⊘Strand
VISION.NET GATEWAY

OPERATION MANUAL

Vision.Net Gateway Module, 65710

Vision.Net Gateway Interface Module, 65730

Vision.Net Gateway 4-port DMX Interface Module, 65720

PREFACE

The material in this manual is for information purposes only and is subject to change without notice. Strand assumes no responsibility for any errors or omissions which may appear in this manual. For comments and suggestions regarding corrections and/or updates to this manual, please contact your nearest Strand office.

Information contained in this document may not be duplicated in full or in part by any person without prior written approval of Strand. Its sole purpose is to provide the user with conceptual information on the equipment mentioned. The use of this document for all other purposes is specifically prohibited. Certain features of the equipment described in this document may form the subject of patents or patent applications.

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed, including:

• READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
• Do not use outdoors.
• Do not mount near gas or electric heaters.
• Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
• The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
• Do not use this equipment for other than intended use.
• Refer service to qualified personnel.

SAVE THESE INSTRUCTIONS.

The document provides installation and operation instructions for the following products:

• Vision.Net Gateway Module, 65710
• Vision.Net Interface Gateway Module, 65730
• Vision.Net 4-port DMX Interface Gateway Module, 65720

Download the product datasheet from the Strand website at **www.strandlighting.com** for the full technical specifications.

1 DESCRIPTION

OVERVIEW

Vision.Net Gateway is an expandable network gateway for the Vision.Net network, designed to coordinate events between Vision.Net devices using a built-in astronomical clock and NTP server that ensures all devices work from a single timeclock. And because the Vision.Net Gateway is DIN rail mountable, integrators can easily install it in a variety of locations
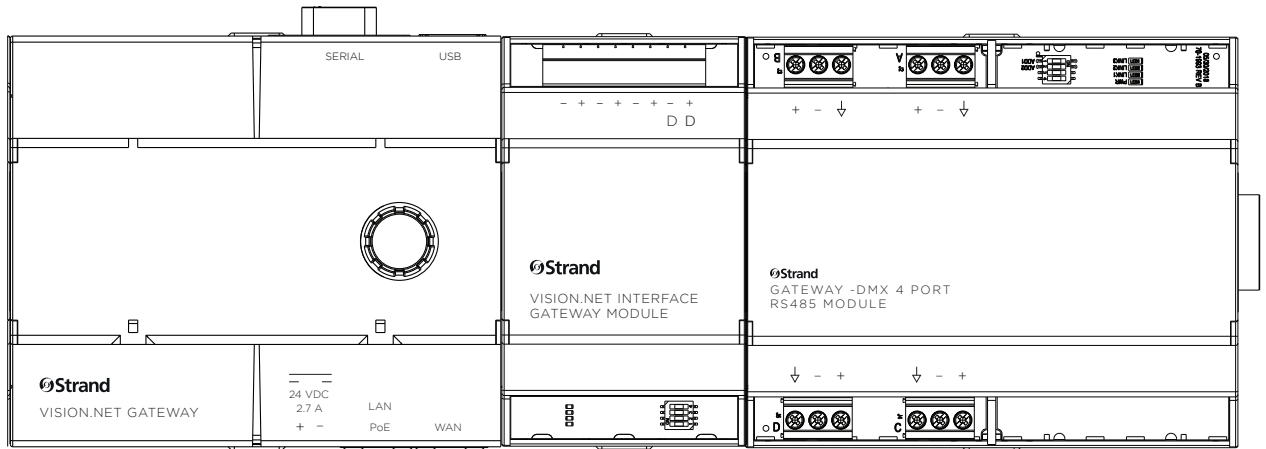
2 INSTALLATION

The following table lists the protocols and ports Vision.Net Gateway uses over Ethernet that need to be approved for firewall access:

PORT	TYPE	PROTOCOL
2741	UDP	Vision.net
5568	UDP	sACN
6454	UDP	Art-Net
2501	UDP	Shownet

Refer to the quickstart guide packed with the product(s) for complete installation instructions.

3 OPERATION

DEFAULT

The banner at the top of the webpage represents live data and the current state of the Gateway. All information on the banner is periodically updated and refreshed giving live status of the Gateway's DHCP settings, Event Manager settings, and Login status of the current screen access.
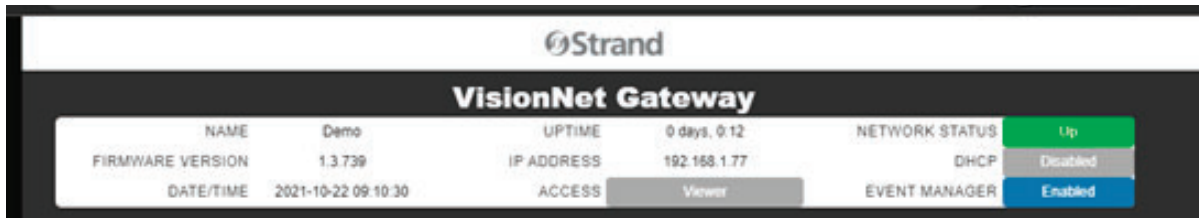
To gain access to other editable aspects of the Gateway webpage launch the menu with the menu button (hamburger button) in the top left corner of the webpage.

Launching the menu expands a side menu area on the left portion of the webpage. Each menu option will populate and refresh the information on its own section of the webpage. This menu area will stay expanded until closed.
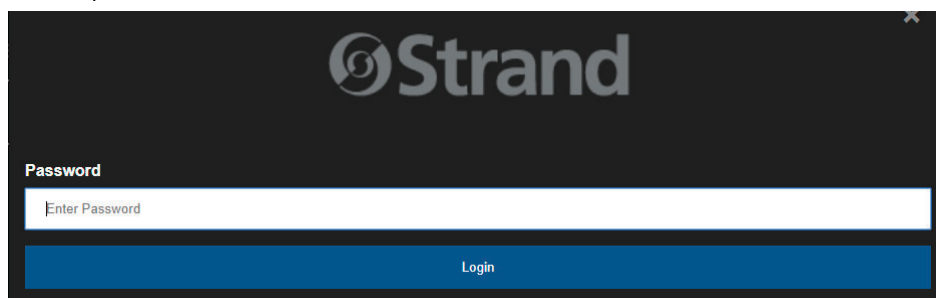
The Main menu options are:
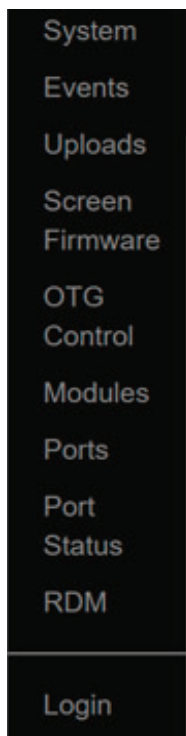
- **System**
- **Events**
- **Uploads**
- **Screen Firmware**
- **OTG Control**
- **Modules**
- **Ports**
- **Port Status**
- **RDM**
- **Login**

LOGIN

Upon accessing the webpage, the session is granted "Viewer" status. This status permits viewing of most of the available information on the screen but is restricted to no updates or changes. Any attempt to push updates to the Gateway while in "Access: Viewer" will be denied. Selecting login from the Menu launches the Login interface. The password is limited to a 4-digit numeric code. Invalid or incorrect passwords will be denied access. Correct passwords elevate access to either "User Admin" or "Admin" based on the password used.

SYSTEM
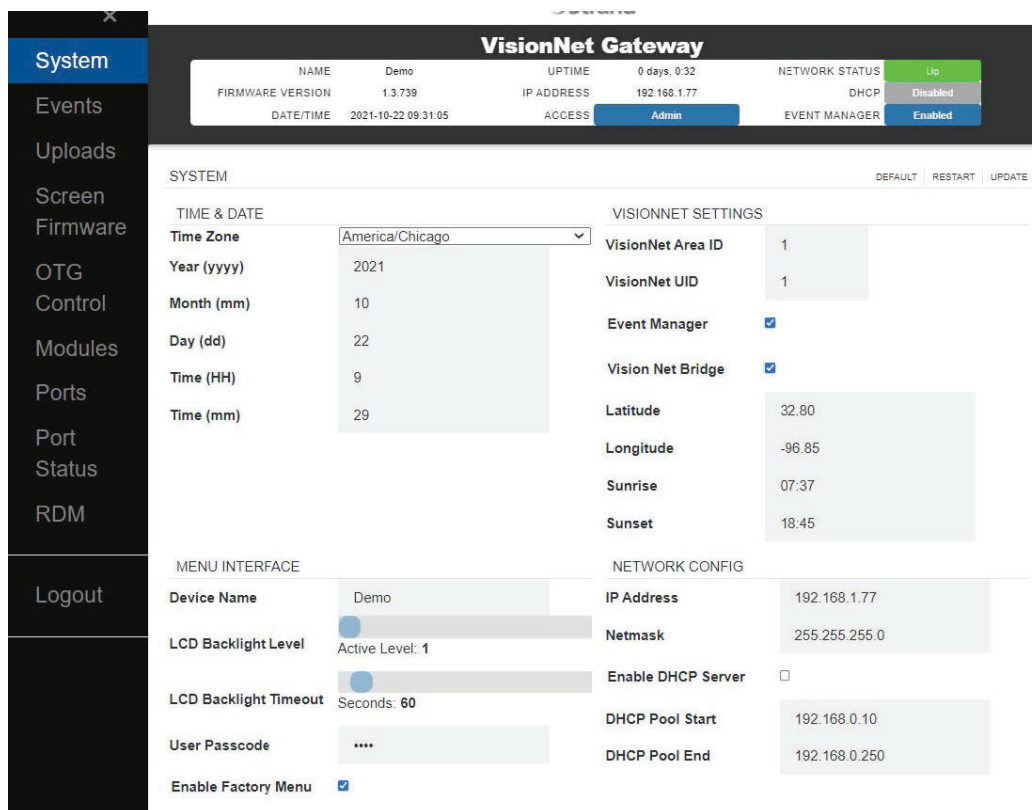
Selecting System from the webpage menu populates the System information of the webpage. This is divided up into four sections: Time & Date, Vision.Net Settings, Menu Interface, and Network Config.

If you have Access other than Viewer, any changes made to the system can be pushed using the Update button at the top right of this section of the page. If any errors exist in the changed data, and error message will show what information is invalid and the input fields will be outlined in red. Any changes or errors can be cleared by selecting System from the menu again and repopulating this area of the page.

Device Name allows you to change the name of the Gateway. This name shows up at the top web page tab – helpful when on-site with multiple Gateways.

Under Vision.Net Settings, the field "Vision.Net Bridge" toggles on and off the bridging with the VN Module.

Default will factory default your Gateway. Restart will restart the Gateway and cycle power to the connected modules.

Admin level access required to update, restart, or default from this tab.

EVENTS

Selecting Events from the menu will populate the Events section of the webpage with all configured events in the Gateway's Event Manager. Events are added to the Gateway from Vision.Net Designer v5.1 and above. If there are no events populated then, events have not yet been added to the Gateway. From this screen, Individual events can be enabled or disabled.

UPLOADS

The Uploads tab allows users to push new updates to the Gateway from the webpage. By selecting "Choose File," selecting the zip file you want to update to and then selecting Upload, you can push a firmware update to the gateway system. During the update process, a message will appear letting you know that the system is updating and locking you out from interacting with the webpage. This message will go away after the and the webpage will unlock after the Gateway is up and running again.

Gateway Backup allows for creating, downloading, and uploading Gateway Backups. A Backup is a copy of the Database and all files needed to recreate the interface and functionality of a Gateway. Requires User/Admin Level Access.

SCREEN FIRMWARE

This tab allows the user to push firmware updates from the Gateway to Vision.Net touchscreens. Admin access is required. The Left side "Updates" allows the user to upload a specific version of firmware to the Gateway. The right side "Devices" shows all connected touchscreens. Selecting the Firmware to upload, selecting the screen(s) to Upload to, and then selecting upload populates the "Schedule" section at the bottom of this tab with those task. The tasks will go away once the firmware has been successfully uploaded.

OTG CONTROL

The OTG control tab links to a separate webpage that functions as the On-the-Go (OTG) Interface to Vision.Net. This page requires User Level access at minimum. This is the equivalent of our Vision.Net Touch screens on a web page. This is done by configuring and sending a Gateway Screen from Designer for Vision.Net v5.1.01.16 (or higher). Each device that accesses this web page functions independently.

To configure a Gateway OTG Control Screen from Designer for Vision.Net:
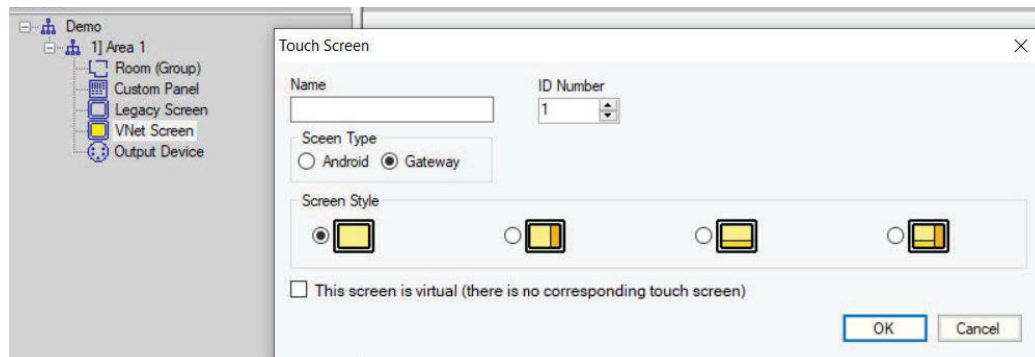
To export Gateway from Designer for Vision.Net:

Step 1.   Select the Gateway option from the Export screen:

Step 2.   Set the ID to the Gateway's ID

NOTE: Sending images can take some time, so there is an option to send or not send the images with each export of the screen. They only need to be sent once. If images change or move to a new tab, then they will need to be sent again.
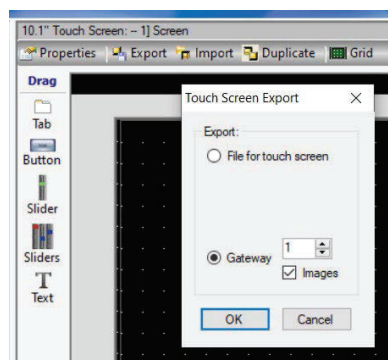
Step 3.   Access the controls webpage: (Gateway's IP /controls – i.e. 192.168.1.77:/controls)
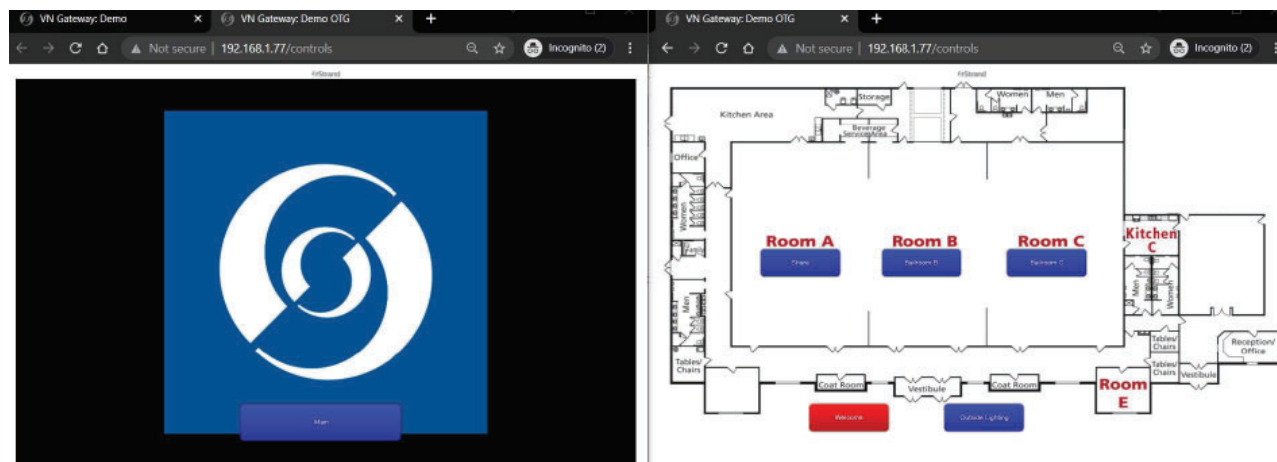
Example - with a Vision.Net configuration in a building with multiple ballrooms: an OTG screen could be configured such that one Gateway would allow the people using each ballroom/conference room to access and control their areas simultaneously without interfering with the other rooms.
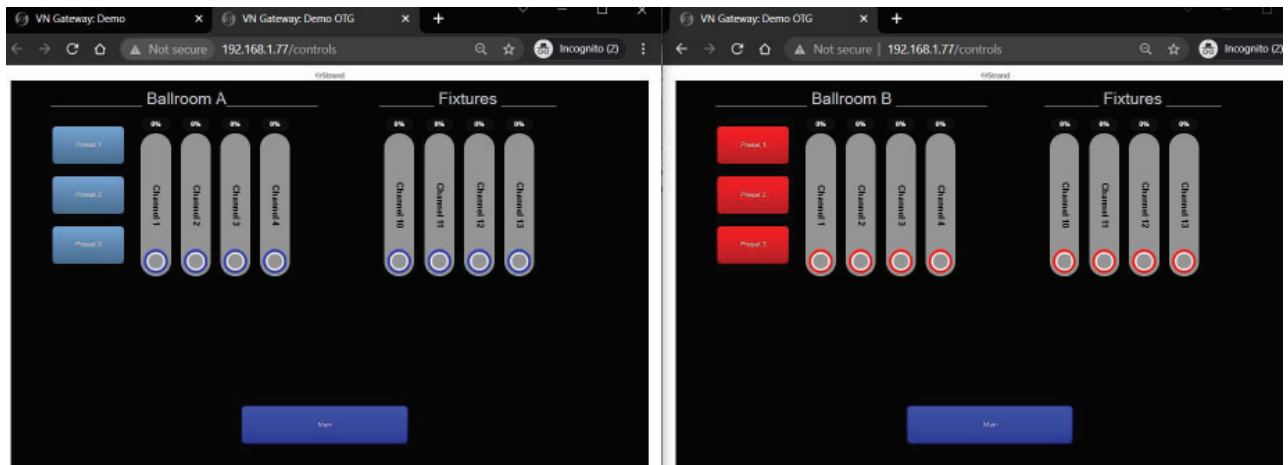
SNAPSHOTS

A new button called a "Snapshot" can be added to the OTG Control Screen. This allows to "Snapshot" a stream of DMX for specific VN Room and Channel range.

- Recording can start Instantly, On Change, or at a set amount of time.
- A snapshot recording can be between 1 second and 1 hour.
- A recording can be stopped by toggling off the Snapshot button.
- A Snapshot can be set to run through its recording 1 time or to loop until toggled off.
- Snapshots require a "Save Mode" button in order to record their snapshot: Toggling the Save Mode button and then the Snapshot button triggers the Snapshot to wait for its recording trigger (Instant, On DMX Change, 3 Seconds…).
- Snapshots only records according to their current VN to DMX Configuration on each Gateway port. Changing the port configuration can have ill effects on how the recorded snapshot will play back.
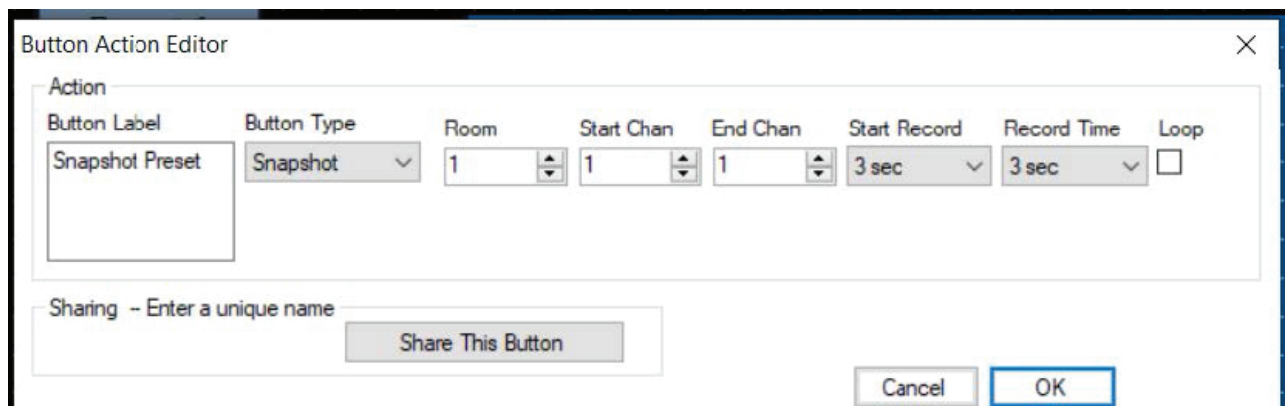
PRIORITY CHANGE BUTTON

This button allows the OTG Control screen to change the Priority of any of the patched Source protocols on any of the Gateway DMX Output Ports. This also allows for changing the Forward (FWD) priority of Gateway DMX Port set to forward a universe of sACN.

MODULES

Modules tab offers configuration options for both the Vision.Net Module and the DMX Module even if no modules are connected. This tab requires Admin Level Access. Modules can be configured before they are connected.

- The Gateway can supports up to three modules
- Only one Vision.Net Module can be used per Gateway
- Multiple DMX Modules can be used per Gateway

Vision.Net Module Info displayed:
- If a VN Module is connected
- What version of firmware this module is running
- IF VN Bridging is turned on or off
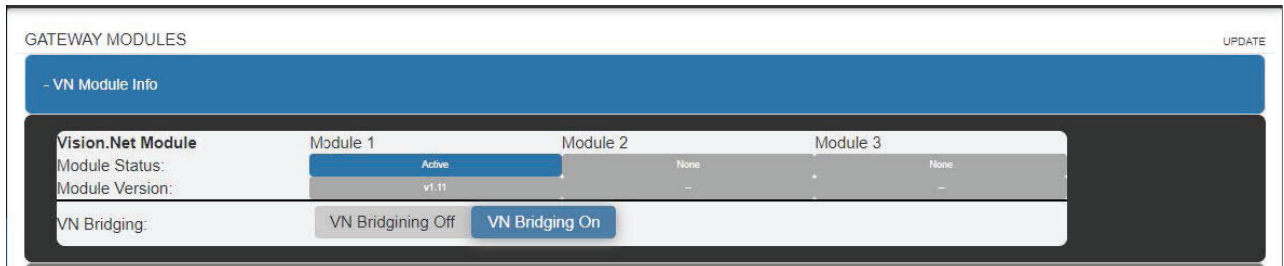
DMX Module Info displayed:
- If and how many DMX Modules are connected
- Firmware version for each DMX Module
- If RDM is on or Off for this Gateway
- If RDM Auto Discover is On/Off
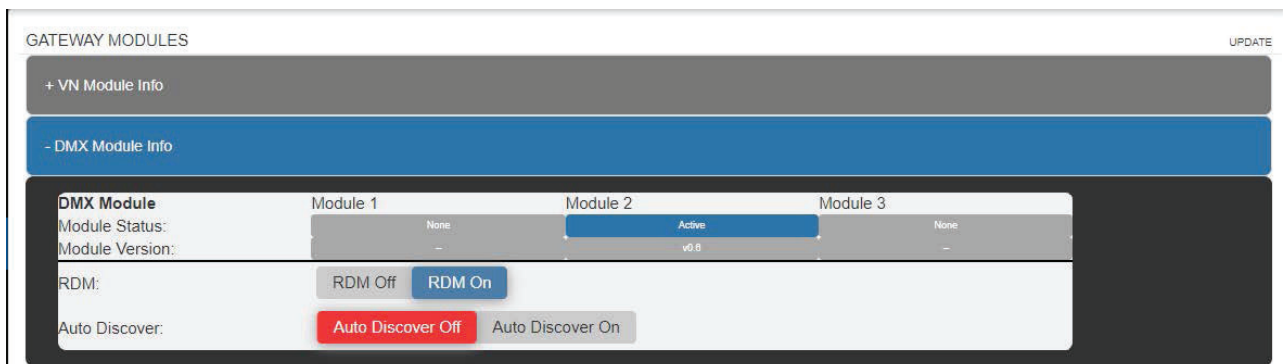
PORTS

Ports allows for configuring input and output ports. This tab requires Admin Level Access. "Input" ports require a DMX Module to be present. "Output" ports can send as streaming protocols (Shownet, ArtNet, sACN) and therefore do not require a DMX Module.

Each port option label shows:
- Port #
- Module # (if a module is present)
- Off / Input / Output
- Forward streaming protocol (if the port is not off)
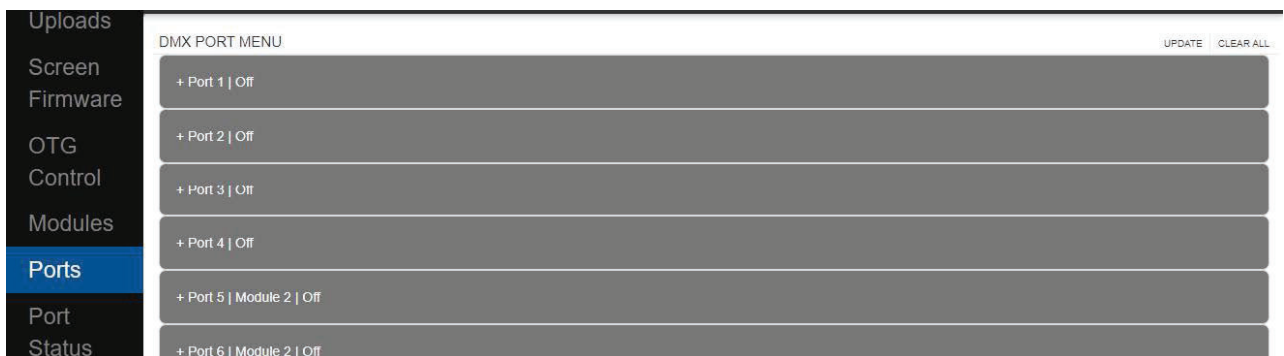
Expanding a port option gives the following additional options:

- Configuration option: input / output / off – Defining how this port will function in the system
- Output forwarding option: None / ArtNet / sACN / Shownet – whether the port is an input or output, it can forward the values it represents to a streaming protocol
- Uni/Slt option: Define the streaming Universe or Channel Slot (Shownet) that this port is forwarded to.
- Priority option: In use with sACN to set its streaming priority.
- Hold option: defines how long the output is held after its source goes away.
- FPS options: set the DMX Module's Frames Per Second output. DMX Input syncs to the sender and does not need to be set.
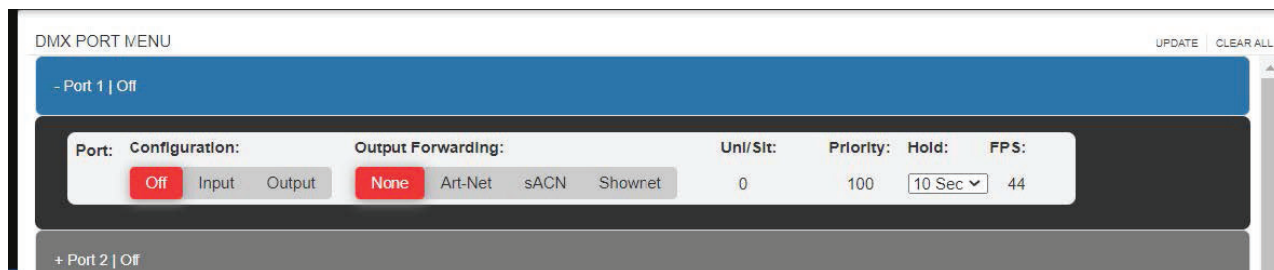
An Output Configuration expands more options for this port:

Input Table: This allows for selecting up to 8 different sources of DMX to make up the final output of this port (along with VisionNet).

- Protocol option: can select None | DMX | ArtNet | sACN | Shownet as source DMX for this output.
  - None implies not used
  - DMX requires there being a DMX Module present and the port set to an input.
- Universe option: selecting universe of source DMX protocol to listen to.
  - This can be a specific DMX Port on a DM Module
  - A Universe form a streaming protocol
  - First Slot of Shownet to listen to for the next 512 channels.
  - Each protocol has its own set of universes.
    - » DMX Port 1 is unique from Shownet First Slot 1 and ArtNet Universe 0 and sACN Universe 1.
    - » These universes have their own space and will not overwrite one another.
- Input Priority option: value of 1-8. Lowest value is the highest priority. Matching Input Priorities will HTP (Highest Takes Precedence) between the two.
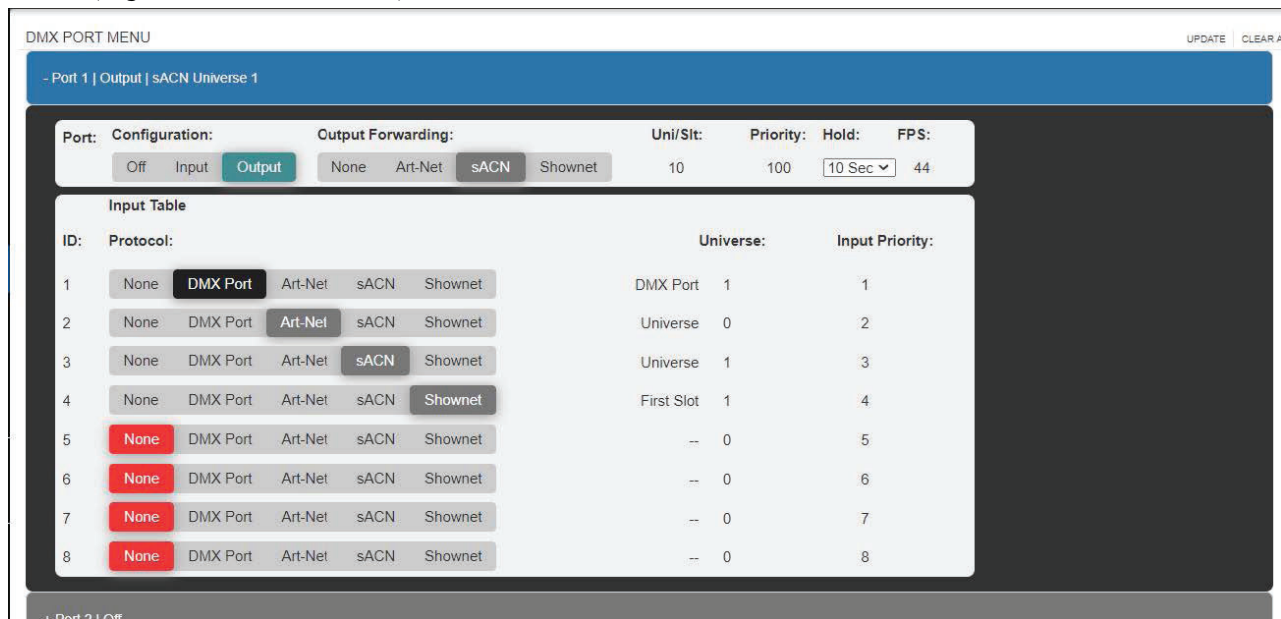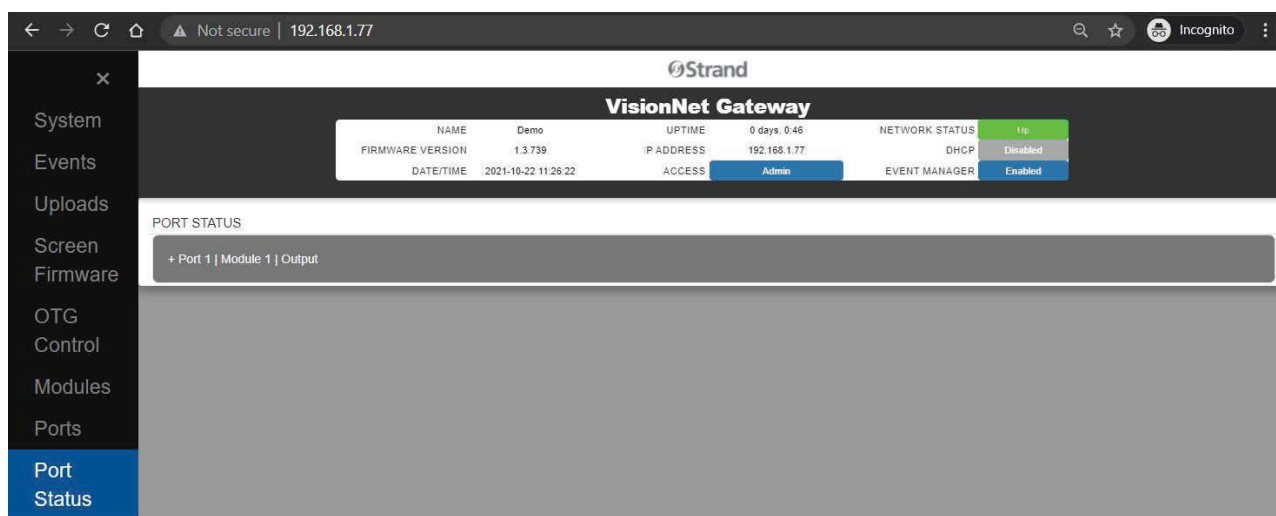
Each Output port of the Gateway also has a VisionNet Configuration similar to the VN to DMX Interface card. These configurations can be assigned output ports with or without DMX Module representing them. Populating this from designer requires selecting the Gateway VN Interface option for outputs, and the appropriate Gateway Port and Gateway ID:
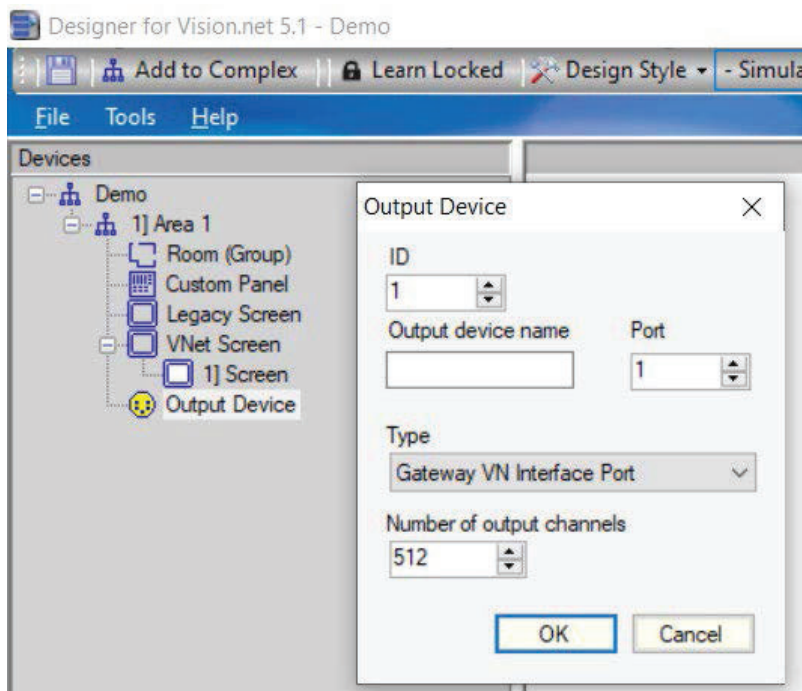
PORT STATUS

The Port Status tab is used to track and confirm the Input and Output of ports on the Gateway, the Vision.Net Configuration of the port, and what is driving each DMX Channel level of that port.

- Only ports specified as Input or Output ports from the Ports tab will show up on the Port Status tab.
- Only one Port Status option can be opened at a time – other options will automatically be closed when a new option is opened.
- Vision.Net Configuration for every channel on each port defaults to Room 1 Channel 1.
- This is a status only window, nothing can be changed from here.

RDM

This tab is requires Admin Level access, a DMX Module attached to the Gateway, RDM on the Modules tab to be set to On, and one of the DMX Module's ports being configured as an output. Without this setup, the RDM tab is not functional:

If the Configuration matches up correctly, then the web page allows for basic Port level RDM Discovery and Fixture Configuration (Fixture name, DMX Address, Personality, Identify, Default Fixture…):

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