



# Setting up Visualizer Files

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## Visualizer Software

Visualizers are software packages that let you to set up a virtual lighting rig, connect a console or computer and plot your show. By simply importing the lighting and set plots and connecting to a control device, the programming can begin. The software emulates the functions of the various lights, shows the output on the “stage” and the programmer can see the results without the need to rent a venue and equipment, hire crews, configure everything, etc.

ETC has also created a series of online training videos and exercises that will help you learn the basics of your Eos family console. Using a show that we created, you can learn and practice how to write cues, create palettes and run effects from just about anywhere. You can download the free series from the ETC web site: <http://www.etcconnect.com/EosFamilyVideoSeries/>

Each set of downloads for the series includes a visualizer file for both PC and MAC, a workbook to follow along, support paperwork (Hookup, Instrument Schedule and Plot) and Eos console show files. Downloads of the ETCnomad software are provided.

Most visualizers connect via a network connection and require a basic setup configuration. The rest of this document helps you configure your visualizer network depending on your setup: console and computer, two computers or one computer.

### **Setting up Visualizer files between a Console and a Computer:**

- 1) With both the console and the computer turned off, set up a network cable from your computer to a network switch and then a network cable from the switch to the console.
  - A direct run from a computer to a console will occasionally work as well. Use a short network cable or crossover cable.
  - With an original Eos console, you can run the network cable directly to one of the four network ports on the console (internal switch).
- 2) Turn on the console and then the computer. When turned on together, there is a better chance of the network syncing.
- 3) Launch the visualizer file on the computer. Don't forget to extract if zipped.

If using a Mac computer as the viz computer:

The current Mac version of the visualizer file is available for use with Mac OS versions 10.13 (High Sierra) or later. Follow these steps for launching the application:

- 1) Double click the zip file, this expands it to a folder with the same name.
- 2) Inside the folder, double click on the app file.



# Setting up Visualizer Files

## Test Viz

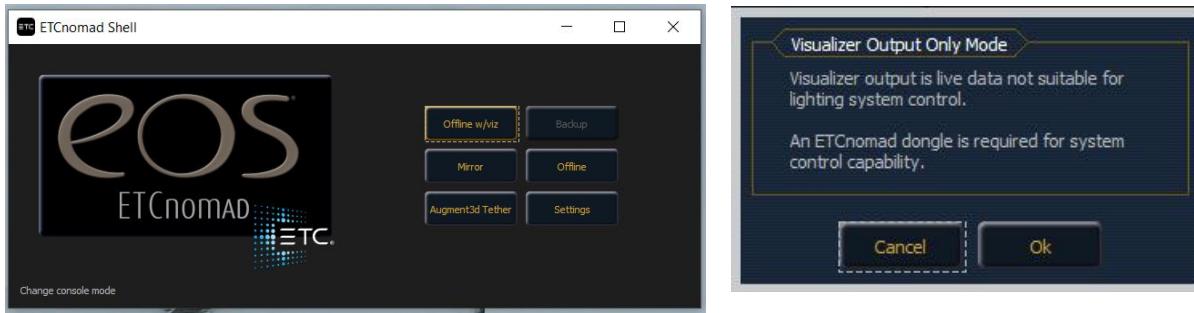
A default 1-to-1 patch in the ETCnomad software will at least give you channels 1 – 5 to test both Level 1 and Level 2 applications. Bring up channels 1 – 5 to full; the front light specials from house right should come up across the front of the stage.

Or you can load the show file for the training videos or consult the training workbooks for the patch (Appendix 1). The executable file will only work with the patch from the workbooks.

## **Setting up Visualizer files between two Computers:**

Without an ETCnomad dongle, lighting levels can be transmitted, but these are intended for visualizer use and are not suitable for lighting system control. It is normal to see a slow refresh rate and occasional dropouts while outputting offline.

- 1) With both computers turned on, set up a network cable from one computer to the other.
- 2) On the Offline Editor Computer, launch the ETCnomad software. Shown here as Eos.



- 3) Click on **Offline w/viz**.
- 4) You'll get a notice that the visualizer output is live data not suitable for lighting system control. It will flash all lights to full about every 30 seconds or so.
- 5) Click **Ok**.
- 6) On the Visualizer Computer, launch the Capture executable file.

If using a Mac computer as the viz computer:

The current Mac version of the visualizer file is available for use with Mac OS versions 10.13 (High Sierra) or later. Follow these steps for launching the application:

- 3) Double click the zip file. This expands it to a folder with the same name.
- 4) Inside the folder, double click on the app file.



# Setting up Visualizer Files

## **Setting up on a Single Computer (Bridge or Loopback Adapter) :**

You would launch the visualizer and ETCnomad software as described above. Depending on the OS of the computer that you are working with, you may need to use a bridge or loopback adapter.

### With Windows:

- 1) Click the Start menu and search for "cmd".
- 2) Right-click on "cmd" and select "Run as Administrator"
- 3) Enter "hdwwiz.exe"
- 4) In the "Welcome to the Add Hardware Wizard", click Next.
- 5) Select "Install the hardware that I manually select from a list (Advanced)" and click Next.
- 6) Scroll down and select "Network adapters" and click Next.
- 7) Select under Manufacturer "Microsoft" and then under Network Adapter "Microsoft KM-TEST Loopback Adapter" and click Next, and Next again.

It is also recommended that when working on one computer, having two monitors is most beneficial.

## **Troubleshooting:**

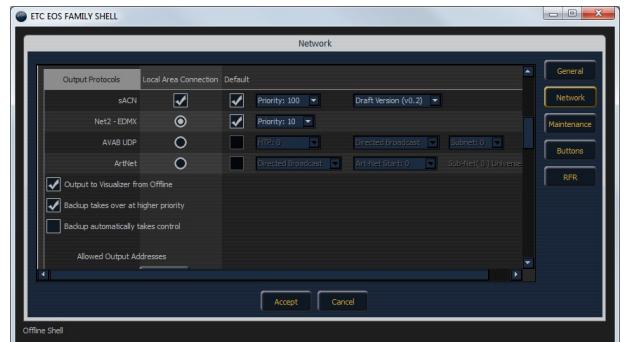
- 1) If the visualizer is nonresponsive, your devices may have conflicting IP addresses. The above setups assume the computers have their Internet Protocol (TCP/IP) Properties set as Obtain an IP address automatically. The console will also be set up as a DHCP server. If the console and computer are not talking to one another, you may need to manually set the computer IP address:
  - Change your computer IP Address to 10.101.xxx.xxx
  - Change your computer Subnet Mask to 255.255.0.0.
  - Change your computer Gateway to 10.101.1.1.You do not want the IP address of the computer to conflict with that of the console. With the console turned on, press **About**. The IP address will be displayed in the lower left corner of the About window.
- 2) In more current OS machines, check that the Windows Firewall is either turned off or that you allow access for the visualizer software.
- 3) In the console to computer or computer to computer setups, make sure both your Wi-Fi or wireless connection and Bluetooth are turned off. Otherwise you may see an extremely slow response time.
- 4) If you still don't have lights up on the visualizer, the console may not be outputting sACN or Net2-EDMX. Eos and Cobalt/Congo family consoles can output Net2 (EDMX), Net3 (sACN/E1.31), and ArtNet levels via Ethernet. Computers running ETCnomad (PC and Macs) can output Net3 (sACN/E1.31) and ArtNet. As these protocols are enabled by default, you will likely not need to enable them, but if you do, they are available in the Settings menus.



# Setting up Visualizer Files

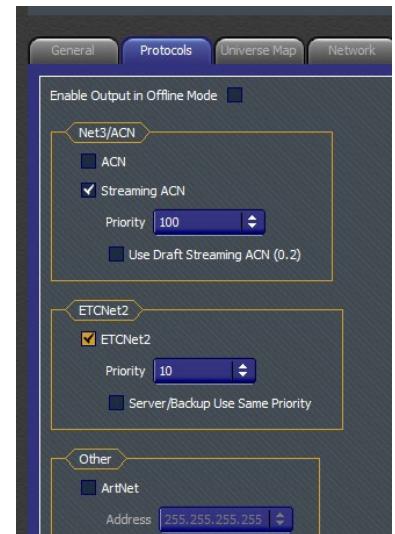
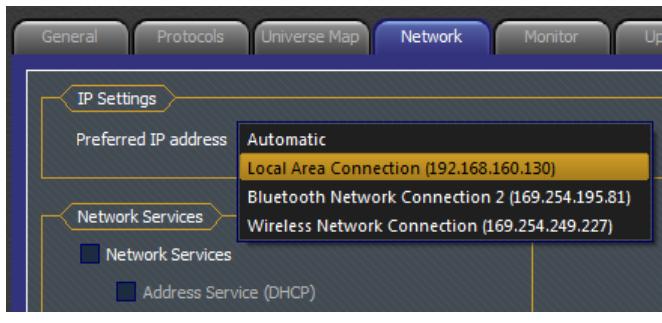
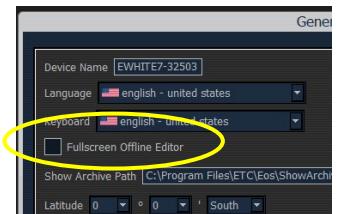
## Eos

- In Eos, exit and go to the shell display. When all boxes turn from gray to gold, click on **Settings**.
- Click on **Network** on the right-hand side.
- Scroll down to Output Protocols.
- Make sure sACN and Net2 – EDMX are checked. For a while, Capture only read the draft (0.2) version of sACN - the option to use draft sACN should be checked as well just in case.
- Click **Accept** and then when back at the shell display, click on **Primary** or **Offline w/viz** depending on console or ETCnomad.
- In older offline software versions, you may need to also check the Enable Output in Offline Mode box. This will send these Network protocols while offline. You will be asked to confirm this option each time Offline is launched. Note that if you are using a Console, this setting is not needed.
- Full screen option versus small windows option: If you would like to restore your windows down in size rather than have the full screen option, open settings. Under the General tab, uncheck the Fullscreen Offline Editor option.



## Cobalt/Congo

- In Cobalt/Congo, ensure the correct protocol is enabled in the Settings menu.
- The enabled Ethernet protocols and the selected IP address are shown top-right of the Welcome screen
- If your PC has multiple network cards, you will also need to select the correct network in the Network tab. This must match your choice in the visualization software.



- 5) If you are unsure if your console or computer is sending data, there are free tools available to help you see the sACN or ArtNet levels and sources present on your network.

*Note: These programs are not created or maintained by ETC - we are linking them here for your convenience.*



# Setting up Visualizer Files

## sACN View

Main page: <http://sacnview.sourceforge.net/>

Direct download link: <http://sourceforge.net/projects/sacnview/files/latest/download>

## The ArtNetominator

Main page: <http://www.lightjams.com/artnetominator/>

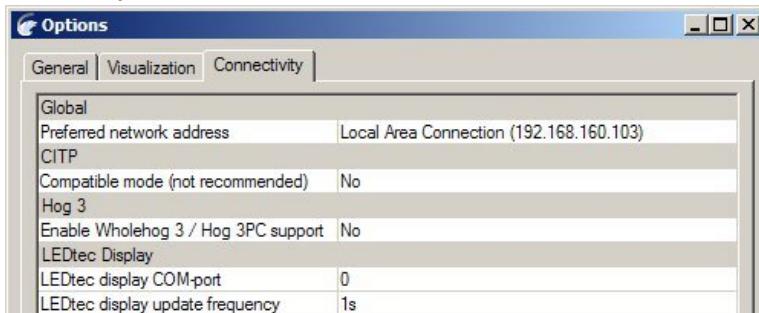
Download page: <http://www.lightjams.com/artnetominator.html#contributeSection>

## Specific Visualizer Software Notes

### Notes Specific to Capture Software Notes

Capture can receive both Net2 (EDMX) and Net3 (sACN/E1.31) levels via Ethernet. The latest version of Capture Polar reads "ratified" sACN/E1.31.

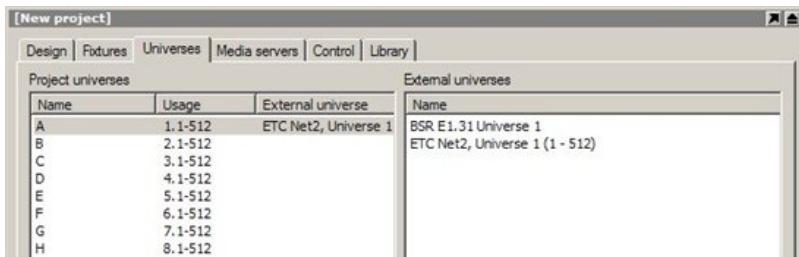
In the Tools menu of Capture, select Options. Navigate to the Connectivity tab and select your network interface card if required. Note that depending upon your PC's configuration, a setting of Automatic may not work; in this case select the appropriate adaptor.



A valid network link is required to receive sACN, even if the source is another application on the same PC. This means a standalone PC will require either an active connection to an Ethernet switch or the "Loopback Adapter" to be installed.

Following a restart, open your existing project or start a new one.

In the Project Window, you will see a tab showing Universes. You should see both BSR E1.31 and ETCNet2 Universes, assuming you have any dimmers patched on your console.



Capture executable (presentation) files should also receive these network levels. Note that you may need to install the Capture application in order to use its network adaptor selection tools. Capture is available for download from the Capture website, [wwwcapturesweden.com](http://wwwcapturesweden.com).



# Setting up Visualizer Files

## General Capture Controls:

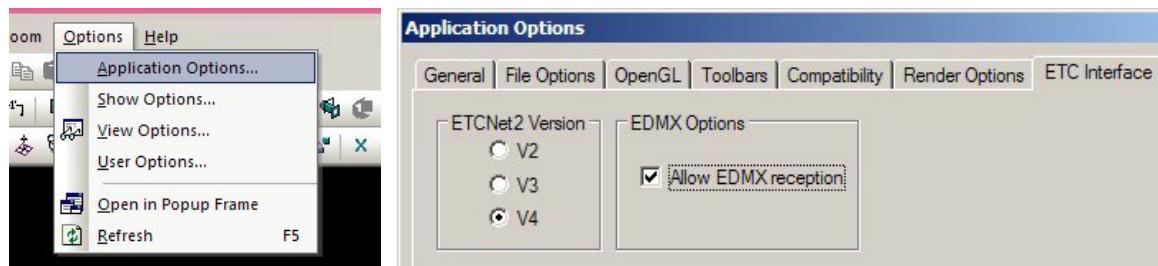
- You can change the view by clicking on the wrench  in the lower right corner. We recommend the perspective view.
- In perspective view, the arrow star icon  in the lower right will spin the view around and the large square/small square icon  will zoom in and out.
- Seeing Red? If, in the Capture file, you accidentally click on something and it becomes highlighted in red, simply click in the uppermost right-hand area of the display (in the black area) or type Control & D on the computer keyboard to deselect the item.

## Notes Specific to WYSIWYG

See also: <http://www.cast-soft.com/wysiwyg/tip/view/connecting-to-edmx-networks>

WYSIWYG can receive Net2 (EDMX) levels via Ethernet.

In the Options menu of WYSIWYG, select Application Options and then navigate to the ETC Interface tab.



Ensure that "Allow EDMX reception" is checked, and that the ETCNet2 Version is set to V4.  
Note: You must restart WYSIWYG after making this change. You also must be an Administrator on the computer.

EDMX reception has been reported to not function in release 23 and lower under Vista.  
Contact Cast Lighting for any updates.

You may need to run an application called NICPicker, which may or may not be packed with WYSIWYG. This application sets which of your network adaptors is used for Net2 traffic. It is available as part of the free download of Network Configuration Editor (NCE) from ETC.

Note: There are ETCNet2 devices in the Device Manager in WYSIWYG, but these do not function. Allow EDMX reception as shown above to see EDMX levels.

## Other Visualizers

Any visualizer that can read EDMX, sACN, Art-Net, or Avab UDP network levels should be able to connect to Eos/Ion. There are several DMX-USB converters available, such as the ETC's Gadget and the ENTTEC DMX USB Pro. Consult your visualizer's documentation.