
4.4.0	<ul style="list-style-type: none">• Updates for PFT 4.4.0 release	Feb. 26 th , 2014	BROQUERE, Xavier
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4.4.2	<ul style="list-style-type: none">• Updates for PFT 4.4.2 release	March 12 th , 2014	BROQUERE, Xavier
4.4.4	<ul style="list-style-type: none">• Updates for PFT 4.4.4 release	April 17 th , 2014	BROQUERE, Xavier
4.4.5	<ul style="list-style-type: none">• Updates for PFT 4.4.5 eng Update xFSTK to 1.5.3 support windows registry hack	April 30 th , 2014	BROQUERE, Xavier
5.1.0	<ul style="list-style-type: none">• Updates for PFT 5.1.0 Major changes Add support for JSON flash file Update xFSTK to 1.7.1 Add support for JSON flash file	July 28 th , 2014	BROQUERE, Xavier
5.2.0	<ul style="list-style-type: none">• Updates for PFT 5.2.0 Update adb to 1.0.32 (from imin legacy) Update fastboot from imin legacy Enhancements and fixes	Oct. 20 th , 2014	BROQUERE, Xavier
5.2.1	<ul style="list-style-type: none">• Updates for PFT 5.2.1 Update xFSTK API Enhancements and fixes	Nov. 12 th , 2014	BROQUERE, Xavier
5.2.2	<ul style="list-style-type: none">• Updates for PFT 5.2.2 Update Intel SOC Drivers to 1.2.2 Update Intel Android USB Drivers to 1.8.1 Update xfstk API to 1.8.0 Enhancements and fixes	Feb. 20 th , 2015	BROQUERE, Xavier

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5.2.3	<ul style="list-style-type: none"> Updates for PFT 5.2.3 Bug Fix in command line interface for group activation 	March 2 nd , 2015	BROQUERE, Xavier
5.2.5	<ul style="list-style-type: none"> Updates for PFT 5.2.5 JSON flash file format 3.0 support 	May 15 th , 2015	BROQUERE, Xavier
5.3.0	<ul style="list-style-type: none"> Updates for PFT 5.3.0 	June 10 th , 2015	BROQUERE, Xavier
5.3.1	<ul style="list-style-type: none"> Updates for PFT 5.3.1 	June 30 th , 2015	BROQUERE, Xavier
5.3.2	<ul style="list-style-type: none"> Updates for PFT 5.3.2 Update ADB/fastboot 	July 27 th , 2015	BROQUERE, Xavier
5.3.3	<ul style="list-style-type: none"> Updates for PFT 5.3.3 Update ADB/fastboot on Mac OS to SDK 24.3.4 (platform tools 23.0.1) Update dfu-util to 0.8.1 (Windows & Linux) & 0.7.1 (OSX) 	Oct. 8 th , 2015	BROQUERE, Xavier
5.3.4	<ul style="list-style-type: none"> Updates for PFT 5.3.4 Add Atlas Edge support 	Oct. 14 th , 2015	BROQUERE, Xavier
5.4.0	<ul style="list-style-type: none"> Updates for PFT 5.4.0 New name: Intel® Platform Flash Tool Dfu-util updated to 0.8.2 Adb/fastboot updated 	Jan. 20 th , 2016	BROQUERE, Xavier
5.4.1	<ul style="list-style-type: none"> Updates for PFT 5.4.1 Fix cflasher with no X server Dfu-util updated to 0.8.3 	Feb. 1 st , 2016	BROQUERE, Xavier
5.4.2	<ul style="list-style-type: none"> Updates for PFT 5.4.2 Do not specify -path option to dfu command by default 	Feb. 3 rd , 2016	BROQUERE, Xavier
5.5.0	<ul style="list-style-type: none"> Updates for PFT 5.5.0 Adb/fastboot updated Support PCIe Modem devices DownloadTool/FlsTool updated New parameter editor feature (JSON flash file v3.1) New flash history menu 	March 9 th , 2016	BROQUERE, Xavier
5.5.1	<ul style="list-style-type: none"> Updates for PFT 5.5.1 Update dfu-util to fix -path option on Ubuntu 12.04 	March. 18 th , 2016	BROQUERE, Xavier
5.5.2	<ul style="list-style-type: none"> Updates for PFT 5.5.2 Enable enumeration of Flyswatter devices 	April 26 th , 2016	BROQUERE, Xavier
5.6.0	<ul style="list-style-type: none"> Updates for PFT 5.6.0 Update Qt to 5.5.1 Linux: package is now installed in /opt/intel/platformflashtoollite 	May 03 rd , 2016	BROQUERE, Xavier
5.6.1	<ul style="list-style-type: none"> Updates for PFT 5.6.1 Small update 	July 04 rd , 2016	BROQUERE, Xavier
5.7.1	<ul style="list-style-type: none"> Updates for PFT 5.7.1 Update DLDR API to 1108 Use new DnX drivers (DnX drivers for legacy platforms ; Flash Drivers for BXT-based platforms) 	August 18 th , 2016	Dartigue, Cyril



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5.8.1	<ul style="list-style-type: none"> Updates for PFT 5.8.1 Update DownloadTool to 2.64 Update FlsTool to 2.47 	September 13 th , 2016	BROQUERE, Xavier
5.8.2	<ul style="list-style-type: none"> Updates for PFT 5.8.2 Support for DnX downloader tool for PFT – Lite only on Windows and Ubuntu Linux OS 	February 2 nd , 2017	Raghavulu, Venkat
5.8.3	<ul style="list-style-type: none"> Updates for PFT 5.8.3 Support for macOS 10.12.3 Support for Ubuntu 16.04 	February 24 th , 2017	Deep, Ashesh
5.8.4	<ul style="list-style-type: none"> Updates for PFT 5.8.4 Update DLDR API to 1171 V4 DnX support of larger FW images Update adb to veriosn 1.0.39 Update fasboot to version 3db08f2c6889-android 	May 02 nd , 2017	Deep, Ashesh
5.8.6	<ul style="list-style-type: none"> Updates for PFT 5.8.6 Update for CSE firmware version 3.1.50.2222 Update for ABL Payload knob (32-bit selection) Update for token signing with remote-HSM (User credentials are not mandatory) 	December 19 th , 2017	Deep, Ashesh
5.8.7	<ul style="list-style-type: none"> Updates for PFT 5.8.7 Added new platform KSL in token generation. Updated CSE firmware 7063 (LKF Support). Added binary to xml token generation feature for BXT Added product id for LKFs 	March 29 th 2018	Deep, Ashesh
5.8.8	<ul style="list-style-type: none"> Updates for PFT 5.8.8 Updated DownloadTool V2.89 Added Token generation and signing support for LKF platform Added support for ICL platform in security Added loC_flash_server 1.6.3 support for internal release Change EDSS key UI for getting the user permission for token 	July 6 th 2018	Deep, Ashesh
5.8.9	<ul style="list-style-type: none"> Updates for 5.8.9 Added IOC flash server support for Windows OEM Updated IOC flash server app version 1.6.3 for OEM Added ABL and BIOS Secure Boot knobs in Intel unlock token and IDLM unlock token for Broxton 	August 9 th 2018	Deep, Ashesh



1 Introduction

This document is a technical document that provides instructions on the installation and use of the Intel® Platform Flash Tool Lite.

This user guide is targeted at developers using the Platform Flash Tool Lite for flashing Intel® software images on Intel® devices.

1.1 Terminology

Term	Description
OS	Operating System
USB	Universal Serial Bus
GUI	Graphical User Interface
PFTL	Platform Flash Tool Lite

Table 1-1: Terminology



2 *Platform Flash Tool Lite prerequisites*

2.1 Operating Systems

This tool supports the following OS:

- Microsoft Windows XP (32 bits);
- Microsoft Windows 7 (32/64 bits);
- Microsoft Windows 8 (32/64 bits);
- Microsoft Windows 8.1 (32/64 bits);
- Ubuntu 12.04 LTS 64 bits
- Ubuntu 14.04 LTS 64 bits
- Ubuntu 16.04 LTS 64 bits
- Fedora 22 64 bits
- Mac OS X 10.10 (Yosemite)
- Mac OS X 10.11 (EI Captain)
- macOS 10.12 (Sierra)



3 Installation

This chapter describes the installation steps.

3.1 Installation on Windows OS

Run the installation package.

Microsoft Visual C++ 2012 Redistributable (x86) may be installed by the installer.

Setup wizard will start (see Figure 3-1). Click "Next" to complete the installation.



Figure 3-1: Windows Setup Wizard



3.2 Installation on Ubuntu

Only 64bit package is available.

Ubuntu 12.04LTS 64bits and later

Prerequisites on Ubuntu 12.04LTS 64 bits:

sudo apt-get install gdebi ia32-libs

Prerequisites on Ubuntu 13.04 64 bits and later:

sudo apt-get install gdebi libncurses5:i386 libstdc++6:i386

Installation:

The "Ubuntu Software Center" will handle the installation, double-click on the .deb file and then click "Install Package" and enter the password. The license must be accepted.

Note: You can also install the package using the command line (replace with the correct name of the deb file):

```
sudo gdebi [PlatformFlashToolLite.deb]
```

3.3 Installation on Macintosh OS

Run the installation package.

Setup wizard will start (see Figure 3-2). Click "Continue" to complete the installation.

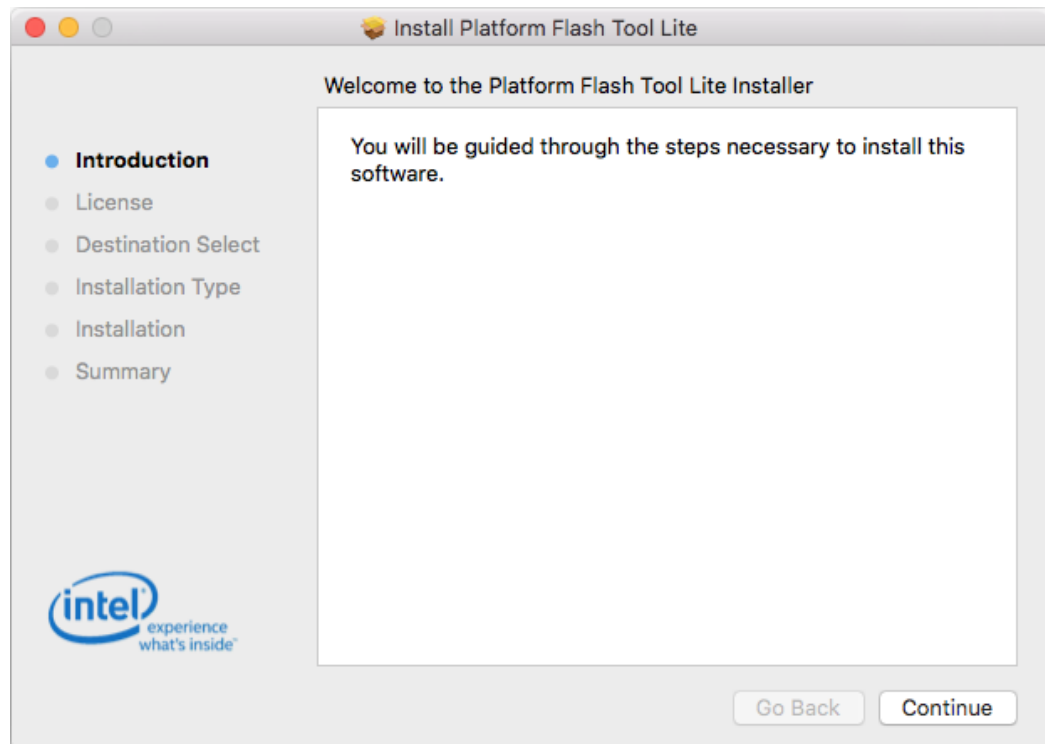


Figure 3-2: Macintosh Setup Wizard

4 Usage

Intel® Platform Flash Tool Lite can be used with the graphical user interface or in command line. The first part of this chapter will describe the graphical part. The command line mode is detailed in section 4.5.

4.1 Launching the tool

1. Double-click the desktop shortcut (Figure 4-1).
2. The main GUI of the tool is shown in Figure 4-2.



Figure 4-1: Platform Flash Tool Lite Icon

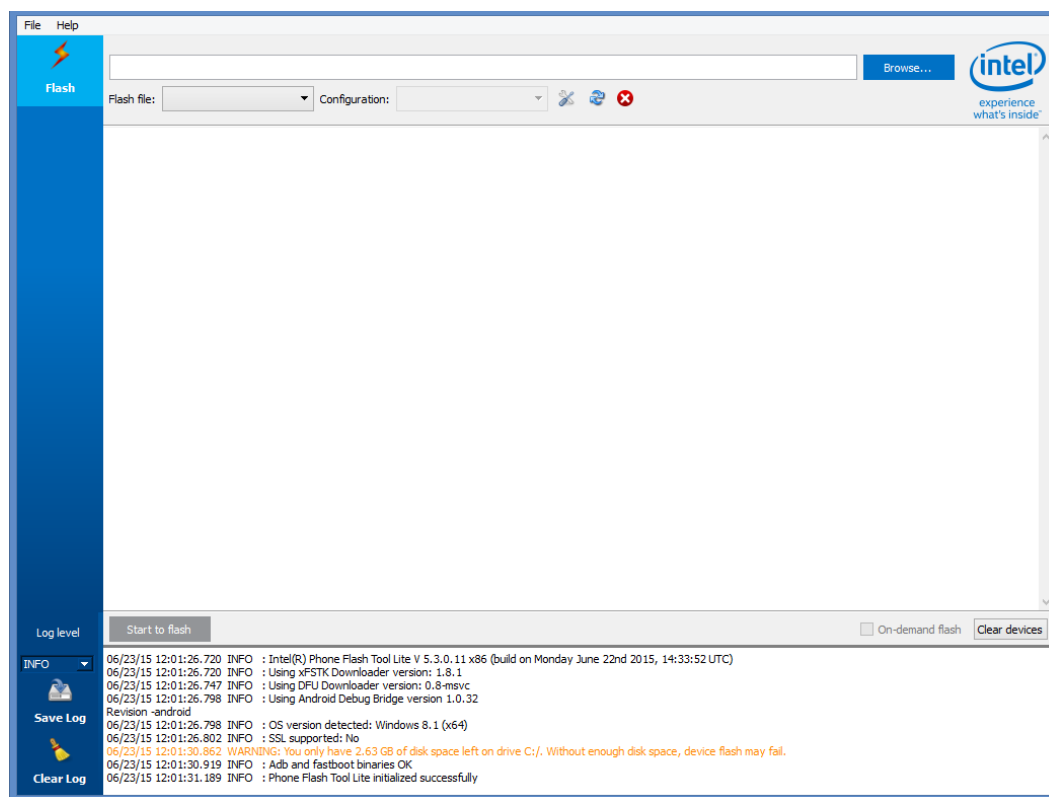


Figure 4-2: Main window of Platform Flash Tool Lite

4.2 Select flashing ingredients

The user has to select the flash file using the “Browse” button. The flash file validity is then checked and the flash operation can be started only if the selected flash file is valid. The details of the loaded flash file are printed in the log area in the DEBUG log level.

Select the flash file or the archive (*.zip *.tgz file or *.xml or *.json) using the “Browse” button (Figure 4-3).

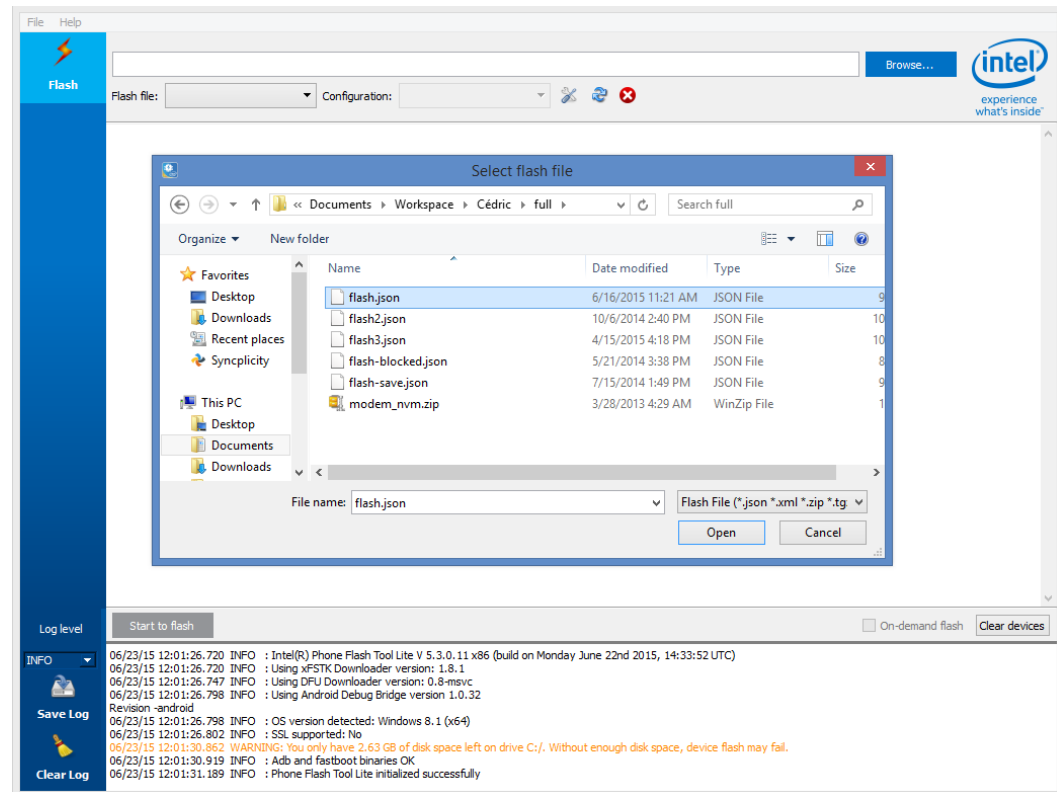


Figure 4-3: Local Flash file tab

When a flash file is selected, the tool checks the file validity and activates the “Start to flash” buttons.

4.3 Start the flashing operation

When a valid flash file is loaded, the “Start to flash” button are enabled. Click “Start to flash” in the widget of the device (Figure 4-4);

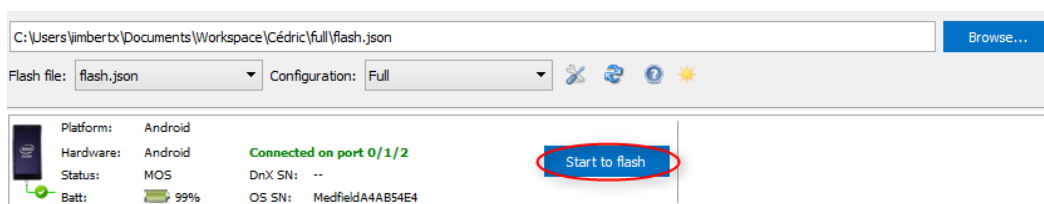


Figure 4-4: Flash a connected device

4.4 Tool Options

This section describes the options of the tool with the Graphical User Interface (GUI). The option panel is accessible via the main menu *File* → *Options*.

The option window contains a General tab (Figure 4-5), an external tool tab (Figure 4-6), a Log tab (Figure 4-7) and an Advanced tab.

4.4.1 The General tab of the option window

In this tab, the user can configure the folder where the flash files are stored and the flash options.

"Always unzip" option:

- If the "Always Unzip" is checked, the zip files always will be unzipped by the tool.

"Reload flash file at startup" option:

- If checked, the latest loaded flash file in the local tab is reloaded at tool startup (if it still exist).

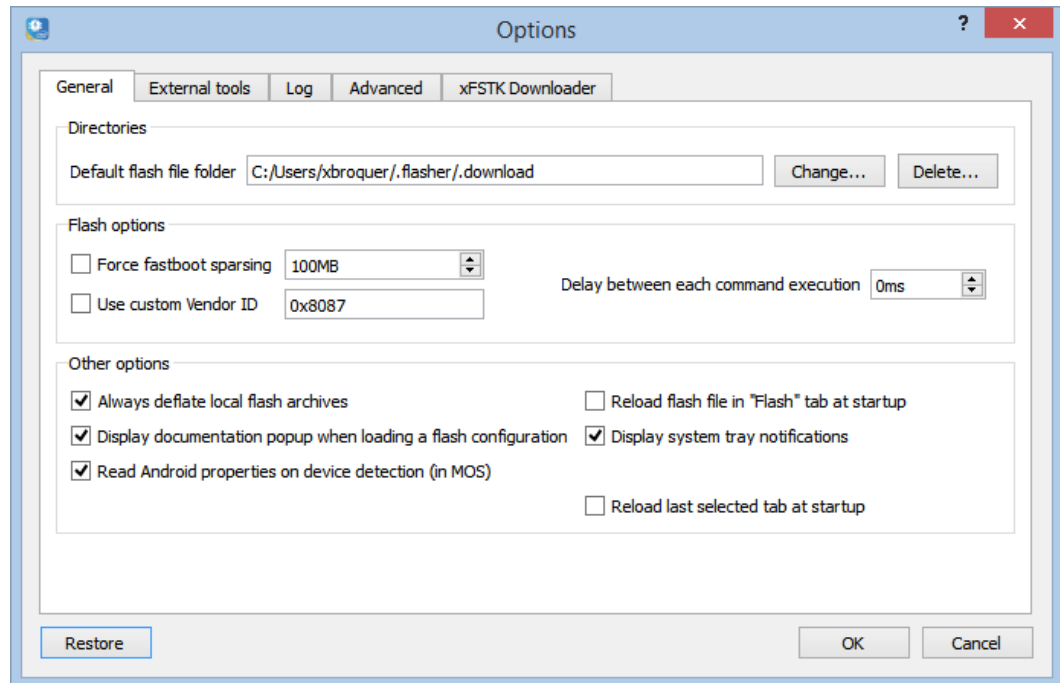


Figure 4-5: General tab of the option window

4.4.2 The external tool tab of the option window

In the tab, the user can set the path of the external tools and also add custom tool binaries that can be used in JSON flash files.

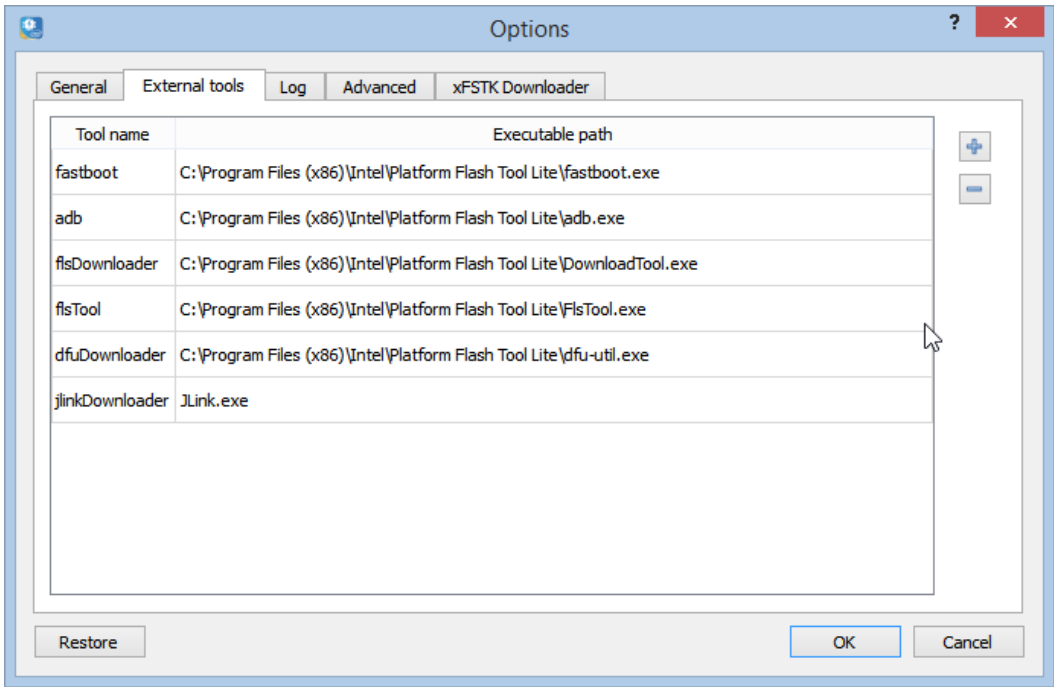


Figure 4-6: External tools options

4.4.3 The Log tab of the option window

This tab is used to customize the result log file of each flash and the application log file.

The "Log directory" option allows to set the root directory of all logs files.

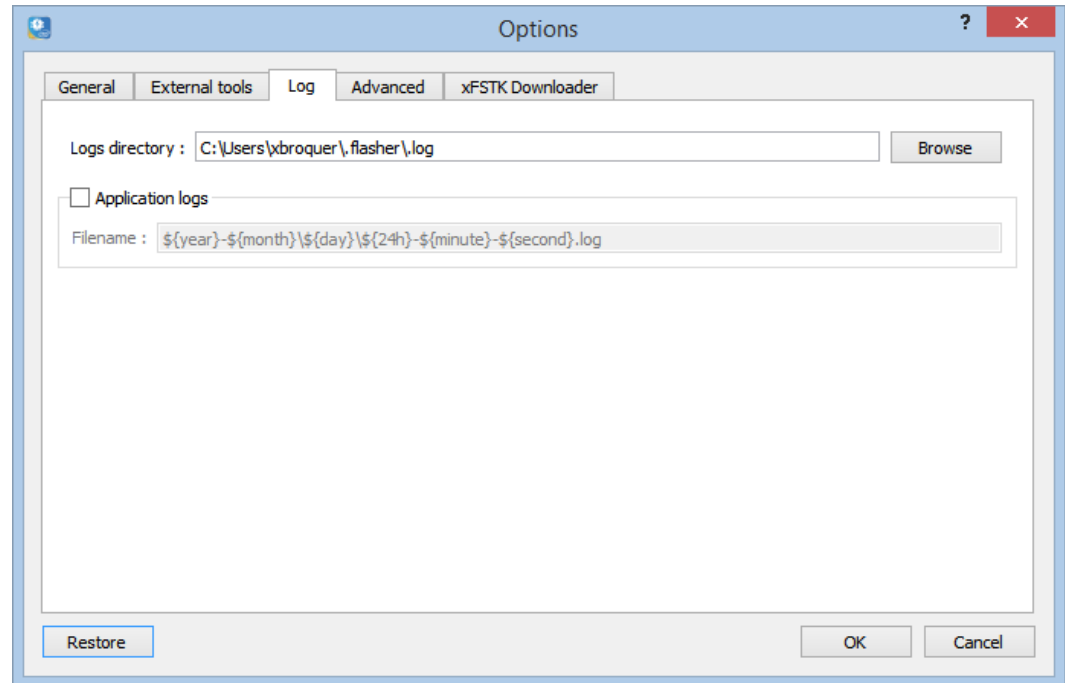


Figure 4-7: Log tab of the Options window

When the application logs option is enabled, all the log entries are stored in the file pointed by the Filename field. The "Log level" drop-down list in the main window (see Figure 4-2) does not filter the entries of this file.

You just have to check the "Application logs" checkbox to enable the logger (see Figure 4-7). Use the "Filename" option to set the template filename of the log file.

4.4.4 The Advanced tab of the option window

On Windows, the "Scan USB devices on plug" will detect you devices when you plug it. This reduce the detection time.

4.5 Using the tool in command line

The binary file for the command line tool is *platformflashtoolitecli*.

The -f option is a mandatory option, this command line tool is designed to flash a single device. Multiple instance of the *platformflashtoolitecli* tool can be started in parallel for multi flash but in this case the user has to provide the android serial number (example: SERIAL95A45IE7) and/or the SOC serial number with the respective options --os-sn and --soc-sn.

Usage



All command line options are available in the help message of the tool:

➤ *platformflashtoollitecli --help*