



DiGiCo V20 Release Notes

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1.0 Fourier transform.engine - Control Integration

The Fourier transform.engine can now be controlled from Quantum consoles (Q8/Q7/Q5/Q3/Q2).

There are 2 aspects to the control integration.

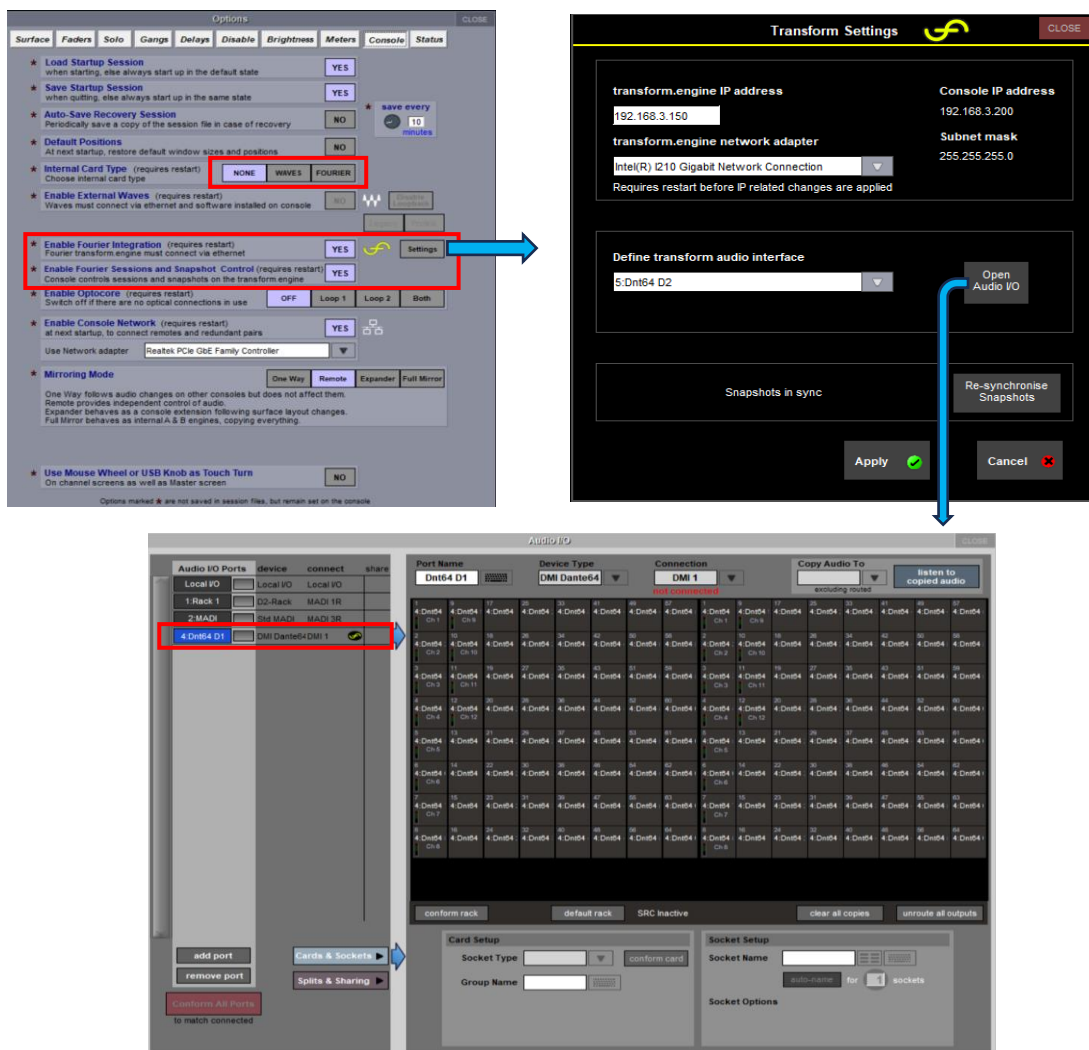
- Transform Plugin Teleporting and control.
- Transform Session and Snapshot integration.

Teleporting is enabled with the console **Enable Fourier Integration** option and, if this is enabled, the **Enable Sessions and Snapshot Control** option is also displayed as an option.

Note that Fourier and Waves integration cannot both be enabled at the same time.

To enable this integration:

- Connect the console ethernet port to the transform.engine Control port with an ethernet cable.
- In the console **Options > Console** tab, set **Enable Fourier Integration** to **Yes**. Then press the **Settings** button to open the configuration panel.
- Enter the IP address of the Control Port on the transform.engine and specify the **console network adaptor** which is used for the ethernet connection. The console must be power cycled after any change of IP address.
Note that the transform.engine must be in the same subnet as the console.
- Select the Audio IO port which will be used for the **Transform audio interface** which typically will be either a DMI-Dante 64@96 card or an internal Fourier Interface Card. A Fourier Audio logo will appear next to the selected port in the **Audio I/O** panel.



1.0.1 Session and Snapshot integration

Note that on the transform.engine, there will be 2 versions of the showfile related to a particular console session. One has the suffix `_autosave` and the other does not.

The version of the showfile labelled "*session name*_autosave" is automatically created on the transform.engine when it performs an autosave and is continuously updated as changes are made.

The version simply labelled "*session name*" is saved whenever the console itself saves a session provided that the console **Option > Console > Enable Fourier Sessions and Snapshot Control** is set to **Yes**

If you wish to save the Transform showfile on a removable USB drive for backup/transfer to another transform.engine, please ensure that you **Export** the version of the showfile without the `_autosave` suffix. This will then be associated with the console session that has the same name.

In the transform.client application running on the standalone computer, navigate to **System**, select a showfile from the list, press **Export Showfile**, select a destination and confirm.

The following situations should be considered:

If you don't have either an existing console session or a Transform showfile

Assuming that the console has had a Default All Session Restructure, before saving the new console session, the Transform engine will create a blank showfile named "`_default`".

When the session is saved on the console, the Transform engine will also save a file of the same name and make that its current showfile. The displayed showfile name will be "*sessionname*_autosave".

If you have a console session but no matching Transform showfile

If a console session is loaded and the transform.engine does not have a showfile with the same name then it will create a default showfile on the transform engine with the same name as the console session, and create a DiGiCo Cuelist. This cuelist will be populated with snapshots to match the snapshots in the console session file.

If you have a console session on the console or removable drive and a matching Transform showfile

Import the transform showfile onto the transform.engine. Make sure that the showfile name exactly matches the name of the console session file. If it does not, then this must be changed using **Rename Showfile** within the transform.client, not in a standard file browser. Note that if the showfile has previously been used with DiGiCo console integration and gained the "`_autosave`" suffix, this will need to be removed from the showfile name in order to synchronise with the console again. Once it has been imported to the transform.client and the session names have been checked, load the session on the console. When the session is loaded onto the console, it will look for the transform showfile of the same name and load this onto the transform.engine.

Note that for console sessions made with Fourier Integration turned off, if it is subsequently enabled then by default, console individual Snapshot Recall Scope is not active for the Fourier Transform until the user chooses to enable it. This can be quickly enabled for all snapshots by using the Edit Range function in the **Snapshots** panel.

Since it is possible to load different sessions and make changes to the snapshot list on the transform.engine from the transform.client, it is possible to get out of sync between the console and the transform.engine. If the console detects that the transform.engine session and snapshots are no longer in sync with the console, it will pause the session and snapshot integration. When paused, a message will appear at the top of the **Fourier** panel. To resync and resume session and snapshot integration, the console session must be reloaded or the **Re-synchronise Snapshots** button in **Fourier > Settings** must be pressed.

1.0.2 Adjusting plugin parameters from the console interface

For plugin teleporting (display and control of the plugin interface on the console), the routed console Transform audio interface socket numbers (typically Dante audio) are associated with the same numbered sockets used with the Transform plugin chain. Note that patching to and from the transform.engine in Dante Controller must be done 1:1.

If, for example, console channel 1 has insert send and return routing assigned to the Transform interface sockets input 1 and output 1, selecting/soloing this channel will display the Transform plugin chain with the same numbered socket routes. By default, this would be plugin chain 1.

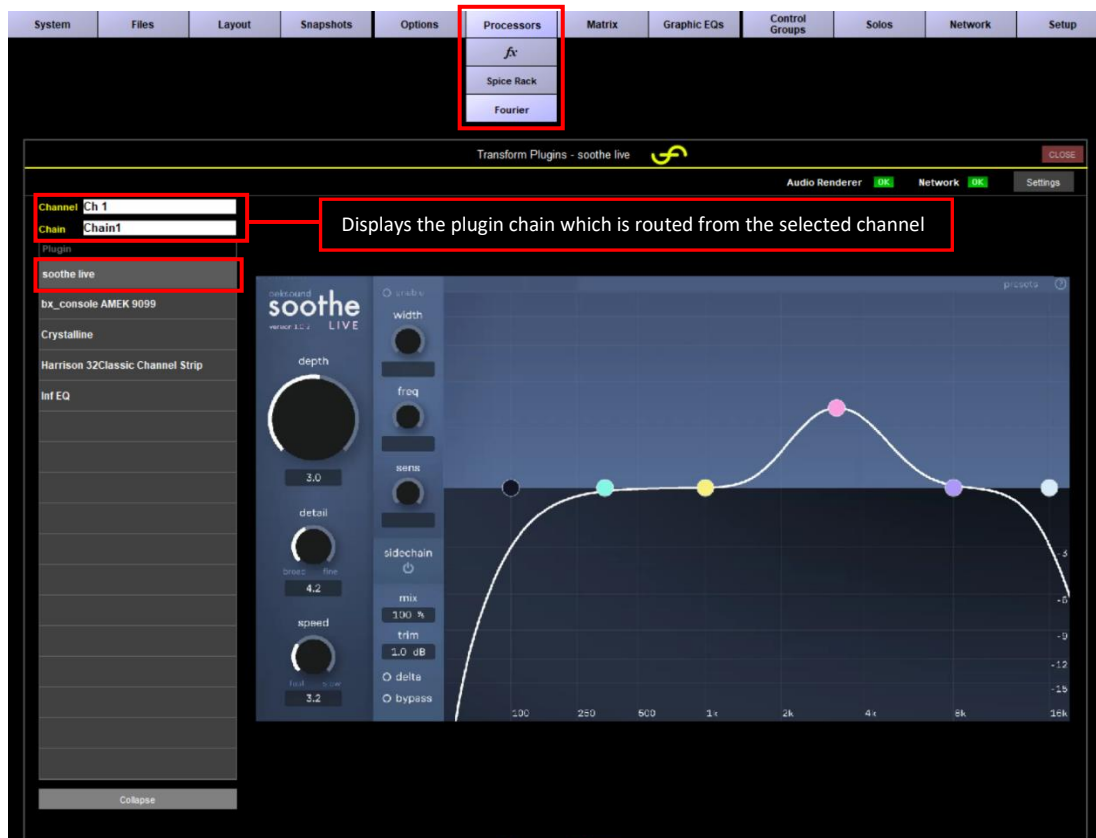
Once all routing to and from the transform.engine has been set up, the Fourier panel can be opened in 3 ways.

- Press **Processors > Fourier** to open the Fourier panel.
- Tap the insert routed to the transform engine on the channel strip
- Solo a channel that has an insert or output routed to the transform.engine. Note that this will depend on the **Solo Displays Insert and Output** option found in **Options > Solo**.

Plugin parameters can be controlled by the touchscreen or a mouse connected to the console. For compatible plugins, control can also be achieved by touching a control in the console Fourier plugin interface and using the console worksurface touch turn encoder. If a plugin is not touch turn compatible, this will be indicated at the top of the console plugin list display. In this case, controls should generally still be controllable with on screen touch.

Along the left side of the panel is a list of all of the plugins in the chain. Tap on a plugin to display it. Icons may appear next to plugins in the list to show different states such as bypassed or reloading.

The plugin list on the left can be collapsed and expanded using the Collapse or Expand button at the bottom. This increases the size of the plugin viewer and therefore the size of the plugin.



1.0.3 Sharing a transform.engine between multiple consoles

It is possible for multiple consoles to connect to the same transform.engine. If one transform.engine is being shared by multiple consoles (for example FOH and Monitors each using their own chains) then only one of the consoles should be in charge of sessions and snapshots on the transform.engine. This console should have **Option > Console > Enable Fourier Sessions and Snapshot Control** set to **Yes**. All other consoles should have this option set to **No**.

If a mirrored set of consoles or engines (for example engine A and B in a Quantum7 or Quantum852) are connecting to the same transform.engine, then both consoles or engines can have **Enable Fourier Sessions and Snapshot Control** set to **Yes**. In this setup, the transform.engine will listen to the audio master for session and snapshot commands. If one of these engines can no longer talk to the transform.engine then it will listen to the only console connected, regardless of audio master status.

1.1 Mustard Source Expander (MSE)

There is a new processor type in Mustard Dynamics 2 on Quantum engines known as the Mustard Source Expander.



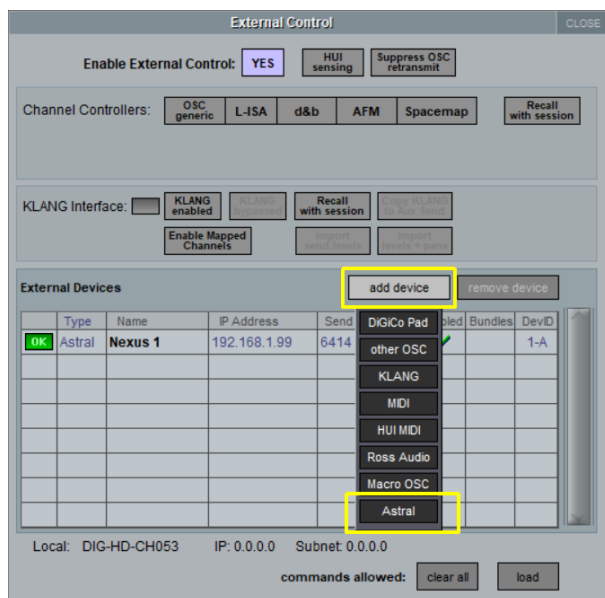
The MSE reduces the level of a signal by a given amount when it is below a threshold. This works a bit like a gate but is better for non-transient signals, like vocals or brass. By reducing the level when the singer stops singing, this can reduce the chance of feedback and generally reduce the level of stage noise spilling onto open mics. The controls available are threshold, depth (of up to 40dB) and release rate. There is also a sidechain available.

Press the **Type** button and the Mustard Dynamics 2 module and select MSE from the list of options.

1.2 Sound Devices Astral Control

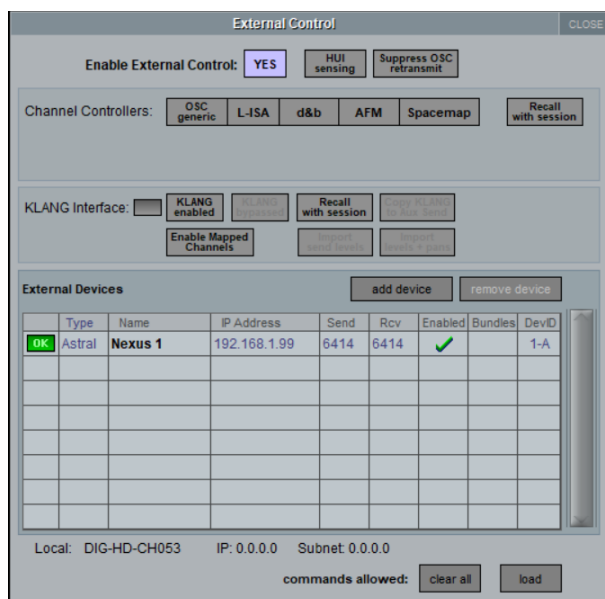
The Sound Devices transmitters have an innovative set of control options, with magnetic switches on their A20 TX belt packs and various control rings for the new A20-Handheld transmitter. With the new Astral External control device option, Macros can be programmed to be triggered directly from the transmitter, no matter which of the three receivers are in use.

To configure an Astral controller on the console, first navigate to external control, then select add device -> Astral



Check the IP addresses of the Sound Devices hardware and the console.

You can see console IP in the External Control panel, and the Astral IP in Network menu, under the Control IP header. In console External Control, input your IP Address. Note that Send and Receive ports are fixed when using Astral integration.



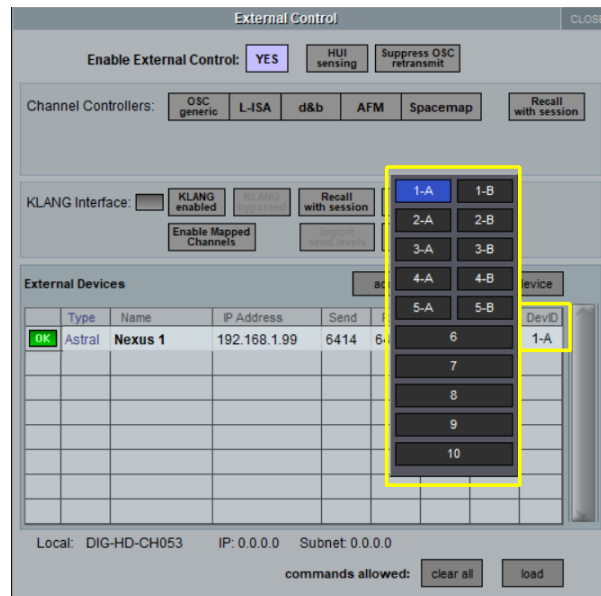
On the Astral device, enter your Console IP(s).

This can be done by navigating through:

Menu -> System -> Macros -> DiGiCo Console List

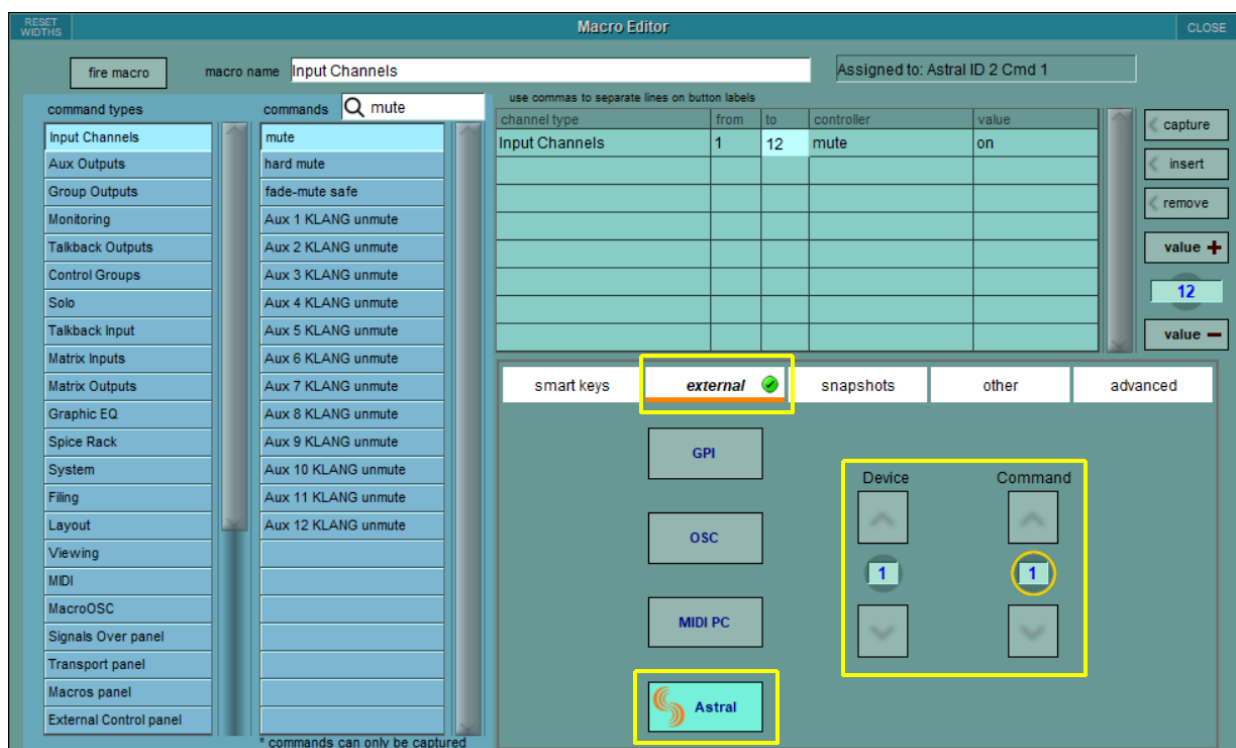
Next, set your Device ID. You can have up to 5 pairs of redundant boxes, or 15 single boxes on your network.

For example, in a system with two Nexus boxes and two consoles/engines, configure the relevant IP addresses on all devices, and set each Nexus box to 1-A and 1-B on both consoles.



Once your IP address has been set on all devices, enable the device(s) in External Control.

When macros have been set up on your Astral device, you are able to select both the Device and Command ID. The Command ID will need to match the OSC ID of the relevant macro on the Astral, while the Device simply matches the DevID set in External Control.



1.3 Theatre Extension for Quantum 225

The Theatre software extension on the Quantum 225 provides the standard set of DiGiCo theatre console features and has the same additional channel count and processing as our Pulse upgrade.

It provides 96 input channels, 48 busses, 36 Mustard Processes and 48 Nodal processes and also expands the size of the Matrix to 24 by 24.

Quantum 225T software is available to purchase through your local DiGiCo sales channel.

Other Features

- Quantum852 Moving an EQ band via the hardware channel strip will select that band in the golden channel.
- Subnet Mask is now displayed in Diagnostics.
- Confirmation message when clearing a bank from fader banks panel.

1.4 Errors Fixed

- Capturing Matrix sends in Macroders was capturing the wrong send number.
- Having an aux name that started with “St” or “Mo” would not show the name on sends on faders.
- Quantum852 Expanded Control area still responded to multi touch when console was in unattended mode.
- Default values for L-ISA integration were not correct.
- Adjusting Mustard EQ shelves after adjusting specific FX parameters could cause audio issues.
- Sidechain inputs to dynamics and the Spice Rack could be converted incorrectly when converting from Quantum7 to Quantum852.
- Floating meter positions were not converted correctly when converting from Quantum7 to Quantum852
- Duplicating or deleting macros could change which macros were fired by specific snapshots.
- On mirrored Quantum852 engines, moving the solo buss fader all the way down did not always reach OFF.