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**Classification:** GE Information

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## Overview

G500 running firmware v4.0 with D2x Firmware SMXA0.400 and D2x Environment Type SMC-0001-11 supports only RAM for the D2x Applications. This means that the D2x Save Points on Power Fail feature will not work with D2x firmware SMXA0.400.

A subsequent set of upgrades enables NVRAM for G500-D2X Applications. These upgrades consist of:

- New DSAS Firmware Library with SMXA0.401 (delivered as file "*D2xAppsFirmwareLibrary.7zip*")
- New D2x Environment Type SMC-0001-01 (delivered as file "*Enable\_D2x\_Apps\_NVRAM.SystemParameters.7zip*")
- New D2x Firmware Name and Version SMXA0.401 (delivered as file "*SMXA0\_401\_0006.D2xFirmwareUpdate.7zip*")

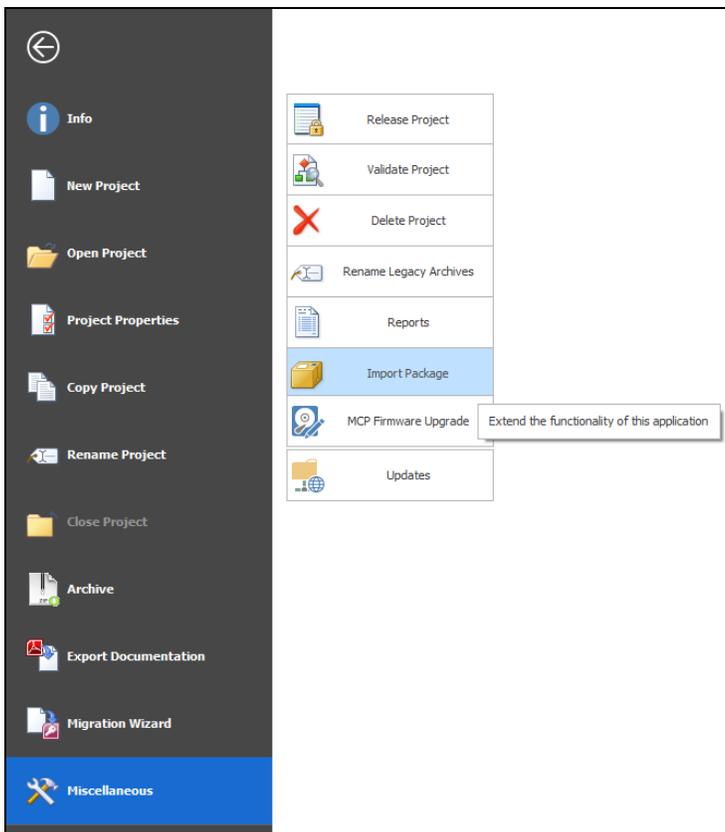
Above files are packaged in a single "meta package" file: "*G500-D2X\_SMXA0\_401\_20240430\_NVRAM\_MetaPackage.7zip*".

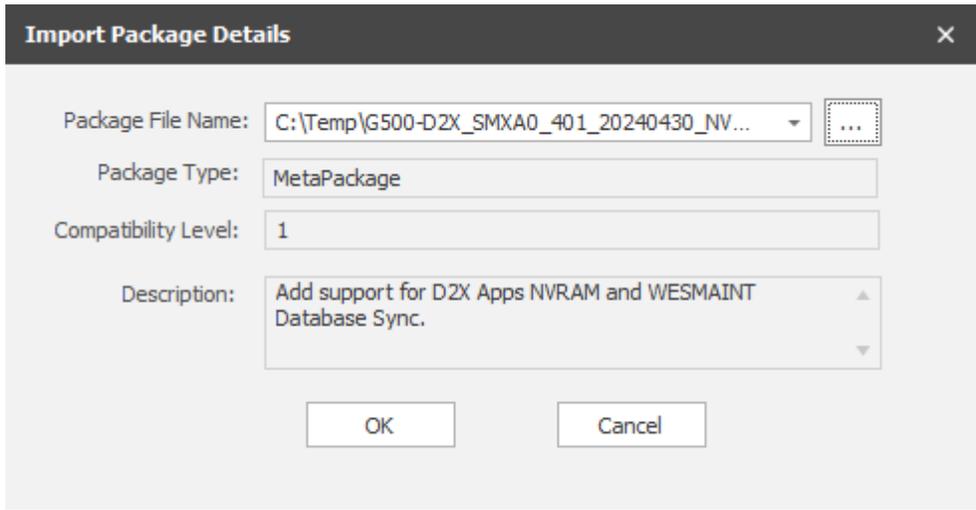
This Technical Note describes how to install and enable the above.

## Steps to perform in DS Agile Studio

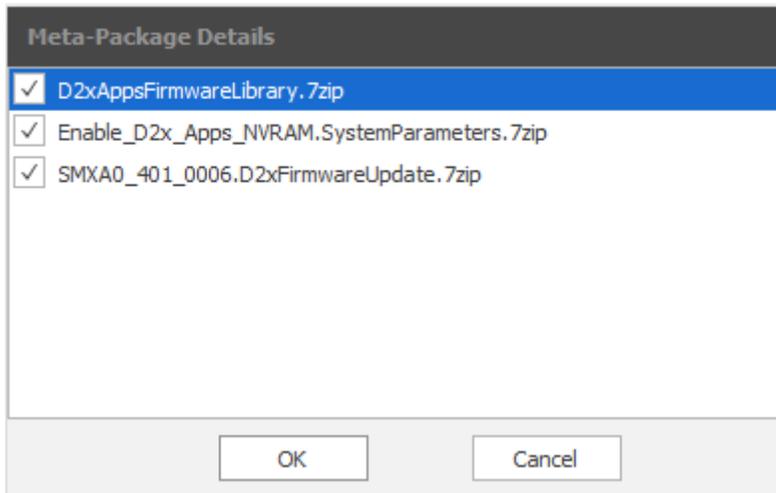
Obtain the DSAS Package file: *G500-D2X\_SMXA0\_401\_20240430\_NVRAM\_MetaPackage.7zip*

1. Import this Meta Package into DSAS:

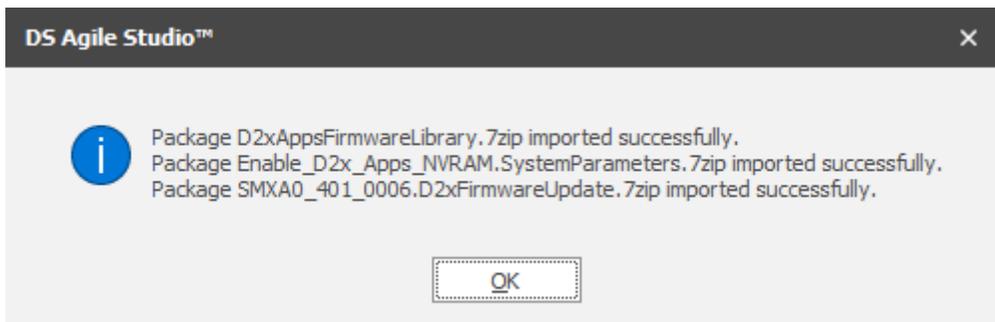




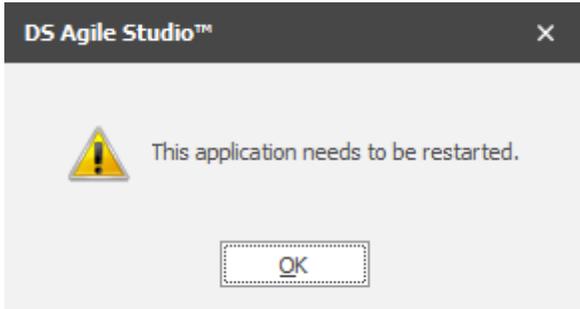
2. In the open dialog, select ALL FILES inside the Meta-Package. Click **OK**.



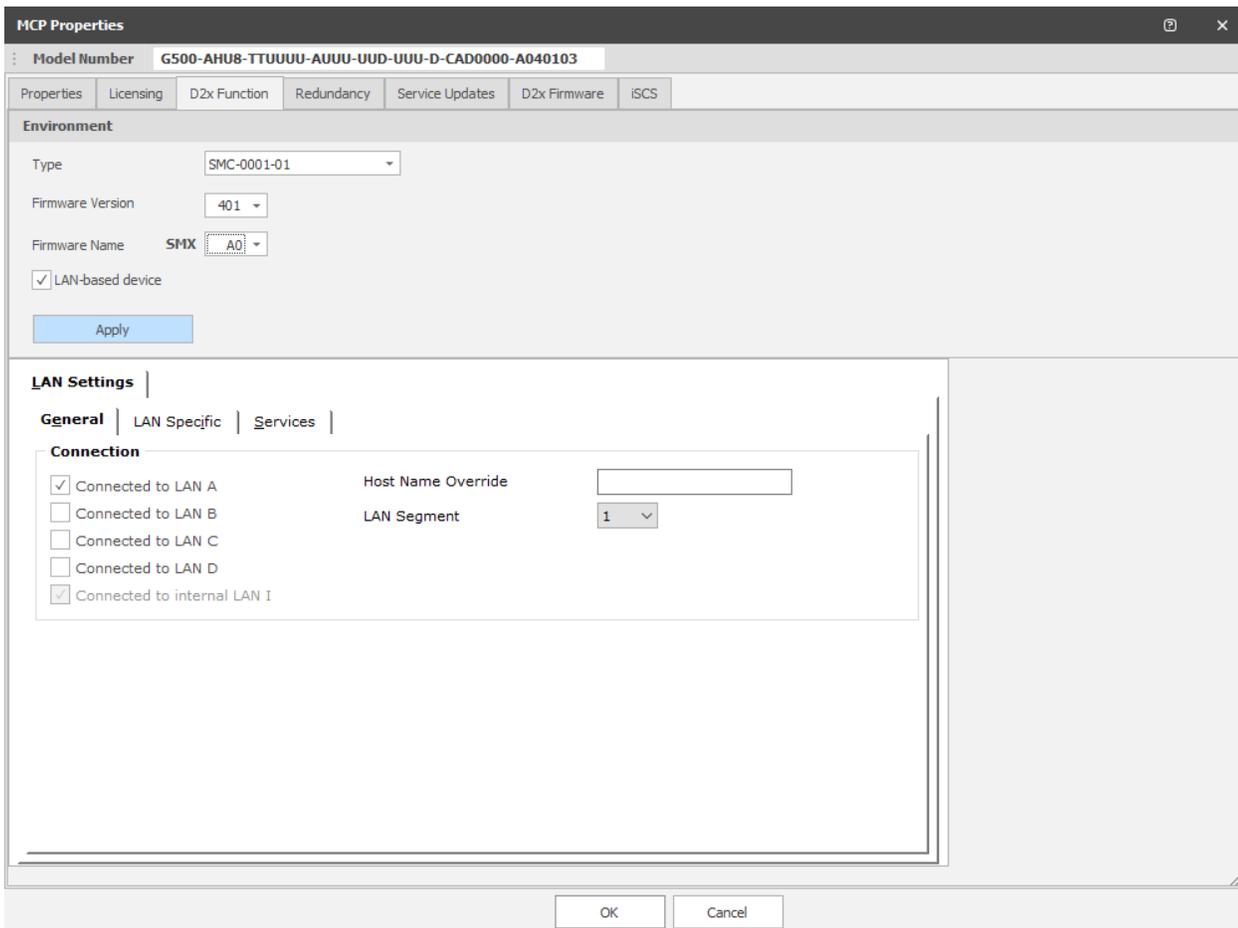
3. A window will pop up showing that these files were properly installed. Click **OK**.



- After installing these files, DSAS needs to restart to complete the installation. Click **OK** to continue.



- After DSAS has restarted, all G500 Device configurations where you want to use NVRAM for G500-D2x Applications need to be modified. Change the following D2x Function Environments (under Device Properties):
  - Type to **SMC-0001-01**
  - Firmware Version to **401**
  - Firmware Name to **A0**
- Click **Apply** and wait for the process to finish.



You may now enable Save Points on Power Fail:

The screenshot shows the 'System Point Database Properties' dialog box with the 'Advanced' tab selected. The 'Save Points on Power Fail' section is highlighted with a red box, showing checkboxes for Digital Inputs, Digital Outputs, Analog Inputs, and Analog Outputs. A red arrow points from the 'System Point Database' entry in the application list to the dialog box.

Application	Status	Version	Last Modified	Modified By
Server Applications				
Automation Applications				
Supporting Applications				
Internet Protocol Stack	Enabled	B 100-05 V200 (Rev 0)	11/21/2023 9:16:36 AM	NotModified
<b>System Point Database</b>	Enabled	B008-1 V313 (Rev 0)	3/20/2024 1:56:12 PM	NotModified
Wesmaint II+	Enabled	B014-1 V530 (Rev 0)	3/28/2024 11:00:17 AM	NotModified
Data Link Applications				

**System Point Database Properties**

Client/Automation Apps | **Advanced** | Control Lockout | Sub Group

**General**

Include Point Descriptors with Downloadable File  
 Include Wiring Termination Tags with Downloadable File  
 Perform Group Control Ownership Check

Diagnostic Level: 0

**Point Descriptor Lengths**

Digital Inputs	40	Counters	40
Digital Outputs	40	Devices	40
Analog Inputs	40	Complex Objects	40
Analog Outputs	40	Advanced Data	40

**Save Points on Power Fail**

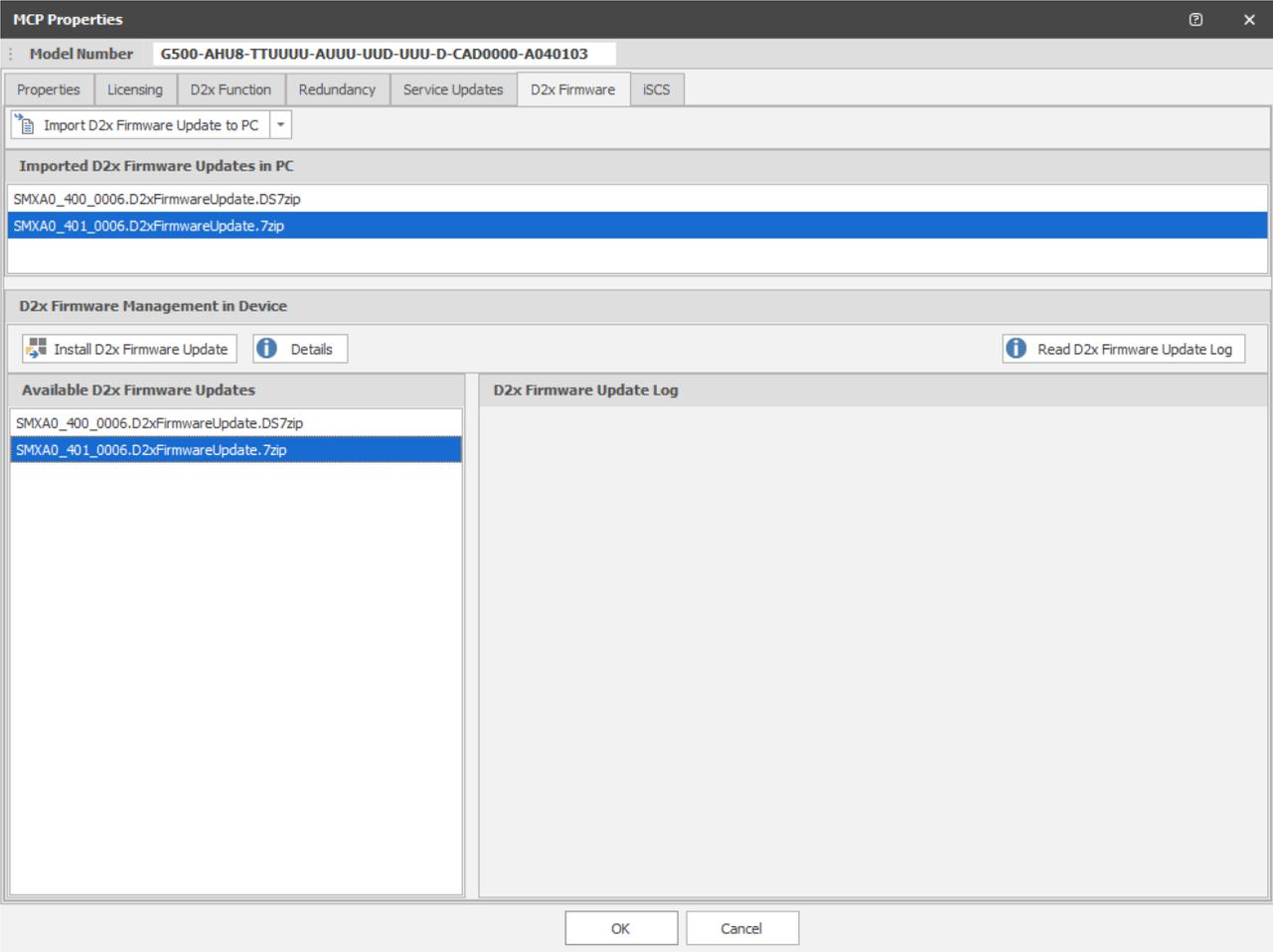
<input type="checkbox"/> Digital Inputs	<input type="checkbox"/> Counters
<input type="checkbox"/> Digital Outputs	
<input type="checkbox"/> Analog Inputs	
<input type="checkbox"/> Analog Outputs	

7. Save and generate the D2x configuration.

## Steps to perform for G500 Devices – Install the new D2x Firmware

For all your G500 devices where you want to use NVRAM for D2x Applications:

1. Install the D2x Firmware Update SMXA0\_401\_0006:



You can now use the DSAS upgraded configurations and sync to the G500 upgraded devices.

## Product Support

If you need help with any aspect of your GE Vernova Grid Solutions product, you can:

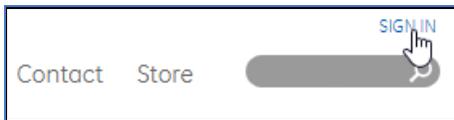
- Access the GE Vernova Grid Solutions Web site
- Search the Substation Automation Technical Support library
- Contact Technical Support

### GE Vernova Grid Solutions Web Site

The GE Grid Solutions Web site provides fast access to technical information, such as manuals and release notes.

Visit us on the Web at: <https://www.gevernova.com/grid-solutions/>

Subscribe for Product Updates:



### Substation Automation Technical Support Library

The Technical Support website provides fast access to technical information, such as manuals, release notes, firmware, software, technical notes, and more. To get access to the Technical Support Web site, go to:

[http://sc.ge.com/\\*SASTechSupport](http://sc.ge.com/*SASTechSupport)

### Contact Technical Support

For questions or further product support, please contact the GE support team 24/7 using:

Region	E-mail	Telephone
Global Contact Centre	<a href="mailto:ga.support@GE.com">ga.support@GE.com</a>	+44 1785 250070
Central and East Asia and Pacific	<a href="mailto:ga.supportCEAP@GE.com">ga.supportCEAP@GE.com</a>	+61 414 730 964
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## Document Revision History

Version	Revision	Date	Change Description
1.00	1	April 30, 2024	Initial Release.