



RELEASE NOTE for Element Manager System v 5.0.3  
DATE 12-17-2020

**FIRMWARE**

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## ***Element Manager (EM) SW - Version 5.0.3***

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### Build Info:

Version: 5.0.3

Build Date: 12/17/2020

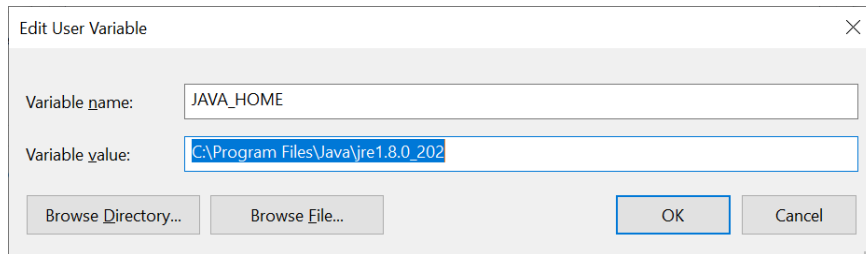
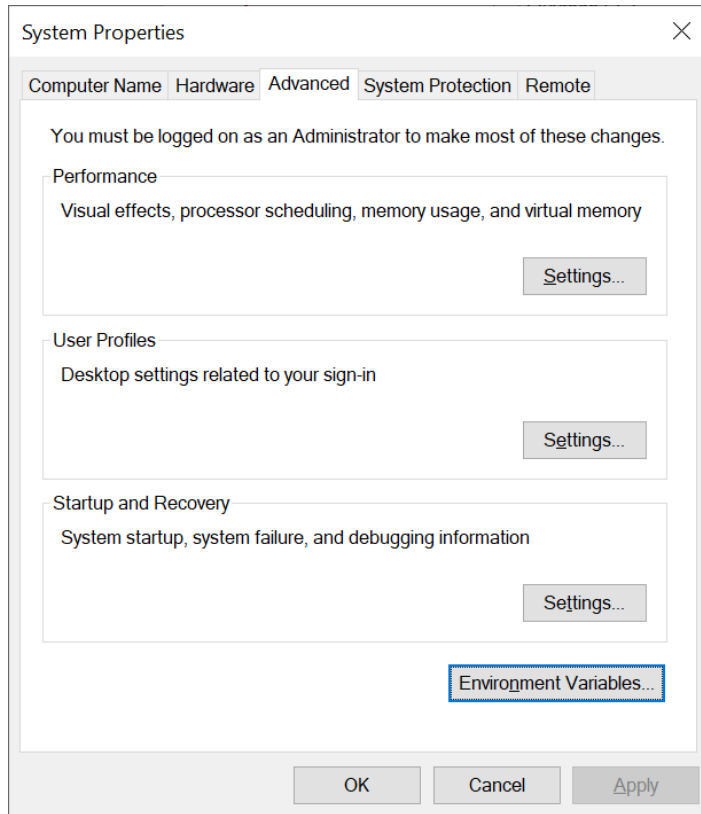
### Introduction

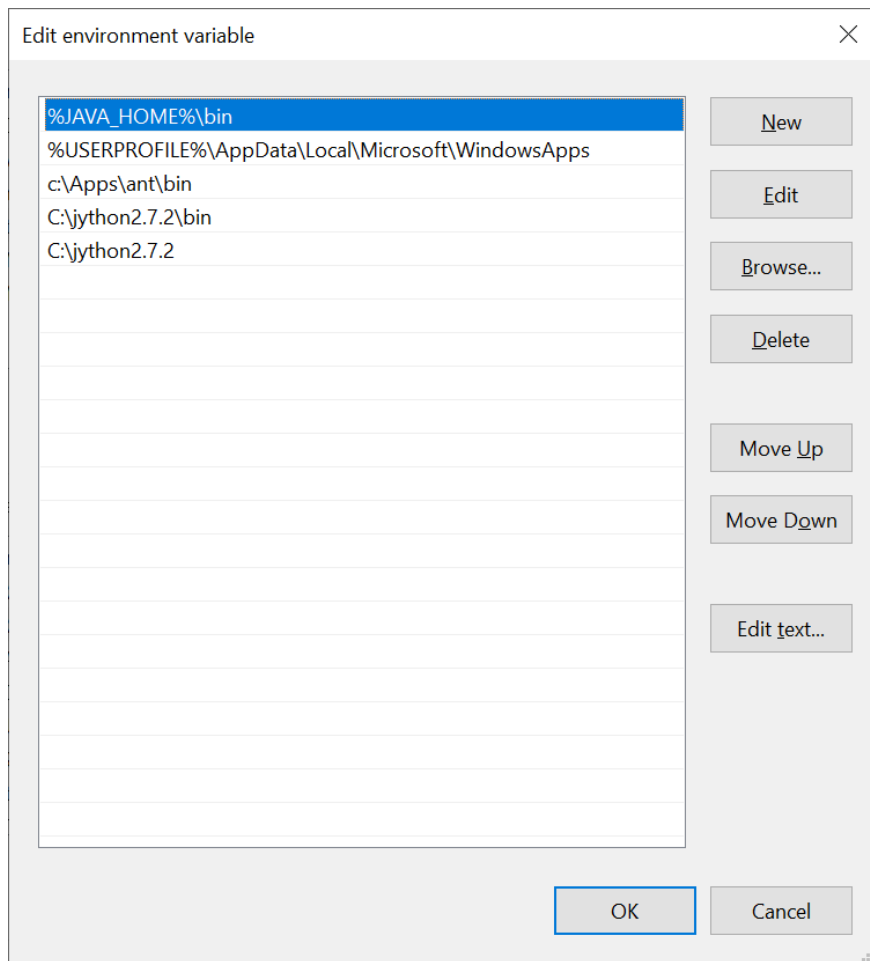
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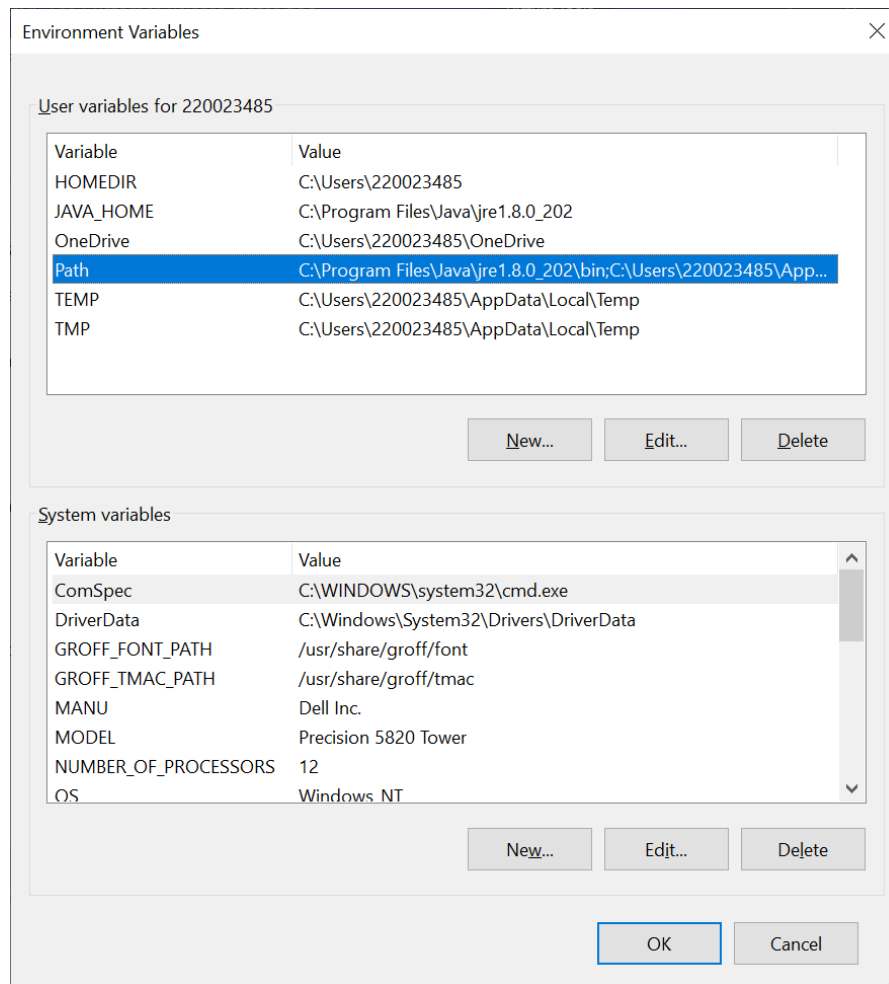
This document describes Software/Firmware engineering release of the Element Manager Application software (EM). EM is used as an Engineering tool to Configure and provision GE MDS radio devices. This tool allows user to connect to a radio device to read or apply configuration file, as well as saving or loading saved configuration file from a PC.

Due to 2019 Oracle Java license change (after Java SE 1.8 64 bits Update 202), and other unsupported Java issues after Java x86\_64 1.8.0\_261 version updates, the followings are different ways to work around these Java issues for GE MDS Element Manager (version 4.5.19).

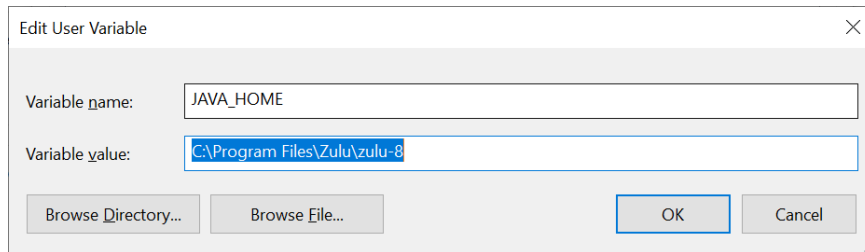
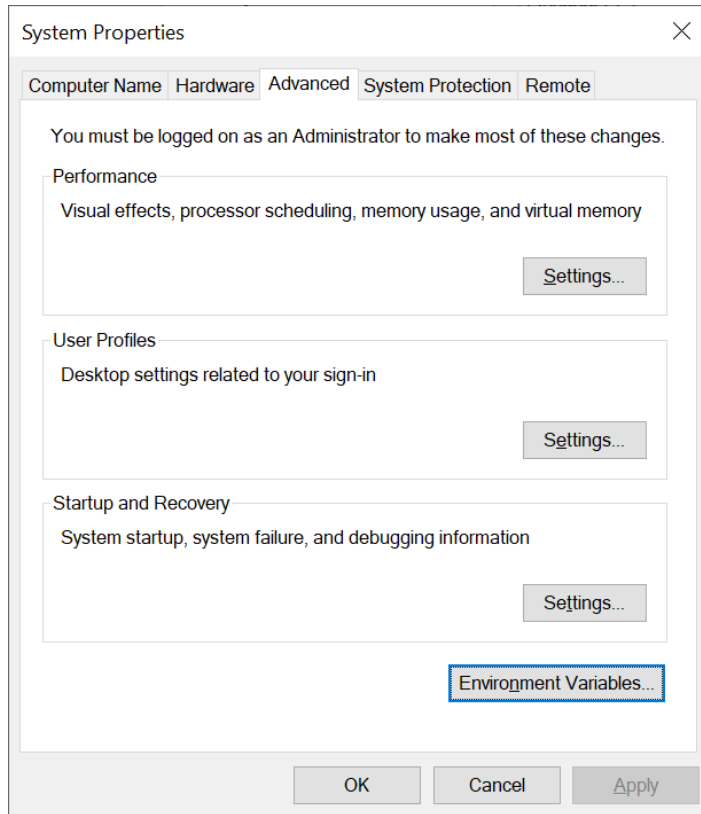
1. Lock down Oracle Java x86\_64 1.8.0\_202 version (Java 8 x86 64-bit update 202) in your Windows Desktop;
  - a. GE MDS Element Manager (version 4.x) will continue to work with this version of Oracle Java.
  - b. Do not upgrade to any newer Oracle Java 8 x86\_64 version updates.
  - c. GE does not recommend any other Oracle Java 64bit version after Oracle Java x86\_64 1.8.0\_202 version updates due to license changes and incompatible features.
  - d. Configure JAVA\_HOME (or JRE\_HOME) environment variable and add the %JAVA\_HOME%\bin path to your system path before running GE MDS Element Manager (version 5.x) applications. Select Java SE 1.8 64 bits Update 202 installed path. See example user dialogs as follows;

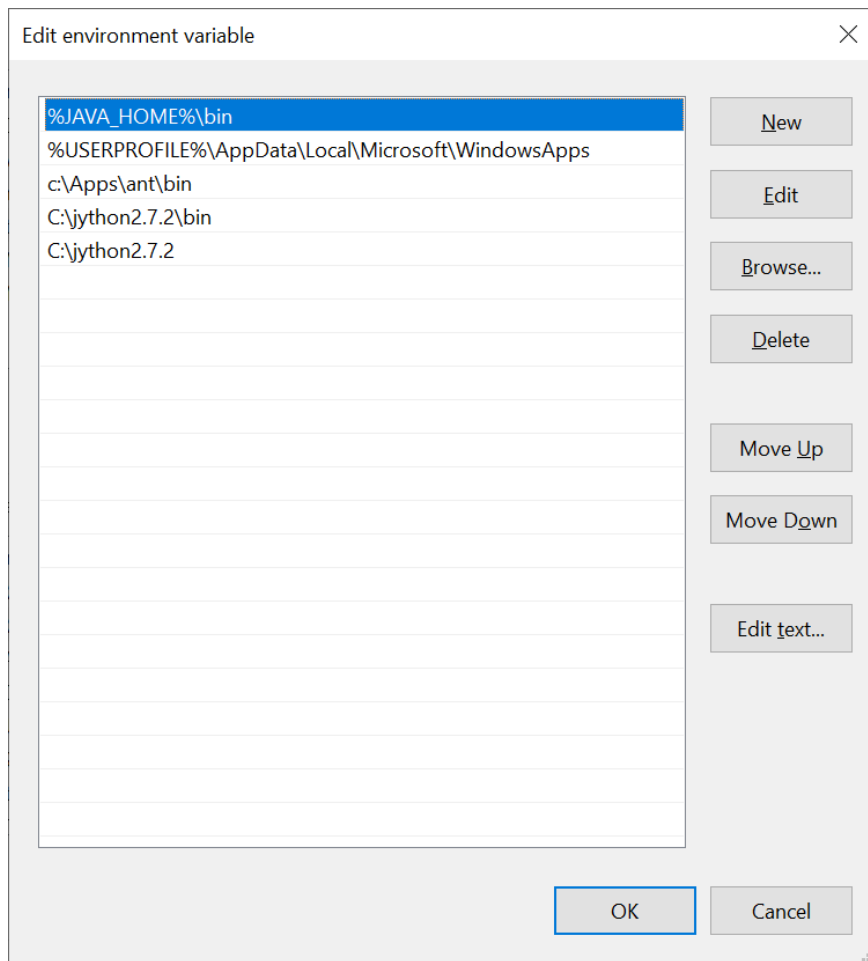


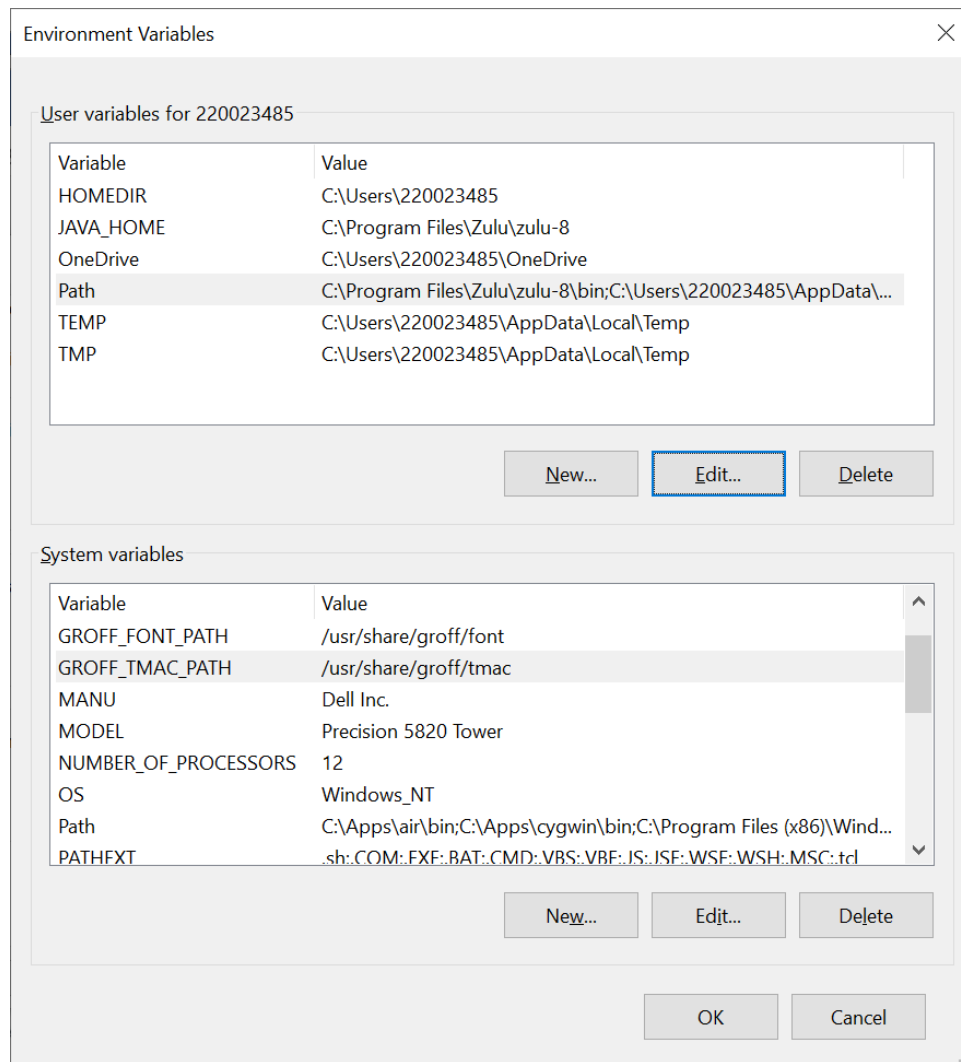




2. Switch to Zulu Java Runtime and newer GE MDS Element Manager (version 5.x);
  - a. Uninstall GE MDS Element Manager (version 4.x) applications
  - b. Install Zulu Java 1.8 [https://cdn.azul.com/zulu/bin/zulu8.48.0.53-ca-jre8.0.265-win\\_x64.msi](https://cdn.azul.com/zulu/bin/zulu8.48.0.53-ca-jre8.0.265-win_x64.msi).  
Note: Use this tested version if latest Zulu 8 update version has issue.
  - c. Install GE MDS Element Manager (version 5.x) applications
  - d. Use Oracle "Configure Java" application to disable all Oracle java versions and enable Zulu java only. Uninstall all unused Oracle Java Runtimes versions in your Windows Desktop if possible. If there are application that relies on Oracle java, use "Configure Java" application to enable and disable between Oracle Java or Zulu Java Installation as needed.
  - e. Configure JAVA\_HOME (or JRE\_HOME) environment variable and add the %JAVA\_HOME%\bin path to your system path before running GE MDS Element Manager (version 5.x) applications. Select Zulu Java 8 installed path. See example user dialogs as follows;







### Rev 5.0.0 New Features and Bug Fixes (In-compatible to older 4.x.x versions)

- Resolved Oracle license and application incompatible exception issues. Must install Zulu OpenJDK Java 8 (1.8)
- Resolved and replaced 1k key length certificate issue.

### Rev 4.5.19 New Features and Bug Fixes

- Resolved IP stuck disabled issue for Offline Poller/Responder page.

### Rev 4.5.18 New Features and Bug Fixes

- Resolved expired Adobe AIR certificate issue - New 10 years (until Jan 22, 2028) certificate (keystore.p12) for secured re-packaged installation.

### Rev 4.5.17 New Features and Bug Fixes

- Allow IP port to be a configuration option (Putty ssh and telnet). For this new feature to work in previous older versions (4.4.2 or earlier, user) must add " port %PORT%" at the end of External Applications Setting->Telnet Application->Command Line Args: text input box, and External Applications Setting->SSH Application->Command Line Args: text input box. For example, change "-telnet %IPADDRESS%" to "-telnet %IPADDRESS% port %PORT%".

- For SDx device management, use Field Network Manager and navigate to Device Manager page. Management via serial and DLINK connections are no longer supported in Element Manager. Connection via Command-Line (console), Terminal Server (menu/console), Web UI (HTTP) via device's embedded User Interfaces are still supported.
- Added support for x710/x790 B modem.
- Added support for importing old TransNET configuration file format.
- Resolved issues between 32 bits and 64 bits Windows machines.
- Other Enhancements and Bug Fixes.

#### Rev 4.4.2 New Features and Bug Fixes – Since v4.3.0

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- Resolved 64 bits PC JAVA JRE installation startup issue with serial communication
- Prevent SDx serial connection from escaping x710 compatible mode pops up Message Dialog to warn user to use device type x710 to connect when failed with SDx serial connection.
- Resolved TransNET xmap bitmask being reversed
- Resolved WiYZR-C and WiYZ Remote Logout button to log out of device before closing serial port.
- Resolved WiYZR-C Apply to Device intermittent problem due to immature response timeout.
- Support ICD 3.23 changes
- Removed invalid Modbus Data Types from Modbus Write Outputs data type select options
- Enable SDx offline configuration files page link
- Resolve unreliable WiYZR-C Device Signature update refresh after Apply to Device finished
- Resolved issue logging into WiYZR-C remote (SW v2.0.6) after reprogram reboot.

#### Known Limitations/Errata

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The following are known issues that exist in this release of the software.

- When SDx device is configured to x710 radio mode, the only way to change back to SDx radio mode is to first serial connect using Device Type equals to "Any – Command line only". Once communication is established with the SDx in x710 compatible command-line mode, enter "menu" and then "Y" to escape from x710 mode and switch to SDx "Packet with MAC" mode. After that, user may use normal SDx serial connection to manage SDx device.
- The embedded Web Browser is currently not compatible with the new Orbit Web UI. For workaround, use external IE, Firefox, or Chrome web browser.
- In an intermittent x790 use case, navigating to the Poller/Responder page may alert user to "Please stop before leaving page", simply click OK button and then the Stop button of the page to continue. If problem persists, simply Logout from x790 connection and reconnect to x790 device again.
- Current version of EM application increases application memory usage on page refresh or page navigation.
- It is not recommended to leave application running continuously for many days.
- EM appears to conflict with a Sprint USB Internet Device plugged in a PC. If EM cannot start up properly, try removing any such device and then restart EM.
- Not all USB-to-Serial converters may not be compatible when reprogramming entraNET Remote via serial console port connection. The following model is recommended:
  - TRIPP-LITE KEYSpan MODEL USA-19HS
- Under default setting the TFTP server currently does not support file transfer requiring more than 2<sup>16</sup> blocks. It is recommended to use a default block size of 1024.
- If "Guide" button does not work, try remove older versions of Adobe Readers in your PC and reinstall latest version of Adobe Reader.
- In Command Line Mode, after DIAGNOSTIC CLOSE timeout, it behaves like back spacing. Work around by entering a CTRL-C character and then ENTER to show command prompt and continue.
- DLINK diagnostic commands are currently limited to 1 Single Hop Intrusive Mode.
- When connecting to X710, x810, x790 note that the Alarm Sense is reversed compared to description in Manuals.



- When connecting to X710 DLINK Receive Audio Output Level register level value from -1 to -20 dBm will report error due to unresolved x710 radio firmware issue.
  - When comparing between saved configuration of a X790 the Receiver Muting Level value will report difference depending on connection type. Serial has the actual value while DLINK does not report the correct value.
  - When connected to a x710 radio unit via DLINK, changing any values in the RTU simulator page will clear the Serial Port Settings -> RX Data Buffer Delay Time to 0 ms (default value).
  - Some register values reported from Serial connection vs. DLINK connection may be different – for example: Tx RF Power Output Status <0 dBm from serial interface, but reports 0 dBm in DLINK.
  - Under some rare use case conditions, application service may not properly close and requires use of the Windows Task Manager to stop the javaw.exe or javaw.exe \*32 processes.
  - Under some rare use case conditions, the Adobe AIR local storage may not be properly upgraded from an older version to a new one. When that happens, Element Manager will not be able to start since the local storage data is corrupted by Adobe AIR run-time upgrade. The workaround is to search and delete any file preceding by “PrivateEncryptedData” under your local drive. For examples;
    - D:\Users\220023485\AppData\Roaming\Adobe\AIR\ELS\com.gemds.elementmanager\PrivateEncryptedData
    - D:\Users\220023485\AppData\Roaming\Adobe\AIR\ELS\com.gemds.elementmanager\PrivateEncryptedData
    - D:\Users\220023485\AppData\Roaming\Adobe\AIR\ELS\com.gemds.elementmanager\PrivateEncryptedData
    - D:\Users\220023485\AppData\Roaming\Adobe\AIR\ELS\com.gemds.elementmanager\PrivateEncryptedData
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