Upgrade & Setup Waves SoundGrid V9

for DiGiCo

Contents

What you need:

1. **Waves I/O card:** pre-installed in the console

2. **Waves qualified SoundGrid Server:** A multi-core PC used for real-time audio processing. See a list of Waves-qualifies servers at:
   http://www.waveslive.com/html/soundgrid-server.aspx
   Looking for redundancy? Get a second server.

3. **Network switch:** See a list of Waves-Certified switches at
   http://www.waveslive.com/html/soundgrid-switches.aspx

4. **Ethernet Cables:** Standard CAT5e or CAT6 Ethernet cables. See a list of supported length per cable type and application at http://www.waveslive.com/pdf/soundgrid-cables.pdf

5. **USB Flash Drive and / or iLok with activated SoundGrid compatible plugins:** The USB Flash Drive/iLok hold the licenses for the Waves plugins and provide activated licenses on the go.
   To verify USB Flash Drive compatibility:
   http://www.wavesupport.net/content.aspx?id=4381

6. **V8 Licenses** can be activated only **on the iLok Key**.

7. **V9 Licenses** can be activated only **on the USB Flash Drive**.
   To learn more about Waves License Center:
   http://www.wavesupport.net/content.aspx?id=4219

For activation instructions: http://www.wavesupport.net/content.aspx?id=4390

Choose the "My audio computer is NOT online" tab.

8. **MultiRack SoundGrid V9 for DiGiCo**: no license is required.

See a list of **SoundGrid-compatible plug-ins** at http://www.waveslive.com/html/all-plugins.aspx

Notes:

• Only SD consoles running V442 or higher are able to run Waves 9.

• For instructions on how to upgrade your SD Series console to V442+, please refer to the relevant DiGiCo Tech Note for your console.

Connecting Your Console to the SoundGrid Network

Shut down your console: If you are in the SD application, **Quit to Windows**. On **SD7**, use the **System>Quit** to Windows button. On all **other SD Consoles**, press **Alt-F4** in the mixer program

- Connect the Waves SoundGrid card Ethernet port to a network switch.

    SD7: connect <u>both</u> Waves SoundGrid cards Ethernet ports (both engines) to a network switch.
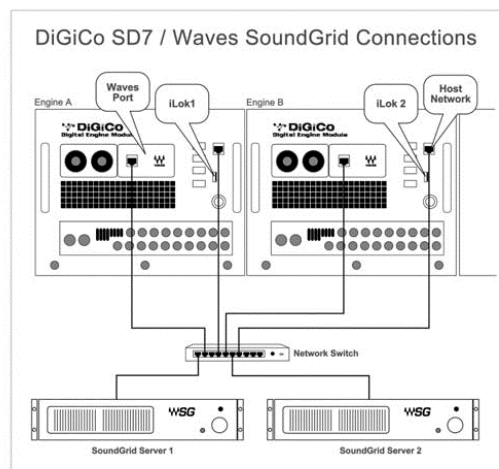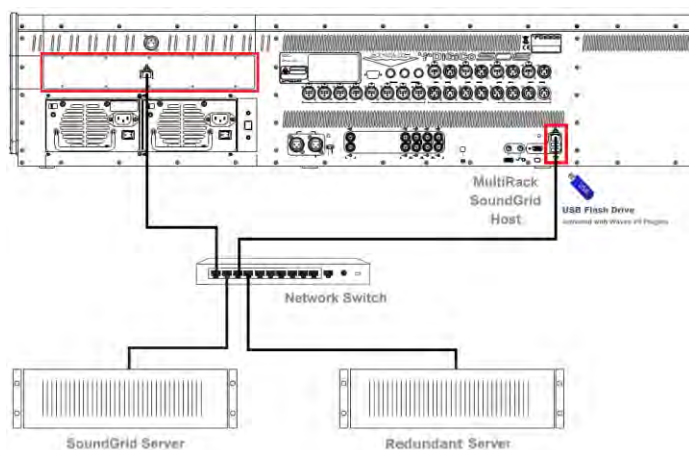
- Connect the console's Ethernet port to the network switch with another network cable

    SD7: connect <u>both</u> console Ethernet ports (both engines) to a network switch.

- Connect SoundGrid server Ethernet port to the network switch with a network cable

    *For redundancy (both for server redundancy on its own or to comply with **SD7** redundancy scheme: connect the second SoundGrid Server's Ethernet port to the network switch.*

- Connect a USB Flash Drive activated with v9 plugins and/or an iLok key containing v8 licenses to USB port/s on the console.

    SD7: On B engine connect another USB Flash Drive activated with v9 plugins and/or iLok (v8) with an identical set of licenses.

- Disconnect All Optocore, MADI, Local I/O Audio, CAT5, iLok and Headphone Connections before proceeding with this upgrade.
- Boot the Server, Network Switch and the Console.

<u>Disabling ReadyOn</u>

Connect a working overview monitor to the console during this procedure or else it may become disabled after ready on is re-enabled. (*Does not apply to SD7*)

Your SD Console OS is protected by **ReadyOn**. Unless **ReadyOn** is disabled, any changes made to the OS, including Network and Display Settings, will be lost when the SD Console is switched off.

Right-Click on the Start Menu, and choose "**Explore**".

Navigate to **C:\Program Files\Ardence\ReadyOn**, and then run **ReadyOn.exe**

The following window will open.
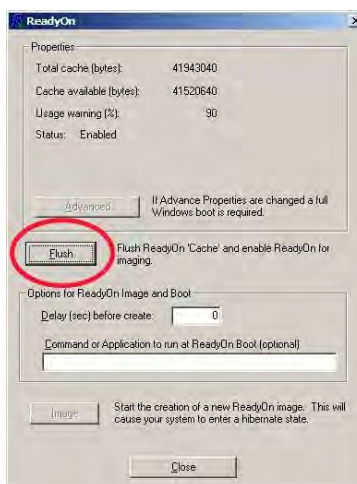
Click on the **Flush** Button, as indicated above. The following Progress Bar will appear.

Ready ON is now disabled

Install Using USB flash drive

On Your online Computer: Download "**All-In-One Waves V9 for DiGiCo installer**"

PC Users

Available space required on USB Flash Drive: 2GB

- Run the installer. Choose your **USB flash drive** root folder as your destination and **extract**.

- Plug the **USB flash drive** into a **USB port** on your DiGiCo SD console.

- Right-Click on the **Start Menu** button in the windows tool-bar, and choose "**Explore**".

- Navigate to your **USB flash drive** and run the **Install Waves for DiGiCo.bat** installer from your USB flash drive.

- Continue to Step 2

MAC Users

Available space required on USB Flash Drive: 4GB

- Copy **Waves_for_DiGiCo.exe** to your **USB Flash Drive**.

- Plug the **USB flash drive** into a **USB port** on your DiGiCo SD console.

- Right-Click on the **Start Menu** button in the windows tool-bar, and choose "**Explore**".

- Navigate to your **USB flash drive** and run the Easy Launcher: **USB flash drive** from your USB flash drive.

- Choose your **USB flash drive** root folder as your destination and **extract**.

- Run newly extracted **Install Waves for DiGiCo.bat** installer from your USB Flash Drive.

- Continue to Step 2

Step 2: **Install process takes about 25 minutes.**

Software installed:

- **MultiRack SoundGrid V9** for DiGiCo

- All MultiRack SoundGrid Compatible **Plugins V9**

- All MultiRack SoundGrid Compatible **Plugins V8**

- Pace **iLok Driver for Waves V8** (required for Waves V8 authorization only)

1. Once complete, you will be prompted to **restart** your computer.

2. Once restarted, the console will boot and stop in Windows.

3. Insert your **USB Flash Drive and iLok** into the USB ports on the control surface.

4. Windows "**New Hardware Wizard**" will appear on Screen.

5. Select "**Install Software Automatically**" and Click "**Next**"

6. Once this process is complete, click "**Finish**"

7. **Repeat Step 5-8 for each of the USB ports on your console** (SD7 only has a single USB connection on the rear)

8. Remove all iLoks from the console.

Enabling Ready ON.

If you are working on an **SD7**, please note the following:

Ensure that the two engines are connected via Ethernet and that the 2nd engine is active and running the Windows desktop while performing the ReadyOn process on the 1st engine.

Remove all USB flash drives or iLoks inserted in the console. Right-Click on the **Start Menu,** and choose "**Explore**".

Navigate to **C:\Program Files\Ardence\ReadyOn**, and then run **ReadyOn.exe**

Close any Explorer windows that are open behind the ReadyOn window, so that the only window open on the screen is the ReadyOn window as shown below.

Press the **Flush** Button.

In the "**Command or Application to run at ReadyOn Boot**" box, type the following path:

D:\SDxx\SDxx.exe *xx is the number of the SD console you are using (e.g.* ***D:\SD7\SD7.exe)***

Press the **Image** Button. The screen should show the System Hibernating.

NOTE: If there is an error message at this point, **OK** the error, close the **ReadyOn** program and restart the console using the Windows Start button menu.
The console will restart and then halt at the Windows
desktop. Now repeat the above.

If you are working on an **SD7**, please note the following:
When the 1st Engine has Hibernated and is ready to power off, use the **rear panel silver reset butto**n to reboot the engine and wait for it to load the SD application again before starting to enable **ReadyOn** for the 2nd engine.

<u>Once complete, power the console off.</u>

You can now Power the Console back on, and proceed as normal.

- Connect your **iLok (V8)** and/or **USB Flash Drive** containing Waves **V9** licenses after the system boots back up.

This completes the software part of the upgrade process.

If you are upgrading an **SD7**, now go and repeat this process for the other engine.

Enabling Waves MultiRack

If there is no **Waves** button on the Master screen then Waves has not yet been enabled.

Open the Master screen **Options** panel as indicated below and set the **Enable Waves MultiRack** option to "**Yes**".

Now, Quit to Windows and re-launch the SD application. The **Waves** button should now be in the menu bar and the Options button will have moved to the **Setup** menu as below. This allows direct access to the **Waves MultiRack**.
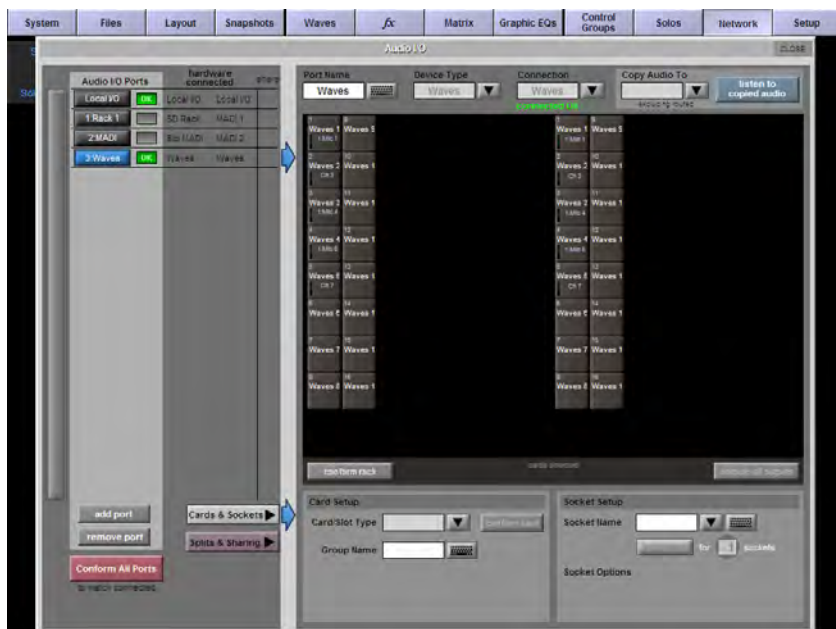
Connecting Waves Port I/O:

On the console's menu, touch **Setup > Audio I/O**.

Check **ports** column on the left, if you don't see **Waves** - touch the "**add port**" button and add **Waves**.

Touch **Waves port** to turn it **blue**, you will see 2 added columns of 16 Inputs and Outputs on the **SD8** or **SD9**, or 32 Inputs and Outputs on the **SD7**.

Selecting Host Network Interface:

Touch the **Waves** top row button to open **MultiRack SoundGrid**'s interface and select **Preferences** from the **Window** menu. Set your system by selecting the Host Network Interface on your host computer.
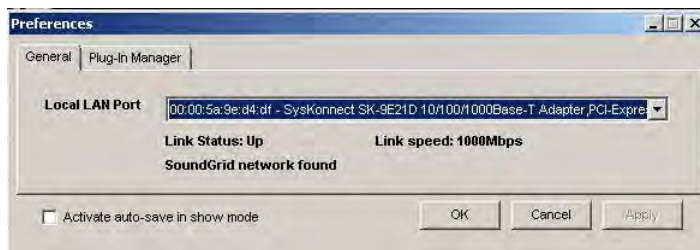
Local LAN Port: Lists all available network adapters. <u>Choose the network adapter that is connected to the SoundGrid network</u>. Network adapters are displayed by MAC addresses and port name. When you select the proper port a message "**SoundGrid Network found**" will be displayed.

Activate "Auto Save" in Show Mode: Check this box if you want to auto-save your MultiRack session every 90 seconds. The auto-saved file is loaded if MultiRack crashes. Note that when the system performs auto-save it momentarily requires CPU resources and this may result in momentary sluggish behavior of the interface, especially on earlier console models. This behavior occurs when the session is large (e.g. contains many snapshots) and is rarely present in smaller sessions.

Selecting Plugin Version

Plug-in Manager Tab: Touch the **Waves** top row button to open **MultiRack SoundGrid's interface** and select **Preferences** from the **Window** menu. Touch **Plug-in Manager Tab**.

<u>MultiRack V9 supports both V8 and V9 plug-in versions</u>. Depending on the version(s) you intend to use, select **V8**, **V9** or **both** and touch **OK**.

Both plug-in versions are installed on your console. Checking the version entry in the Plug-In Manager tells MultiRack what version(s) you want it to scan when it loads. You can change your selection at any time.
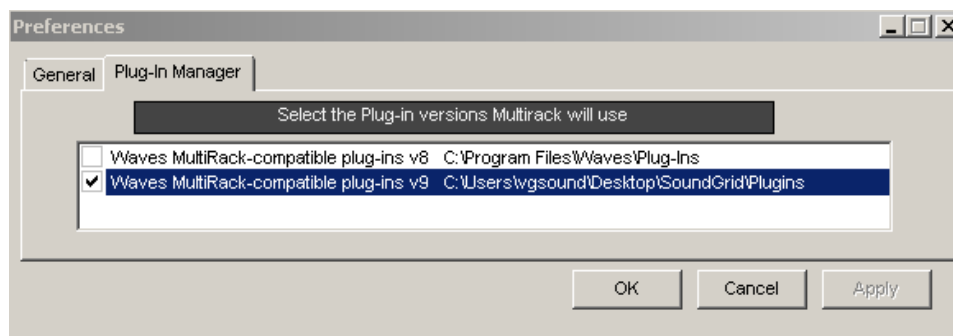
Setting SoundGrid Inventory:
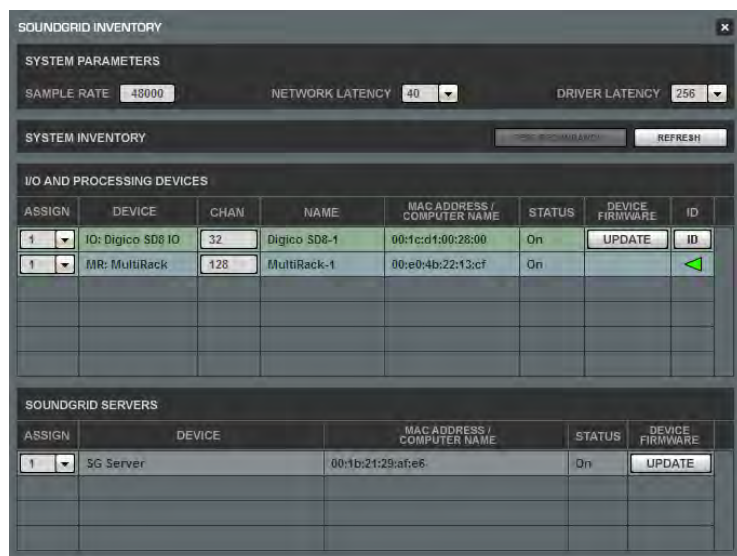
This window is accessed by selecting the "**SoundGrid Inventory**" from the Window menu.

Changes in the Inventory window are allowed only in **"Setup mode"**.

In "**Show mode**" the window opens as display-only and no changes are allowed.

Changes made in the Inventory window are applied immediately.

System Parameters:

Sample Rate: This field displays sample rate. In all cases, MultiRack SoundGrid is "slaved" to the console's sample rate, and this field cannot be edited.

Network Latency: Sets the network latency value. This field allows you to change SoundGrid Network throughput latency.

This value sets the buffering delay used by the processing engine(s) and affects

For correct latency setting per server – please refer to http://www.waveslive.com/html/soundgrid-server.aspx for correct settings.

Plug-ins that introduce latency add to the latency (system latency + plug- in latency) of the specific Rack into which these plug-ins are inserted.

Test Redundancy. A setup is redundant once you have designated a second Server as a backup to the main audio processing Server.

If the main audio processing Server fails, then its backup begins processing automatically.

Click the **Test Redundancy** button to make sure that the redundant Server is capable of holding the Session being handled by the main Server.

This is especially important when the two servers are not identical.

Refresh. Click this button to refresh the inventory list if you have changed devices.

The Inventory and SoundGrid Servers tables

The Inventory table displays all SoundGrid devices available on the network, allowing you to select/assign the devices you are using.

Inventory Fields:

Assign: Assigning a device means you are selecting it for usage in your setup. The number you assign the device is its index number in the Inventory list. For an I/O device, setting 1 means this is the first I/O device and its channels will be the first listed in the routing menus.

IO: An **I/O device** that streams audio to and from the SoundGrid network. On your console the DiGiCo I/O should be selected and used.

MR: MultiRack software - SoundGrid's audio processing device. MultiRack is the device which receives audio for processing. MultiRack utilizes SoundGrid Servers as its "DSP" engines.

Device: Displays the type and description of the device. For example, a SG-DiGiCo card will be displayed as an IO (type) whose description is SG-DiGiCo. *When you hover with mouse over a device row, the device's software/firmware version is displayed as a tool-tip.*

Chn: Displays the number of channels available on the device. I/O and MultiRack channels cannot be set and are display-only.

Name: Double click in this field to rename the device. On your console we recommend leaving this field at its default value.

MAC address / Computer Name: Displays the device's MAC address or computer name.

Status: Displays the device's status in real-time.

Device Firmware: This column supports an **Update** button for each I/O or server device.

Click the button to update the device's firmware if incompatible with the MultiRack version you are using. The Update process will display a progress bar and status messages. Follow the status messages and instructions carefully.

At the end of the process (in some cases requiring you to reboot the device), click the window's **Refresh** button.

ID: Applicable for IO-type devices only. Clicking this button will temporarily turn on the selected I/O's link and activity LEDs while turning all other I/O devices' LEDs off to allow you to identify the device in the network.

The **Servers table** below is very similar to the inventory table and is used in the same way. This table is separated from the other device's table since servers are "black box" processing engines and as such do not receive audio connections and do not have channels.

Set "**1**" for the server you intend to use as your **main** processing engine. Set "**2**" for the server you intend to use as a **redundant** server.

Setting SoundGrid Connections:

The Connections window is where you create audio routing between the various devices on your network.

Open the SoundGrid Connection window by selecting the "**SoundGrid Connections**" from the **Window** menu.

Changes in the **Connections** window are allowed only in **"Setup"** mode. <u>In **"Show"** mode the window opens as display-only and no changes are allowed.</u>

On your console, **Connections** are hard-set by default to be correctly recalled from the channels.
Making changes to the default connections may result in unwanted behavior.

If you have changed connections by mistake, you can easily correct this by tapping the **Load Default**. <u>Make sure all connections are active (**check-marked**). Tap **Apply** and **OK** to exit.</u>

Updating the Firmware of the Waves IO

(if updating from SoundGrid V1 - refer to the last chapter)

On the main DiGiCo menu click or touch **Waves** Tab to open **MultiRack SG**.

On the main MultiRack menu click or touch **Window** button and choose **Inventory**.

In **Inventory** window hover above the **I/O device**, a pop up message should indicate **FW version 1.9.30 or 1.9.36**. In **Inventory** window click **Update** button next to devices requiring an update. To perform the update - the I/O must be Un-Assigned in the **Assign** left column. Follow prompts to complete update. Reboot updated devices.

Hover above the I/O device, a pop up message should indicate FW version 1.10.16 or above.

If upgrading an **SD7**, repeat the steps on second engine to upgrade second I/O.

Now you are ready to update your Waves SG Server/s.

Updating the Firmware of the Waves SG Server/s

On the main MultiRack menu click or touch **Window** button and choose **Inventory**.

In **Inventory** window click **Update** button next to found **SG Server/s**.
To perform the update – the Server must be Un-Assigned in **Assign** left column. Follow prompts to complete update. Reboot updated devices.

If there is more than one SGS connected to the switch, either as redundant servers or as part an **SD7** system, they will all be detected and can all be upgraded from the same Inventory Window.

The Upgrade procedure is now complete.

Updating the Firmware of the Waves IO board from SoundGrid V1 to V9 Only

Using a computer with an internet connection, download **v1-to-v9-io-updater.zip**

Download here: www.waveslive.com/resources/v1-to-v9-io-updater.zip

The **v1-to-v9-io-updater.zip** contains two executable files, listed below. One is suitable for **SD7** only, the other for **SD 8/9/10/11** only.

<u>SD 8/9/10/11</u>**: IOBoxReflasher_prg_DiGiCo_t0_32ch.exe**

<u>SD7</u>**: IOBoxReflasher_prg_DiGiCo_t0_64ch.exe**

1. Run **v1-to-v9-io-updater.zip.** Choose your **USB flash drive** root folder as your destination and **extract**.

2. Plug the **USB flash drive** into a **USB port** on your DiGiCo SD console.

3. Right-Click on the **Start Menu** button in the windows tool-bar, and choose "**Explore**".

4. Navigate to your USB Flash Drive and **Run only appropriate Updater** from your USB Flash Drive.

5. The Updater will scan the network and will find the I/O device/s. <u>Choose from drop-down menu the I/O you would like to update.</u>

6. Follow the status messages and instructions carefully to complete the update. At the end of the process please <u>reboot the console</u>.

7. After rebooting the console on the main DiGiCo menu click or touch Waves Tab to open MultiRack SG.

8. On the main **MultiRack** menu click or touch **Window** button and choose **Inventory**.

9. In **Inventory** window hover above the I/O device, a pop up message should indicate FW version 1.9.30 or 1.9.36. In Inventory window click **Update** button next to devices requiring updating. <u>To perform the update I/O must be Un-Assigned in Assign left column.</u> Follow prompts to complete update. <u>Reboot updated devices</u>.

10. Hover above the I/O device, a pop up message should indicate FW version 1.10.16 or above.

11. If upgrading an **SD7**, repeat steps 4-10 on second engine to upgrade second I/O.

12. The Upgrade procedure is now complete.

Updating DiGiCo console software or offline editor after installing Waves V9

If you updating DiGiCo console software or offline editor after installing Waves V9, the update will erase necessary Waves files. No worries, no need to reinstall Waves.

<u>On DiGiCo console:</u>

Go to **D:\Waves\SoundGrid\SG_Digico apps** folder,

Copy the content and paste/overwrite to: **D:\Waves\SDx** folder.

<u>DiGiCo offline editor:</u>

Go to **C:\Program Files(x86)\Waves\SoundGrid\SG_Digico apps backup** folder,

Copy the content and paste/overwrite to: **C:\SDx** folder.