



Audinate Crestron Driver

User Guide

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Contents

- 1. Overview.....5**
- 2. Installation.....5**
- 3. Setup Environment5**
 - 3.1. Comms Module - Audinate Dante Control 5
 - 3.2. Architecture Groups TX and RX..... 5
 - 3.3. Generation Tools..... 5
- 4. Modules.....6**
 - 4.1. Audinate Dante Control 6
 - 4.2. Dante Routing Device Status 6
 - 4.3. Dante Routing TX Mono..... 7
 - 4.4. Dante Routing RX Mono 7
 - 4.5. Dante Routing TX Mono&Video..... 8
 - 4.6. Dante Routing RX Mono&Video 9
 - 4.7. Dante Routing TX MultiMonoChannel..... 10
 - 4.8. Dante Routing RX MultiMonoChannel..... 11
 - 4.9. Dante Routing TX MultiMonoChannel&Video..... 12
 - 4.10. Dante Routing RX MultiMonoChannel&Video..... 13
 - 4.11. Dante Routing TX Stereo..... 14
 - 4.12. Dante Routing RX Stereo 14
 - 4.13. Dante Routing TX Stereo&Video..... 15
 - 4.14. Dante Routing RX Stereo&Video 16
 - 4.15. Dante Routing TX VideoChannel..... 17
 - 4.16. Dante Routing RX VideoChannel..... 18
- 5. Simpl Windows Generation Tool.....18**

1. Overview

Audinate Crestron Driver allows users to control their Crestron System to take advantage of Dante's ability to send audio and video over Ethernet through a collection of modules each designed to handle different types of switching. The driver also monitors device status, which is fed back to user informing them of misconfigured or broken systems – for example 'Invalid site name' or 'DDM server down'.

2. Installation

The zip file that includes this documentation includes the 'simpl window', 'simpl+' and 'simpl#' modules that must be copied into your project folder.

The files were built and tested on a Crestron 3-series processor and above.

The zip file also contains a SIMPL Window Demo project, and a VT-Pro touchscreen design that you can use for testing.

The touchscreen design and modules will need to have their parameters configuring correctly for valid testing.

3. Setup Environment

3.1. Comms Module - Audinate Dante Control

A single instance of this module is required in all systems. This sets up the connection to Dante Domain Manager and provides the switching interface.

3.2. Architecture Groups TX and RX

Multiple TX and RX modules are provided to allow you to set up the Dante integration as required. Modules provide different numbers of inputs and different signal types (Audio and Video). All these modules are configured in a similar way.

3.3. Generation Tools

This tool will generate mono audio channels for each Dante channel within your domain. These channels can be copied from the generated smw into your project to reduce your data input time.

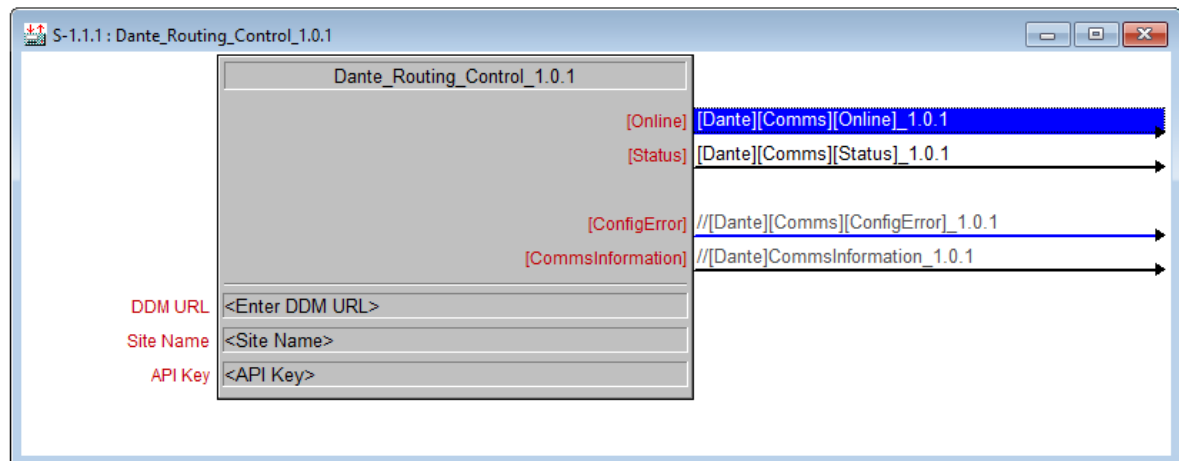


Note: To run this script you may need to change your PowerShell Execution Policy. For Execution Policy details, see: https://learn.microsoft.com/en-us/powershell/module/microsoft.powershell.core/about/about_execution_policies?view=powershell-7.3

4. Modules

4.1. Audinate Dante Control

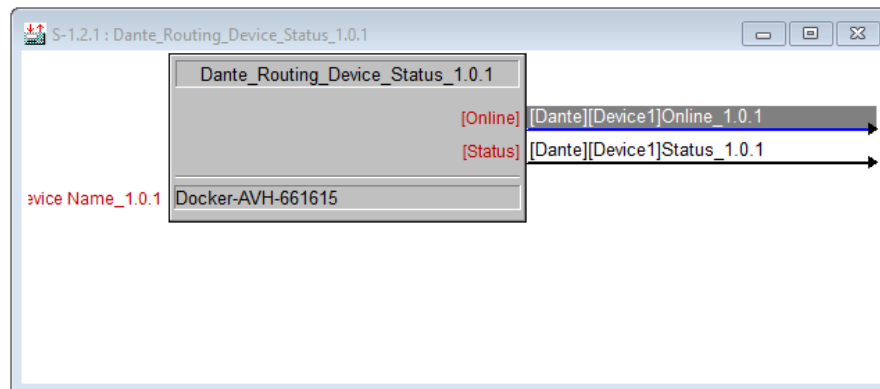
This Module will need to be configured to allow the user to connect to Dante Domain Manager.



- **DDM URL**
URL used to connect to the Dante Domain Manager [Mandatory Parameter]
- **Site Name**
The name of the Dante Domain/Site to control [Mandatory Parameter]
- **API Key**
API Key generated in Dante Domain Manager [Mandatory Parameter]
- **Online**
Shows connection status with the Dante Domain Manager [Digital]
- **Status**
Provides text for current connection status [String]
- **Config Error**
The Config Error state will go high when the module detects an Error in the current system [Digital]

4.2. Dante Routing Device Status

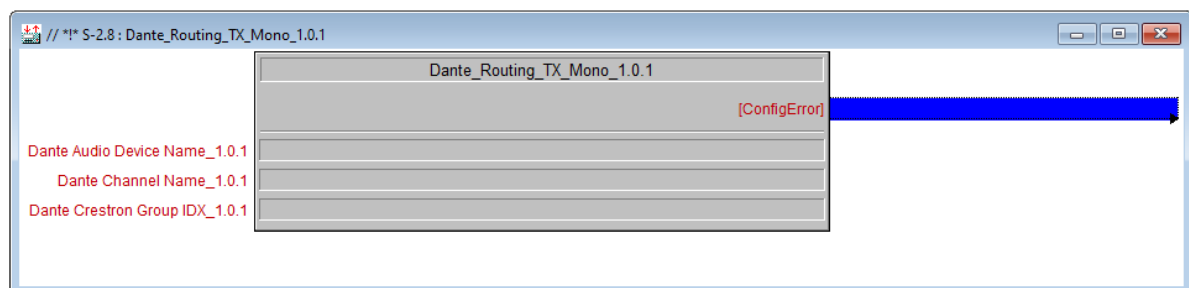
This Module is used to reference a device located on the Dante Domain Manager. If you wish to know/display a device status, you must have an Audinate Dante Control Device Status module located in your project.



- **Online**
Shows connection status with the Dante Device [Digital]
- **Status**
Provides text for current connection status with the Dante Device [String]
- **Dante Device Name**
The name of the Dante device you wish to control

4.3. Dante Routing TX Mono

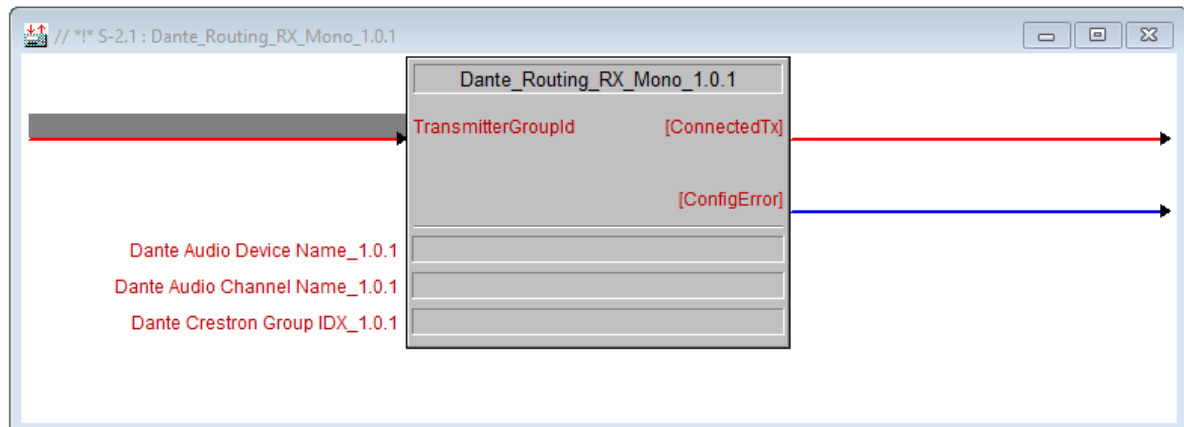
This Module is used to Configure a Dante Device to Transmit a Mono Input from a desired channel.



- **Dante Audio Device Name**
The Name of the Dante Device you wish to Transmit audio
- **Dante Channel Name**
The name of the channel you wish to Transmit Audio
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Transmit this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]

4.4. Dante Routing RX Mono

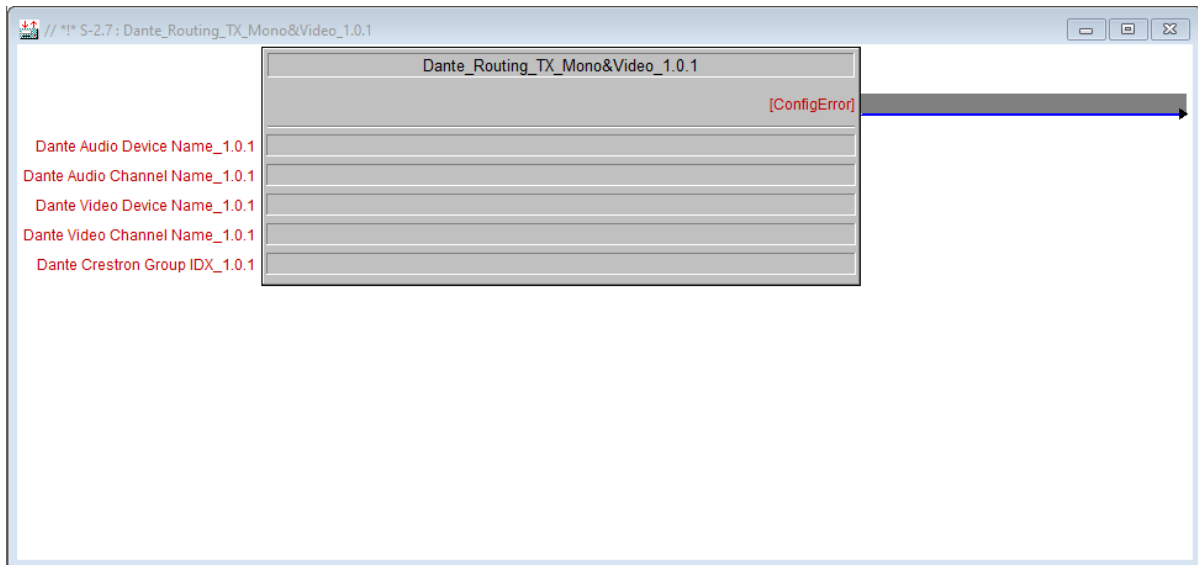
This Module is used to configure a Dante Device to receive a mono Input on a desired channel.



- **TransmitterGroupID**
The TX Group you would like to connect to this module [Analogue]
- **Dante Audio Device Name**
The Name of the Dante Device you wish to Receive Audio
- **Dante Audio Channel Name**
The name of the channel you wish to Receive Audio
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Receive this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]
- **ConnectedTx**
This is the Crestron TX Group connected to this RX module [Analogue]

4.5. Dante Routing TX Mono&Video

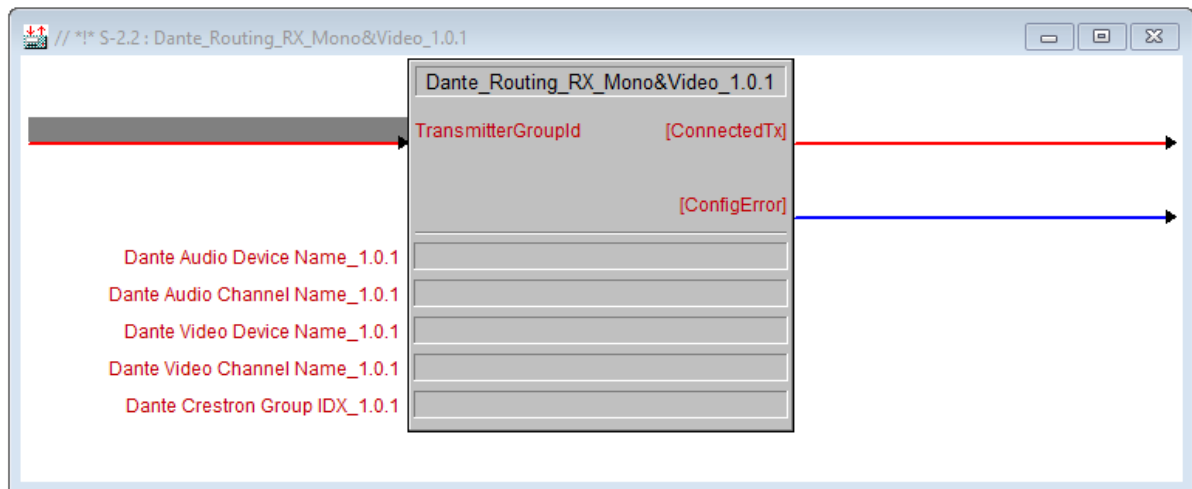
This Module is used to configure a Dante Device to Transmit a mono Input on a desired channel, and Video on a Desired Channel.



- **Dante Audio Device Name**
The Name of the Dante Device you wish to Transmit Audio
- **Dante Audio Channel Name**
The name of the channel you wish to Transmit Audio
- **Dante Video Device Name**
The Name of the Dante Device you wish to Transmit Video
- **Dante Video Channel Name**
The name of the channel you wish to Transmit Video
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Transmit this config
- **Config Error**
The Config Error state will go high when the module detects an Error

4.6. Dante Routing RX Mono&Video

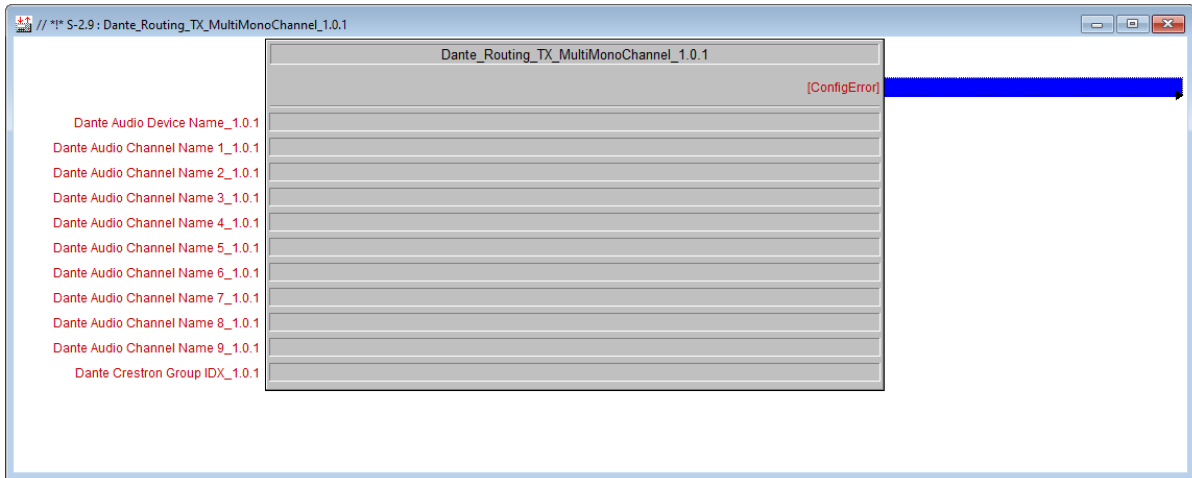
This Module is used to configure a Dante Device to receive a mono Input on a desired channel, and Video on a desired channel.



- **TransmitterGroupID**
The TX Group you would like to connect to this module [Analogue]
- **Dante Audio Device Name**
The Name of the Dante Device you wish to Receive Audio
- **Dante Audio Channel Name**
The name of the channel you wish to Receive Audio
- **Dante Video Device Name**
The Name of the Dante Device you wish to Receive Video
- **Dante Video Channel Name**
The name of the channel you wish to Receive Video
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Receive this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]
- **ConnectedTx**
This is the Crestron TX Group connected to this RX module [Analogue]

4.7. Dante Routing TX MultiMonoChannel

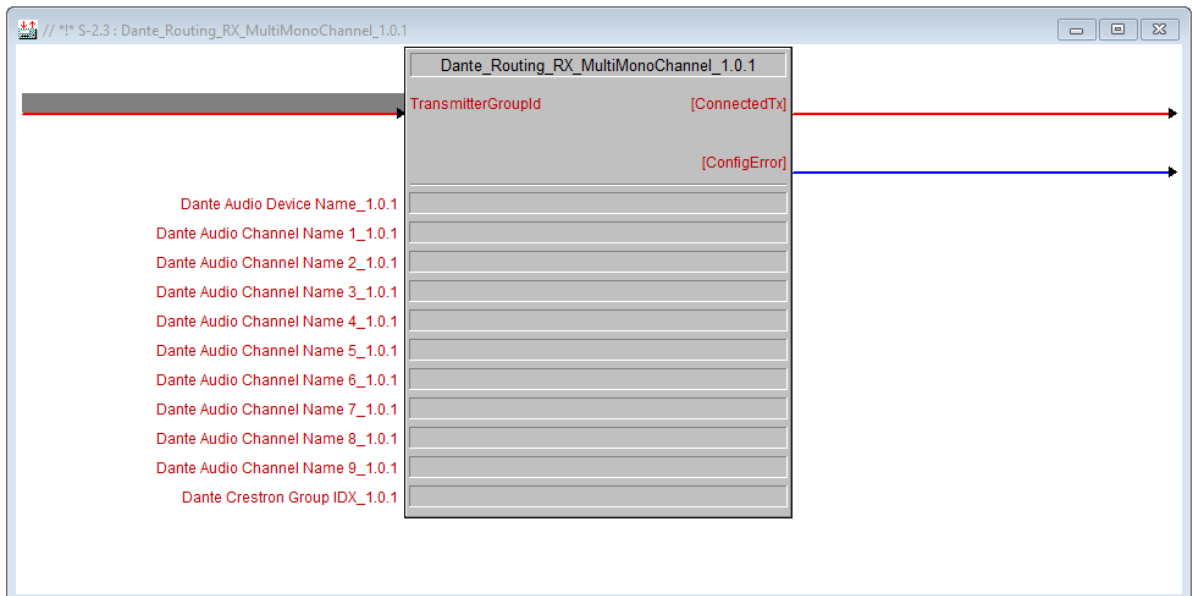
This Module is used to configure a Dante Device to Transmit multiple mono inputs to another Dante device.



- **Dante Audio Device Name**
The Name of the Dante Device you wish to Transmit Audio
- **Dante Audio Channel Name**
The name of the channel you wish to Transmit Audio
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Transmit this config
- **Config Error**
The Config Error state will go high when the module detects an Error

4.8. Dante Routing RX MultiMonoChannel

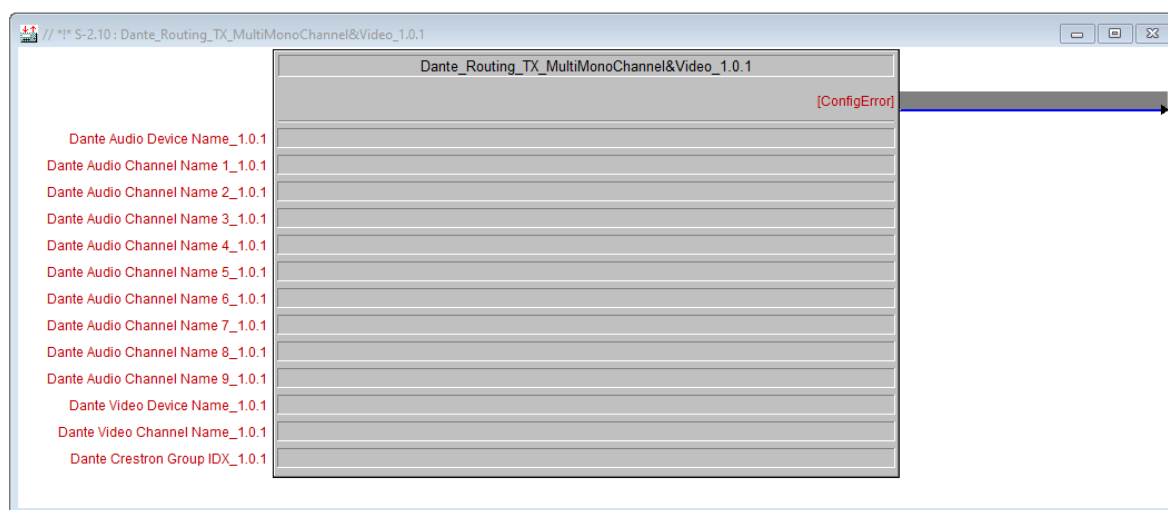
This Module is used to configure a Dante Device to Receive multiple mono inputs from another Dante device.



- **TransmitterGroupID**
The TX Group you would like to connect to this module [Analogue]
- **Dante Audio Device Name**
The Name of the Dante Device you wish to Receive Audio
- **Dante Audio Channel Name**
The name of the channel you wish to Receive Audio
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Receive this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]
- **ConnectedTx**
This is the Crestron TX Group connected to this RX module [Analogue]

4.9. Dante Routing TX MultiMonoChannel&Video

This Module is used to configure a Dante Device to Transmit multiple mono inputs to another Dante device, and Transmit video to a single channel.

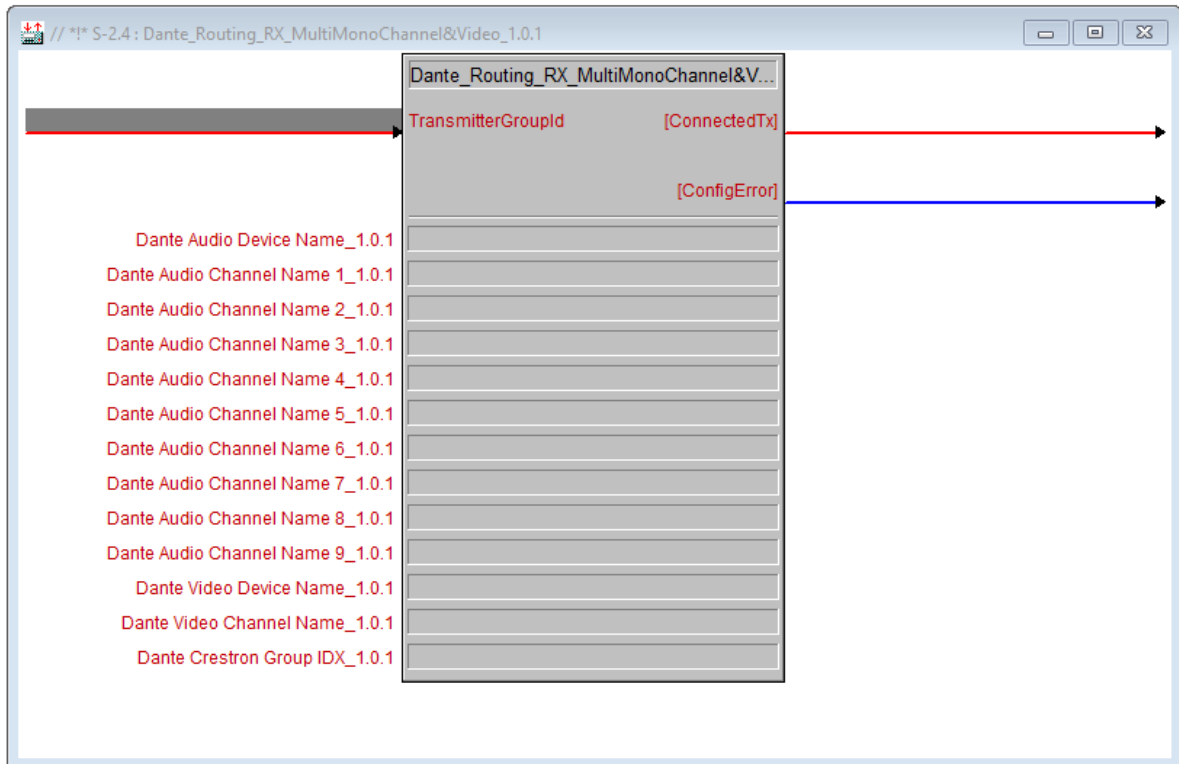


- **Dante Audio Device Name**
The Name of the Dante Device you wish to Transmit Audio
- **Dante Audio Channel Name**
The name of the channel you wish to Transmit Audio
- **Dante Video Device Name**
The Name of the Dante Device you wish to Transmit Video
- **Dante Video Channel Name**
The name of the channel you wish to Transmit Video
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Transmit this config

- **Config Error**
The Config Error state will go high when the module detects an Error

4.10. Dante Routing RX MultiMonoChannel&Video

This Module is used to configure a Dante Device to Receive multiple mono inputs from another Dante device, and receive video on a single channel.

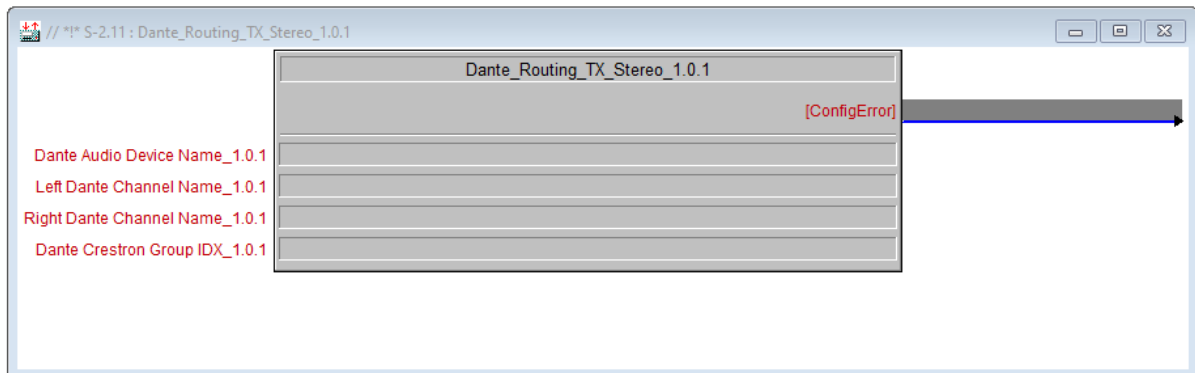


- **TransmitterGroupID**
The TX Group you would like to connect to this module [Analogue]
- **Dante Audio Device Name**
The Name of the Dante Device you wish to Receive Audio
- **Dante Audio Channel Name**
The name of the channel you wish to Receive Audio
- **Dante Video Device Name**
The Name of the Dante Device you wish to Receive Video
- **Dante Video Channel Name**
The name of the channel you wish to Receive Video
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Receive this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]

- **ConnectedTx**
This is the Crestron TX Group connected to this RX module [Analogue]

4.11. Dante Routing TX Stereo

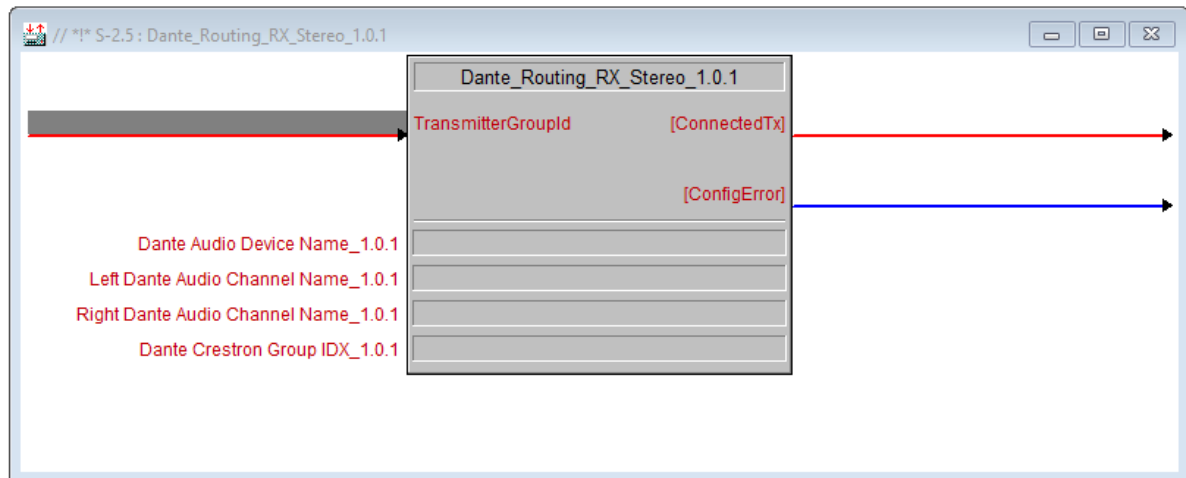
This module is used to Transmit a Stereo setup from one Dante device to another.



- **Dante Audio Device Name**
The Name of the Dante Device you wish to Transmit Audio
- **Left Dante Channel Name**
The name of the left channel you wish to Transmit Audio
- **Right Dante Channel Name**
The name of the right channel you wish to Transmit Audio
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Transmit this config
- **Config Error**
The Config Error state will go high when the module detects an Error

4.12. Dante Routing RX Stereo

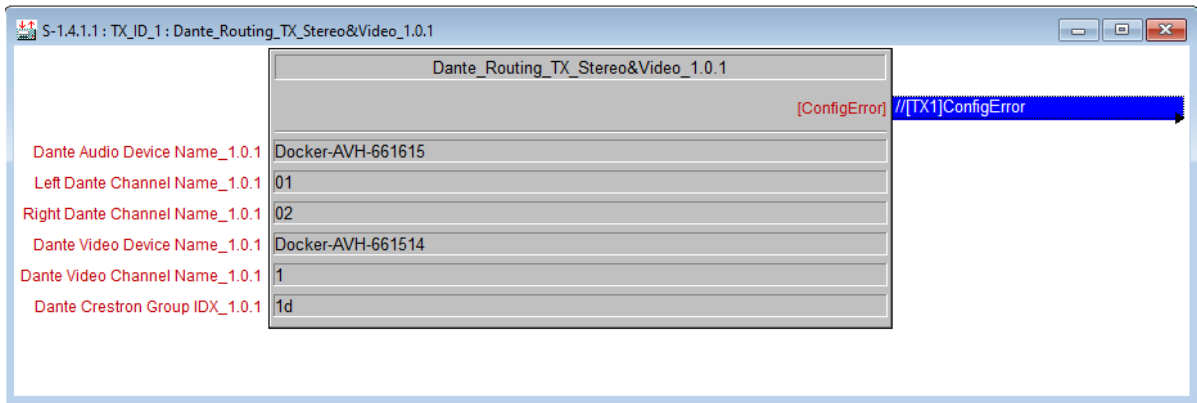
This module is used to Receive a Stereo setup from another Dante device.



- **TransmitterGroupID**
The TX Group you would like to connect to this module [Analogue]
- **Dante Audio Device Name**
The Name of the Dante Device you wish to Receive Audio
- **Left Dante Channel Name**
The name of the left channel you wish to Receive Audio
- **Right Dante Channel Name**
The name of the right channel you wish to Receive Audio
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Receive this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]
- **ConnectedTx**
This is the Crestron TX Group connected to this RX module [Analogue]

4.13. Dante Routing TX Stereo&Video

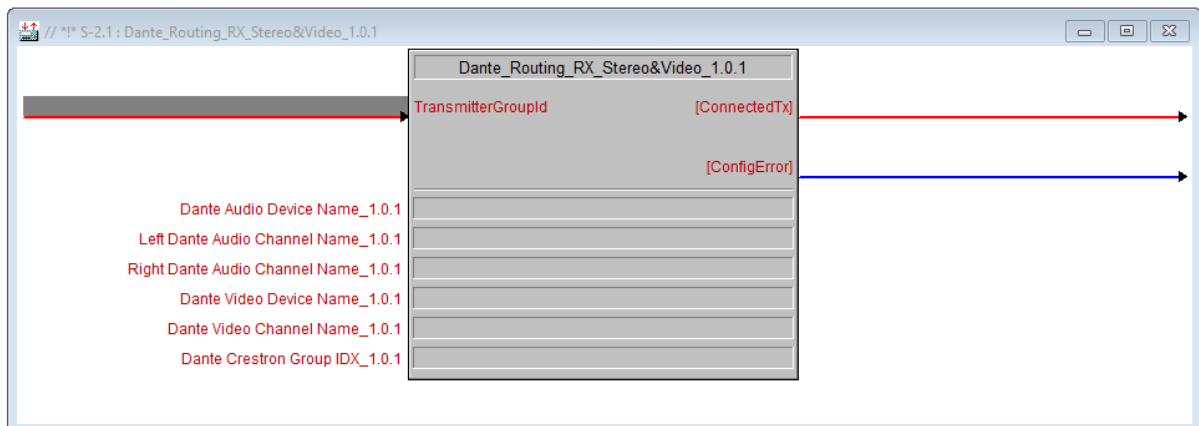
This module is used to Transmit a Stereo setup from one Dante device to another, and Transmit video on a single channel.



- **Dante Audio Device Name**
The Name of the Dante Device you wish to Transmit Audio
- **Left Dante Channel Name**
The name of the left channel you wish to Transmit Audio
- **Right Dante Channel Name**
The name of the right channel you wish to Transmit Audio
- **Dante Video Device Name**
The Name of the Dante Device you wish to Transmit Video
- **Dante Video Channel Name**
The name of the channel you wish to Transmit Video
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Transmit this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]

4.14. Dante Routing RX Stereo&Video

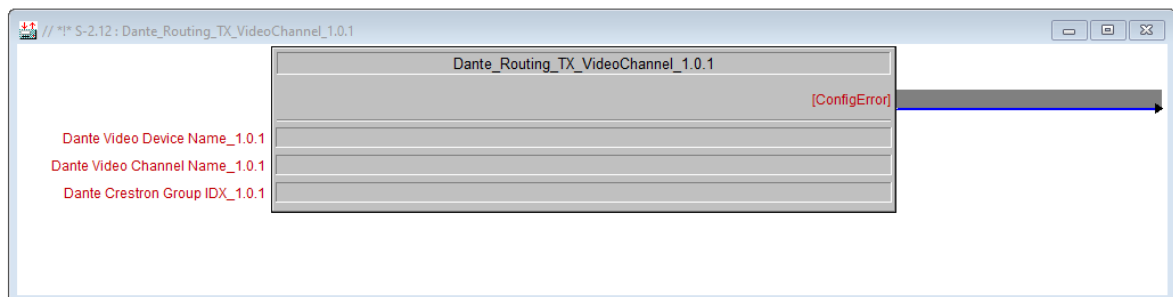
This module is used to Receive a Stereo setup from another Dante device, and Receive video on a single channel.



- **TransmitterGroupID**
The TX Group you would like to connect to this module [Analogue]
- **Dante Audio Device Name**
The Name of the Dante Device you wish to Receive Audio
- **Left Dante Channel Name**
The name of the left channel you wish to Receive Audio
- **Right Dante Channel Name**
The name of the right channel you wish to Receive Audio
- **Dante Video Device Name**
The Name of the Dante Device you wish to Receive Video
- **Dante Video Channel Name**
The name of the channel you wish to Receive Video
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Receive this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]
- **ConnectedTx**
This is the Crestron TX Group connected to this RX module [Analogue]

4.15. Dante Routing TX VideoChannel

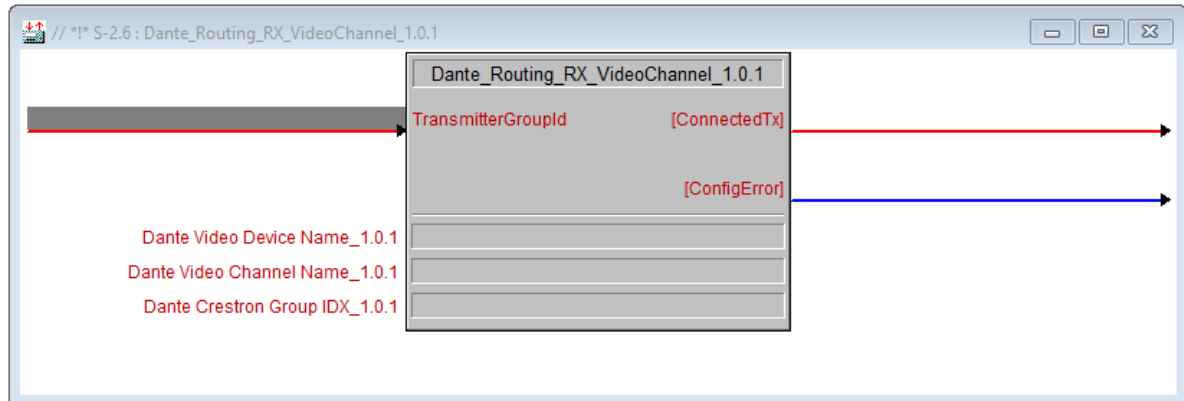
This module is used to Transmit video to a single channel.



- **Dante Video Device Name**
The Name of the Dante Device you wish to Transmit Video
- **Dante Video Channel Name**
The name of the channel you wish to Transmit Video
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Transmit this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]

4.16. Dante Routing RX VideoChannel

This module is used to receive video on a single channel.



- **TransmitterGroupID**
The TX Group you would like to connect to this module [Analogue]
- **Dante Video Device Name**
The Name of the Dante Device you wish to Receive Video
- **Dante Video Channel Name**
The name of the channel you wish to Receive Video
- **Dante Crestron Group IDX**
Unique ID Used by Crestron to Receive this config
- **Config Error**
The Config Error state will go high when the module detects an Error [Digital]
- **ConnectedTx**
This is the Crestron TX Group connected to this RX module [Analogue]

5. Simpl Windows Generation Tool

To run the generation tool:

1. Open up the demo SMW and fill in the details to connect to your DDM.
2. Download to your Crestron processor, and ensure the Comms are working correctly.
3. Run the `buildTemplateProject.ps1` script.
4. Enter the details requested by the script.
5. Open up the SMW you named in step 4.
6. Copy the required elements into your project.

Please note that this does not generate the Control module. You will need to copy this from the demo project you used in step 1.