



Horizon Build 200

Help Supplement

January 2006

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What's New in Build 200

Horizon Build 200 uses Engine 1.2. and supports the following operating systems:

- Windows 2000
- Windows XP

It is strongly recommended that you use Windows XP. The Horizon Universal Key is only supported on Windows XP

(NOTE: This technical bulletin supersedes all other documentation regarding Operating Systems)

Library Version

Build 200 has an improved moving light library the necessitated changing the name of some fixtures. For convenience, both the Build 128 and Build 200 moving light libraries have been shipped with this build. ONLY if you plan to load old show files that INCLUDE moving lights should you choose to use the Build 128 library. New show files should use the new Build 200 library. This question was asked of you during installation.

If you want to change libraries, do so by copying:

"c:\Program Files\Horizon\Fixtures\Horizon.hlb.xxx"
to: "Horizon.hlb".

What's new in Build 200 (January 17, 2006)

- All SILVER features are available to customers with BASIC only authorized interfaces (Silver Horizon is no longer for sale)
- Moving lights now sorted by Manufacturer in Moving Light patch
- Cue List background color changes to gray when entering blind and to white when leaving blind
- Semi-colons and carriage returns cleaned up when inserting new macros in macro editor
- Added right-click menu for selected channels : "Fade Channel to Default"
- `FadeChan("chan_range", level, time)` macro now accepts "Default" as a valid Level parameter. *i.e.*, `FadeChan("chan_range", "Default");` or `FadeChan("chan_range", "Default", time);`
Note: The word "Default" must have double quotes.
- Record Macro has added parameters:
`Record("cue_list", cue_number[, Live Cue Only|Live Tracking|Changed Cue Only|Changed Tracking|Selected Cue Only|Selected Tracking]);`

Build 128 was released April 2004 (see Bug Fixes)

- SandNet USB Interface - A convenient USB interface that outputs two streams of DMX.

Build 127 was a maintenance build only (October 2003)

What's New in 126

New Features

- Opto 22 Digital Ethernet I/O functionality on PBC
- Art-Net
- SandNet
- WYG 4 compatibility

What's New in 125

Horizon Build 125 uses Engine 1.125.

Horizon Build 125 supports the following operating systems:

- Windows 98 (2nd Edition)
- Windows ME
- Windows 2000
- Windows XP

It is strongly recommended that you use Windows XP. The Horizon Universal Key is only supported on Windows XP

(NOTE: This technical bulletin supersedes all other documentation regarding Operating Systems)

New Features

- Support for Horizon Universal Key allowing Horizon to output to multiple manufactures' DMX devices
- Horizon 125 Basic - 125 channels of Basic software at a very reasonable price.
- Tracking Backup between two Horizon systems on a network.
- Ability to choose Maximum Channels or Maximum Functionality when you have more than one device authorized at different software levels.
- Output to visualization packages now available in GOLD **and** Off-Line mode.

New Features since Build 121

- Marque and Wave effect
- Pathport support on PC and PBC

- BINDING macros (channels, subs, buttons)
 - function bar setup allows BINDING
 - function buttons allow BINDING to other buttons
- support for Genlyte Brilliance buttons stations
- Fade Channel macro
- GetCRC macros for checking ranges of DMX and Channels
- GetNum & GetText macros
- Setup(echo,0) and Setup(echo,1) toggling echo on/off for telnet connections

Also see Bug Fixes

New Features



Art-Net is an Ethernet communication protocol developed by Artistic Licence. The protocol has been placed in the public domain on a royalty free basis. Many manufactures are now supporting the Art-Net protocol. Art-Net is a TCP/IP based protocol which means that it can coexist on the same cable with most proprietary protocols.

Members of the Art-Net Alliance include AC Lighting Ltd, AC Lighting Inc, ADB, Avab Transtechnic, Avolites, Barco, Cameleon, Doug Fleenor Design, ELC Lighting, Electronics Diversified, Enttec, Flying Pig, Goddard Design Co, High End Systems, Horizon, IES, I-Light Group, Jands Electronics Pty, LewLight, MA Lighting, Martin Professional, Medialon, Mediamation, SandNet, Touchlight Systems Ltd and Zero 88.

Art-Net is only supported Horizon systems running on Windows XP.

Before using Horizon and Art-Net - download and install Artistic Licence's DMX Workshop. Make sure you run the "Driver Loader" batch file from the Artistic Licence section of the START Menu. You will need to rename c:\Program Files\Horizon\amengine.dll.art-net to c:\Program Files\Horizon\amengine.dll.

Note on IP Addressing - The rule of thumb when using Art-Net is that your PC must have a static IP address starting with 2. (i.e., 2.123.456.789) and a subnet of 255.0.0.0. The Art-Net drivers must be loaded on your machine. To change the IP address of your machine, contact your network administrator.

In Horizon, go into SETUP|INTERFACES and ADD an Art-Net Interface. By default, the Interface/Dimmer Mapping is 1:1, occupying the first universe of DMX. Using the Add or Modify buttons in the Mapping tab, add additional mappings to use different Universe Selects on your Art-Net network.



Binding

Binding Macros can be used in architectural environments to "put" two things together so they act as one. The best example is "room divides" where you want the downlights to act separately when the air-wall is in, but together when it's out and you have one large room.

Binding macros can be found in the "Information" branch of the Macro Editor.

The Macro Editor starts by giving you this string:

```
BindSet(sub_page|cuelist|fbar|functionkey|channel, set_name,
items_to_bind ...);
```

- `sub_page|cuelist|fbar|functionkey|channel` means you have to choose which type of Binding Set you want to build. Choose only one.
- `set_name` is a unique name you give your set (i.e. "Wall Stations"). You can have identical names for the binding of a channel set as one for sub_pages but it may be best to keep all set names unique to avoid confusion.
- `items_to_bind` is a list of items separated by commas (i.e., if you were binding channels you could type 2,4,6,8 or if you were binding function bars it could be "Main","Hallway","Roof top", if you were binding function buttons, first give the functionbar name, then the function button number,

then functionbar name, then the function button number etc.)

To alter a set or remove it use one of:

```
AddToSet(sub_page|cuelist|fbar|functionkey|channel,set_name  
,items_to_bind ...);
```

or

```
RemoveFromSet(sub_page|cuelist|fbar|functionkey|channel,set  
_name,items_to_bind ...);
```

or

```
ClearSet(sub_page|cuelist|fbar|functionkey|channel,set_name  
);
```

Note: Channel bindings in chains only extends 10 links. That is, if A is bound to B, then B is bound to C, changes in A will affect C. This chain can only go ten deep. Binding chains only work on channels.

Note that the macros make you specify which type of set you want to alter. This is because you can have two sets called the same thing, but one is binding channels and the other is binding function bars.

If you want to display what's in a set use either of:

```
GetSet(sub_page|cuelist|fbar|functionkey|channel,set_name);
```

or

```
GetSet(sub_page|cuelist|fbar|functionkey|channel,set_name,"  
separator");
```

The "separator" option is a text character that will be used to delimitate the string returned. The default is a comma. These macros return strings that you can either assign to a variable or display using the Status() macro.

NOTE:

If you don't need to dynamically change the binding sets for function buttons or function bars or cue lists there are easier ways to do this and save them in the show file.

Cue Lists can be "synced" in SETUP|CUE LISTS where two or more cue lists can be synchronized, so that the Master cue list triggers similar cue numbers on one or more Slave cue lists. Check out the Cue List Properties help topic in Horizon main help.

Function Bars can be bound automatically at startup just by entering like names in the Binding column of SETUP\FUNCTION BARS.

Name	# Buttons	Binding	Type	
Cloak & Dagger	3		Midi Note On	Channel
Battle	16		Midi Note On	Channel
Bomb	22		Midi Note On	Channel
East Berlin Car	4		Midi Note On	Channel
21st	4		Midi Note On	Channel
Briefing Override	2		Midi Note On	Channel
BS1	8	Wall Stations	Vista Button Station	Station ID
BS2	8	Wall Stations	Vista Button Station	Station ID
BS3	8	Wall Stations	Vista Button Station	Station ID
BS4	8	Wall Stations	Vista Button Station	Station ID

Individual Function Buttons can be bound to each other, regardless of their Function Bar's bindings. This is done by getting the properties of the Function Button and selecting either:

- **None** - Don't allow anything else to touch this button (even if the buttons Function Bar is bound somewhere else)
- **Function Bar** - Bind this buttons to like buttons on other Function Bars in this binding set
- **Bind To Set** - Will create another Binding Set using the name that you type in the SET field which becomes active when you choose this option. Other buttons, anywhere in the show file, that are set up like this will respond in unison with this one.

FIRE Function Key 1 Properties

Function Key Legend

Function Key Foreground Color

Sample

Function Key Name

Function Key Info

Button Type

Momentary Toggle Radio

Binding

Button Down Action

Sub("Master","1",255,1);

Status String

Button Up Action

Sub("Master","1",0,1);

Status String

GetNum & GetText Macros

Use these macros to find out information about your show file.

`GetNum(fbar|sub_page|cuelist|channels|dimmers);`
Returns the total number of the item selected (choose only one).
i.e. `GetNum(dimmmers)` may return 512.

`GetNum(button|submaster|cue,item_name);`
Returns the total number of the items in `item_name`.
i.e. `GetNum(button,"Front Door");` will return 8 if there are 8 buttons in the Front Door function bar.

`GetText(fbar|sub_page|cuelist|channel,"item_range",
"seperator");`
Returns a string containing the name or names of function bars, sub pages, cue lists or channels. `item_range` is a single number or range of numbers.
`seperator` is optional; the default seperator is a comma.
i.e., `GetText(fbar,"1/4+7")` may return General Museum, Lobby, Briefing Theatre, Area 3.1, Object Library

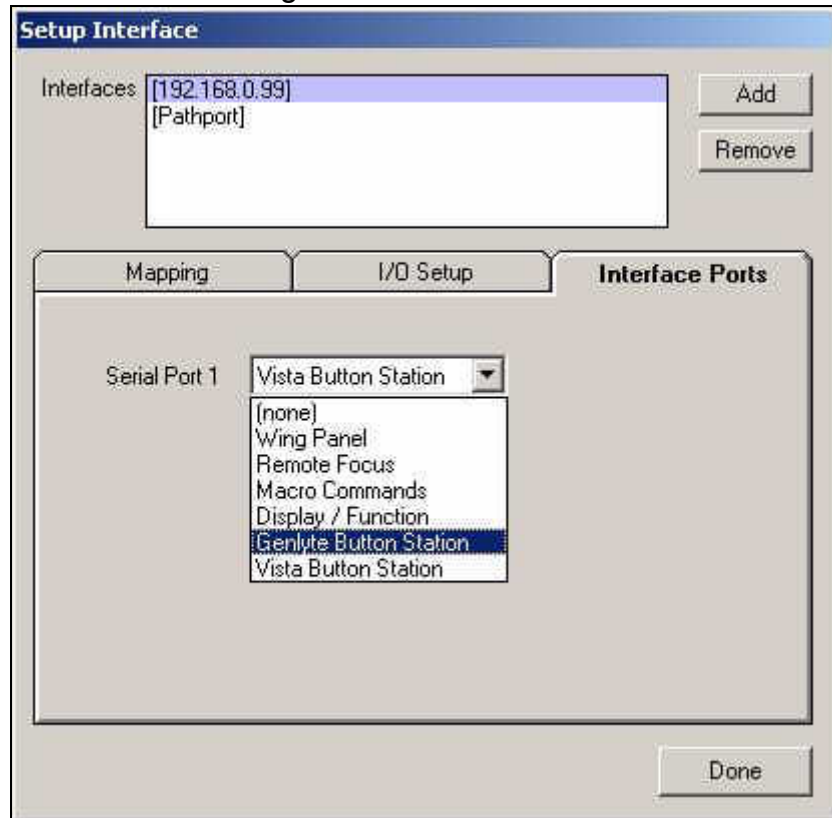
`GetText(cue|submaster|button|buttontype,"item_name","item_range", "seperator");`
Returns a string containing the name or names of the elements of a cue list, a sub master page or a function bar. Function bars can either return the name of the button or the type of button. `item_name` specifies the base object (page or list) and `item_range` is a single number or range of number.
`seperator` is optional; the default seperator is a comma.
i.e `GetText(buttontype, "General Museum","1/12")` may return R,r,r,m,m,t,m,m,m,m,m,T
In this case r = radio button, t = toggle and m = momentary. Capitalization means the button is "down".

`GetText(cuelistinfo,"cue_list","seperator");`
Returns a string giving:
a) The current cue number
b) The current cue label
c) The number of fades happening on the cue list
`seperator` is optional; the default seperator is a comma.
i.e. `GetText(cuelistinfo,"Main Show")` may return 64.5,Enter S/L,0

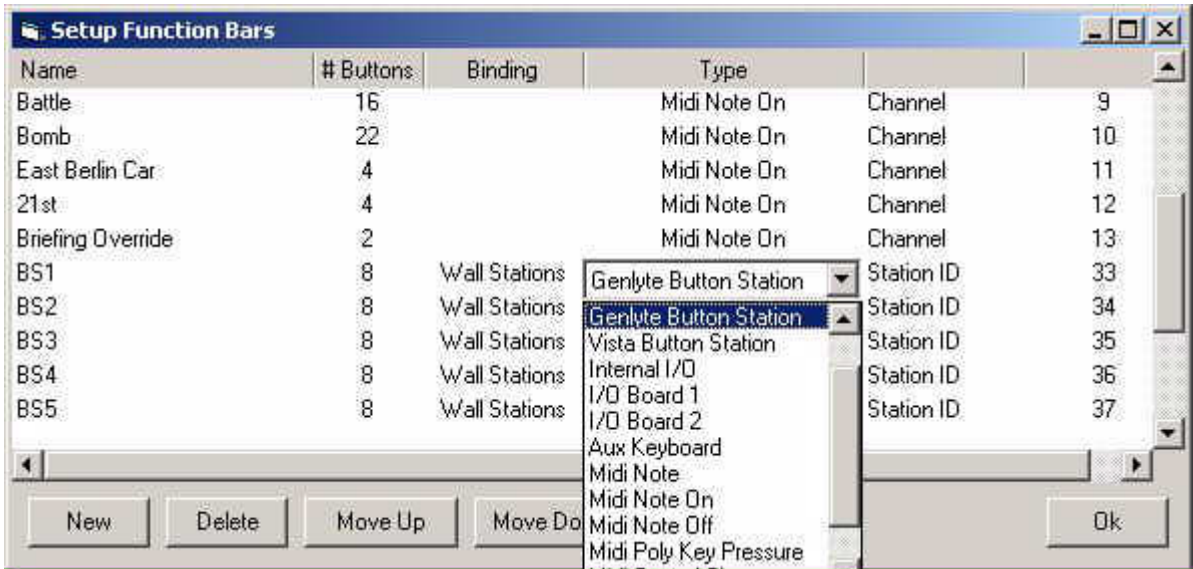
Genlyte Button Stations

Similar to how the Vista Button Stations are supported, you can now add Genlyte Brilliance button stations to your permanent architectural installation.

First you need to tell the hardware where the Brilliance Button Station Interface (CL232) is connected. That is either done in SETUP|INTERFACES|PORT or SETUP|OPTIONS|PORTS if you have the interface connected to your PC. The Button Station Icon in the status bar will show a red "X" through it until all the wiring to the button stations is good.



Then you must map a function bar to use a specific button station. Each button station must be addressed uniquely. In Horizon, select the Genlyte Button Station type in the SETUP|FUNCTION BARS and give it the proper Station ID.



NOTE: Brilliance and Build 125 only support the "Down" action in the properties of the Function Button. That means that Momentary function button types will perform both the DOWN and UP action simultaneously as soon as you touch the button, regardless of how long you hold it down. Radio buttons and Toggles will perform as normal.

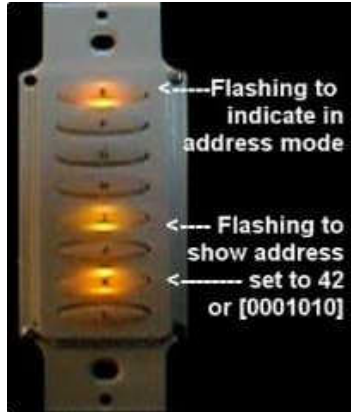
Addressing Brilliance Button Stations

To change address on an 8-button station

1. Press & hold 3rd from top and 3rd from bottom
2. Top flashes to indicate address mode
3. Enter a binary number (bottom button is LSB), minimum = 1 = station address 33 by toggling the bits with button presses (See table below)
4. Press and hold top button to make it stick

Binary Settings Reading Buttons 2-8 From Top Down

33	0000001
34	0000010
35	0000011
36	0000100
37	0000101
38	0000110
39	0000111
40	0001000
41	0001001
42	0001010



To change address on an 6-button station

1. Press & hold A & D
2. Top flashes to indicate address mode
3. Enter a binary number (A-D and OFF is MSB to LSB), minimum = 1 = station address 34 by toggling the bits with button presses (See table)
4. Press and hold top button to make it stick

33	Off
34	D
35	D & Off
36	C
37	C & Off
38	C & D
39	C & D & Off
40	B
41	B & Off
42	B & D

In Horizon a 6 button station is mapped like this:

- **On** button is FKey 1
- **Off** button is FKey 2
- **A** button is FKey 3
- **B** button is FKey 4
- **C** button is FKey 5
- **D** button is FKey 6

When Horizon uses the Brilliance button stations, all the buttons must be in Phantom Mode. Each button can be in one of three modes (Scene, Preset or Phantom).

To change a 8-button into phantom mode for a single button

1. Press and hold top & bottom until all buttons flash
2. Press a single button to see it's setting
 - 1 flash = Scene mode

- 2 flash = Preset mode
 - 3 flash = Phantom mode (Horizon mode)
3. Press the button until it is in phantom mode
 4. Press any other button to take it out of setup mode

To change a 6-button into phantom mode for a single button

1. Press and hold On & Off until all buttons flash
2. Press a single button to see it's setting
 - 1 flash = Scene mode
 - 2 flash = Preset mode
 - 3 flash = Phantom mode (Horizon mode)
3. Press the button until it is in phantom mode
4. Press any other button to take it out of setup mode

To reset a button station to defaults

1. Press and hold top & bottom buttons until all LEDs are flashing
2. Remove power
3. Apply power
4. All button should now be in phantom mode at station at default address

Horizon 125

The entry-level functionality of software allows you to control dimmers via three different cue lists simultaneously or with 3 pages of 128 submasters. You are also given 24 function buttons that can be programmed using Horizon's very powerful macro language including the ability to play the CD player on your PC. Basic software can be configured to control either 125 channels or in multiples of 512 up to 7168. Build 125 introduces the smaller125 limit at a very reasonable price. See www.horizoncontrol.com/html/software_pricing.html.

Horizon Universal Key



The Horizon Universal Key (HUK) is commonly referred to as a dongle. A dongle is a hardware device that protects the software. Your license to use the Horizon software in show situations is embedded in the HUK.

The license allows you to operate the software on any machine you want in "off-line" mode. This means you can edit, save and print show files, but you cannot use them to drive shows. Until very recently, to produce DMX or some other real-world data (SMPTE, contact closures, show control logic etc.) you would have needed to purchase hardware from us. It was on this hardware that we hid the license to use the software.


Today there are many people producing hardware devices to interact with the real world (for example Pathport or Opto 22). It is for this reason we introduced the HUK. This very small USB device serves two purposes:

1. It hosts your license to use Horizon in show situations
2. It appears as a hard drive on your Windows systems and contains everything you need to run Horizon (i.e., there is no CD to install)

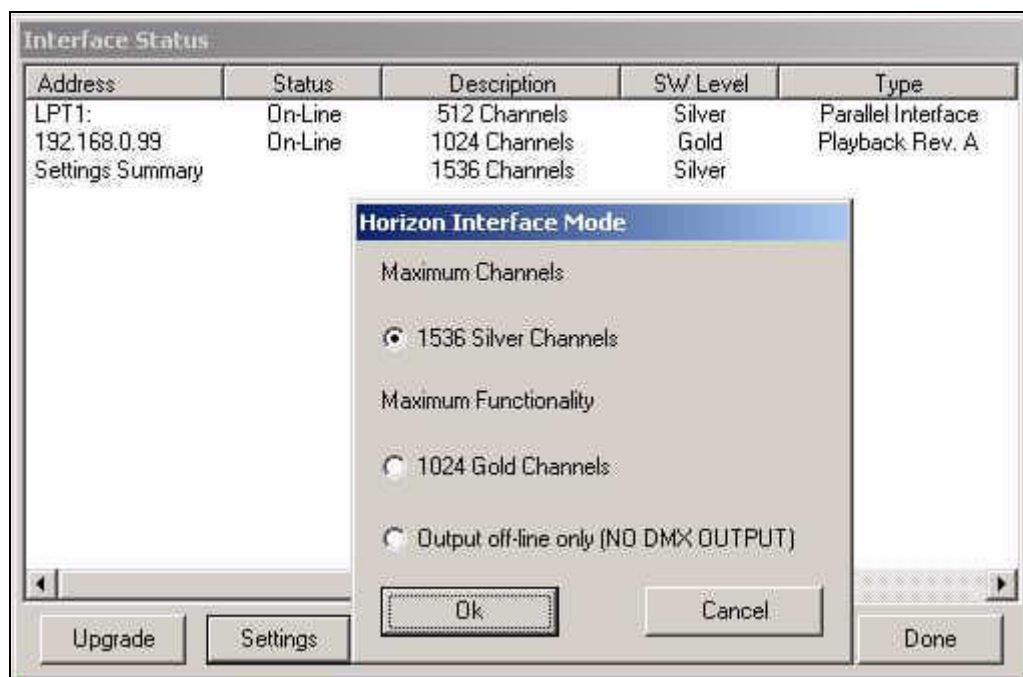
The HUK is only supported on Windows XP. When you insert it into a free USB port on your PC, it will appear as a new hard drive (the next free drive letter - normally e:\ or g:\). A window will open showing you the contents of this drive. The preferable thing to do is copy the entire contents of the drive over to your PC and double click on the Horizon Icon to launch the application. Horizon will load much faster this way than running it from the relatively slow USB drive. Keep the device installed while you run Horizon. Horizon will not produce DMX or perform many show critical operations without the license present.

Interface Setup and Mode

When you have more than two Horizon devices (Playback Controller, 1024 Ethernet Node, Parallel Interface, Horizon Universal Key) that are authorized for different software levels (Basic, Silver, Gold), you must choose between a **Maximum Channel** count or **Maximum Functionality**.

To survey which devices Horizon can see, click on the DMX Icon  in the lower right hand corner of the status bar.

The list of found devices will be displayed. This list should include all devices defined in SETUP|INTERFACES and any Horizon Universal Keys found on your PC's USB ports.



In this example, there is a Parallel Interface authorized for 512 channels of Silver and a Playback Controller authorized for 1024 channels of Gold. The total number of channels available is 1536. These must all operate at the lowest level of functionality (in this case - Silver). Or, you can choose to operate the system based on 1024 channels of Gold.

If you have devices defined in your show file but they are not present, you can choose the third option "Output off-line". This allows you to use Horizon with visualization packages as Show Designer and WYSIWYG without purchasing a license from Horizon Controls Inc.

NOTE: Playback Controllers must be first device in SETUP|INTERFACE to allow it to go into Playback Mode.

Opto 22 Digital I/O



Horizon supports Opto 22's [Snap Ethernet I/O D64](#). You must be familiar with the setup and configuration of this device to use it on your Horizon network.

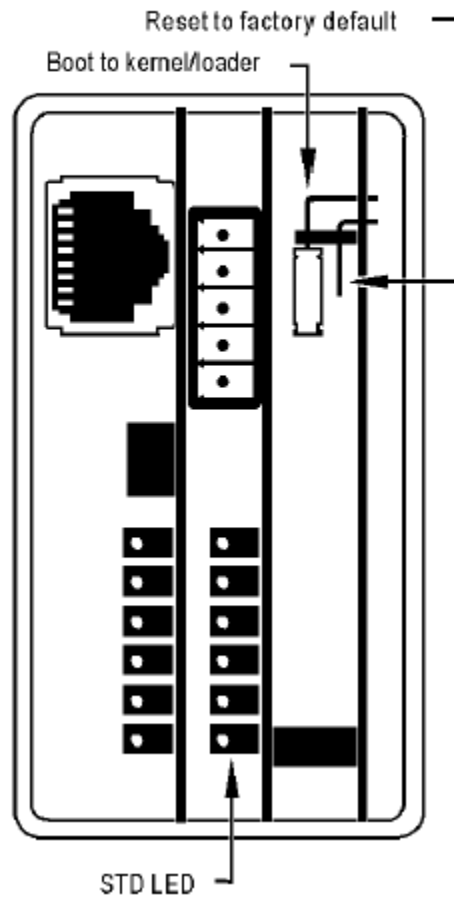
Horizon GOLD supports 16 I/O points. You can purchase additional blocks of sixteen on line at www.horizoncontrol.com or from your dealer. (NOTE: Horizon Basic and Silver do not support Opto 22 Digital I/O.)

You will need OptoENET Utilities found on the Opto 22 web site. You must assign your PC or PBC and the brain their own unique IP addresses.

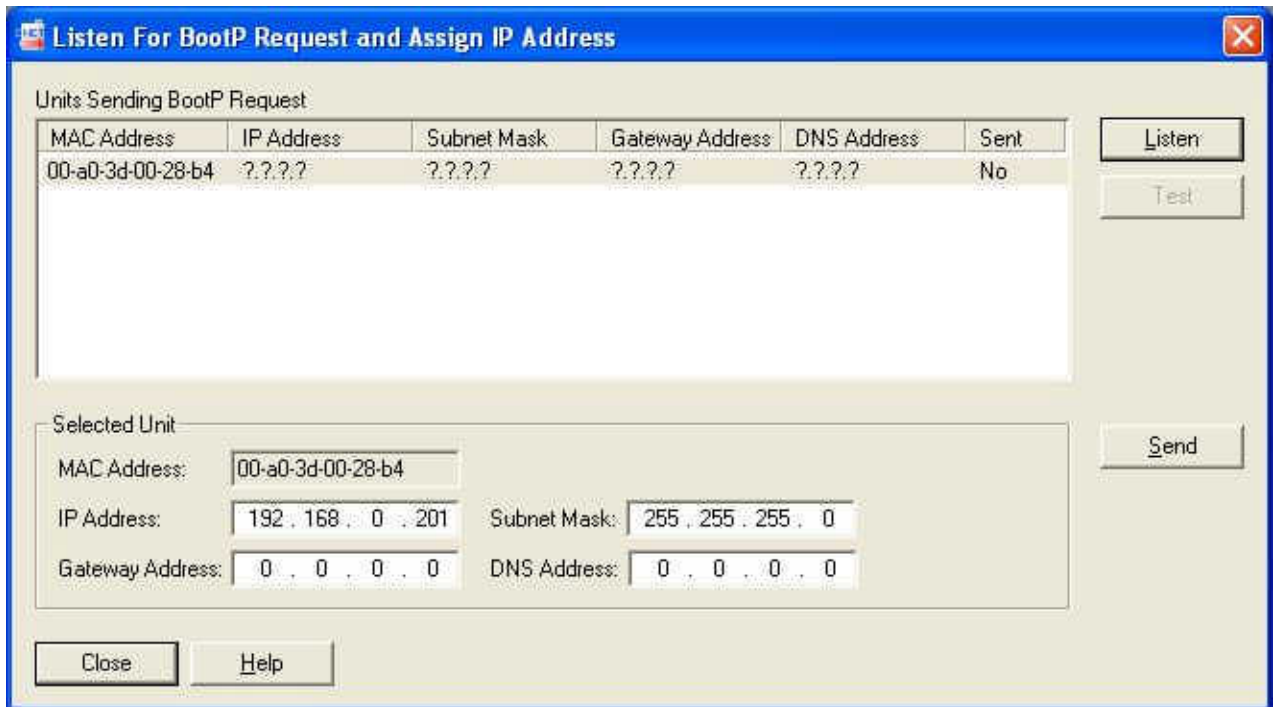
Hints:

- Horizon Build 126 uses Opto 22 Kernel Firmware Version 3.0.2.10.
- To reset the brain to factory defaults - set the jumper as shown and power cycle the unit.

Standard SNAP Ethernet or SNAP Ultimate Brain



- Set the jumper back to Boot to Kernel for normal operation.
- After you have have reset the unit, use `C:\Opto22\ioManager\OptoTagG.exe` to Listen for BootP request. Your unit should respond with it's MAC address. Set it's IP address and Subnet and press the SEND button



- Using Internet Explore, surf this page:
C:\Opto22\WebConfigPages\index.htm. Enter your units IP address and hit GO. Using this interface, you must configure your input and output points. **Do Not Forget** to do a *Status Write|Operation Code-Store To Flash* or your brain will forget all config data on reboot.

Opto 22 Ethernet I/O - Microsoft Internet Explorer

Address: C:\Opto22\WebConfigPages\index.htm

SNAP-ENET-D64 IP Address: 192.168.0.201
MAC Address: 00-A0-3D-00-28-B4

OPTO 22
Navigation Menu

Current IP address: 192.168.0.201

Network Timeout (ms): 10000

[Home](#)
[Main Menu](#)
[Configure...](#)
[I/O Points](#)
[Streaming](#)
[Security](#)
[Modbus](#)
[Digital Events](#)
[Timers](#)
[Event Messages](#)
[E-mail](#)
[PPP](#)
[SNMP Agent](#)
[Data Logging](#)
[Clock](#)

Configure Point

Point 63

Step 1: Click the number of the point you want to configure.

Module	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Point	0	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
...	1	5	9	13	17	21	25	29	33	37	41	45	49	53	57	61
...Prev	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62
Next...	3	7	11	15	19	23	27	31	35	39	43	47	51	55	59	63

Step 2: In the Value column, set the parameters for point.

Step 3: To configure the point, click the 'Configure Point' button at the bottom of the page.

	Address	Description	Value
Set for all points	0xFFFF F0C0 0FC0	Module Type	Dig/none (0x00)
	0xFFFF F0C0 0FC4	Point Type	Digital Output (0x180)
	0xFFFF F0C0 0FE4	Watchdog Output Value	0.000
	0xFFFF F0C0 0FE8	Watchdog Enabled	Disabled
Optional	0xFFFF F0C0 0FF0	Point Name	

- In Horizon, go to SETUP|FUNCTION BARS and add a new function bar and make it type Opto-22 and set its IP address. These buttons (64 max) will mimic (follow) the true state of your Opto 22 hardware.

Setup Function Bars

Name	# Buttons	Binding	Type	
Main	24		User	
Opto-22 I/O	64		Opto-22 Ethernet I/O	IP Address: 192.168.1.99

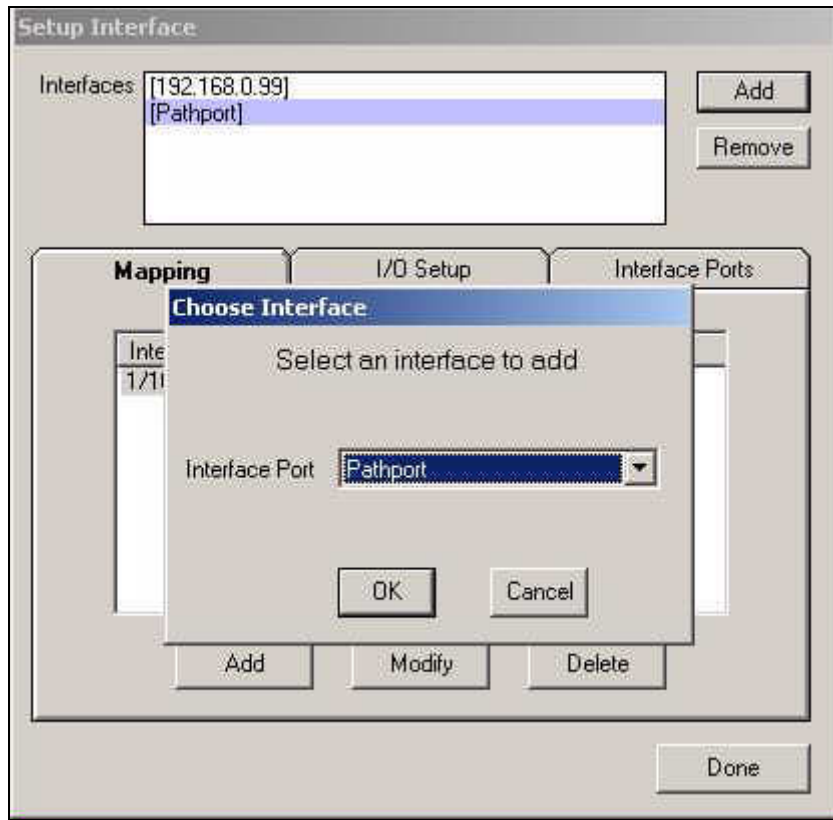
Pathport



The Horizon software running on your PC can talk directly to any number of Pathport Output Nodes installed in your venue via your LAN. These units are available throughout the industry via other dealers selling Pathway products. For more information on Pathport visit [Pathway Connectivity](#) .

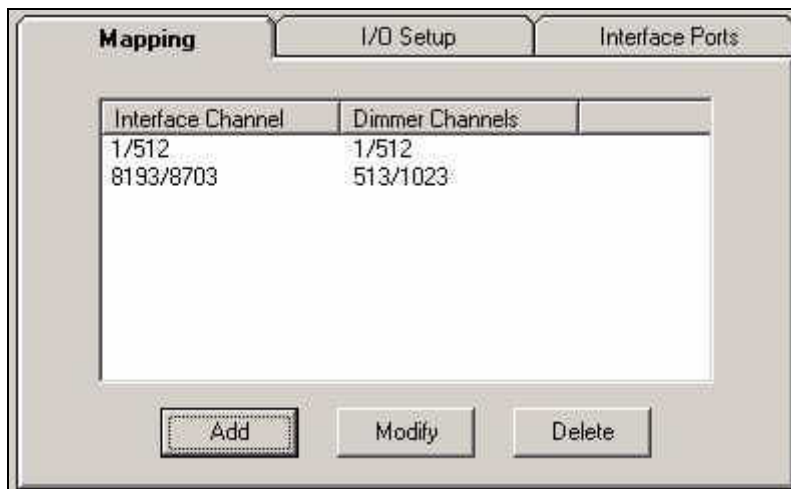
Adding PATHPORT to a Show file

From the SETUP|INTERFACES menu, choose ADD and select Pathport. You only add **one** Pathport to your show file regardless of how many Pathports are on your network. Using the Interface Mapping, described below, you can output to any Pathport Source. Using Pathport's Setup utility, you map those Sources to Pathport Output Nodes.



MAPPING

By default, the mapping between the Dimmer Channels in your Horizon show and the Interface Channels on the Pathport will be 1/512 to 1/512. That means that Horizon will output to the first Source in the Pathport Network. You can change which Source Horizon outputs to by selecting the Pathport in the list of interfaces, then choose the Mapping tab below and select the Modify and/or Add buttons.



NOTE:

You must have at least one Entertainment Technology devices attached to your PC (i.e., Horizon Universal Key, 512 Interface or IP specific to a PBC or Ethernet Node) as your software license (Gold, Silver or Basic) is embedded on these devices - not the Pathport. If you have a 512 Interface with a software license, you can only output to 512 Dimmer Channels. You can, however, output them to any Pathport "Source" using the Interface Mapping as described above.

Pathport Source Definition

Pathport supports 64 virtual sources. A source is a block of 512 control channels (or dimmers). Normally you would map the first Source (1-512) to the "A" connector of your Pathport and the second Source (513-1024) to the "B" side.

Tracking Backup

If you own two licenses of Horizon, you can use a second Windows machine on the same network to backup the first in case of failure.

Typical backup configurations include:




- A Windows PC with DMX capabilities (Horizon 1024 node or Pathport) backing up up a Horizon Playback Controller
- A Windows PC with Ethernet based DMX backing up another PC.
- Two Windows PCs on a network with two parallel port Horizon devices.

If you are using an Ethernet solution for DMX or contact closures, the backup machine can use a Horizon Universal Key for its license.

The backup machine must know the IP address of the master machine and both machines must load the exact same show file. The show file must have Telnet enabled under SETUP|OPTIONS|PORTS.

To launch a backup system, create a new shortcut to Horizon with the command line option `/backup=xxx.xxx.xxx.xxx` where xxx is the IP address of the master machine. Create a new shortcut by right clicking on Horizon.exe and drag to your desktop. Then right click on the new icon to get its properties. Modify it to look like the following:



When you launch Horizon on the slave PC, the DMX icon in the lower right hand corner (which normally looks like this: ) will look like this: . That means it is looking for the master computer. Once it finds the Master PC running Horizon on the network the icon will change to . If the show files are not exactly the same, a warning message will come up. In the event of a failure on the main PC, the backup system will display the following message.



After 10 seconds, if you don't respond, the dialog box will close and the backup system will go live.

Fade Channel

This macro allows you direct control of a channel's level without having to operate a submaster, run an effect or advance a cue list. Channels will maintain their level on an Last Takes Precedence basis - meaning the channel will maintain that level unless it is moved by some other device (macro, cue, sub or effect).

```
FadeChan("chan_range", "Default");
```

Directly takes control of a channel or channel range and sets its default level.

Note: The word "Default" must have double quotes.

```
FadeChan("chan_range", level);
```

Directly takes control of a channel or channel range and sets its level.

```
FadeChan("chan_range", level, time)
```

Directly takes control of a channel or channel range and fades it from it's current level to its new, specified, level in time (seconds).

```
FadeChan("chan_range", "Default", time)
```

Directly takes control of a channel or channel range and fades it from it's current level to its default level in time (seconds).

Note: The word "Default" must have double quotes.

```
FadeChanByRate("chan_range", level, rate)
```

Directly takes control of a channel or channel range and fades it to its new level at the specified rate.

Rate is defined as the amount of time in seconds it takes for a channel to travel from 0% to Full. Using rate will give a predictable speed, regardless of where the channel is set before running the macro.

```
FadeChanStop("chan_range")
```

Stops any fades that are currently in progress that were put in motion by

```
FadeChan("chan_range", level, time) or
```

```
FadeChanByRate("chan_range", level, rate) .
```

GetCRC

This macro will give a *Cyclical Redundancy Check* on a range of dimmers or channels which can be handy to know to determine if your system is in the right state or not, allowing you to react if necessary.

```
GetCRC(channel|dimmer,"item_range");
```

Choose either `channel` or `dimmer` then give it a range. For example, if you wanted to check that your whole DMX A port was in a "known" state, use this macro:

```
GetCRC(dimmer,"1/512");
```

It would return a value, such as 3556. You can be assured that that value is a unique snapshot of the output. Running this macro at different times and comparing it to 3556 will tell you whether or not things are as you expect. Doing one CRC check can give you a pass or fail condition much quicker than testing the state of all your subs and cue lists. Remember, you must do your check at a know "static" time (i.e., not when effects are running or subs are fading) as results will vary greatly, even if just one dimmer is slightly different.

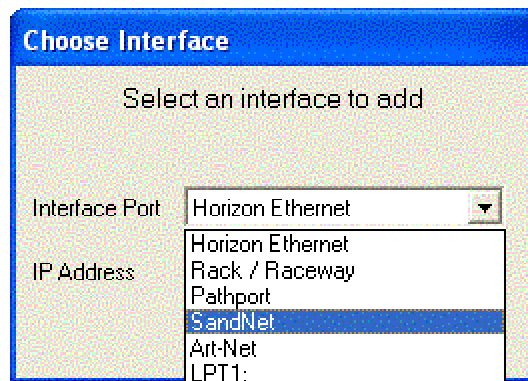
SandNet SandBox



The Horizon software running on your PC can talk directly to a SandBox installed on your USB port. See more information at [Sand Network Systems](#).

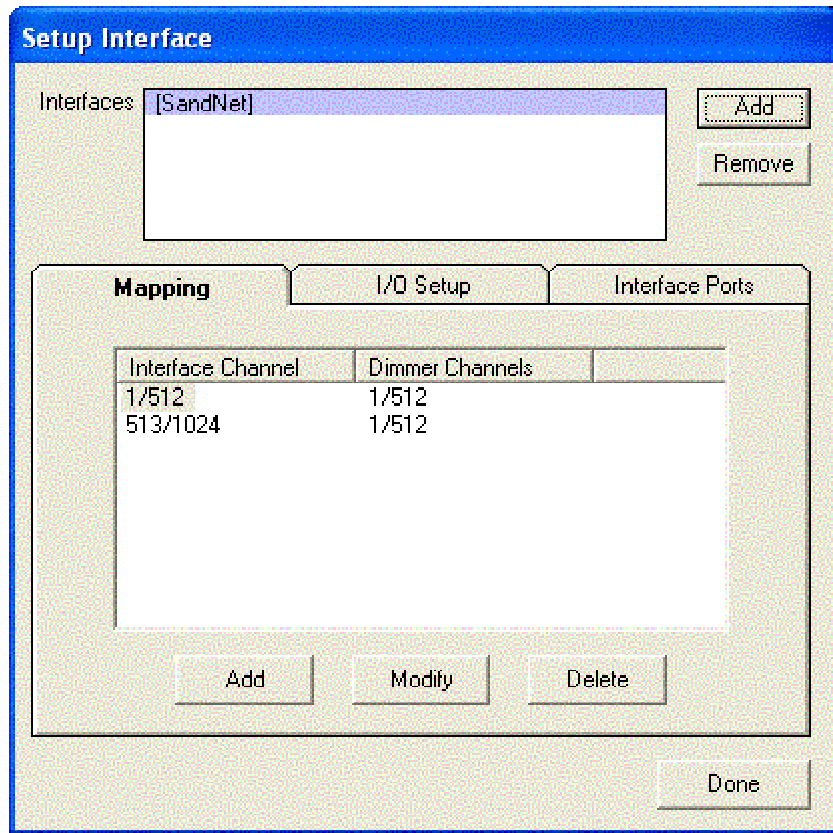
Adding SandBox to a Show file

From the SETUP|INTERFACES menu, choose ADD and select Sandbox.



MAPPING

Using the Interface Mapping, you can output to both DMX ports (1 thru 1024 or 1 thru 512 and 1 thru 512) By default, the mapping between the Dimmer Channels in your Horizon show and the Interface Channels on the SandBox will be 1/512 to 1/512. That means that Horizon will output to the first DMX port only on the SandBox.



NOTE:

You must have at least one Entertainment Technology devices in the list (i.e., 512 Interface or IP specific to a PBC or Ethernet Node) as your software licence (Gold, Silver or Basic) is embedded on these devices - not the SandBox. If you have a 512 Interface with a software licence, you can only output to 512 Dimmer Channels.

Build 200 Bug Fixes

- Slashes and semi-colons now allowed in fixture titles
- FXPause() macro pause levels at current value rather than temporarily killing FX

Build 128 Bug Fixes

- Intensity changes not recorded (if doing Rec-Changed) after selection of other palettes
- Time Event resolution better than 1 second (multiple events were firing in first second of trigger time)
- VL3000 Gobo +/- removed

Build 127 Bug Fixes

- shows using palettes that span multiple channels load more reliably
- repetitive selection of palettes during programming no longer freezes channel selection
- PBC - Genlyte Button Station in show file stopped status strings writing to the LCD display
- channels moved using the FadeChan() macro no long fade to default values during a GOTO cue

Build 126 Bug Fixes

- Interface Mappings greater than 1024 for Pathport.
- Selection of huge numbers of moving lights now much faster.

Build 125 Bug Fixes

- DST fixes on PBC
- successive application of 16 bit palettes no longer needs de-selection / re-selection
- Prompt for sub macros 0-255

Known issues in Build 200

- Playback Controllers must be first device in SETUP|INTERFACE to allow it to go into Playback Mode.

- HTML pages in directories that contain the "-" character do not load.
- Inhibitive submasters for moving lights must use attribute channel - not base channel.
- Old shows that use Sub macros must be converted from percent to decimal or put a % sign after the level.
- Action After Fade macros happen at start of cue during Learn Timing sessions.
- If you are using Ethernet communication between Horizon and a Capio Rack or Raceway, for Talkback to appear properly in Horizon it requires that EACH RACK is patched linearly (i.e. 1-48/1-96, etc.)

Bug Fixes since Build 121

- Horizon does not send I/O commands down to PBC when in playback mode
- Setup|Interfaces Mapping would not let you patch to 512 or 1024
- intentionally recording default values now sticks
- cleaned up patch import from WYSIPAPER
- limit to group no longer puts hard zero values in channels not in group
- FXRate("fx_name",rate,"sub_page",sub_num); fixed
- can de-select 16bit channels (broken since 116)
- system variable \$_Fkey now evaluates to button it's on - not necessarily the button going down
- modified GetSub to handle range of submasters (just like GetFKey)
- cleaned up macro editor "smart-ness"
- application of palette marks channels changed - regardless of whether or not the channel changed value
- RFU channel selection fixed
- Next Cue in status bar not showing last cue number in a cue list fixed
- Attribute dialog box moves all Color and Beam attributes in Absolute mode (as opposed to Relative mode). The Focus bull's eye is selectable between Relative and Absolute
- Moving Light Effects now write to high-resolution channel of 16 bit channels
- Fixed bug where delete cue only does not transfer HARD default values of 0%
- Show with 512 interface patched no longer takes up unnecessary processing power when the device is not on-line
- Copy of Attributes from the Attribute dialog box registers a CHANGE for recording purposes

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