

Application Notes



DALI - Using the DALI transmit and sniffer functions of DMX-Workshop

Release v7-7 of DMX-Workshop includes numerous DALI features, including the ability to transmit DALI messages. DALI can be transmitted by two methods:

- Using the DALI language of Art-Osc over a network.
- Physical layer DALI via either the Artistic Licence **daliDongle** or the Microchip DALI starter kit.

Please note that the Tridonic product, [DALI-USB](#) (sold through Artistic Licence) is NOT compatible with DMX-Workshop.

This application note walks the user through the available options.

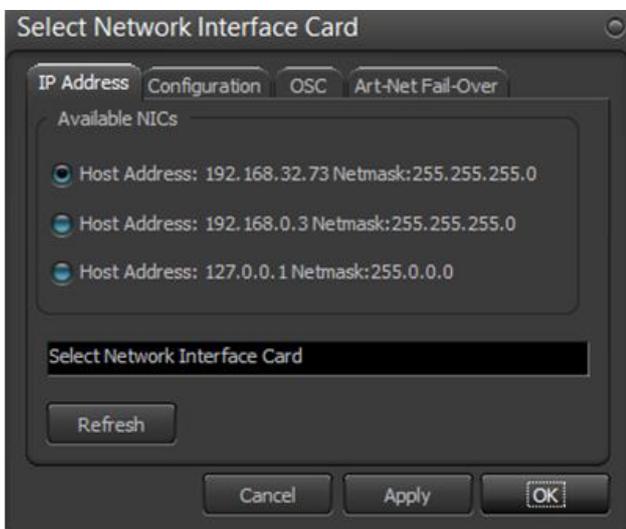
Installation and startup

DMX-Workshop is downloaded from the Artistic Licence web site at this [link](#). The software will run on all versions of Windows from XP to Windows 10. Please note that the PC must be logged on as an administrator when installing DMX-Workshop.

Setting network address

If you plan to only use physical layer DALI via an USB adapter, you can skip this section.

When DMX-Workshop starts for the first time, or if it detects a change in network settings, the following dialogue is displayed:

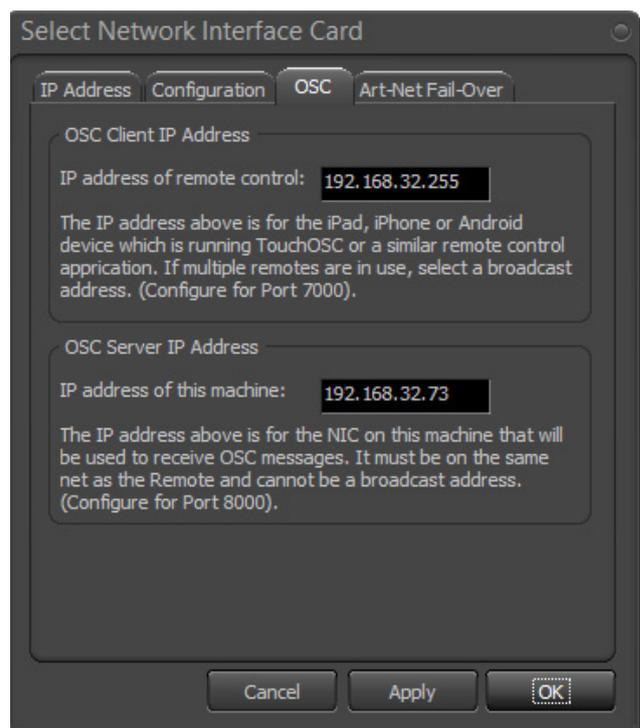


The third tab “OSC” is used to set the IP address for Art-Osc. The client IP should be set to match the IP address of your remote Osc devices such as iPad running TouchOSC or lightJuice DALI4 convertors. This can be a broadcast address – as shown in the example opposite (192.168.32.255).

The server IP must be set to the IP address of a network card on the PC.

www.ArtisticLicence.com

The first tab is used to select the IP address of the network card to be used for Art-Net and sACN.



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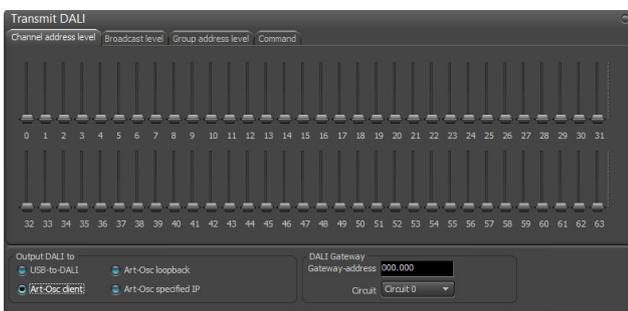


Transmit DALI



The main DALI functions are accessed from the DALI shortcut button.

The Transmit DALI dialogue contains four main tabs and a lower control area as shown below:



The lower control area defines how DALI is transmitted. There are four options:

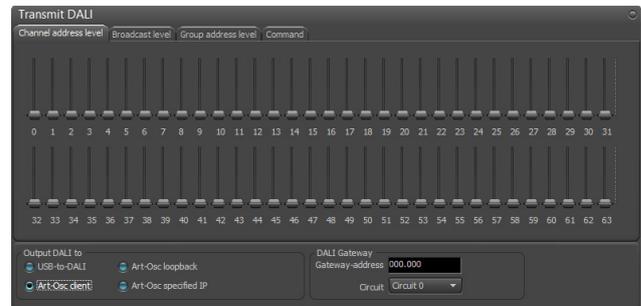
- USB-to-DALI. This outputs physical layer DALI via the Artistic Licence daliDongle.
- Art-Osc loopback. This simulates Art-Osc using the 127.0.0.1 loopback address and is useful for analysing the Art-Osc protocol.
- Art-Osc client. This transmits Art-Osc to the IP address set in the OSC client address (see above).
- Art-Osc specified IP. This transmits Art-Osc to a specified IP address.

If one of the Art-Osc options is selected, then the destination DALI Gateway address can also be selected.

The four tabs allow access to the following functions:

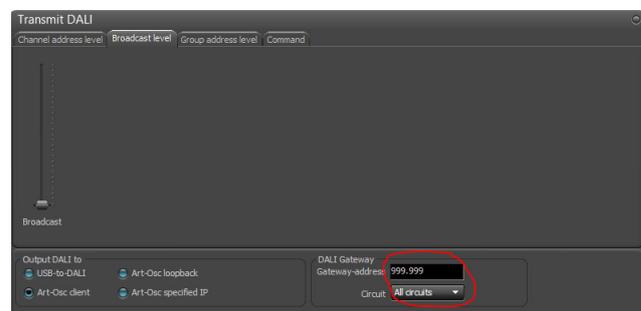
Channel address level:

This uses faders to send ARC level to any of the 64 DALI channel addresses. Note that the DALI ballast must be commissioned in order to use this.



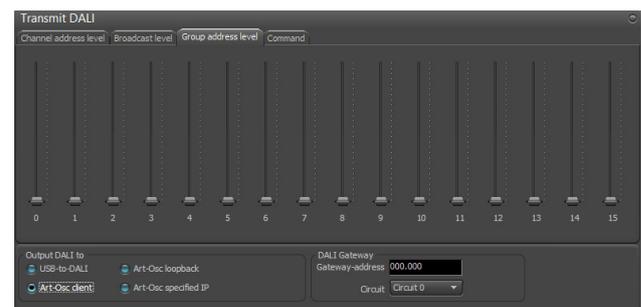
Broadcast level:

This uses a single fader to send ARC level to all of the 64 DALI channel addresses. In the example below the Gateway address is also set to broadcast which means that all ballasts on all circuits of all gateways will be controlled.



Group address level:

This uses faders to send ARC level to any of the 16 DALI group addresses. Note that the DALI ballast must be commissioned in order to use this.

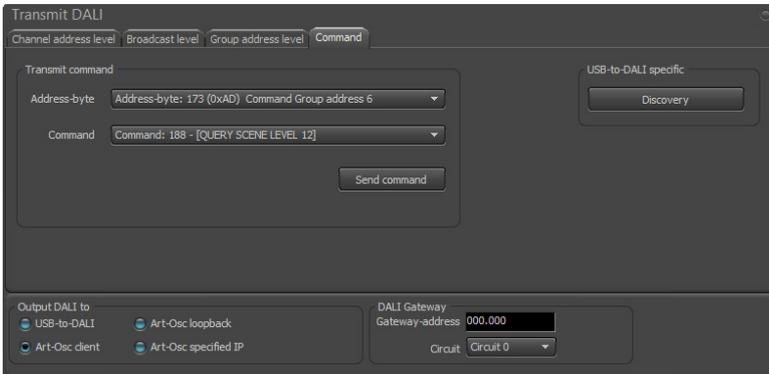


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Commands:

This allows ad-hoc commands to be transmitted to DALI addresses.



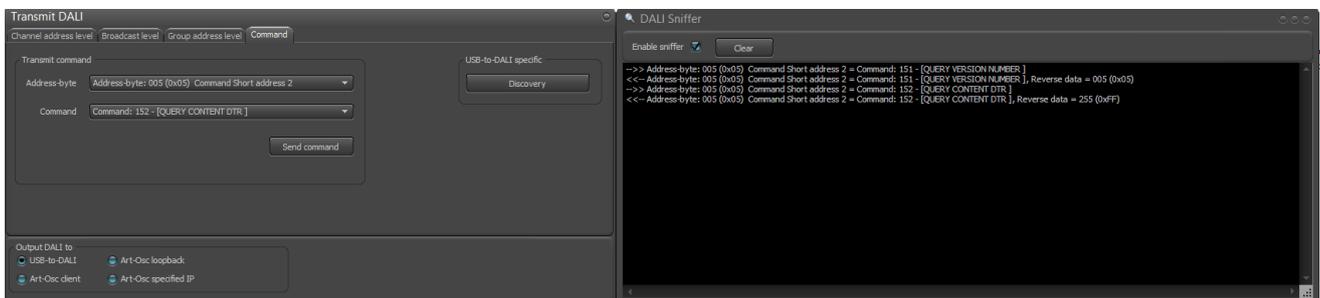
DALI Sniffer:

The DALI sniffer function is accessed from the DALI shortcut button:



The Sniffer function is only used with daliDongle and allows the user to view both forward and reverse packets.

The screen shot below shows the Sniffer window used in conjunction with the Transmit DALI function.



As can be seen, the transmit DALI function sent forward frames to query both version number and DTR contents of the ballast at short address 2. In both instances a well formatted reverse frame was received.

Art-Osc Sniffer:



The main DMX-Workshop “network packet dissector” is accessed via the Developer shortcut button. It provides dissection of Art-Net and Art-Osc packets.