DX0.4 and DX0.6 Control Software

User Guide

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Introduction

The DX0.4 and DX0.6 are competitively priced signal processors that allow you to process and control Martin Audio point source and subwoofer systems.

You can configure these processors using a desktop app or the front panel of the processor or a combination of the two.

Using the desktop app

With the desktop app, you have access to all of the settings and can monitor and control your processors remotely. You can connect your computer to your processors using USB, Ethernet or RS845.

This guide tells you how to configure these processors using the desktop app.

Using the front panel

The front panel of the processor allows you to do a quick update to settings without the need to connect a computer. You can access most but not all of the settings.

For details of how to configure these processors using the front panel, see the **DX0.4 user guide** and the **DX0.6 user guide**. To download these user guides, go to the Martin Audio website, select **Support** > **User Guides** and scroll down to **Electronics**.

Training videos

As an alternative or as an addition to this user guide, we've made a set of training videos to show you how to use the desktop app.

To see these training videos, go to the Martin Audio website, select **Support** > **Training** and scroll down to **DX0.4 & DX0.6 Control**.

Installing the software

The **DX0.4 and DX0.6 Control Software** is a Windows app available as a free download from the Martin Audio website.

> We don't support macOS, but some users have run this app successfully on virtual platforms such as Parallels Desktop, VMware Fusion and Apple Boot Camp Assistant.

To set up your processors using the desktop app, you need to install the software and connect your processors to your computer. Before you install you need to download and unzip the software. These steps are explained below.

To download the software

1. Go to the Martin Audio website and select **Support** > **Software**.

2. Select and download the **DX0.4 and DX0.6 Control Software**. This downloads a zip file to your downloads folder.

To unzip the files

1. Select **File Explorer** on the Windows taskbar or the Start menu or press the Windows logo key ▦ + E on your keyboard.

2. Click **Downloads** on the left to open the downloads folder.

3. Right-click **DX0.4-and-DX0.6-Software-and-Presets** and select **Extract All**.

4. Choose a location or use the **Browse** button. You could for example use your **Documents** folder or your desktop.

5. Click **Extract**.

To install the software

1. In **File Explorer** go to the location you specified in step 4 above and open the **DX0.4-and-DX0.6-Software-and-Presets** folder.

2. Double-click the installation program **Setup DX Series**.

3. The **Windows protected your PC** pop up will appear. Click **More info** and then click **Run anyway**.

4. Click **Yes** to allow the app to make changes to your device.

5. Choose an installation location and whether to create a desktop icon and a quick launch icon.

6. You may wish to move the sub-directories in the **DX0.4-and-DX0.6-Software-and-Presets** folder into the software folder. By default the software folder is `C:\MARTIN AUDIO\DX Series`

Upgrading the software

If you install the software into the default location and already have desktop app version 1.0.0 or above, the new version overwrites the old version. If you already have desktop app version 0.2.3 or below, the installation leaves the old version on your machine. In this case, save any files you want to keep from the old directory and then remove the old version as follows.

To remove an old version

1. Select **Start** ▦ and then **Settings** or right-click **Start** ▦ and select **Settings**.
2. Select **Apps** from the left column.
3. Select **Installed apps** from the right column.
4. In **Search apps** type **DX**.
5. For the **DX Series** version to delete, click the three-dot icon ▦ and select **Uninstall**.

Running the software

To run the desktop app, select **Start** ▦ and type **DX Series** or double-click the desktop shortcut.

Connecting your processor and computer

There are four ways of connecting your processor to your computer:

- **USB**. Use a USB cable to connect the USB-B port on the front panel of your processor and a USB port on your computer.

  📝 You can only connect one processor at a time with USB.

- **Ethernet direct**. Use a network cable to connect the Ethernet socket on the back panel of your processor directly with the Ethernet socket on your computer.

  📝 You can only connect one processor at a time with a direct Ethernet connection.

- **Ethernet network**. Use a network cable to connect the Ethernet socket on the back panel on your unit to the same Ethernet network as your computer.

📝 You can set up and control as many processors as you like with an Ethernet network.

- **RS-485**. Use an RS-485 cable to connect the RS-485 socket on the back panel of your unit and your computer. Very few PCs have an RS-485 socket, so you will almost certainly need an RS-485 RJ45 to USB adaptor. These are readily available and inexpensive.

  RS-485 networks are highly robust and the cable runs between devices can be up to 1,200 meters. If you have several units, you can daisy chain them using the two RS-485 ports on the back panel of each unit.

  📝 You can set up and control up to 32 processors with RS-485.

Dynamic or static IP

With an Ethernet network, you can choose dynamic or static IP:

- With dynamic IP a DHCP Server allocates IP Addresses for all devices on the network. For up to about five processors, we recommend dynamic IP. A Wi-Fi router is a good option for small systems, as the router will include a DHCP Server and you could connect your computer to the router using Wi-Fi.
- With static IP you need to specify the IP of each device manually. Static IP is particularly useful for large systems with many processors.

To select dynamic or static IP, see .

Connecting using USB

The installation program should set up the USB driver so that it's ready for use. However, if you have problems connecting using USB, update the USB device driver as follows.

To update the USB device driver

1. Connect your processor to your computer using a USB cable.
2. Switch the processor on.

3. From Windows, select **Start** ██ then **Settings** or right-click **Start** ██ and select **Settings**.

4. If you have Windows 11, select **Bluetooth & devices** from the left column and then **Devices** on the right. Then scroll down to near the end and select **More devices and printer settings**.

   If you have Windows 10, select **Devices** and then **Devices and printers**.

5. At the bottom of the window, right-click **STM32 Virtual ComPort in FX Mode** (or **USB Serial Device** if the driver is called that) and select **Troubleshoot**.

6. Click **Yes** to allow the troubleshooting wizard to make changes.

7. Select **Fix issues** and reboot your computer when requested.

To reconnect to USB

If you've connected to USB successfully and then lose the connection, do the following:

1. Unplug the cable (at either end) and plug in again.

2. If you still can't connect, restart the desktop app.

3. If you still can't connect, restart your computer.

Connecting using Ethernet

If you connect using Ethernet, the desktop app may find your processor automatically. This could take a minute or so.
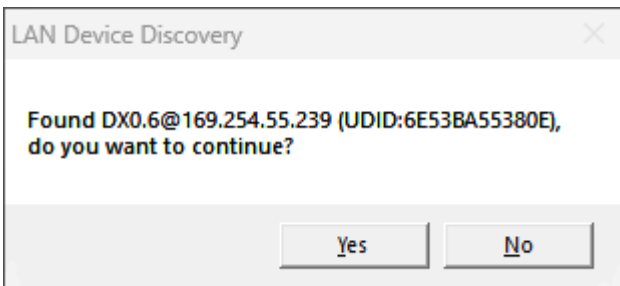
Click Yes and the app will add the processor and display a Processor icon (page 9).

If the desktop app doesn't find your processor automatically, you can add the processor manually using the IP address.

To add a processor using the IP address

1. At the processor font panel, press **PM3** to display the **Utility Menu**.

2. Rotate **PM1** until **Network Utilities** appears on the bottom line of the screen. Then press **PM1**.

3. Rotate **PM1** until **IP Address** appears on the bottom line of the screen. Then press **PM1** and make a note of the IP address.

4. Press **PM2** three times to exit the menu.

5. At the desktop app, use Search for processors (page 8) or Add processor (page 8) and enter this IP address.

To set up a direct connection

1. Plug a network cable into the Ethernet port of your computer and the Ethernet port of your processor and switch on your processor.

2. The desktop app should find your processor automatically as explained above.

   Note that when there is no DHCP server present (as in this case), the processor will self-address in the range 169.254.#.#.

3. If the desktop app doesn't find your processor, check that the processor is set to dynamic IP as explained in the next section. Note that dynamic IP is the factory default setting.

To check LAN mode at the front panel

1. At the processor font panel, press **PM3** to display the **Utility Menu**.

2. Rotate **PM1** until **Network Utilities** appears on the bottom line of the screen. Then press **PM1**.

3. Rotate **PM1** until **LAN Mode** appears on the bottom line of the screen. Then press **PM1** to see the mode. DHCP is dynamic IP.

4. Press **PM2** three times to exit the menu.

5. If you have a direct connection and the mode is static IP, change it to dynamic IP as explained in LAN settings (page 28).

To connect using Ethernet with static IP

You can only change Ethernet settings using USB or RS-485, not using Ethernet. So to set up for static IP you need to start by setting up using either USB or RS-485. Here we explain how to do this using USB.

1. Connect your computer to one processor using USB (you can only connect one processor at a time with USB). For details see Connecting using USB (page 5).

2. In the desktop app, Add or search for the processor (page 8).

3. Put the processor online by clicking the **OFF-LINE** button at top right of the processor icon (page 9). For details, see Connection status (page 9).

4. Change the LAN mode (page 28) to static IP and specify a unique IP address, subnet mask and gateway.

5. Delete the processor by clicking the x at top right of the processor icon (page 9).

6. Disconnect USB at the processor.

7. Repeat the previous steps for each of your processors.

8. When you've updated all of your processors, connect them to your computer using an Ethernet network.

9. In the desktop app, use Search for processors (page 8).

10. On the toolbar, click the **Connect all** icon (highlighted in red below).

Connecting using RS-485

If you want to configure several processors using RS-485, connect the processors in a chain using the two RS-485 ports in the back of each processor. You also need to make sure that each processor has a unique ID. The easiest way to change the ID is using the front panel of the processor.

Note that the signal passes along the chain even when processors earlier in the chain are switched off.

To change ID at the front panel

1. At the processor font panel, press **PM3** to display the **Utility Menu**.

2. Rotate **PM1** until **Network Utilities** appears on the bottom line of the screen.

3. Press **PM1** and **RS-485 ID** appears on the bottom line of the screen. Press **PM1**.

4. Rotate **PM2** to change the ID to a unique number between 1 and 32.

To connect RS-485

1. Plug an RS-485 cable into the first processor using the upper RS-485 socket labelled **IN** on the back panel.

2. Plug this cable into your computer. As mentioned earlier, PCs and laptops don't normally have an RS-485 port, so you will almost certainly need to use an RS-485 RJ45 to USB adaptor. You will also need to install the device driver for the adaptor; see the instructions for your adaptor.

> Don't plug this cable into your computer Ethernet port. The cable will fit the socket, but the connection won't work.

3. Run an RS-485 cable between the lower RS-485 socket labelled **OUT** at the first processor and the upper RS-485 socket labelled **IN** at the next processor. Connect further processors in exactly the same way. The last processor in the chain will just have one cable plugged into the upper socket labelled **IN**.

4. In the desktop app, use Search for processors (page 8).

5. On the toolbar, click the **Connect all** icon (highlighted in red below).

Processors

The first time you start the desktop app, the screen will be empty. You can then search for processors (page 8) or add processors (page 8) as explained below. You can add as many processors as you like. For example, here we've added three DX0.6 processors and two DX0.4 processors.
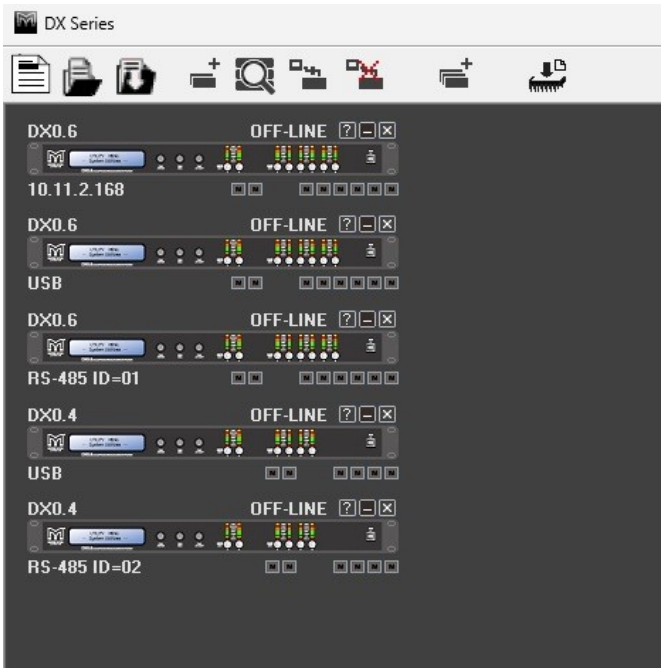
When you add a processor, the desktop app displays a processor icon (page 9).

To set up and control a processor, double-click the processor icon to display the processor window (page 11). The name at top left of the icon goes green so that you can see which processor you are editing.

Search for processors

This allows you to search for DX0.4 or DX0.6 processors physically connected to your computer. The processors can be connected by Ethernet (TCP/IP), RS-485 or USB. For details of the connection types, see Connecting your processor and computer (page 5).

To search for a processor

1. From the toolbar at the top of the desktop app, click the **Search** icon (highlighted in red below):

The following screen appears:
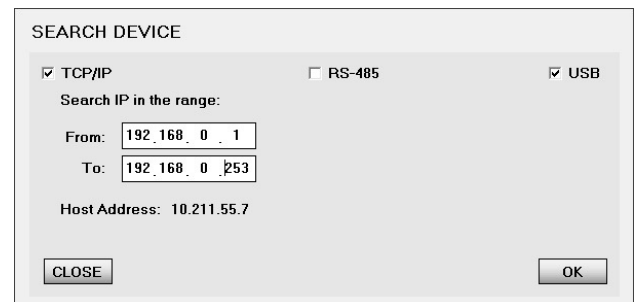
2. Select TCP/IP (for Ethernet), RS-485 or USB.

   If you select TCP/IP, enter an IP range. See Connecting using Ethernet (page 6).

   If you select RS-485, enter an ID range (IDs for RS-485 are between 1 to 32).

   If you select USB, make sure you've already updated the USB device driver (page 5).

3. Click **OK** and the app finds and adds connected processors and each processor has a processor icon (page 9).

Add processor

This allows you to add a DX0.4 or DX0.6 processor to the desktop app. You can use this to add a processor whether or not the processor is physically connected to the computer. Alternatively, you can use Search for processors (page 8).

To add a processor

1. From the toolbar at the top of the desktop app, click the **Add processor** icon (highlighted in red below):

The following screen appears:
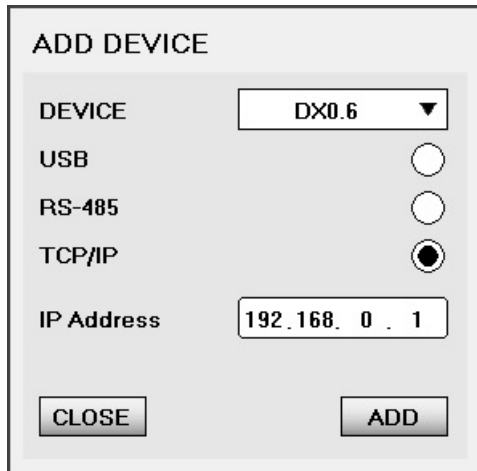
2.   In DEVICE select DX0.4 or DX0.6.

3.   Select USB, RS-485 or TCP/IP (for Ethernet).

     If you select RS-485, you will need to choose the ID (1 to 32) from a drop down list.

     If you select TCP/IP, you will need to enter the IP address. See Connecting using Ethernet (page 6).

4.   Click ADD and the app will display a Processor icon (page 9).

Processor icon

When you search for a processor (page 8) or add a processor (page 8), the desktop app displays a processor icon:

- The device name is top left. To change this, see Label settings (page 29).

- The connection status (page 9) is top right. To change this, click the text **ON-LINE** or **OFF-LINE**.

  Alternatively, you can use Connect All (page 10) and Disconnect All (page 10).

- The connection type (page 5) is bottom left.

- The channel mutes are the boxes at bottom right and they are red when muted. To mute and unmute, click these boxes.

  The inputs are the two boxes in middle and the outputs are the boxes on the right.

You may find it easier to use the mutes on the gains and mute screen (page 15) as the buttons are bigger.

- To move the processor icon, put the cursor on the device name at top left and drag and drop the icon. If you have several processors, you can use this to position and reorder them.

- To edit the processor settings, double-click the middle of the processor icon. This displays the processor window (page 11). Note that the name at the top left of the icon goes green.

- To see a summary of the processor details, click the question mark at top right. This is a quick way of checking the firmware version (page 35) shown as **Fw Version**.
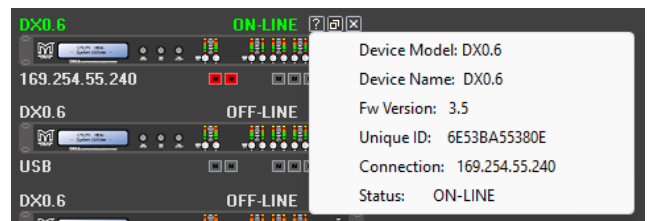
- To remove a processor, click the x at top right.

Connection status

When a processor is online, this means that the desktop app and the processor are "talking". Any changes you make in the desktop app will be copied to the processor immediately. This allows you to use the desktop app as a remote control for the processor. The connection goes both ways, so changes you make at the processor will change immediately in the desktop app. For example, if you press the mute buttons on the processor, the mute buttons will change in the desktop app.

When a processor is offline, the desktop app and the processor aren't "talking" even though they may be connected by Ethernet, RS-485 or USB. You can still make changes to settings and then when you put the processor online, you can choose to copy these settings to the processor. However, this can lead to confusion about whether you've updated the processor settings or not.

We recommend that you only update settings when processors are online.

You can change the connection status for each processor individually or for all processors with one click.

To put one processor online

If you're using USB and you've switched the processor off and on, unplug the USB cable (at either end) and plug it in again.

1. At top-right of the processor icon (page 9), click the text **OFF-LINE**. in white.

Alternatively, click the **OFF-LINE** button at top right of the processor window (page 11).

2. The app displays the following window:

3. To copy the settings from the processor to the desktop app, select **Read current settings from device**. This overwrites all the desktop app settings for this processor, including passwords (page 31) and user settings (page 31).

To copy the settings from the desktop app to the processor, select **Load current settings to device**. This does not overwrite passwords (page 31) and user settings (page 31) so you must only change these when you're online.

To reduce confusion, we recommend that you always select **Read current settings from device**.

4. Click **OK**.

To put all processors online

If you're using USB and you've switched the processor off and on, unplug the USB cable (at either end) and plug it in again.

1. From the toolbar at the top of the desktop app, click the **Connect all** icon (highlighted in red below):

2. Follow the instructions in step 2 above.

To put one processor offline

• At top-right of the processor icon (page 9), click the text **ON-LINE** in green.

Alternatively, click the **ON-LINE** button at top right of the processor window (page 11).
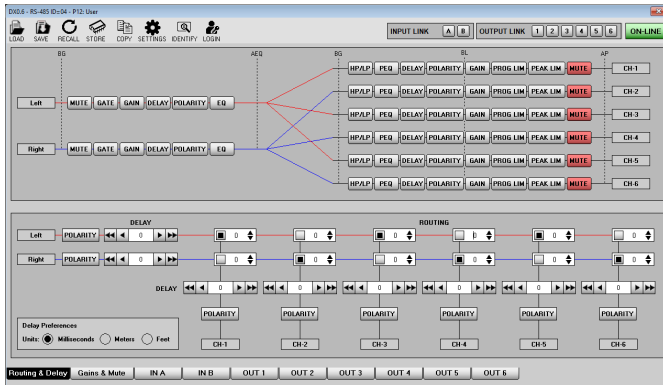
To put all processors offline

• From the toolbar at the top of the desktop app, click the **Disconnect all** icon (highlighted in red below):

Processor window

To display the processor window, double-click a processor icon (page 9).

You can only have one processor window open at a time. If you double-click another processor icon (page 9), the processor window switches to this processor and the name at top left of the icon goes green so that you can see which processor you're editing.

At top right of the processor window you can see whether the processor is online or offline. To change the connection status (page 9), click this button.

At the top left of the window there's a toolbar and at the bottom there's a set of tabs. These are described below.

Processor toolbar
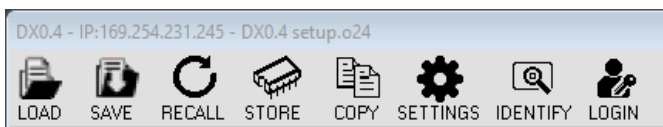
- **LOAD**. Click this to load a processor channel configuration file stored on your computer. You create these files using the **SAVE** icon next to this icon.

  This is useful for loading common configurations or where you need to load an identical configuration to several processors. Note that settings such as passwords (page 31) and user settings (page 31) remain unchanged.

  To choose whether to load channel links and mutes, see Recall mode (page 30).

- **SAVE**. Click this to save the current processor channel configuration to a file on your computer. The file extension is o24.

- **RECALL**. Click this to install one of the 32 system presets stored on the processor.


This is a quick way of loading channel presets to all of the output channels in one step. If you want more control, you can load each channel individually. For details, see Channel presets (page 25).

To choose whether to load channel links and mutes, see Recall mode (page 30).

- **STORE**. Click this to store the current configuration into one of the 32 preset locations stored on the processor. Initially these will be Martin Audio factory presets, but you can use **STORE** to save your own presets to any of the 32 preset locations to build your own library of commonly used configurations. Note that these presets are stored on the processor not on your computer.

- **COPY**. Click this to copy parameters from one channel to another. You select input or output and the source and destination channel. If you select an output channel as the source, you can copy to more than one output channel if you wish. You select the parameters to copy and then click **APPLY**. When you have finished copying, click **CLOSE**.
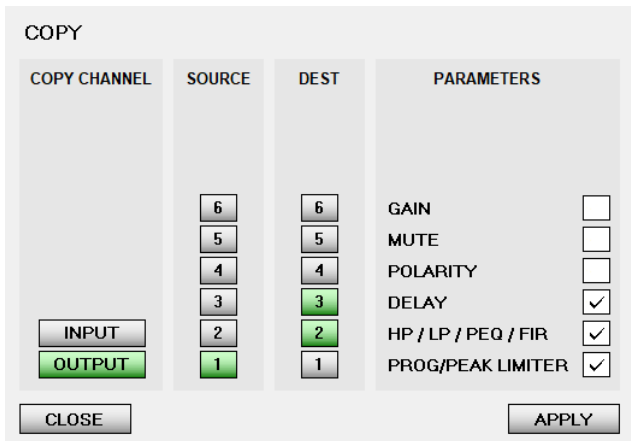
- **SETTINGS**. For details, see Settings (page 28).

- **IDENTIFY**. Click this to make all the front panel LEDs flash for about 8 seconds. If you have several processors, you can use this to see which processor you're currently editing. Note that you can't stop the flashing early.

- **LOGIN**. Click this to log in as an Admin or Expert (page 27). The icon then changes to **LOGOUT**.

  To log out, click this button again.

- **SIG GEN**. This icon only appears when you are logged in as Admin or Expert (page 27).

Click **SIG GEN** to generate white or pink noise at the inputs.
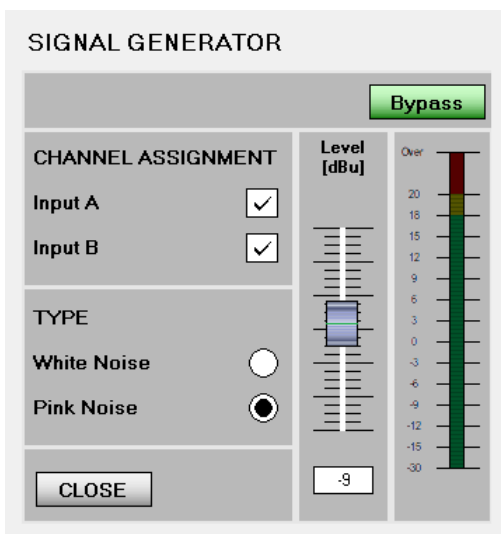

You can route the noise signal to input A or B or both by clicking on the boxes. Select either white or pink

noise. Set the level with the drag and drop fader or you can type a dBu level into the box and press enter. By default, the signal generator is off (bypassed).

To turn the signal generator on, click the green bypass button so that it goes grey. The signal generator will start and the **SIG GEN** text on the toolbar will turn red.

Linking channels

To link channels, go to the processor window (page 11) and click the boxes at top right so that they go green.
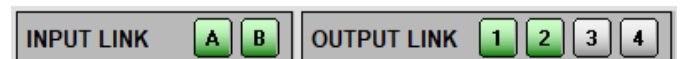
In this example, input channels A and B are linked, output channels 1 and 2 are linked and channels 3 and 4 are unlinked.

Any changes you make to one of the linked channels are automatically duplicated to the linked channels.

With output channels, you can link two, three or four channels (or five or six with the DX0.6).

Linking is a very useful way to speed up programming since channels often need to have identical parameters. Linking is especially useful for stereo channels.

Example

Output channels 1 and 2 are driving the same sub cabinet and channels 3 and 4 are driving a mid-high speaker. You could:

1. Link output channels 1 and 2. Enter the parameters at channel 1 and channel 2 will be identical automatically.

2. Unlink channels 1 and 2.

3. Link channels 3 and 4. Enter your mid-high cabinet parameters at channel 3 and channel 4 will be identical automatically. You may or may not want to keep this channel link.

You've set up four channels but you only needed to program two. You can be certain that your stereo system is perfectly matched left and right.

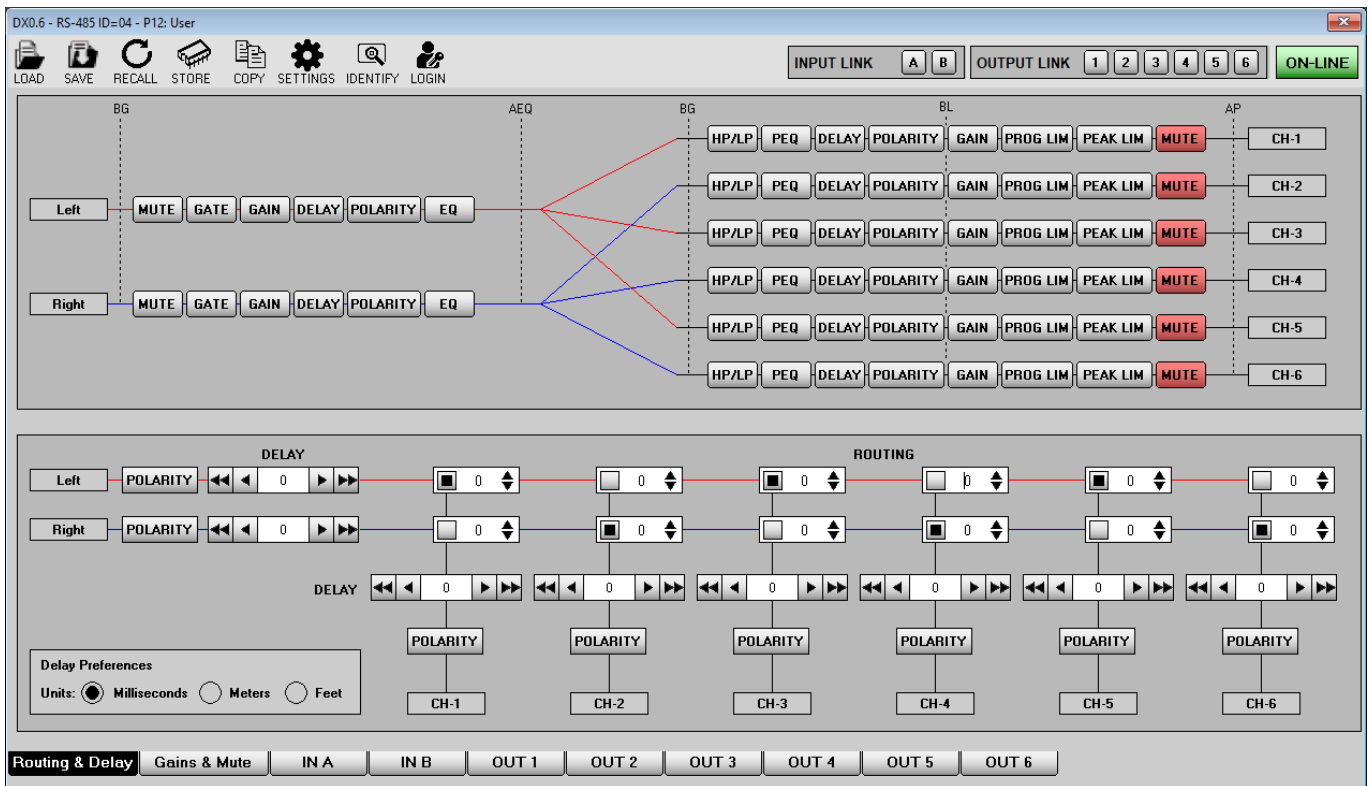## Processor tabs

There is a set of tabs along the bottom of the processor window. You click these to select:

- Routing and delay (page 14).

- Gains and mute (page 15).
- Input channels A and B (page 16).
- Each of the output channels (page 19).

Routing and delay

To adjust routing and delay, go to the processor window (page 11) and click the **Routing & Delay** tab at the bottom.

The top half of the window shows the signal processing chain from input to output and the routing that you've chosen. The routing is completely freely assignable and either input can be routed to any or all outputs:

- To change the routing, go to the lower half of the window and click the squares in the routing section. When a square is black, the input channel is routed to this output channel. The red and blue lines in the upper half of the window update to reflect your changes to routing.

- To attenuate a routing node, type a number in the box and press enter or use the up and down arrows. Attenuation is useful for systems where both inputs are routed to one output. In this case, you can compensate for the increase in level by adding some attenuation.

- To add delay, choose the units at the lower left (milliseconds, meters or feet) and then type a number in the appropriate delay box and press enter or use the left and right arrows. The single arrow is for fine

adjustment (20.8 microsecond) and the double arrow is for course adjustment (1ms).

Note that you can add delay at the input channels A and B (on the left of the lower half of the window) or for any of the output channels (along the middle of the lower half of the window).

- To change polarity, click a polarity button in the lower half of the window. These buttons go green when you change the polarity. This inverts the signal, essentially adding a 180-degree phase shift.

- To mute channels, click the mute buttons in the top half of the window. These buttons go green when you mute a channel. Alternatively, you can use the mutes on Gains and mute (page 15) or the processor icon (page 9).

The dotted vertical lines in the top half of the window show the meter positions. The lines are labelled BG (before gain), AEQ (after EQ), BL (before limiter) and AP (after processing). You can see these meters on the other windows.

Gains and mutes
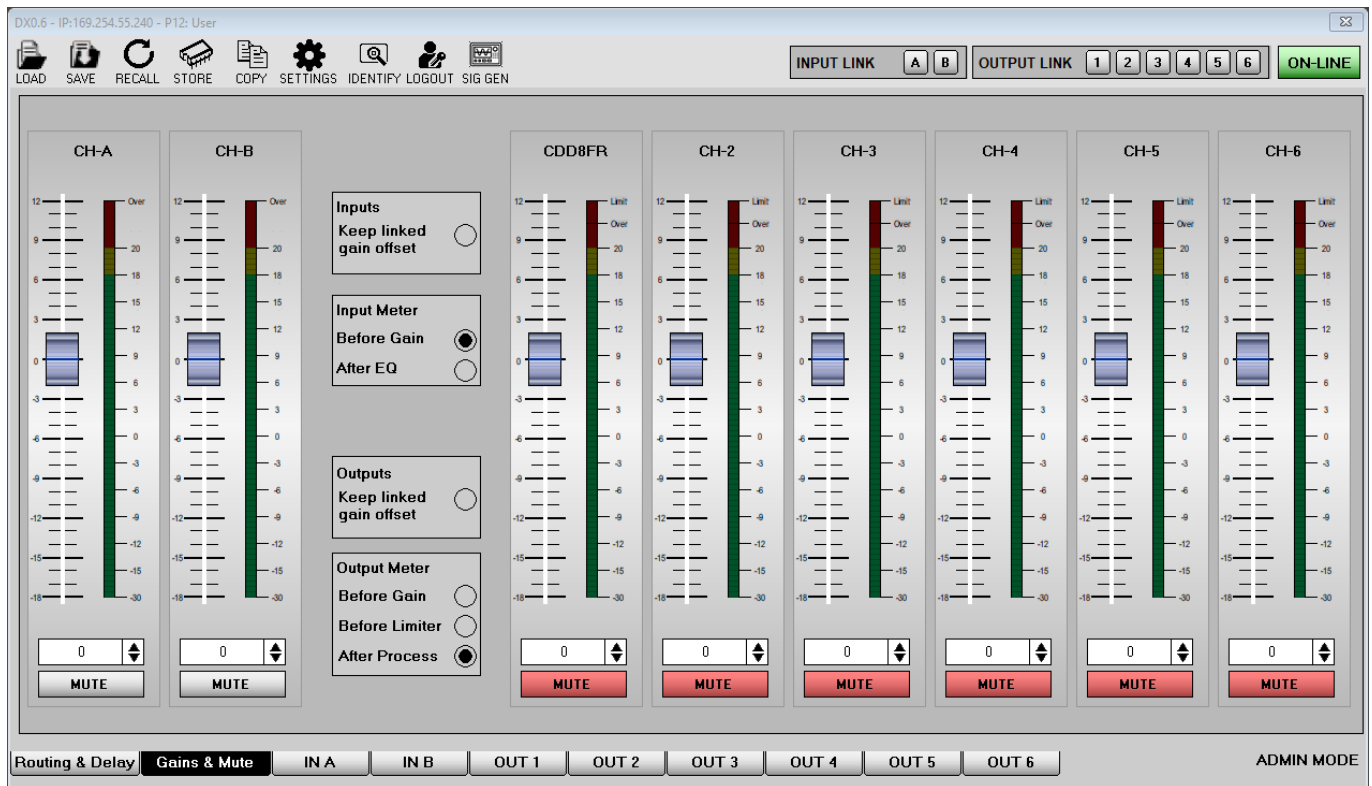
To adjust gains and mutes, go to the processor window (page 11) and click the **Gains & Mute** tab at the bottom. This allows you to edit the input and output gains and mutes for all channels. Bar graph meters show you the levels and the operation of limiters on the outputs.

To adjust the gain on a channel, you can:

■ Move the fader.

■ Type a gain value in the box and press enter.

■ Click the up and down arrow next to the gain value to change the gain in 0.1dB increments.

To mute and unmute channels, click the **Mute** buttons. These buttons go red when muted.

Keep linked gain offset

■ To make linked channels have the same gain, leave the **Keep linked gain offset** setting blank.

■ To maintain a gain offset between linked channels, adjust the gain to create the correct offset, select **Keep linked gain offset** and then link the channels. For example, if channel A is 1dB more than channel B, and

A and B are linked, when you change gain, channel A will always be 1dB more than channel B.

Changing the meters

If you log in as an Expert or Admin (page 27), extra settings appear in the middle of the window. These allow you to change the meters on this window.

For inputs, you can choose **before gain** or **after EQ**. Note that Input channels (page 16) display both these meters.

For outputs, you can choose **before gain**, **before limiter** or **after processing**. Note that the Output channels (page 19) display all three of these meters.
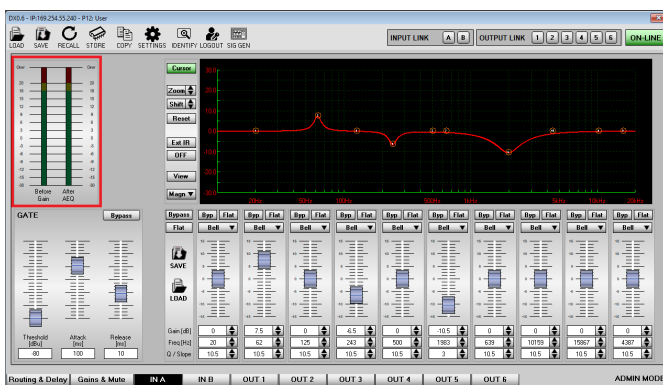
The Routing & Delay (page 15) window shows these meter positions with vertical dotted lines in the upper half of the window.

Input channels
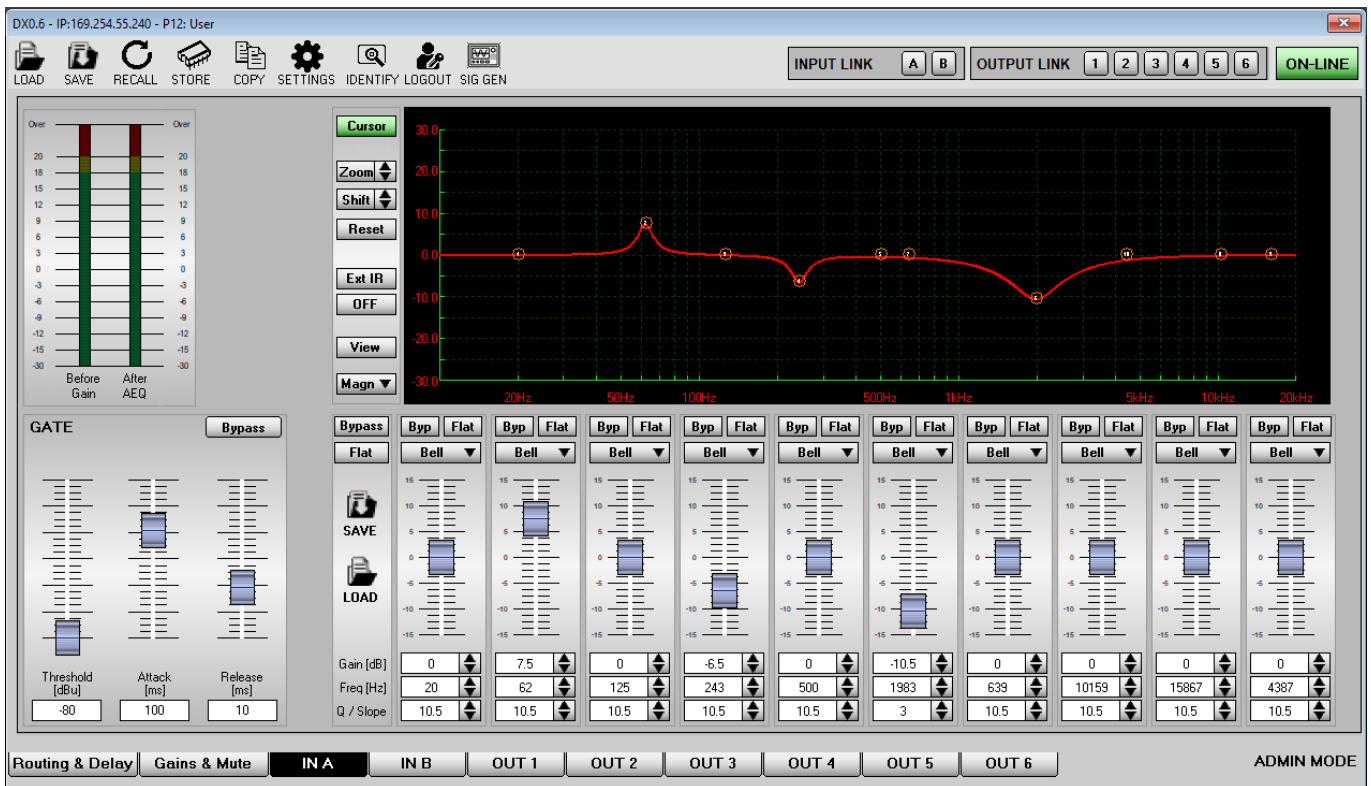
To configure the input channels, go to the processor window (page 11) and click the **IN A** or **IN B** tab at the bottom.
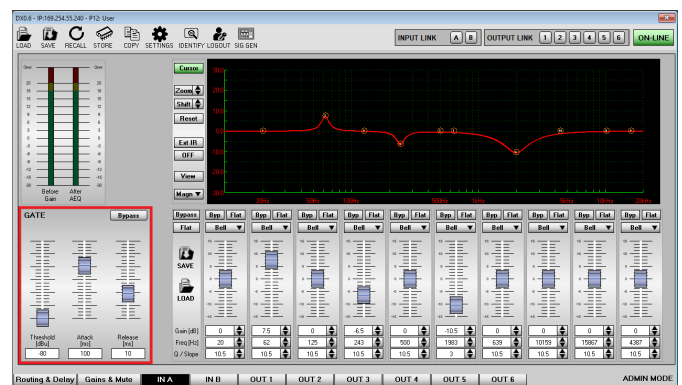
Input meters

The meters at top left show the level at two points in the signal chain. To see these points on the Routing and delay window (page 14), find the vertical dotted lines in the top half of the window.

- **Before gain** is the level of the signal connected to the processor.

- **After AEQ** is the level after input processing.

Gate

The noise gate is at bottom left of the window. This is useful for processing noisy sources. By default, the **Bypass** button is red showing that the gate is bypassed.

- To enable the gate, click the **Bypass** button so that it goes grey. Adjust the threshold, attack and release.

You can either move the faders or type numbers into the boxes and press enter (don't forget to press enter). Use these three settings to make the gate as unobtrusive as possible.

Equalisation
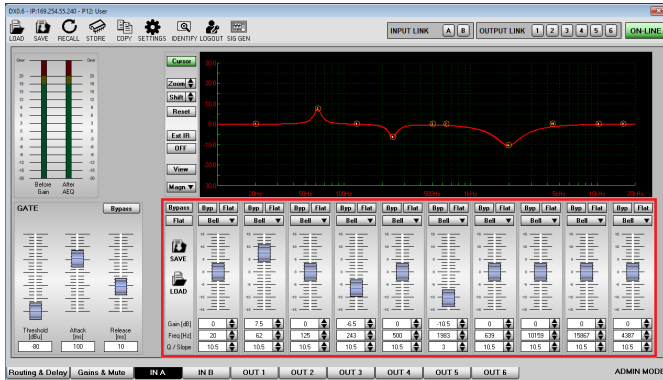
There are ten bands of input EQ at the lower right section of the window. Each band is identical and you can edit the type, frequency, gain, Q and slope.

The input EQ is useful for adjusting the response of the entire sound system, particularly when correcting anomalies caused by venue acoustics. You can then use output EQ for any recommended speaker EQ. For details, see .

- To bypass the entire EQ, click the **Bypass** button on the left of the EQ section so that this button goes red. The settings will remain unchanged.

- To set the entire EQ to flat, click the **Flat** button on the left of the EQ section.

- To save the entire set of EQ settings, click the **SAVE** icon on the left of the EQ section. Then choose a location and filename. These files have the extension peq.

- To load a previously saved set of EQ settings, click the **LOAD** icon on the left of the EQ section. Then choose a location and filename.

- To bypass an individual band, click the appropriate **Byp** button so that it goes red. The settings for the band will remain unchanged.

- To set an individual band back to flat, click the appropriate **Flat** button.

- To select the EQ type, click the drop down list above the fader. For a list of the available EQ types, see the table below.

- To adjust the gain, you can either move the fader or type a number in the box and press enter or click the up and down arrows.

- To adjust the frequency and slope, type a number in the box and press enter or click the up and down arrows. Note that for some EQ types the gain, frequency or slope may not be available (and are greyed out).

| EQ types |
| --- |
| Bell |
| Hi-Shelving Slope |
| Hi-Shelving VariQ |
| Lo-Shelving Slope |
| Lo-Shelving VariQ |
| Low Pass 1st |
| Low Pass 2nd |
| Low Pass VariQ |
| High Pass 1st |
| High Pass 2nd |
| High Pass VariQ |
| Notch Filter |
| All Pass 1st |
| All Pass 2nd |

Frequency response graph
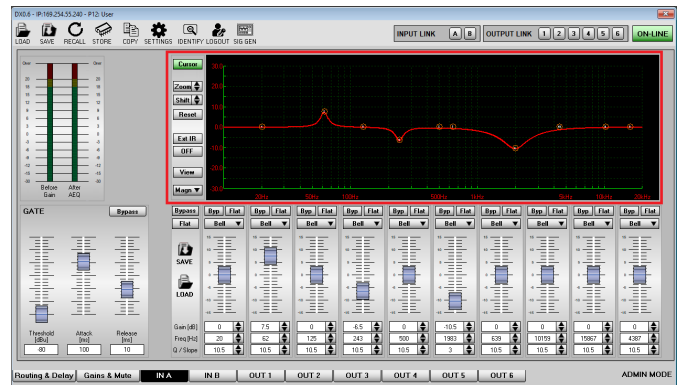
The graph at top right shows the frequency response of the EQ plus the channel gain.

To adjust the graph, click the **Cursor** button on the left so that it goes green. Ten numbered circles corresponding to the EQ bands will appear on the graph. You can move these circles up, down, left or right to adjust the frequency and gain. To adjust the Q or slope, click a circle so that "arms" appear and then move the box at the end of the "arm" in or out.

There are additional options that only appear if you login as an Admin or Expert (page 27). These options appear under the **Cursor** button.
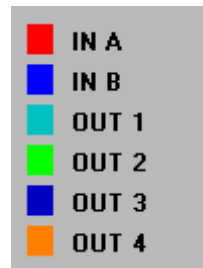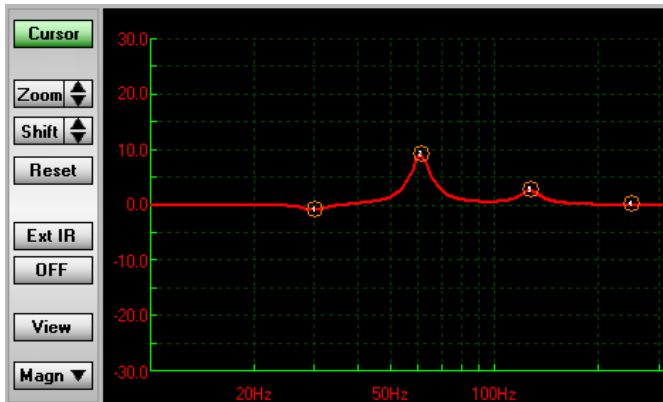

■ **Magn**. Click this change the frequency response graph between magnitude (the default) or phase.

These options are:

■ **Zoom**. Use the up and down arrows to zoom in or out of the graph. This is useful for zooming in for a better view of subtle EQ adjustments.

■ **Shift**. Use the up and down arrows to shift the graph up or down. This is useful if you have applied a lot of cut or boost and want to shift the vertical position of the graph.

■ **Reset**. Click this to remove the zoom and shift settings from the graph.

■ **Ext IR**. Click this if you wish to import an external IR filter file. An external IR window will open and you then click the **LOAD** icon. The window will display the magnitude and phase of the external file. You can then select the smoothing to use from a drop down list. To apply the external IR, click the **Confirm** button.

To sum this external IR with your internal EQ, click the **OFF** button so that it goes green and changes to **ON**.

To remove the external IR, click this button again so that it goes grey and changes to **OFF** again.

■ **View**. Click this to view the frequency graphs of any input or output channels at the same time. A window of graphs will appear and the graphs will be colour coded as shown at bottom right of the window: When you have finished, click **CLOSE** at top right.

Output channels
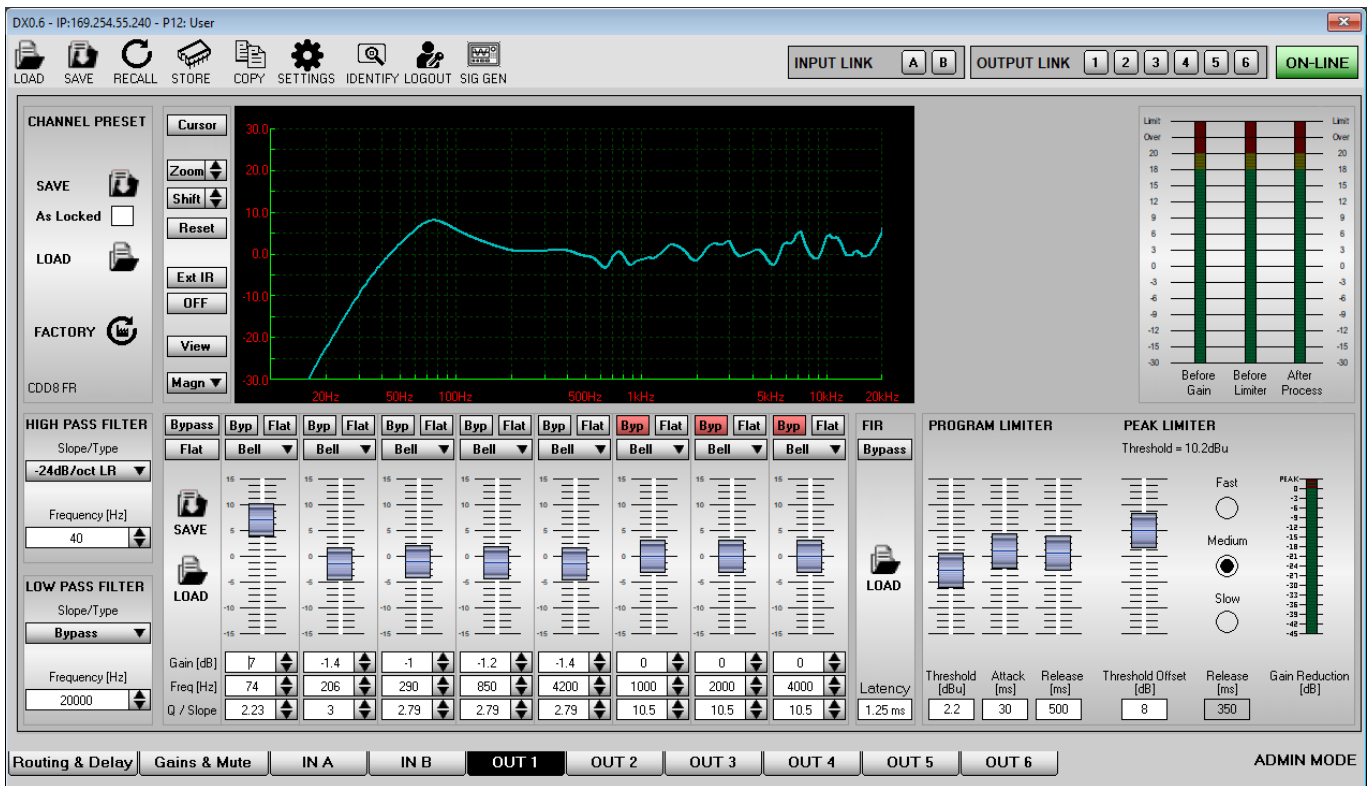
To configure the output channels, go to the processor window (page 11) and click the **OUT 1** to **OUT 4** or **OUT 6** tabs at the bottom.

Output meters
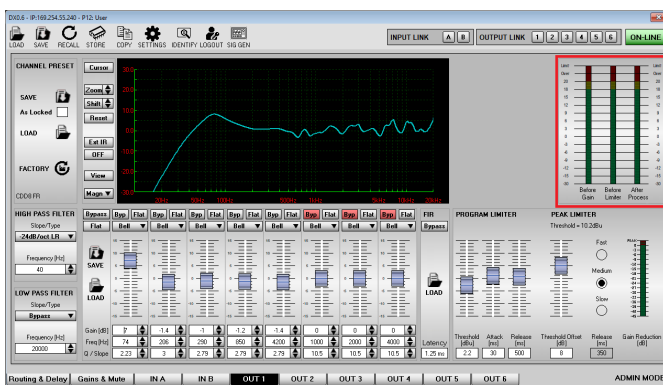
The three meters at top right show the level at three points in the output channel signal chain. To see these points on the Routing and delay window (page 14), find the vertical dotted lines in the top half of the window.

- Before gain is the level of the signal routed to the output channel.

- Before limiter is the level before the two-stage limiter.

- After process is the final output level that will be routed to your amplifiers.

Channel preset
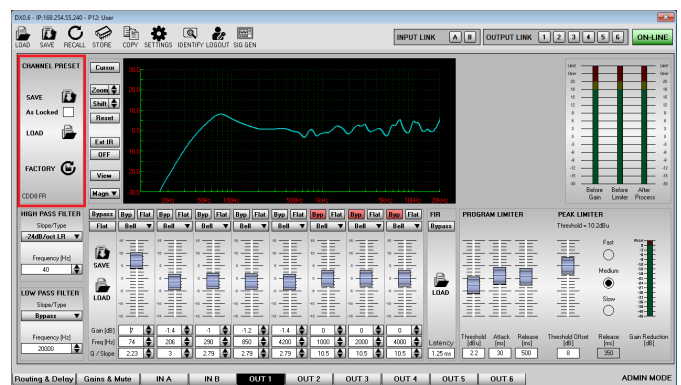
The section at top left just below the toolbar allows you to save, load or reset channel presets (page 25):

- **SAVE** Click this to save the current channel settings to file. Choose a location and filename and click **Save**.

  If you log in as an Admin or Expert (page 27), an extra setting appears under the **SAVE** button with the text **As Locked**. To save the current settings as a locked preset, tick this **As Locked** setting and then click **SAVE**. This will also lock the current settings.

- **LOAD** Click this to load a channel preset. To load presets bundled with the desktop app, go to the folder you specified when you unzipped the files; see Installing the software (page 4). The presets are stored in the folder `Output Channel Presets` with one sub-folder for each speaker range.

If you load a bundled preset (or your own locked preset), all settings will be grey to show that they're locked. For further details, see channel presets (page 25).

- **FACTORY** Click this to set the channel back to factory defaults. If the channel preset is locked, you can use **FACTORY** to allow you to edit settings.

High and low pass filter
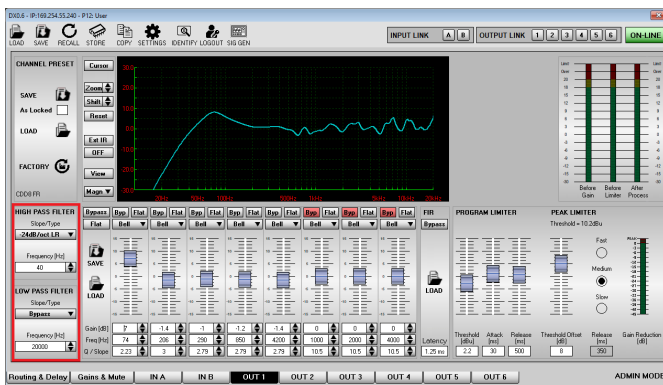
The section at bottom left of the window allows you to configure high and low pass filters. You can use these to set up crossovers in a multi-way loudspeaker and

subwoofer system. This will allow you to make the system sound its best and operate most efficiently. For example, with a three-way stereo system, you could use the high and low pass filters on the outputs feeding the low, mid and high range transducers so that each transducer is reproducing the range for which it is best suited.

You can also use a high pass filter to roll-off low frequencies that a full-range loudspeaker cannot efficiently reproduce and that may cause damage to the speaker.

- To select the filter slope, click the drop down list. For a list of available slopes, see the table below.

- To specify the frequency, type a value in Hz and press enter or use the up and down arrows. Note that the frequency is in Hz, so if you need 1.2kHz you need to enter 1200.

High and low pass filter slopes

| Name on screen	Description
Bypass	Bypass
-6dB BW	Butterworth -6dB/octave
-12dB BW	Butterworth -12dB/octave
-12dB LR	Linkwitz-Riley -12dB/octave
-12dB BS	Bessel -12dB/octave
-18dB BW	Butterworth -18dB/octave
-24dB BW	Butterworth -24dB/octave
-24dB LR	Linkwitz-Riley -24dB/octave
-24dB BS	Bessel -24dB/octave
-36dB BW	Butterworth -36dB/octave
-36dB LR	Linkwitz-Riley -36dB/octave
-48dB BW	Butterworth -48dB/octave
-48dB LR	Linkwitz-Riley -48dB/octave

Equalisation
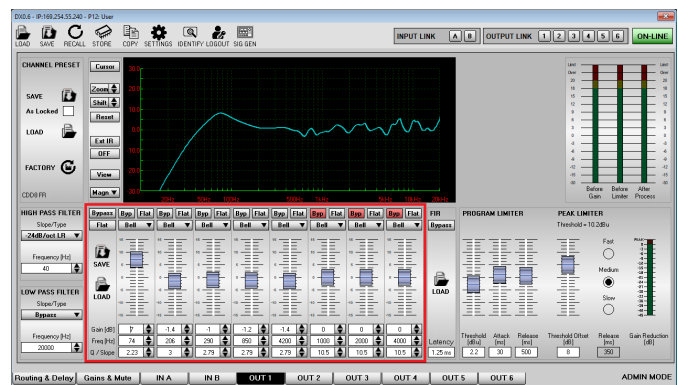
There are eight bands of output EQ in the middle of the lower half of the window. You configure the output EQ in exactly the same way as the input EQ. For details, see Input channels (page 16).

Frequency response graph
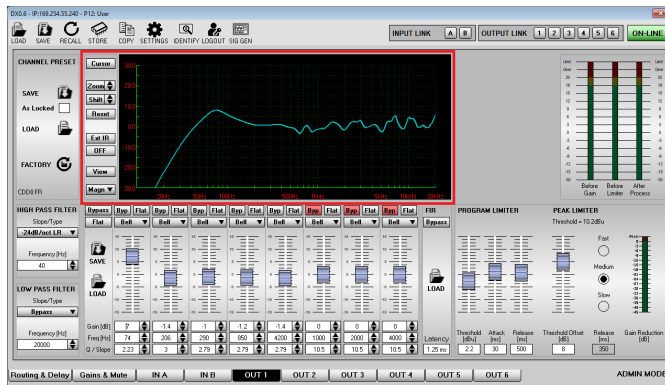
The graph at the top of the window shows the frequency response of the EQ plus the channel gain. You configure this graph in exactly the same way as for the input graph. For details, see Input channels (page 16).

FIR
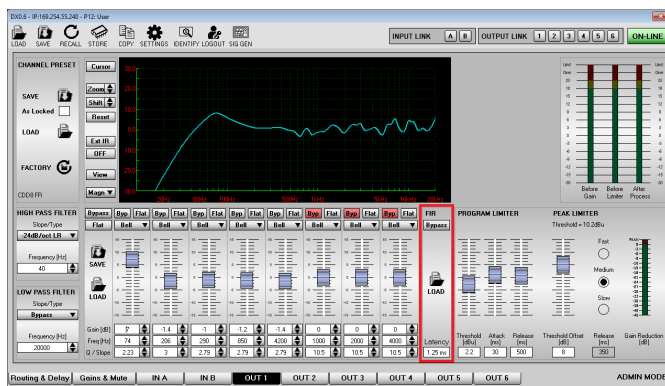
If you log in as an Admin or Expert (page 27), an FIR (Finite Impulse Response) section appears between the EQ section and the limiters section.

- To load an FIR EQ file, go to the FIR section, click **LOAD** and select a location and filename. The box at the bottom of the FIR section will then show the latency that the FIR has added.

- To switch this FIR EQ on or off click the **Bypass** button at the top of the FIR section.

The FIR filter uses a sampling rate of 48kHz and a maximum of 512 taps. The files can be csv, txt or saf files. You can generate these files using FIR convolution

software such as rePhase, FIR Designer, FIR Capture and Filter hose.

Limiters
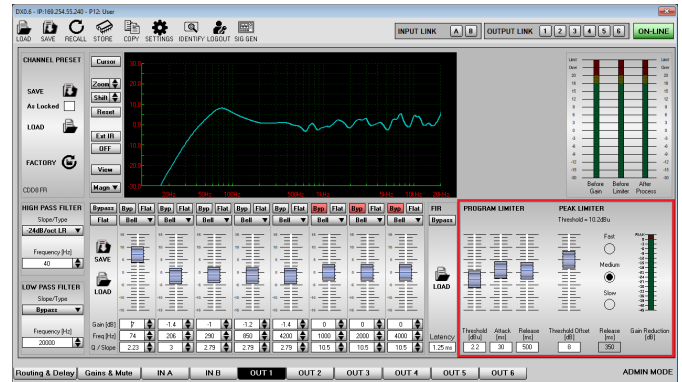
At bottom right of the window is a two-stage limiter providing the best possible system protection.

The program limiter is designed to operate as a long-term power limiter. This avoids voice coil burn-out due to excessive power being applied over an extended period.

- **Threshold** sets the level in dBu where the limiter operation starts (+20 to -10dBu).

- **Attack** sets the speed the limiter comes into operation (4ms to 1 second).

- **Release** sets the speed the limiter deactivates once a signal drops back below threshold (10ms to 3 seconds).

To specify the threshold, attack and release, move the faders or type a number in the box and press Enter (don't forget to press Enter).

The peak limiter restricts extreme peaks in the signal to prevent driver over-excursion. As the peak rating of a speaker is always higher than the AES rating, the processor adds the peak limiter threshold to the program limiter threshold. You can't edit the peak limiter attack, as this always needs to be as fast as possible and so this is locked.

To set the release, choose one of the following:

- **Slow** - suitable for Subwoofers.

- **Medium** - suitable for full range or midrange systems.

- **Fast** - ideal for HF compression drivers.

The gain reduction meter at bottom right of the window shows the limiter operation when the thresholds are reached.

Projects

A project is a set of processors and their settings. The first time you start the desktop app, the current project will be empty. When you close the app, it automatically saves the current project. When you restart the app, it automatically loads the current project.

You can create, save and load projects as explained below.

When do you save and load projects?

- To copy a project to another computer, save the project, copy the project file to the other computer and then load the project file from there.
- To manage several sets of processors, you could save each set as a separate project and load the projects when you need them.
- To backup and restore your setup, save and load the project. If you re-install the desktop app, it doesn't overwrite your current project, but you might like to save your project first.

New project

You can use this to discard all your current settings and processors and start again with a blank screen.

To create a new project

> Creating a new project overwrites all your current settings, so you may want to use Save project (page 22) first.

- From the toolbar at the top of the desktop app, click the **New project** icon (highlighted in red below):

Load project

This allows you to load a project that you've saved previously.

To load a project

1. From the toolbar at the top of the desktop app, click the **Load project** icon (highlighted in red below):

2. From the **Open** screen, select the appropriate project file. These files have the extension prj.

Save project

This allows you to save the current project.

### To save the current project

1. From the toolbar at the top of the desktop app, click the **Save project** icon (highlighted in red below):

2. From the **Save As** screen, specify a filename and location. The file will have the extension prj.

Groups

Grouping allow you to add a VCA style control to the inputs of any of the processors in the project (page 22). This gives you a global control of the input level in addition to the individual input gain control available for each processor. If you create a group and view the channel gain in the Gains & Mute (page 15) window, you can see the group gain in orange just above the channel gain.
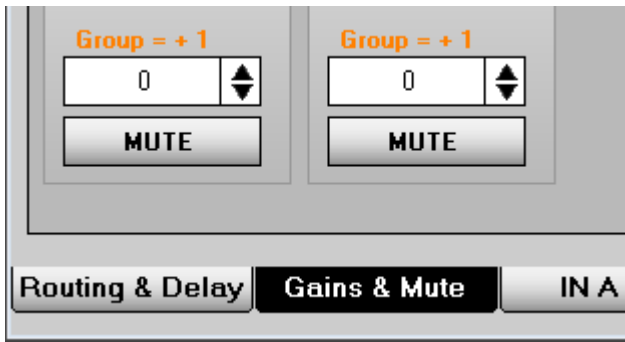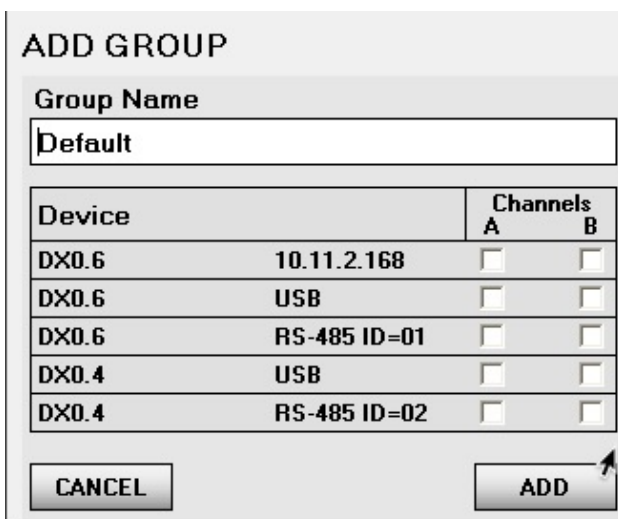

To add a group

1. From the toolbar at the top of the desktop app, click the **Add group** icon (highlighted in red below).

2. Enter a name for the group and choose which processors you wish to add by clicking channel A or B or both.

You can have several groups, but each channel can only be in one group.

If channels are greyed out, this is because these channels are already in a group.
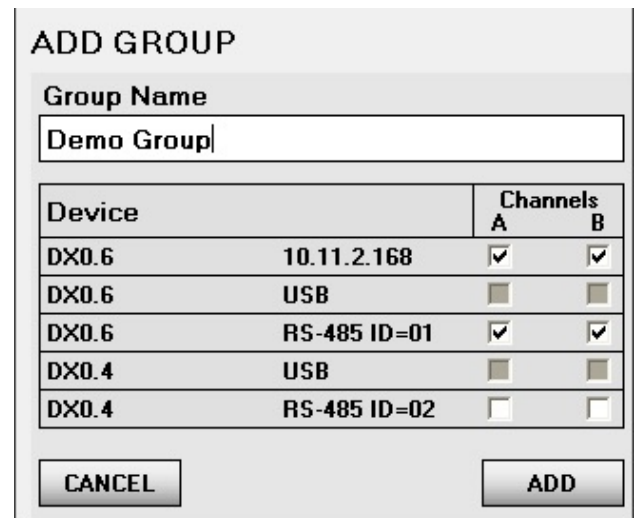
You can only group channels that aren't in a group already.

3. Click **ADD**. The group window appears with a group fader and a list of the processors and channels included.

📄 Don't click the red cross at top right unless you want to delete the group.

To update a group

- To change the dBu, move the fader or type a specific dBu value and press enter.

- To mute the group, click **MUTE** and the button will turn red. The mute buttons for the channels in the group will turn red too.
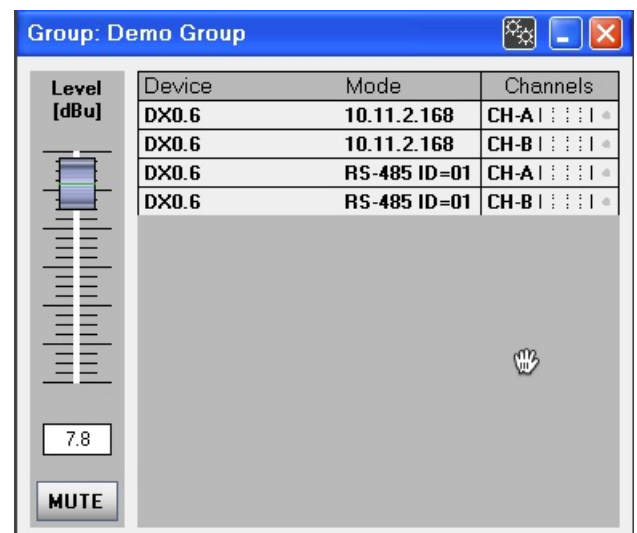
- To change the contents of the group, click the settings icon at the top right of the group.

> If you remove a channel from a group, you also need to remove the group gain. For details see Group reset (page 30).

To delete a group

1. Click the cross at top right of the group.

2. Remove the group gain for each channel and processor in the group. For details, see Group reset (page 30).

Channel presets

The desktop app is bundled with a library of Martin Audio speaker output channel presets. These presets are files stored on your PC that allow you to quickly and accurately configure your system. Alternativley, you can load a set of presets stored on your processor unit as is quick way of loading presets to all of your output channels in one step. Note that you have more control if you load each channel preset individually using the preset files on your PC.

The preset library consists of a set of files (with the extension chn) stored in the folder Output Channel Presets that is part of the Control Software zip file. This means that the channel preset files are stored on your PC in the location where you unzipped the download file.

The output presets contain all the output parameters, crossover filters, box equalisation and (importantly) limiters so that any connected Martin Audio speaker will sound exactly as intended. The output presets are locked, so that you can't accidentally change the EQ or adjust the limiter thresholds. This means that the sound quality and protection for the speaker is always maintained.

When you load a Martin Audio channel preset and view the channel in the processor window (page 11), all faders and values are greyed out to show you that they're locked. You can't unlock a channel preset, but you can load another Martin Audio preset or reset the channel to factory values by selecting the output channel (page 19) and clicking the **FACTORY** button on the left of the window.

Channel preset files

Each full range cabinet has two presets:

- Full range (suffix FR). Select this if you are using the speaker without a subwoofer.

- High pass filter engaged (suffix HP). Select this if you are using the speaker along with a subwoofer.

Each sub has three presets:

- Standard (Std) is the generic published parameters for the sub. Select this if you are using the sub along with a legacy Martin Audio speaker or a speaker from a third-party manufacturer.

- Large FR. Select this if you are using the sub along with a full range speaker with an 8" or larger LF driver. This preset uses an 80 Hz crossover filter.

- Small FR. Select this if you are using the sub along with a speaker with a 6" or smaller LF driver. This preset uses a 100 Hz crossover filter.

Loading channel presets

- To load one preset file to one channel, go to the output channel (page 19) and in the **Channel Preset** section (on the left below the toolbar), click **LOAD**. For further details, see Output channels (page 19).

- To load one preset file to multiple processors or channels, use the load channel presets icon as described in the next section.

- To load all channels from a set of presets stored on the processor, use Recall on the processor toolbar (page 11).

- To load all channels from a set of presets stored on your computer, use Load on the processor toolbar (page 11).

To load presets to multiple processors and channels

1. From the toolbar at the top of the desktop app, click the **Load channel presets** icon (highlighted in red below).

2. Click **BROWSE** on the left hand section and select a folder. To use the folder of presets bundled with the desktop app, go to the location you chose when you unzipped the files; see Installing the software (page 4).
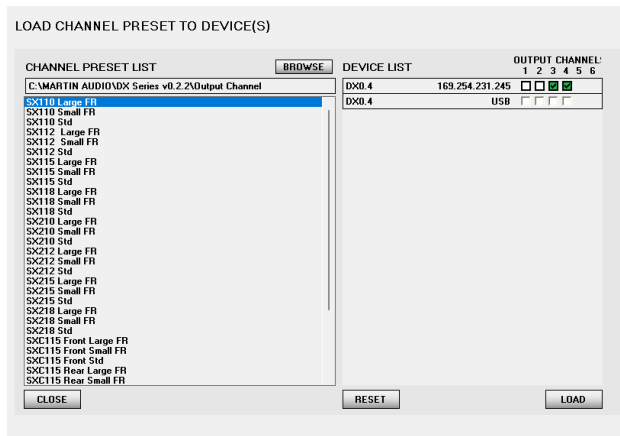
3. Select a preset on the left.

4. Choose the processors and output channels on the right.

5. Click **LOAD** and the app will load the presets.

6. When you have finished, click **CLOSE** to exit from the window.

User types

There are three types of user: Admin, Expert and Basic. If you haven't logged in (or you've logged out), you are a Basic user.

- Admin users can access all settings.
- Expert users can (by default) access all settings except user settings.
- Basic users can (by default) access many of the settings.

If you are an Admin, you can choose which settings Expert and Basic users can change via the desktop app and via the front panel of the processor. For further details, see User settings (page 31).

If you are an Admin or Expert, you can lock all access to the processor for Basic users. When a processor is locked, you can't make any changes unless you log in. For further details, see System locks (page 33).
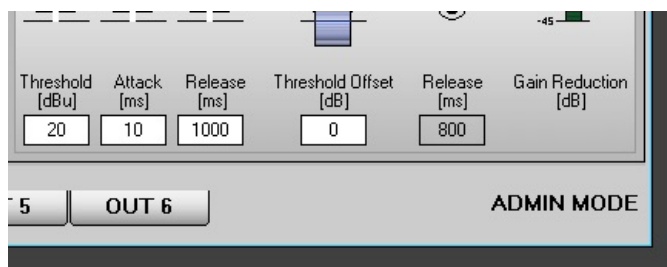
To log in as an Admin or Expert at several processors, you need to log in at each processor window (page 11) separately.

When you close the desktop app, this logs you out of all processors. When you restart the desktop app, you will be a Basic user for all processors until you log in again as an Admin or Expert.

To log in as an Admin or Expert

1. From the processor window toolbar (page 11) click **Login**.
2. Enter the password and click **OK**.

The app shows **ADMIN MODE** or **EXPERT MODE** at bottom right of the processor window and additional settings appear in some of the windows. Basic users can't see these extra settings:

Settings

DX0.4 - IP:169.254.231.245 - DX0.4 setup.o24

LOAD   SAVE   RECALL   STORE   COPY   **SETTINGS**   IDENTIFY   LOGIN

The **SETTINGS** icon on the processor window toolbar (page 11) allows you to update the following:

- LAN (page 28)
- RS-485 (page 28)
- Labels (page 29)
- Group reset (page 30)
- Recall mode (page 30)
- User (page 31)
- Admin (page 31)
- Output (page 32)
- Factory reset (page 33)
- System locks (page 33)
- Backup (page 34)
- Firmware update (page 35)

LAN settings

This allows you to choose dynamic or static IP for use with Ethernet (TCP/IP). If you choose static IP, this is where you specify the IP address.

> 📝 You can't change between dynamic and static IP at the the front panel of the processor (page 4).

To update LAN settings

1. Connect your processor using USB or RS-485.

> 📝 You can't update LAN settings if you are connected using Ethernet (TCP/IP). You must connect using USB or RS-485.

2. If the processor is offline, put it online. For details, see Connection status (page 9).

3. From the processor window toolbar (page 11), click **SETTINGS**.

4. Click the **LAN** button on the left.

SETTINGS

LAN	LAN
RS-485	Select Dynamic IP for the DX0.6 to be automatically assigned an IP address from a network with a DHCP Server connected.
LABELS	Select Static IP to manually assign a unique IP on a network with no DHCP Server
GROUP RESET	Current IP settings
RECALL MODE	IP Address: 10 . 11 . 2 .168
USER	Subnet Mask: 255 . 255 . 255 . 0
ADMIN	Gateway: 10 . 11 . 2 . 1
OUTPUT	
FACTORY RESET	MODE Dynamic IP ▼
SYSTEM LOCKS	
BACKUP	New IP settings
FIRMWARE UPDATE	IP Address: . . .
	Subnet Mask: . . .
	Gateway: . . .
	APPLY is available in USB or RS-485 mode
CLOSE	CANCEL APPLY

5. In the **MODE** drop down, select **Dynamic IP** or **Static IP**.

   If you choose **Static IP**, enter the IP address, subnet mask, and gateway.

6. Click the **APPLY** button at bottom right.

7. When you've finished updating settings, click the **CLOSE** button at bottom left.

RS-485 settings

This allows you to change the ID to use with RS-485. Each processor on RS-485 must have a unique ID.

> 📝 You may find it easier to change the ID to use for RS-485 at the front panel of the processor. For details, see Connecting using RS-485 (page 7).

To update RS-485 settings

1. Connect the processor using USB or Ethernet.

> 📝 You can't update RS-485 settings if you are connected using RS-485. You must connect using USB or Ethernet.

2. If the processor is offline, put it online. For details, see Connection status (page 9).

3. From the processor window toolbar (page 11), click **SETTINGS**.

4. Click the **RS-485** button on the left.

5. In the **New ID** field, click the up or down arrow to change the ID. The up arrow increases the ID. The ID can be between 01 and 32.

6. Click the **APPLY** button at bottom right.

7. When you've finished updating settings, click the **CLOSE** button at bottom left.

Label settings

This allows you to change the name of the processor and the names of the input and output channels.

To update the label settings

1. If the processor is offline, put it online. For details, see Connection status (page 9).

2. From the processor window toolbar (page 11), click **SETTINGS**.

3. Click the **LABELS** button on the left.

4. In the **DEVICE NAME** box enter a new name for the processor (up to 16 characters). This name appears at top left of the processor icon (page 9) and the processor window (page 11). It does not appear on the front panel.

   In the **INPUTS NAME** section enter new names for input channels A and B (up to 6 characters). These appear when you edit the channels at the front panel of the processor. These don't appear in the processor window (page 11).

   In the **OUTPUTS NAME** section enter new names for the output channels (up to 6 characters). These appear when you edit the channels at the front panel of the processor. These don't appear in the processor window (page 11).

5. Click the **APPLY** button at bottom right.

6. When you've finished updating settings, click the **CLOSE** button at bottom left.

Group reset

If you have removed either or both of the input channels from a group (page 23), the group gain added to the channel will still be present. To remove this group gain, use **Group reset**.

To remove group gain

1. If the processor is offline, put it online. For details, see Connection status (page 9).

2. From the processor window toolbar (page 11), click **SETTINGS**.

3. Click the **GROUP RESET** button on the left.

4. To remove group gain from input channel A, click the **RESET** button next to **Reset CH-A Group Settings**.

   To remove group gain from input channel B, click the **RESET** button next to **Reset CH-B Group Settings**.

5. Click the **APPLY** button at bottom right.

6. When you've finished updating settings, click the **CLOSE** button at bottom left.

Recall mode

This allows you to choose whether to load channel links and channel mutes when you do the following:

- Load channel presets or program files using any of the methods described in Channel presets (page 25).

- Set channels to factory values using Factory reset (page 33) or by selecting the output channel (page 19) and clicking the **FACTORY** button on the left of the window.

To update the recall mode

1. If the processor is offline, put it online. For details, see Connection status (page 9).

2. From the processor window toolbar (page 11), click **SETTINGS**.

3. Click the **RECALL MODE** button on the left.
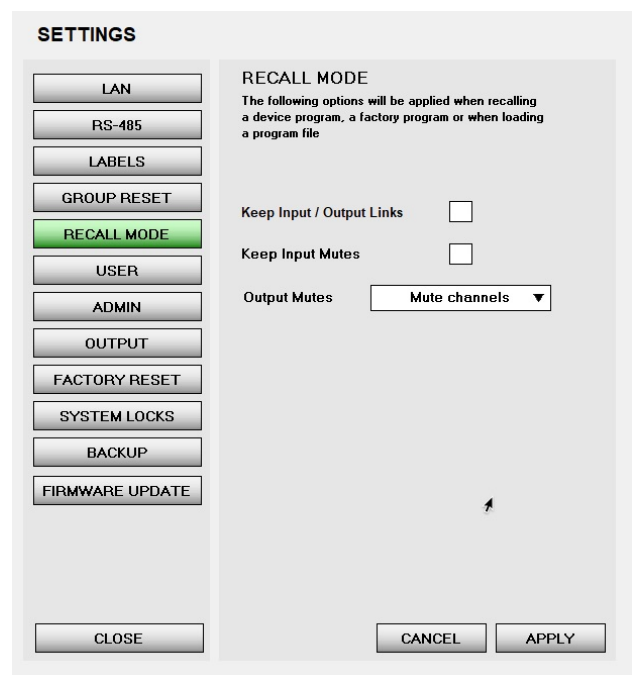
4. To load channel links, select **Keep Input / Output Links**. In this case, when you load a preset, the channels will include any links present in the preset. If you leave this box blank, when you load a preset, no channels will be linked.

   To load input channel mutes, select **Keep Input Mutes**. In this case, when you load a preset, the channels will include any input mutes present in the preset. If you leave this box blank, when you load a preset, all input channels will be un-muted.

   To load output channels set to mute, in the **Output Mutes** drop down select **Mute channels**. In this case, when you load a preset, all output channels will be mute. This is the safest option as it avoids the possibility of a sudden unexpected jump in system volume when you recall a preset.

To load output channel mutes, in **Output Mutes** select **Keep Output Mutes**. In this case, when you load a preset, the output channels will include any mutes present in the preset.

To remove output channel mutes, in **Output Mutes** select **None**. In this case, when you load a preset, all output channels will be un-muted.

5.   Click the **APPLY** button at bottom right.

6.   When you've finished updating settings, click the **CLOSE** button at bottom left.

User settings

If you are an Admin user, **User settings** allows you to choose which settings Basic and Expert users can access. For example:

■ For Basic users, you could switch off access to most of the settings.

■ For Expert users, you could switch off access to a few of the settings.

For details of user types, see User types (page 27).

As an alternative to user settings, you can lock all access to the processor using System locks (page 33).

To update user settings

1.   From the processor window toolbar (page 11), click **LOGIN**.

2.   Enter the Admin password and click **OK**. Note that the text **ADMIN MODE** will appear bottom right.

> You can only update user settings when you are logged in as an Admin user.

3.   If the processor is offline, put it online. For details, see Connection status (page 9).

4.   From the processor window toolbar (page 11), click **SETTINGS**.

5.   Click the **USER** button on the left.

6.   Update the Basic and Expert settings to restrict access as required.

> Admin users can always access all settings.

> If you switch off most settings for Basic users, we recommend that you leave **Display All Outputs** ticked. This will mean that outputs won't be hidden, so Basic users can still see the channel meters.

7.   Click the **APPLY** button at bottom right.

8.   When you've finished updating settings, click the **CLOSE** button at bottom left.

Admin settings

If you are an Admin user, **Admin settings** allows you to change the Admin and Expert passwords. If you are an Expert user, you can only change the Expert password.

For details of Admin and Expert users, see User types (page 27).

> The default Admin password is **111111**
>
> The default Expert password is **222222**

> Until you've changed passwords, anyone who sees this page can log in as an Admin or Expert.

> Don't lose the Admin password. See Troubleshooting (page 39).

To update passwords

1. If the processor is offline, put it online. For details, see Connection status (page 9).

2. From the processor window toolbar (page 11), click **SETTINGS**.

3. Click the **ADMIN** button on the left.

4. To change the Expert password, enter the current password in **Expert Password** and a new six character password in **New Expert Password**.

If you have lost the Expert password, you can type the Admin password in **Expert Password** and create a new Expert password in **New Expert Password**.

To change the Admin password, enter the current password in **Admin Password** and a new six character password in **New Admin Password**.

> Passwords must be six characters long. If you enter a shorter password, the app will add spaces to make it up to six characters.
>
> For example, if you change the Expert password to 2222, the password will actually be 2222 followed by two spaces. To log in you will need to type 2222 followed by two spaces.

Note that the **User Password** and **New User Password** boxes at the top don't do anything. This is because this section is for Basic users and Basic users don't need to log in with a password.

5. Click the **APPLY** button at bottom right.

6. When you've finished updating settings, click the **CLOSE** button at bottom left.

Output setting

This allows you to choose whether to prevent output clipping or not. If you select prevent output clipping, it enables an input and output clip limiter. This ensures that the processor cannot clip its internal A to D or D to A sections, regardless of the parameters that have been set. This is enabled by default.

> We recommend you keep **Prevent output clipping** enabled.

To update the output setting

1. If the processor is offline, put it online. For details, see Connection status (page 9).

2. From the processor window toolbar (page 11), click **SETTINGS**.

3. Click the **OUTPUT** button on the left.

4. To prevent output clipping, tick the box.

   To allow output clipping, untick the box.

5. Click the **APPLY** button at bottom right.

6. When you've finished updating settings, click the **CLOSE** button at bottom left.

Factory reset

This allows you to reset the all the channels back to factory settings. This does not overwrite the device name (page 29), user settings (page 31) or passwords (page 31).

To choose whether to load channel links and mutes, see Recall mode (page 30).

To do a full factory reset, restore the backup file bundled with the desktop app. For details, see Backup and restore (page 34).

To do a factory reset

1. If the processor is offline, put it online. For details, see Connection status (page 9).

2. From the processor window toolbar (page 11), click **SETTINGS**.

3. Click the **FACTORY RESET** button on the left.
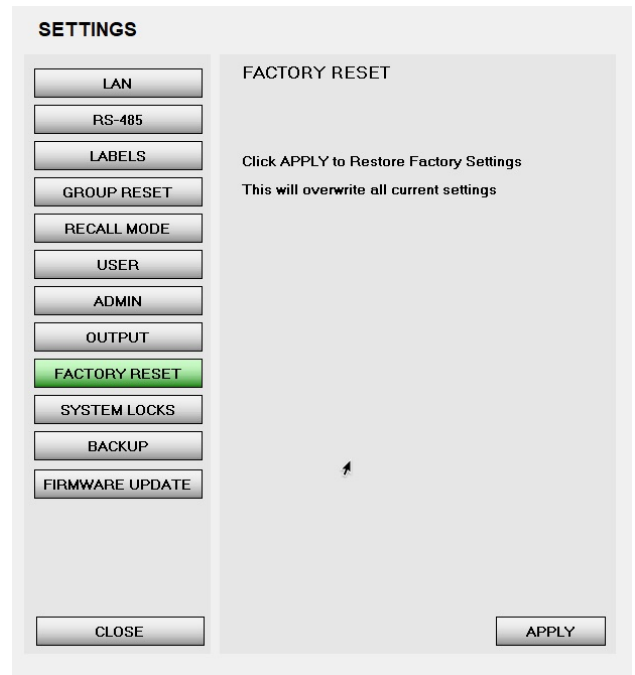
⚠️ Factory reset overwrites your current channel settings. You may wish to backup (page 34) or make a note of your settings first.

4. Click the **APPLY** button at bottom right.

5. When you've finished updating settings, click the **CLOSE** button at bottom left.

System locks

If you are an Admin or Expert (page 27), this allows you to quickly lock access to a processor. You can lock desktop app access or front panel access or both.

If you lock desktop app access:

- Basic users can see the processor settings but can't change anything.
- Expert users can log in to the processor, switch off the system lock and then change settings.
- Admin users can log in to the processor and change any settings straight away.

If you lock front panel access, no one can change anything at the front panel. You can't even mute and unmute channels. Even if you're an Admin or Expert, you can't unlock the front panel at the front panel. The only

way to change any processor settings (including switching off the front panel lock) is to use the desktop app.

> ⚠ If you lock access to the desktop app, it's very important that you don't lose the Admin password.

As an alternative to system locks, you can restrict access to particular settings using User settings (page 31).

To lock and unlock the system

1. From the processor window toolbar (page 11), click **LOGIN**.

2. Enter the Admin or Expert password and click **OK**. Note that the text **ADMIN MODE** or **EXPERT MODE** will appear bottom right.

> 📝 You must be logged in as Admin or Expert to lock or unlock the system.

3. If the processor is offline, put it online. For details, see Connection status (page 9).

4. From the processor window toolbar (page 11), click **SETTINGS**.

5. Click the **SYSTEM LOCKS** button on the left.
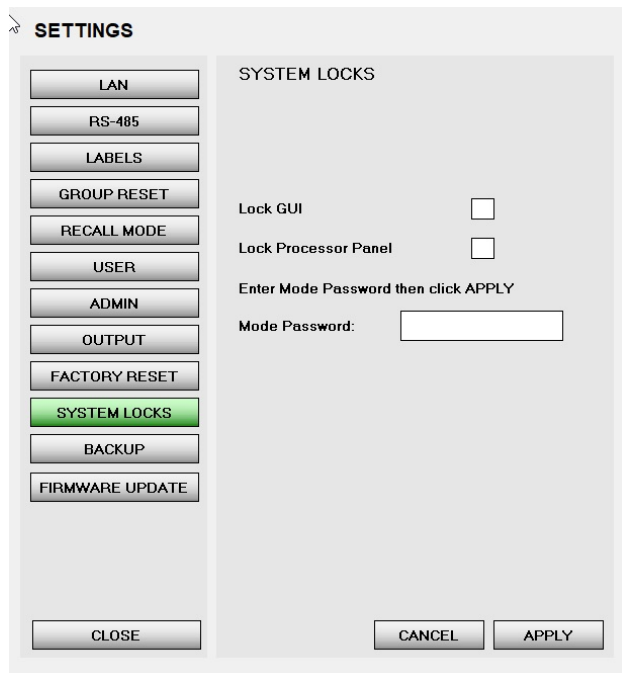
6. To lock or unlock access from this desktop app, use the box **Lock GUI**.

   To lock or unlock access from the front panel of the processor, use the box **Lock Processor Panel**.

7. Enter your Admin or Expert password in the **Mode Password** box.

> 📝 As mentioned above, you must be logged in as Admin or Expert already. If not, the app will display "Wrong password" even when you enter the correct password.

8. Click the **APPLY** button at bottom right.

9. When you've finished updating settings, click the **CLOSE** button at bottom left.

Backup and restore

This allows you to backup or restore all processor settings including users settings (page 31) and passwords (page 27).

> 📝 Restore overwrites all processor settings. You may want to do a backup before you restore.

You can do a full factory reset of your processor by using **Restore**.

To do a full factory reset

1. Follow the instructions in the next section and choose **Restore**.

2. When you click **LOAD**, go to the location where you unzipped the files; see Installing the software (page 4).

   Select the following folder:

   ```
   Backup files to install Factory Presets
   ```

   Choose the correct backup file:

   ```
   Martin Audio DX0.4.bck
   Martin Audio DX0.6.bck
   ```

   Note that the app won't let you install the wrong file.

To backup or restore

1. If the processor is offline, put it online. For details, see Connection status (page 9).

2. From the processor window toolbar (page 11), click **SETTINGS**.

3. Click the **BACKUP** button on the left.
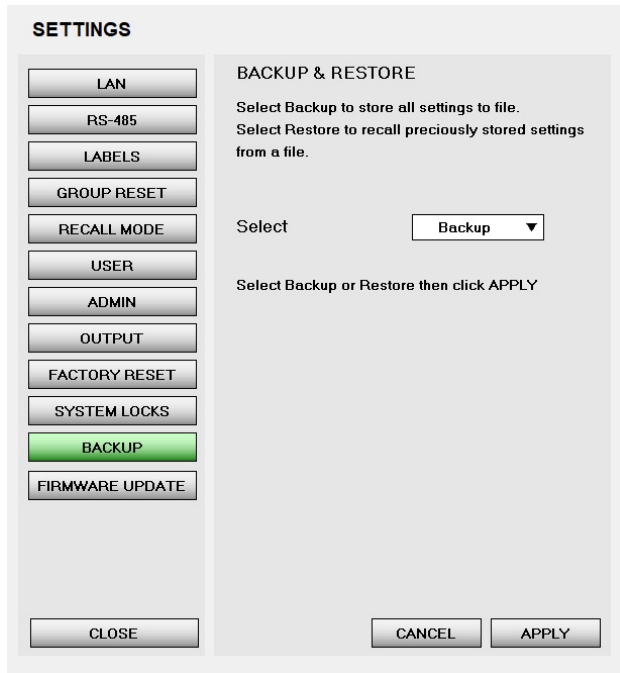
4. To backup, in the **Select** box choose **Backup**.

   To restore, in the **Select** box choose **Restore**.

5. Click the **APPLY** button at bottom right.

6. If you've selected **Backup**, specify a folder and filename for the backup file. These files have the extension bck.

   If you've selected **Restore**, the following popup will appear:
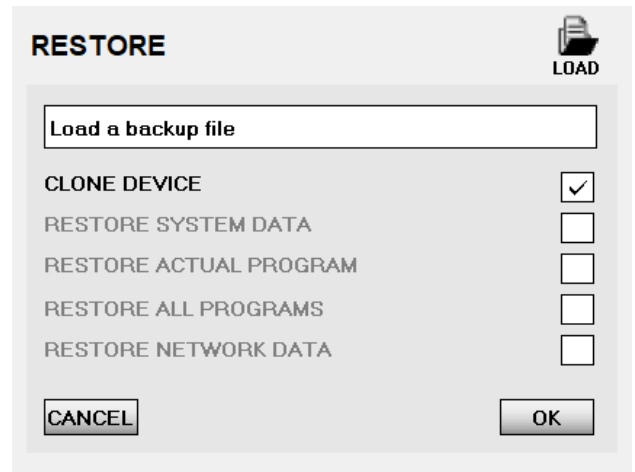
Click the **LOAD** icon at top right and specify the folder and filename for the backup file.

7. When you've finished updating settings, click the **CLOSE** button at bottom left.

Firmware update

This allows you to install new firmware on the processor. You can also use this to check which firmware version is currently installed. Note that the desktop app can automatically check whether your firmware is up to date. To do this, the desktop app needs to be version 1.0.2 or above, the PC needs to be connected to the internet and the DX0.4 or DX0.6 needs to be online.

To see the latest firmware version available, go to the Martin Audio website select **Support** > **Software/Firmware** and scroll down to **DX0.4 and DX0.6 Control Software**.

To download the latest firmware file, download the desktop app software from this location. This is because the firmware file (which has the extension sfu) is bundled with the desktop app. Alternatively, if Martin Audio send you the firmware file by email, save the sfu file to your PC and then specify the file location when you run **Firmware Update** as described below.

When you update the firmware, processor settings (such as channel settings, passwords (page 31) and user settings (page 31)) remain unchanged, but you may want to backup first. For details, see Backup and restore (page 34).

To view or update the firmware

1. Connect your processor using Ethernet. You can either connect direct with a cable between the Ethernet ports on your processor and PC or you can

use an Ethernet network. For details, see Connecting your processor and computer (page 5).

> 📝 You can't update firmware over USB or RS-485. You must connect using Ethernet.

2. If the processor is offline, put it online. For details, see Connection status (page 9).

3. From the processor window toolbar (page 11), click **SETTINGS**.

4. Click the **FIRMWARE UPDATE** button on the left.

5. **Unique ID** is the ID of the processor.

   Software Version is the desktop app version.

   Firmware Version is the firmware version installed on the processor.

   To update the firmware, check the **Update Firmware** box.

6. Click the **APPLY** button at bottom right.

7. Select the location and file name of the sfu file and click **Open**.

   If you are using the file bundled with the software, go to the location where you unzipped the files; see Installing the software (page 4). Select the following folder:

   ```
   DX0.4-and-DX0.6-Software-and-Presets\Firmware
   ```
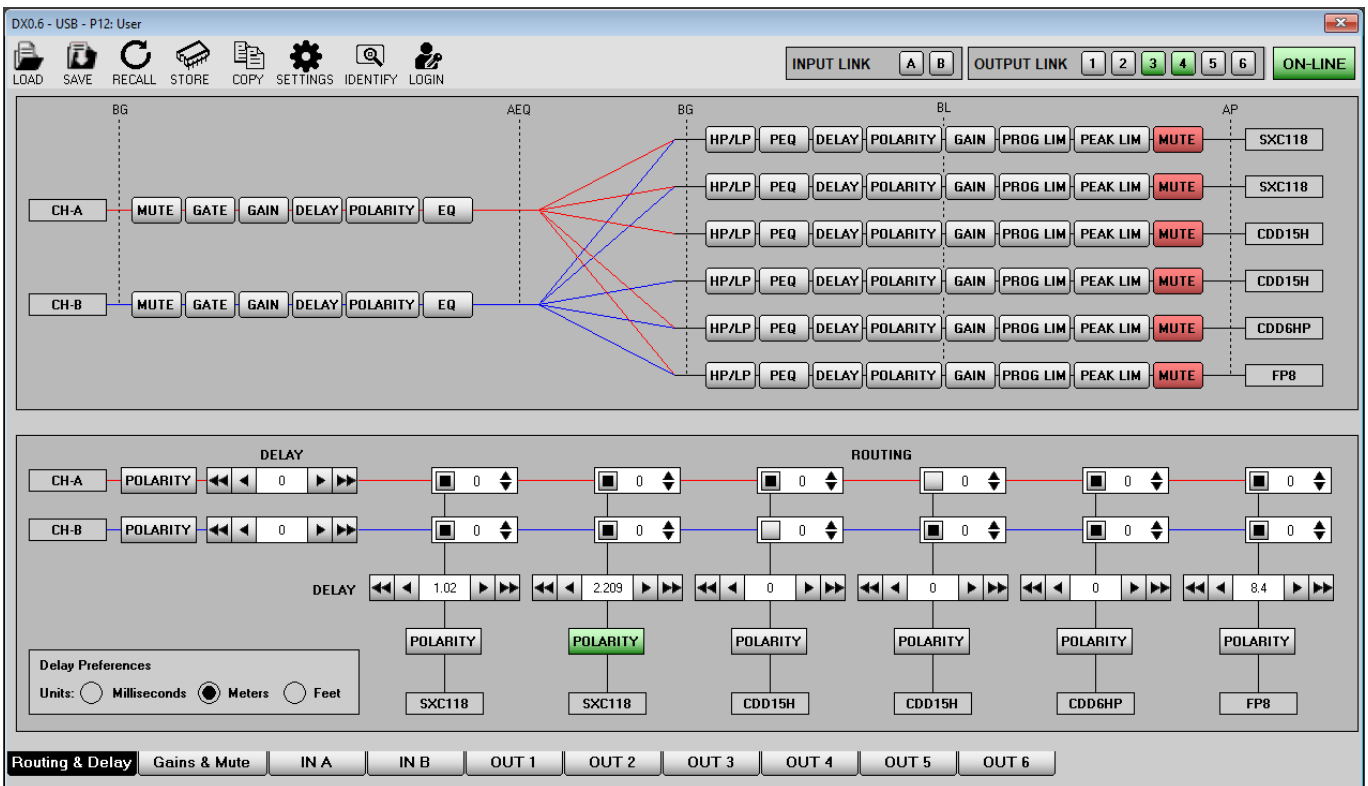
At the time of writing, the sfu files are:

```
MARTINAUDIO_DX04_v3.5_20230607.sfu
MARTINAUDIO_DX06_v3.5_20230607.sfu
```

As you can see, there is one file for the DX0.4 and one for the DX0.6. Note that the software won't let you install the wrong file.

When the update is complete, a pop up will appear with the text **Firmware Successfully Loaded**.

Configuring an example system

The following example shows how easy it is to configure a Martin Audio system using Output Channel Presets. For this example, we will set up a DX0.6 to run SXC118 subwoofers in conjunction with a stereo pair of CDD15 with some CDD6 speakers in mono as front fills and FlexPoint FP8 as delays. First, we choose which output channels to use:

| Channel	Speaker
1	SXC118 front driver
2	SXC118 rear driver
3	CDD15 left
4	CDD15 right
5	CDD6 front fill
6	FP8 delays

Next we configure the processor as follows:

1. Click the **OUT 1** tab at the bottom of the window.
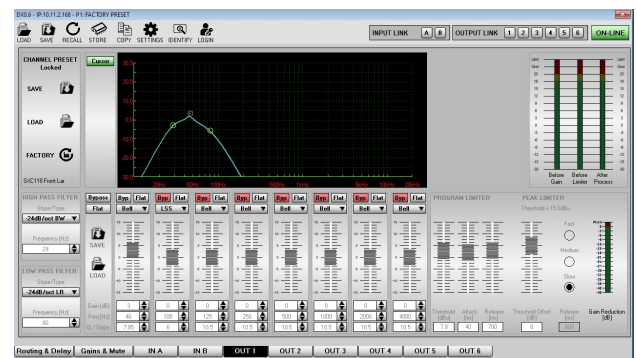
In the **Channel Preset** section on the left, click **LOAD** and navigate to the output channel presets folder. Open the `Subwoofers` folder and select `SXC118 Front Large FR`. For details of why we select this preset, see Channel presets (page 25).

2. Click the **OUT 2** tab and repeat the process but this time selecting `SXC118 Rear Large FR`.
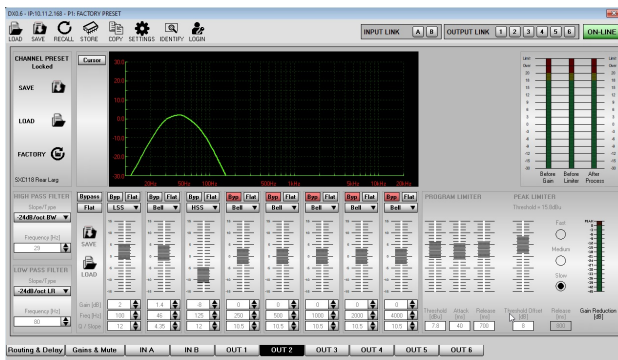
3. At the top right of the processor window, click channels 3 and 4 so that they are both green and are therefore linked channels (page 12).

4. Click the **OUT 3** tab. In the **Channel Preset** section on the left, click **LOAD** and navigate to the output channel presets folder. Open the `CDD` folder and select `CDD15 HP`.
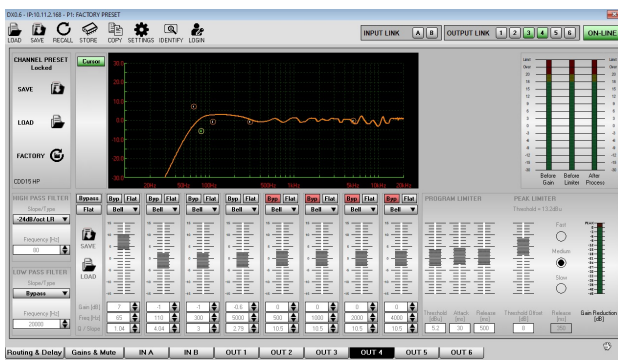
As we have linked channels 3 and 4, channel 4 now already has the settings we need.

5. Click the **OUT 5** tab. Repeat the process and this time open `CDD` and select `CDD6 HP`.

6. Click the **OUT 6** tab. Repeat the process and this time open `Flexpoint` and select `FP8 HP`.

7. Now go to the Routing & Delay (page 14) tab.

The system is stereo but we want to run the subwoofers in mono, so route both input channels to outputs 1 and 2.

Route channel A to output 3 (CDD15 Left) and channel B to output 4 (CDD15 Right).

The front fills and FP8 delays will be in mono, so route both input channels to channels 5 and 6.

For the FP8s, you will need to add some delay. The simplest method is to measure the distance between

the CDD15s and FP8s and then enter this distance (in meters or feet).

This routing is shown in the screenshot at the start of this section.

The processor configuration is now complete.

1. Connect the processor outputs to an appropriate amplifier and connect the amplifier to the loudspeakers.

2. Click the Gains & Mute (page 15) tab, unmute all outputs, have a listen to the system and fine tune the levels as required.

Troubleshooting

Connection problems

- If you're using USB and the app displays `Device not found`, unplug the cable (at either end) and plug back in again. If this doesn't solve the problem, see Connecting using USB (page 5).

- If you're using Ethernet and the app displays `Device not found`, see Connecting using Ethernet (page 6).

- If you're using RS-485 and the app displays `Device mismatch`, you probably have two processors with the same ID. See Connecting using RS-485 (page 7).

- If you've been successfully using USB, Ethernet or RS-485 but have lost connection, try restarting the desktop app. If this doesn't work, restart your computer.

Can't change settings in the app

- The desktop app could be locked due to System locks (page 33).

- You may not have access rights to particular settings due to User settings (page 31).

- If a channel is greyed out, the channel preset is locked. For details, see Channel presets (page 25).

Can't change front panel settings

- If the front panel of the processor shows the message `System Locked`, you can't unlock the font panel at the processor even if you are an Admin or Expert user (page 27). You can only control the processor using the desktop app.

  To unlock the processor front panel, see System locks (page 33).

- You may not have access rights to particular settings due to User settings (page 31).

- The channel preset could be locked. For details, see Channel presets (page 25).

Password problems

- If you are setting up **System Locks** and type the Admin password in **Mode Password** and the app displays `Wrong password`, you probably haven't logged in. On the **Settings** screen click **Close**, click **Login**, type the Admin password, click **Settings**, click **System Locks** and it should now work. For details see System locks (page 33).

- If you can't remember the Expert password, the Admin user can create a new Expert password. See Admin settings (page 31).

- If you can't remember the Admin password, do a full factory restore as explained in Backup and restore (page 34).

Restore problems

- If you are restoring a file using Backup and restore (page 34) and the app displays `Wrong file format` it could be because the backup file is for a DX0.4 and you have a DX0.6 or the other way round. Check for another backup file.

Out of date firmware

See Firmware update (page 35).

Contacting product support

See the Martin Audio website.

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