

[Source](#)

ME Analyzer v1.5.1 :

Intel Engine Firmware Analysis Tool

Last Updated: 01/05/2016 (dd/mm/yyyy)

A. About ME Analyzer

ME Analyzer is a tool that you can show various details about Intel Engine Firmware (Management Engine, Trusted Execution Engine, Service Platform Services) images. It can be used to identify whether the firmware is updated, what Release, Type, SKU it is etc.

A1. ME Analyzer Features

- Supports all current & legacy Engine firmware (ME 1.x - 11.x , TXE 1.x - 2.x & SPS 1.x - 4.x)
- All types of firmware files are supported (ME/TXE/SPS Regions, BIOS images etc)
- Partial Firmware Update support for Corporate ME 8-11 enabled platforms
- UEFI Bios Updater (UBU) and Lordkag's Extractor integration support
- Firmware Family (ME, TXE or SPS), Date & Version number detection
- Production, Pre-Production & ROM-Bypass firmware release detection
- Region (Stock or Extracted) & Update firmware type detection
- Identification of the platform that the firmware was configured for via FITC
- SKU & target platform detection for all supported firmware releases
- Security Version Number (SVN), Version Control Number (VCN) & PV-bit detection
- Intel SPI Flash Descriptor Access Region detection, Skylake compatible
- Identification of whether the imported Engine firmware is up-to-date
- Proper CPT/PBG SKU & BlackList Table detection for ME 7.x firmware
- Special Apple Macintosh mobile ME firmware SKU support
- FWUpdate OEMID detection at Region & SPI/BIOS images
- Multiple drag & drop & sorting of rare/problematic Engine Firmware
- Multiple Engine Firmware Region detection, number only
- Unidentifiable Engine Firmware Region (ex: Corrupted, Compressed) detection
- Reports unknown firmware not found at the Engine Repository Database
- Reports unknown firmware Major, Minor, SKU, Type etc releases
- Shows colored text to signify the importance of notes, warnings, errors etc

A2. Engine Firmware Repository Database

ME Analyzer's main goal is to allow users to quickly determine & report new firmware versions without the use of special Intel tools (FIT/FITC, FWUpdate) or Hex Editors. To do that effectively, a database had to be built. The [Intel Engine Firmware Repositories](#) is a collection of every ME, TXE & SPS firmware I have found. It's existence is very important for ME Analyzer as it allows me to find new types of firmware, compare same major version releases for similarities, check for updated firmware etc. Bundled with ME Analyzer there's a file called MEA.dat which is required for the program to run. It includes all Engine firmware that are available at the Repository thread. This accommodates two actions: **a)** Check whether the imported firmware is up to date and **b)** Help find new Engine firmware releases sooner by reporting them at the [Intel Management Engine: Drivers, Firmware & System Tools](#) or [Intel Trusted Execution Engine: Drivers, Firmware & System Tools](#) threads respectively.

B. How to use ME Analyzer

There are two ways to use ME Analyzer, Drop & Command Prompt. Drop allows you to drag & drop one or more firmware and view them one by one. To manually call ME Analyzer, a Command Prompt can be used instead. Optionally, ME Analyzer supports some command line parameters for special tasks.

B1. ME Analyzer Drag & Drop

To use ME Analyzer in Drop mode, select one or multiple files and Drag & Drop them to MEA_Drop.bat script. In case of multiple file import, "Press any key to continue . . ." after an analysis is complete to view the details of the next firmware image until all files are analyzed. Keep in mind that due to batch scripting limitations **a)** there is a limit on how many files can be imported at once (around ~100 files) and **b)** files inside folders with special characters (parenthesis, commas, &-symbol etc) may cause the script to close unexpectedly.

B2. ME Analyzer Parameters

There are multiple parameters which enhance or modify the default behavior of ME Analyzer.

-? : Displays MEA's help & usage screen.

-**info** : Displays Driver & Firmware Versions (admin). *

-**multi** : Multi-Analyze mode, keeps files with messages and renames everything else.

-**ubu** : SoniX/LS_29's UEFI BIOS Updater mode.

-**ubupre** : SoniX/LS_29's UEFI BIOS Updater Pre-Menu mode.

-**extr** : Lordkag's UEFI Strip mode, prints special one-line outputs.

-**hid** : Forces display of any firmware found. Works with -msg.

-**msg** : Prints all messages w/o headers. Works with -adir and -hid.

-**adir** : Sets DB and UEFIFind to .\ directories.

-**disuf** : Disable UEFIFind Targeted Engine GUID Detection.

-**dker** : Prints ME11, TXE3, SPS4 Kernel/FIT analysis.

* On Windows Vista & up, Administrator privileges are required. You must have an Engine-compatible Intel system and a valid ME/TXE driver already installed. [ME Util v0.1](#) is an open-source tool from [Igor Skochinsky](#) which is capable of sending messages to the Engine via the driver interface (MEI, TXEI). I modified Igor's ME Util, by removing everything but Firmware & Version reporting as well as fixing some small issues, and embedded it into MEA. Keep in mind that its functionality is not officially supported by me.

B3. ME Analyzer Error Control

During operation, ME Analyzer may encounter some issues related to rare firmware circumstances that can trigger Notes, Warnings or Errors. Notes (yellow color) provide useful information about a characteristic of this particular firmware. Warnings (purple color) notify the user of possible misconfigurations that can cause system instability. Errors (red color) are shown when something unexpected is encountered like unknown Major/Minor/SKU releases, Failure to find/open/read files etc.

C. Download ME Analyzer

ME Analyzer is developed and tested under Windows and currently Windows XP & up operating systems are supported. Since the Engine Firmware Repository Database is updated more frequently compared to the main program, a separate DB release is provided.

[ME Analyzer v1.5.1](#) - (Updated: 01/05/2016)

[Engine Firmware Repository Database r50](#) - (Updated: 01/05/2016)

ME Analyzer does not contain anything suspicious and should not be falsely reported as such by any antivirus. [VirusTotal report](#).

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