

Solid State Logic

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Network I/O V4.1 Installation Notes

Required for this Upgrade	SSL Partcode
SSL Network I/O - Controller V1.10.9.41095	
SSL Network I/O - Firmware Updater V1.10.42678	
Audinate Dante Firmware Update manager	
Audinate Dante Controller V4.2.3.1	
SB 8.8	SSL_Stagebox_8In_8Out-4-1-25840.dnt
SB i16	SSL_Stagebox_16In-4-1-25840.dnt
SB 32.24 (network A card)	SSL_SB_32_24_ A-4-1-26041.dnt
SB 32.24 (network B card)	SSL_SB_32_24_ B-4-1-26041.dnt
SB 16:12 (network A card)	SSL_SB_16_12_ A-4-1-26041.dnt
SB 16:12 (network B card)	SSL_SB_16_12_ B-4-1-26041.dnt
A16.D16	SSL_A16_D16-4-1-25796.dnt
A32	SSL_A32-4-1-25796.dnt
D64	SSL_D64-4-1-25796.dnt
GPIO32	SSL_GPIO32-4-1-25796-release.dnt
PCIe-R	pcieSSL-4.0.10.5_fpga-4.2.0.9.dnt

***This document contains essential information
Please read it carefully before making any attempt to upgrade the system
The order in which updates are performed is critical***

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Solid State Logic cannot be held responsible for any loss or damage arising directly or indirectly from any error or omission in this manual.

PLEASE READ ALL INSTRUCTIONS, PAY SPECIAL HEED TO SAFETY WARNINGS.

E&OE

Document Revision History

Draft	Name	Date
First release		July 2020
Second release	EA	August 2020

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Important Notes

All units to be updated must be powered on and visible on your Primary Dante network with IP addresses in the same subnet as the PC used to perform the update. Addresses can be verified in the **Device Info** tab of Dante Controller.

The following software must be installed on the PC used to perform the update:

- **Network I/O Updater V1.10.42678**
- Audinate **Dante Firmware Update Manager V3.10**
- Audinate **Dante Controller V4.1.0.5**

All SSL specific software will be provided in the update package. Third party software and user manuals are available to download free of charge from the following links:

Audinate Dante Controller

<https://www.audinate.com/content/dante-controller-v4231-windows>

Audinate Dante Firmware Update Manager

<https://www.audinate.com/products/firmware-update-manager>

Microsoft .NET

Network I/O Controller and Network I/O Updater require that .NET Framework V4.5.2 or later is installed. .NET is updated automatically as part of the Windows Update process. If your version of windows does not include .NET, please visit:

<https://www.microsoft.com/net/download/dotnet-framework-runtime>

A table of software and firmware version compatibility is included on [page 7](#) of this document.

Firmware Update Procedure


SB 8.8, SB i16, SB 32.24, SB 16.12, A16.D16, A32, D64, GPIO32 and PCIe-R

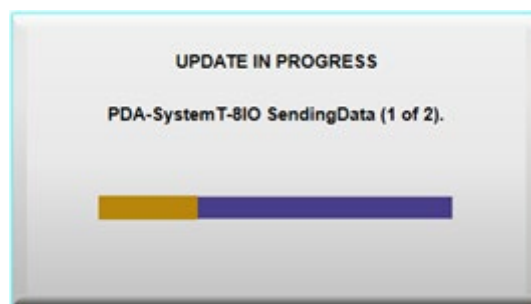
IMPORTANT:

*It is critical that SSL control & ADC/DAC card firmware is updated prior to Dante firmware updates being applied. Please ensure all stageboxes are at the required version using the **SSL Network I/O Updater** application before updating Dante firmware.*

SSL control and ADC/DAC Card Firmware Update

1. Connect a network cable from a switch in the Dante Primary Network to the PC being used to perform the update.
2. Launch the **Network I/O Updater** application in administrator mode (right-click and select run as administrator).
3. The application will discover all net IO device on the network and display the currently installed firmware version. If an update is necessary, the required version will be displayed, and the **Update** button will become available. Press and hold the **Update** button to begin programming firmware. This update will take around 10-15 minutes depending on the unit being updated. You may monitor the update in the progress bar.

Name	Current Version	Required Version	Status	Command
PDA-SystemT-8IO	23927	25795	Press and hold button to start update	Update 



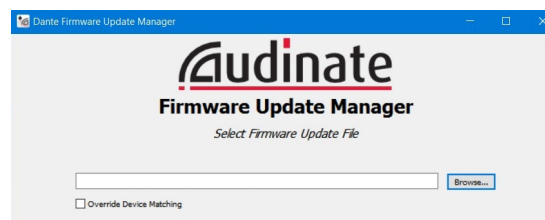
4. Once programming is complete, click **OK** and power cycle the unit to complete the update.

Dante Firmware Update

1. Connect a CAT5e/Cat6 network cable from a switch in the Dante Primary Network to the PC being used to perform the update.
2. Launch **Dante Firmware Update Manager**, select the network interface being used to connect to the Dante network and click **next**.

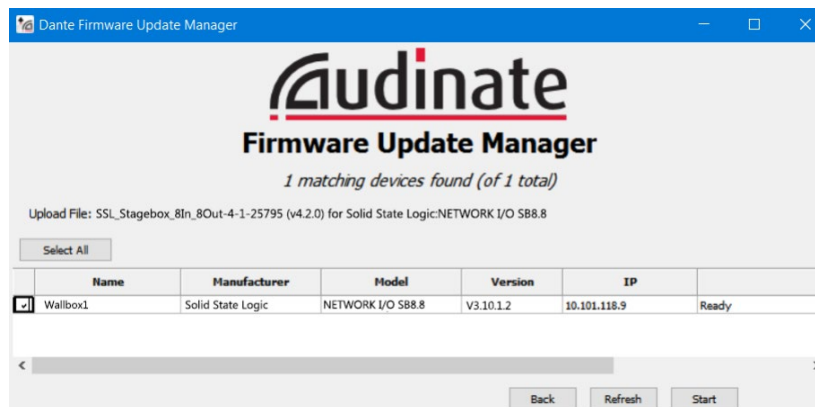


3. Select the correct.dnt firmware file for your unit using the **browse** button in the dialogue box. Leave the **Override Device Matching** option unchecked, then click **next**.



Model	.dnt firmware file
SB 8.8	SSL_Stagebox_8In_8Out-4-1-25840.dnt
SB i16	SSL_Stagebox_16In-4-1-25840.dnt
SB 32.24 (network A card)	SSL_SB_32_24_A-4-1-26041.dnt
SB 32.24 (network B card)	SSL_SB_32_24_B-4-1-26041.dnt
SB 16:12 (network A card)	SSL_SB_16_12_A-4-1-26041.dnt
SB16:12 (network B card)	SSL_SB_16_12_B-4-1-26041.dnt
A16.D16	SSL_A16_D16-4-1-25796.dnt
A32	SSL_A32-4-1-25796.dnt
D64	SSL_D64-4-1-25796.dnt
GPIO32	SSL_GPIO32-4-1-25796-release.dnt
PCIe-R	pcieSSL-4.0.10.5_fpga-4.2.0.9.dnt

4. **Dante Firmware Update Manager** will discover devices on the network which the selected firmware file is compatible with. Select the devices you wish to update using the checkboxes to the left of device names and click **Start**.



5. Once programming is complete, the unit must be rebooted.
The current firmware version may be verified in the **Status** tab in Dante Controller Device View. Version numbers are listed at the end of this document.

Installing SSL Network I/O Controller

The latest version of **SSL Network I/O Controller** must be installed on any PCs which may be used to control Network I/O units on the network. Newer Network I/O firmware is not backwards compatible with older controller software.

Locate and run the Network I/O Controller installer in the update package, and follow the on-screen prompts to install or update to the latest version.



Please Note: In some cases (usually when multiple versions of the SSL software and different versions of V3 and V4 Audinate Dante Controller have been installed) Windows doesn't correctly keep track of which program has installed the service in which order, and cannot correctly uninstall the Dante services. In these rare cases it may be necessary to manually uninstall all the SSL programs and Dante Controller before installing the new versions that utilise the V4.0 DAPI. In this case check in Windows program manager that the Dante services uninstall with the last program, it is advisable to reboot your machine between uninstalling everything and installing the new versions.

Software and Firmware Version Compatibility Overview

Numbers in **bold** denote new versions.

Part		V3.1 Package	V4.0 Package	V4.1 Package
Audinate Dante Controller		V4.1.0.5	V4.2.3.1	V4.2.3.1
Audinate Dante Firmware Updater		V3.10	V3.10	V3.10
Network I/O - Controller		V1.9.5.36535	V1.10.9.41095	V1.10.9.41095
Network I/O - Updater		V1.8.2.32892	V1.9.12.41291	V1.10.42678
Net I/O Stageboxes	SB i16 and SB8.8 - Main PCB Firmware	23927	23927	23927
	SB i16 - .dnt firmware	V2.4.24199	V2.5.25840	V2.5.25840
	SB 8.8 - .dnt firmware	V2.4.24199	V2.5.25840	V2.5.25840
	SB 32.24 - Main PCB Firmware	24250	24250	26181
	SB 32.24 card A - .dnt firmware	V1.4.24196	V1.4.24196	V4.1.26041
	SB 32.24 card B - .dnt firmware	V1.4.24196	V1.4.24196	V4.1.26041
Net I/O 16.12	SB 16.12 - Main PCB firmware	24759	25547	26181
	SB16.12 card A - .dnt firmware	V1.4.24761	V1.5.25796	V4.1.26041
	SB16.12 card B - .dnt firmware	V1.4.24761	V1.5.25796	V4.1.26041
Net I/O A16.D16	A16.D16 - Main PCB firmware	24250	25547	25547
	A16.D16 - .dnt firmware	V1.4.24196	V1.5.25796	V4.1.25796
Net I/O A32	A32 - Main PCB firmware	24250	25547	25547
	A32 - .dnt firmware	V1.4.24196	V1.5.25796	V4.1.25796
Net I/O D64	D64 - Main PCB firmware	24250	25547	25547
	D64 - .dnt firmware	V1.4.24196	V1.5.25796	V4.1.25796

NET I/ O GPIO32	GPIO32 - Main PCB firmware		25547	25547
	GPIO32 - .dnt firmware		V1.5.2796	V4.1.25796
<i>The following Net I/O items are not part of this package but version compatibility is included for completeness</i>				
Net I/O MADI-Bridge	Front Panel FW & SW indication	V3.4.24204.24799	V3.4.24204.24799 or later	V3.4.24204.24799 or later
	Flash Firmware	24799	24799	24799
	.dnt firmware	24204	24204	24204
Net I/O PCIeR	PCIeR - .dnt firmware	V1.0.1	V4.0.7.2	V4.0.10.5 FPGA 4.2.0.9.dnt
	Audinate Dante PCIe driver			V1.8.0.3 Mac V1.8.0.1 Windows
Net I/O SDI and AES units	Network I/O - Manager	V1.8.2	V2.0	V2.0
	SDI and AES Unit Main PCB Flash Version	V2.0.3.2	V2.1.0.3	V2.1.0.3
	SDI - .dnt firmware	V0.3.1.1	V1.0.0.1	V1.0.0.1
	AES - .dnt firmware	V0.3.1.1	V1.0.0.1	V1.0.0.1
SSL System T Console Software		V2.1	V2.3.17/19	V3.0.12
SSL Live Console Software		V4.8	V4.10.17	V4.10.17

Please Note: The .dnt version numbers are displayed in Dante Controller **Device View** window, in the **Status** tab. The specific version number for the SSL .dnt file can be found in the **Software Version** field, in the Solid State Logic **Device Information** area.

Troubleshooting

If devices are unable to be detected by either **Dante Firmware Update Manager** or **SSL Network I/O Updater** software, ensure the IP address of the devices in question are in the same subnet as the PC being used to perform the update.

If network connectivity problems are experienced, a full power cycle of the unit in question typically re-establishes full connectivity.

If the instructions to power cycle have not been followed and the unit has been soft rebooted from Dante Controller after the updates performed, it has been seen that the device cannot be seen in Dante Controller or the front panel "RUN" Led shows red, indicating a network fault.

The device will still show a green connected light on its rear **network interface** but will not be visible in **Dante Controller** and will not appear in the **SSL Network I/O Updater** software.

To resolve this connection issue, remove both power cables from the back of the device ensuring the device has completely powered down, then reconnect the power cables and allow the device to boot. The device should now be seen in both **Dante Controller** and **SSL Network I/O Updater**.

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