Version 1.1 March 2022

DeltaV Live and IVC Relay Server Video Integration Guide

Contents

1 Overview

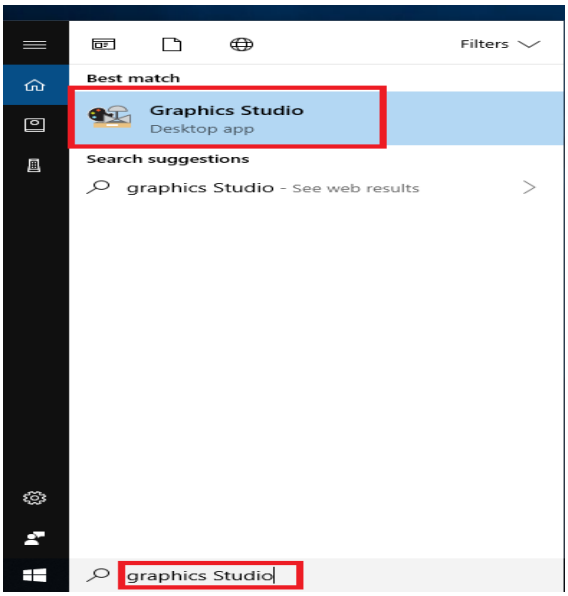
This document outlines the procedures on how to integrate the IVC Relay Server video web components into the DeltaV Live system. It is assumed that the DeltaV software is installed on a Windows 10 operating system.

2 DeltaV Live Display Setup

This section briefly describes the steps in Graphic Studio to create a sample DeltaV Live display that embeds a browser control to show a camera feed hosted in the Relay Server.

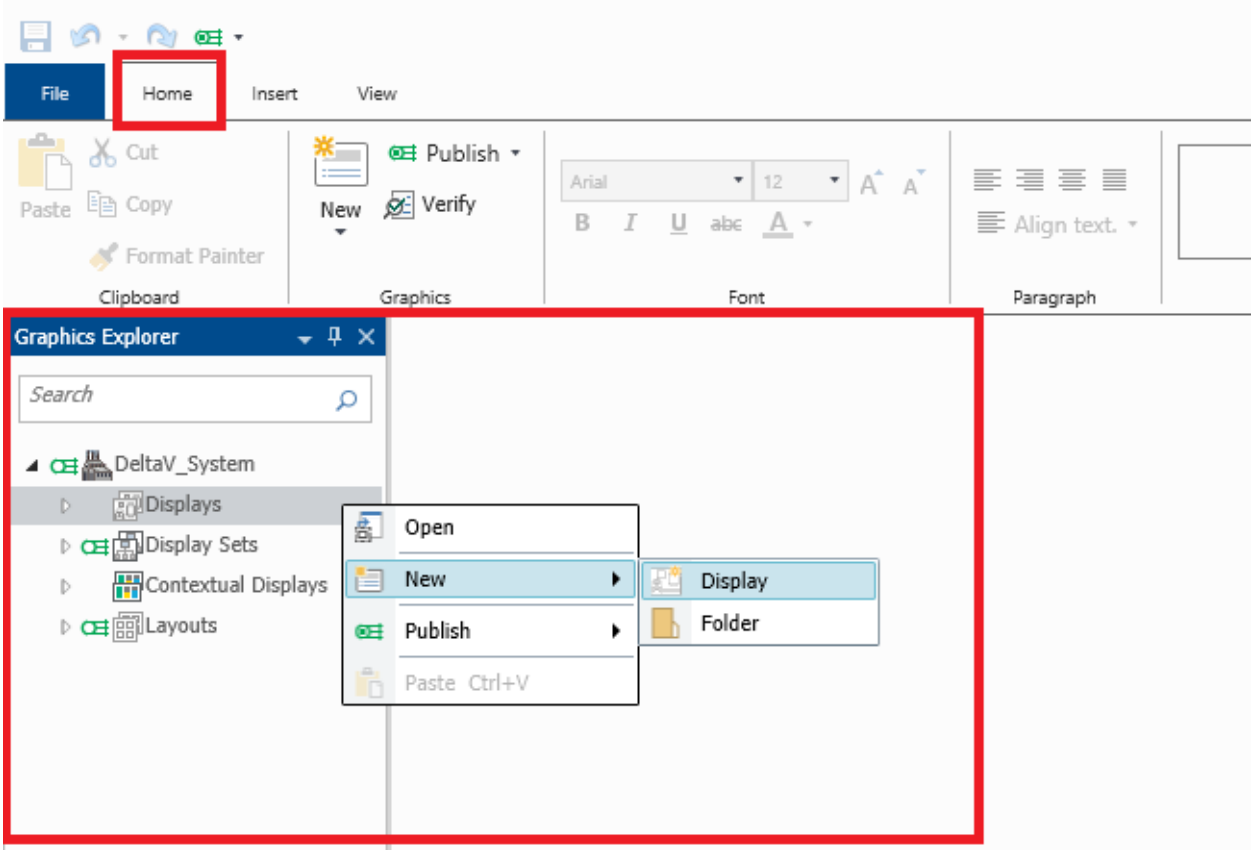
2.1 Launch Graphics Studio

Graphics Studio is the tool in the DeltaV system for creating DeltaV Live graphical projects. To launch the tool, type Graphics Studio at the bottom left corner box in the Windows screen and then select Graphics Studio as shown below.



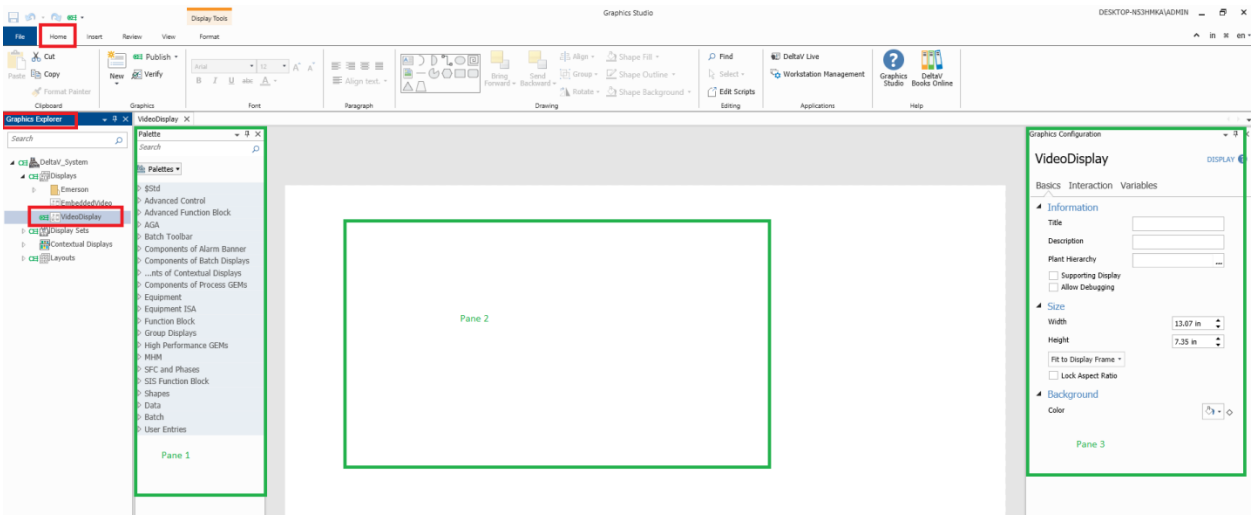
2.2 Create New DeltaV System Display

Open Graphics Studio and choose DeltaV System->Displays->New->Display in the Graphic Explorer pane as shown below. Give a name for the new display. This example is called “VideoDisplay”.



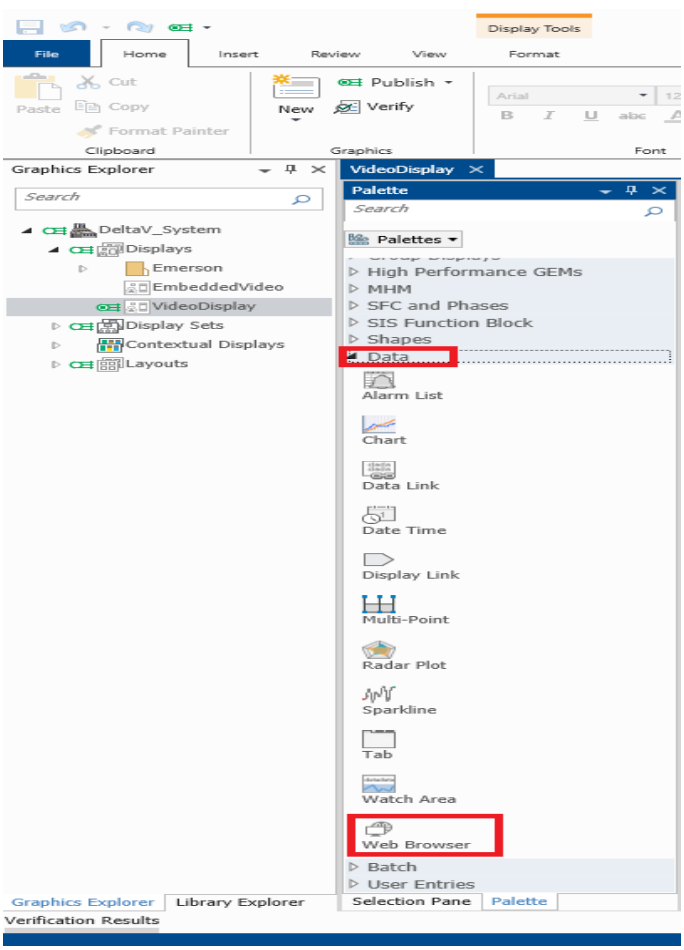
2.3 Select the Newly Created Display - VideoDisplay

After the new Display named VideoDisplay is created, a new tree item will be created under the DeltaV System->Displays. If the display is not already open, double-click on the VideoDisplay item to do so, it will show three panes on the right hand side, the Selection pane (pane 1 in picture below), the Document pane, is the entire area in the center (the entire white square containing pane 2 in picture below) that users have available for creating their graphics and the Graphics Configuration pane (pane 3 in the picture below).



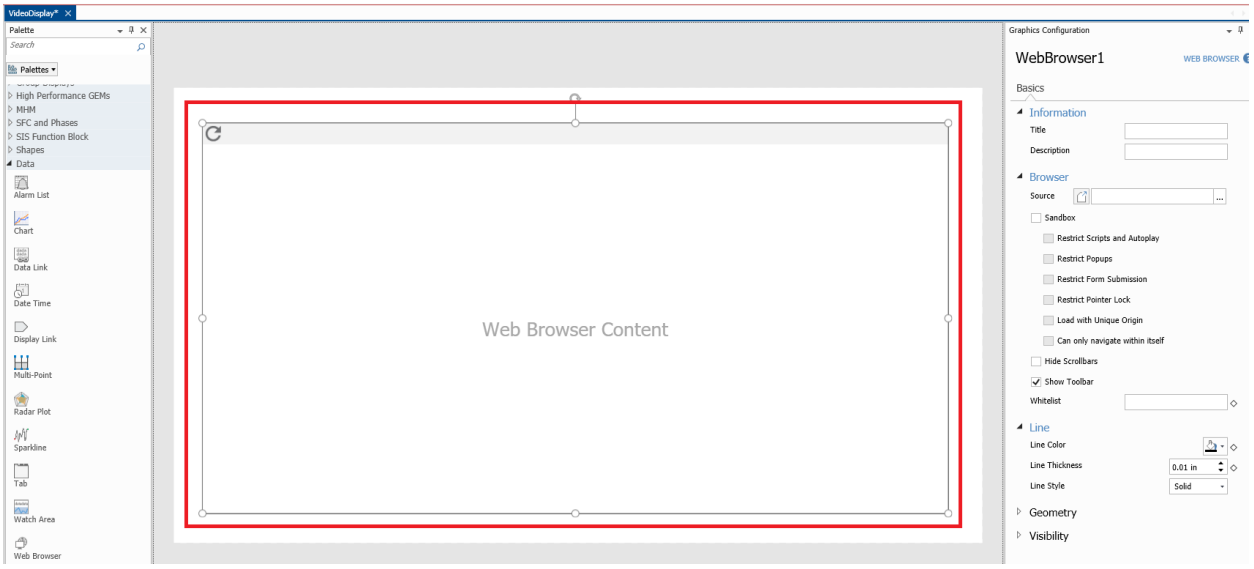
2.4 Choose Web Browser

After selecting the VideoDisplay in the Graphics Explorer, expand the Data section in the Palette tab and then select Web Browser as shown below.



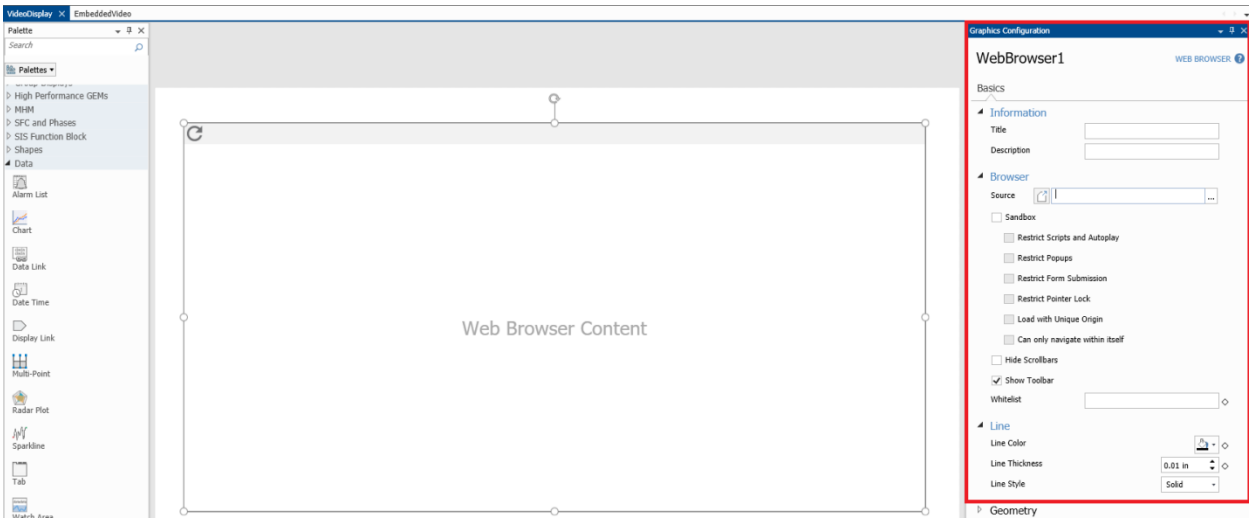
2.5 Add the Web Browser

Drag the Web Browser to the Document Pane and expand the control to the desired size and place it on the desired location of the document.



2.6 Configure the Web Browser

Configure the WebBrowser1 in the VideoDisplay using the provided properties on the Graphics Configuration pane.



2.7 Configure the Web Browser Properties

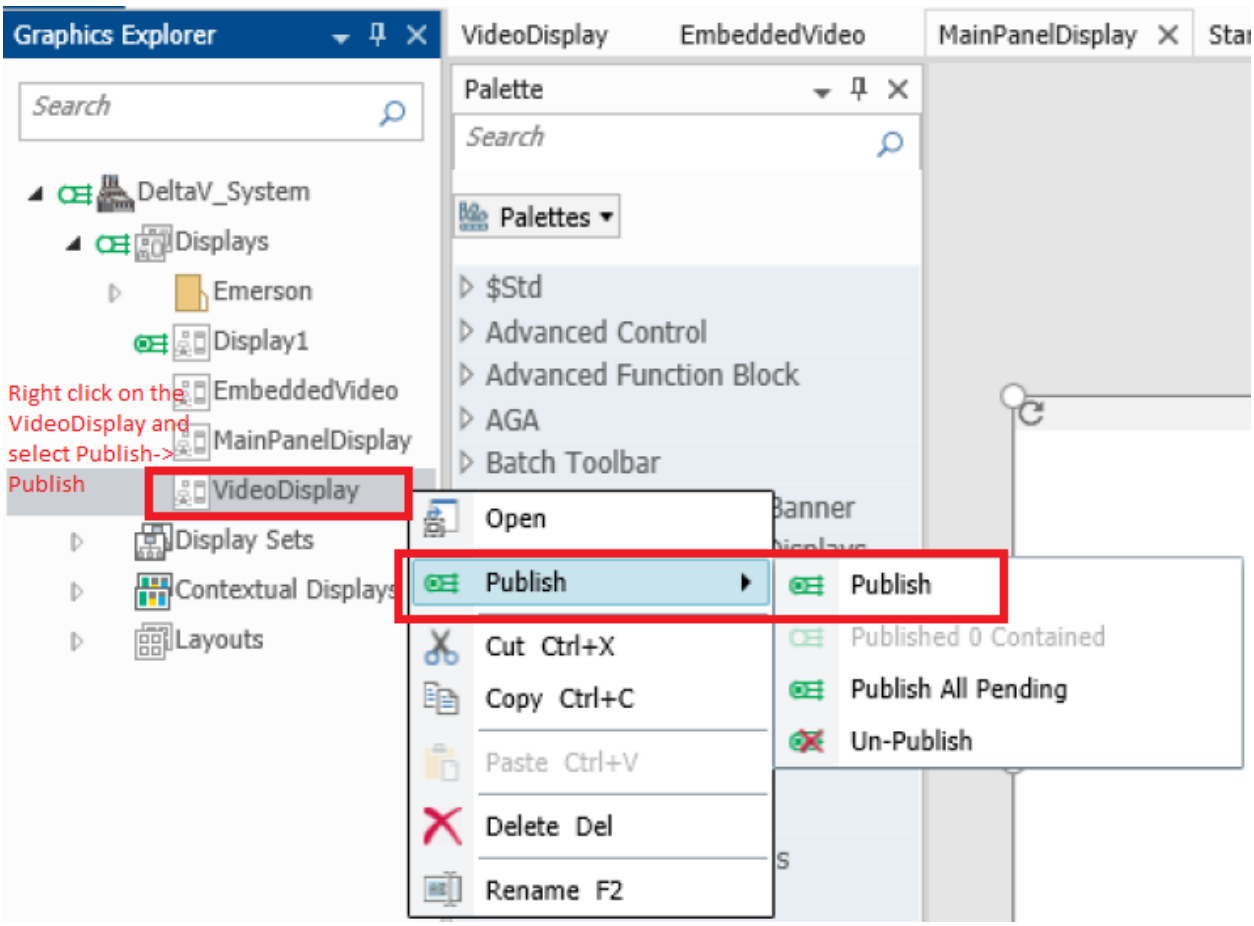
The Source property of the WebBrowser is the hook to the Relay Server web components. See Section 3 for more detailed information. The Source property needs to be in quotation marks.

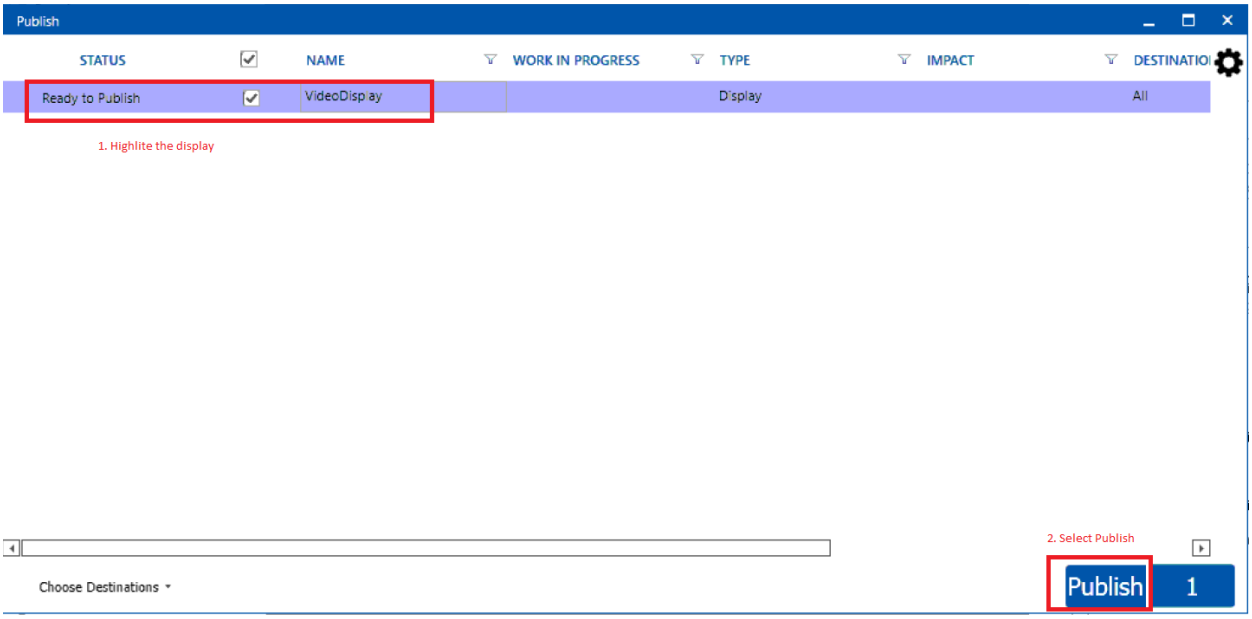
The Whitlisting entry is required to allow DeltaV Live to communicate with its Relay Server. This is entry doesn't require quotation marks and it is enough to provide just the IP address or server name. In this example: http://192.168.25.80

To change the camera on the VideoDisplay, the Source property of the Web Browser needs to be updated. In this example, changing the WebBrowser1.Source = "http://192.168.25.80/mainpanel/2/mainpanel" will change the video display from camera 1 to camera 2 by default. There is a list of cameras is provided by the mainpanel URL which allow users to switching cameras using the URL. The viewpanel URL doesn't have the camera selection option. See section 4.2 for more info.

2.8 Publish the Display

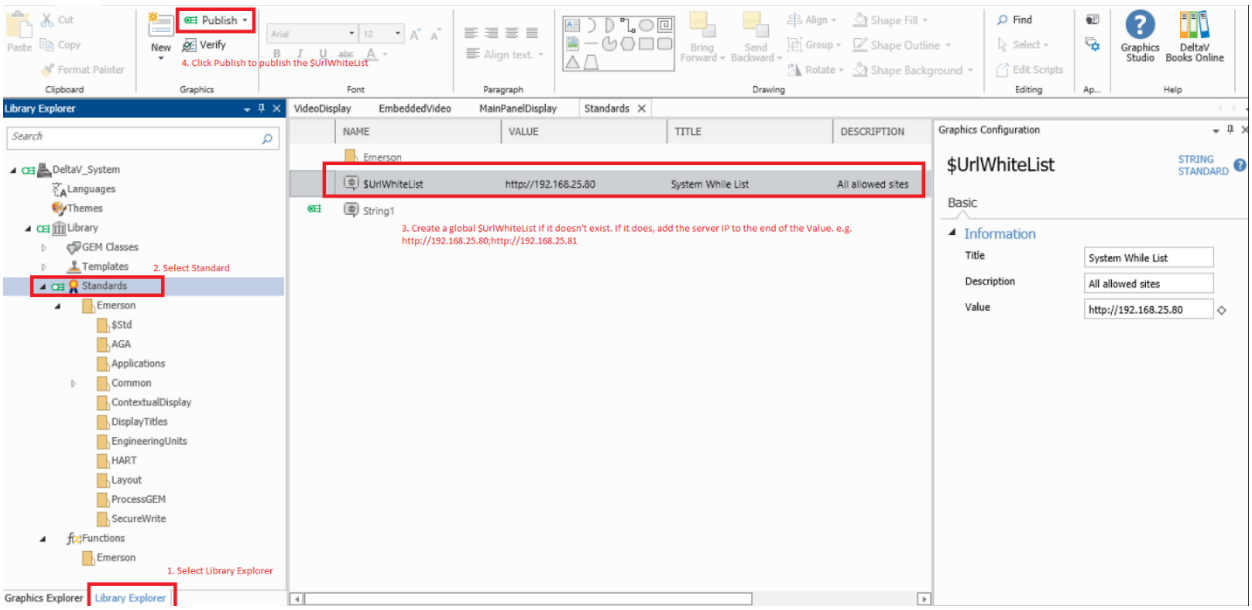
Publish the display called VideoDisplay for the display to be listed in DeltaV Live.





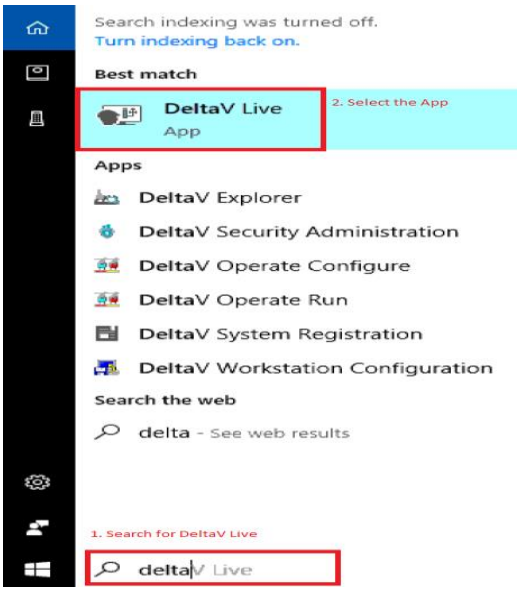
2.9 Configure and Publish the System Wide WhiteList

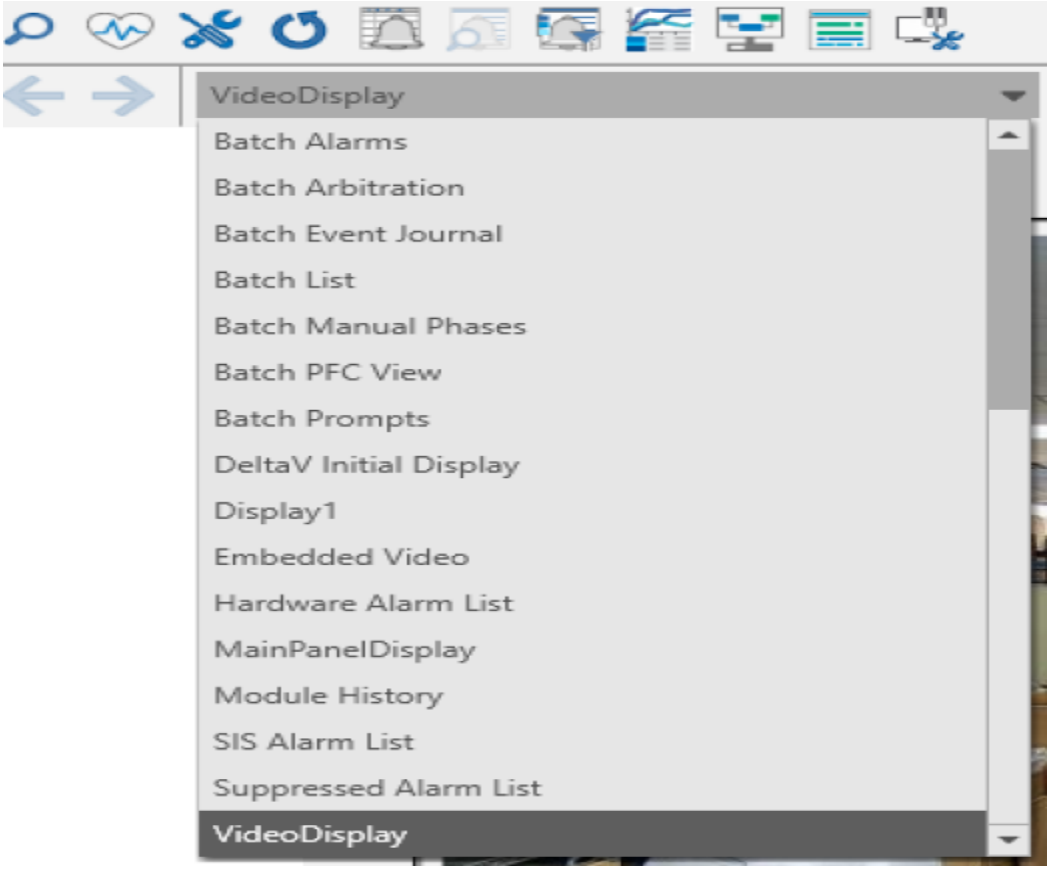
A system wide whitelisting needs to be updated to include the server that was used in the previous section. (if not already done). After the server is added to the $UrlWhiteList, it needs to be published.

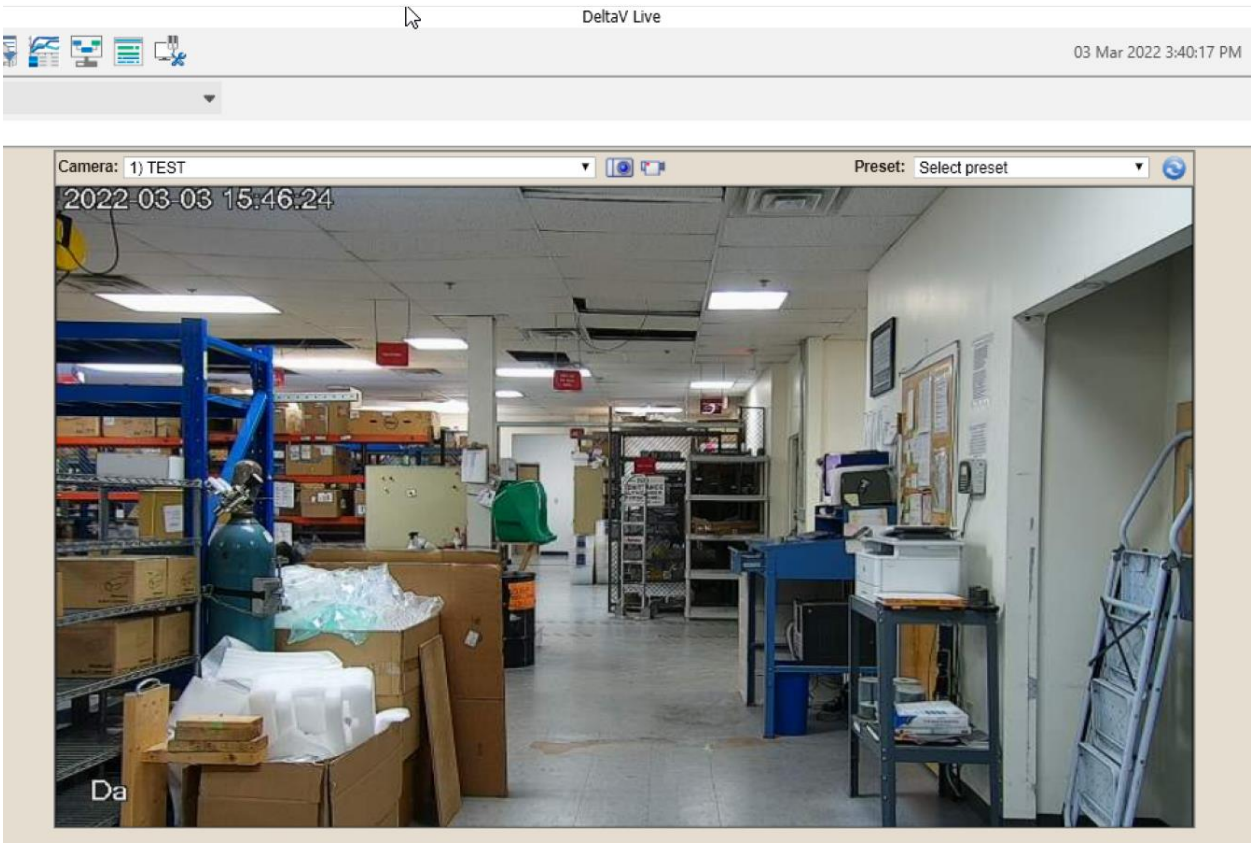


3 DeltaV Live Display Test

After the display is created and published, launch the DeltaV Live to test the display. From DeltaV Live, select the drop down list and choose VideoDisplay. This will launch the display that was created from previous section.


Search indexing was turned off.
Turn indexing back on.
Best match
DeltaV Live
App
2. Select the App
Apps
DeltaV Explorer
DeltaV Security Administration
DeltaV Operate Configure
DeltaV Operate Run
DeltaV System Registration
DeltaV Workstation Configuration
Search the web
delta - See web results
1. Search for DeltaV Live
deltaV Live


VideoDisplay
Batch Alarms
Batch Arbitration
Batch Event Journal
Batch List
Batch Manual Phases
Batch PFC View
Batch Prompts
DeltaV Initial Display
Display1
Embedded Video
Hardware Alarm List
MainPanelDisplay
Module History
SIS Alarm List
Suppressed Alarm List
VideoDisplay



4 IVC Relay Server Web Components

This section explains the HTTP commands used to interact with the IVC Relay Server. Usually commands are accessed through CGI calls to the server from web pages, but sometimes it may be necessary to access these commands directly, or through scripts which simulate web commands.

4.1 General Format of URL Commands

There are several commands the Relay Server will accept. The general format is:

http://<host>:<port>/<command>/<camera number>/<argument list>

<host> The IP address or hostname of the computer which is running the Relay Server

<port> The port Relay Server is listening in which is running the Relay Server

<command> The command that tells the server the type of request such as 'video', 'control', 'mainpanel', 'viewpanel' and etc. The sub-sections below describe the 'mainpanel' and 'viewpanel' commands.

<camera number> The number of the camera which is requested

<argument list> This can be one or many parameters the server needs to process the request

4.2 Live Video Panel Commands

There are two types of live video panel commands can be used as the Source property in the Web Browser control inside the DeltaV Live system. These two commands are called, the 'mainpanel' and 'viewpanel'.

4.2.1 Main Panel Command

This command shows the Relay Server default 1-up live view display. Section 3.3 shows the two live view layouts. The format of the command is:

/mainpanel/<camera number>/mainpanel

<*camera number*> is an integer greater or equal to 0 and less than or equal to the number of cameras supported.

Examples :

1) */mainpanel/1/mainpanel* will show the first camera on the live video window on the main panel web page
2) */mainpanel/3/mainpanel* will show the third camera on the live video window on the main panel web page

4.2.2 Live Panel Command

This command provides a list of parameters to display 1 or more cameras with different video control options. The format of the command is:

/viewpanel/<cameranumber>/viewpanel&rows=<number of rows>&columns=<number of columns>&order=<ordering>&feeds=<feed numbers>&fps=<frames per second>&imagewidth=<image width>&imageheight=<image height>&useivcax=<use ivc ax>&enableptclk=<enableptclk>&enableovlfs=<enable overlay fullscreen>&enableovlgps=<enable overlay gps>&enableovlptz=<enable overlay ptz>

<*camera number*> is an integer greater or equal to 0 and less than or equal to the number of cameras supported.

<*number of rows*> is the rows of the view panel and the number is range from 1 to n. If this parameter is not specified, the default value is 1. (optional)

<*number of columns*> is the columns of the view panel and the number is range from 1 to n. If this parameter is not specified, the default value is 1. (optional)

Note: The <number of rows> * <number of columns> creates a table which represents the video display in a web page. Each cell in the table represents one video display.

< *ordering*> is the way of the numbering the cells in the table. The ordering is either horizontal or vertical. The value is either “h” or “v”. If this parameter is not specified, the default value is “h”. (optional)

<*feed numbers*> is a list of camera numbers that will be assigned to the cells in the table. The format of the feed numbers can be comma separated between feed numbers and/or a dash separated between two feed numbers to specify the range. (optional)

<*frames per second*> is the frame rate for all specified feeds on this web page. If this parameter is not specified, the frame rate of each feed is default to the feed configured maximum capture video frame rate from the camera source. (optional)

<*image width*> is the width of all the live video images on this web page. If this parameter is not specified, the width of each image is default to 352. (optional)

<*image height*> is the height of all the live video images on this web page. If this parameter is not specified, the height of each image is default to 240. (optional)

<*useivcax*> is a boolean value to tell whether to use the IVC ActiveX control to view the video. The value is either “true” or “false”. If this parameter is not specified, the default value is “false”. (optional)

<*enableptclk*> is a boolean value to tell whether to enable point and click for all the live video on this web page. The value is either “true” or “false”. If this parameter is not specified, the default value is “true”. (optional)

<*enableovlfs*> is a boolean value to tell whether to enable full screen overlay on the video window for all the live video on this web page. The value is either “true” or “false”. If this parameter is not specified, the default value is “true”. (optional)

<*enableovlgps*> is a boolean value to tell whether to enable gps overlay on the video window for all the live video on this web page. The value is either “true” or “false”. If

this parameter is not specified, the default value is “true”. (optional)

<enableovlptz> is a boolean value to tell whether to enable ptz control overlay on the video window for all the live video on this web page. The value is either “true” or “false”. If this parameter is not specified, the default value is “true”. (optional)

Examples :

1) */viewpanel/1/viewpanel* will show a 352x240 1-up display of camera number 1 using javascript and point & click is enabled
2) */viewpanel/2/viewpanel&useivcax=true* will show a 352x240 1-up display of camera number 2 using IVC ActiveX control and point & click is enabled
3) */viewpanel/3/viewpanel&enableptclk=false* will show a 352x240 1-up display of camera number 3 using IVC javascript and point & click is disabled
4) */viewpanel/4/viewpanel&imagewidth=704&imageheight=480* will show a 704x480 1-up display of camera 4 using javascript and point & click is enabled
5) */viewpanel/0/viewpanel&rows=2&columns=3&order=h&feeds=1,3-5,10,12* will show a 352x240 6-up display of camera 1, 3, 4, 5, 10 and 12. Camera 1, 3 and 4 will be displayed at the first row. Camera 5, 10 and 12 will be displayed at the second row. The frame rate of each feed is set to the feed configured maximum capture frame rate from the camera source.
6) */viewpanel/0/viewpanel&rows=2&columns=2&order=v&feeds=1-4&fps=10&useivcax=true* will show a 352x240 4-up display of camera from 1 to 4. Camera 1 and 3 will be displayed at the first row. Camera 2 and 4 will be displayed at the second row. The frame rate for showing the video for camera 1 to 4 is 10 frames per second. IVC ActiveX control will be used for showing video for camera 1 to 4.

4.2.3 Status Panel Command

This command shows the camera status of the Relay Server Relay Server default 1-up live view display. Section 3.4 shows status view layouts. The format of the command is:

/statuspanel/<camera number>/statuspanel&feeds=<feed numbers>

<camera number> is an integer greater or equal to 0 and less than or equal to the number of cameras supported.

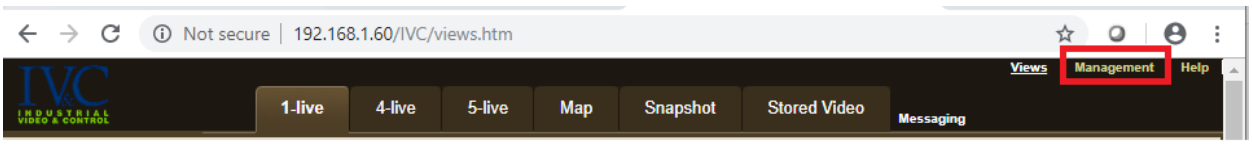
<feed numbers> is a list of camera numbers that will be used to get the status of cameras in a grid view. The format of the feed numbers can be comma separated between feed numbers and/or a dash separated between two feed numbers to specify the range. (optional)

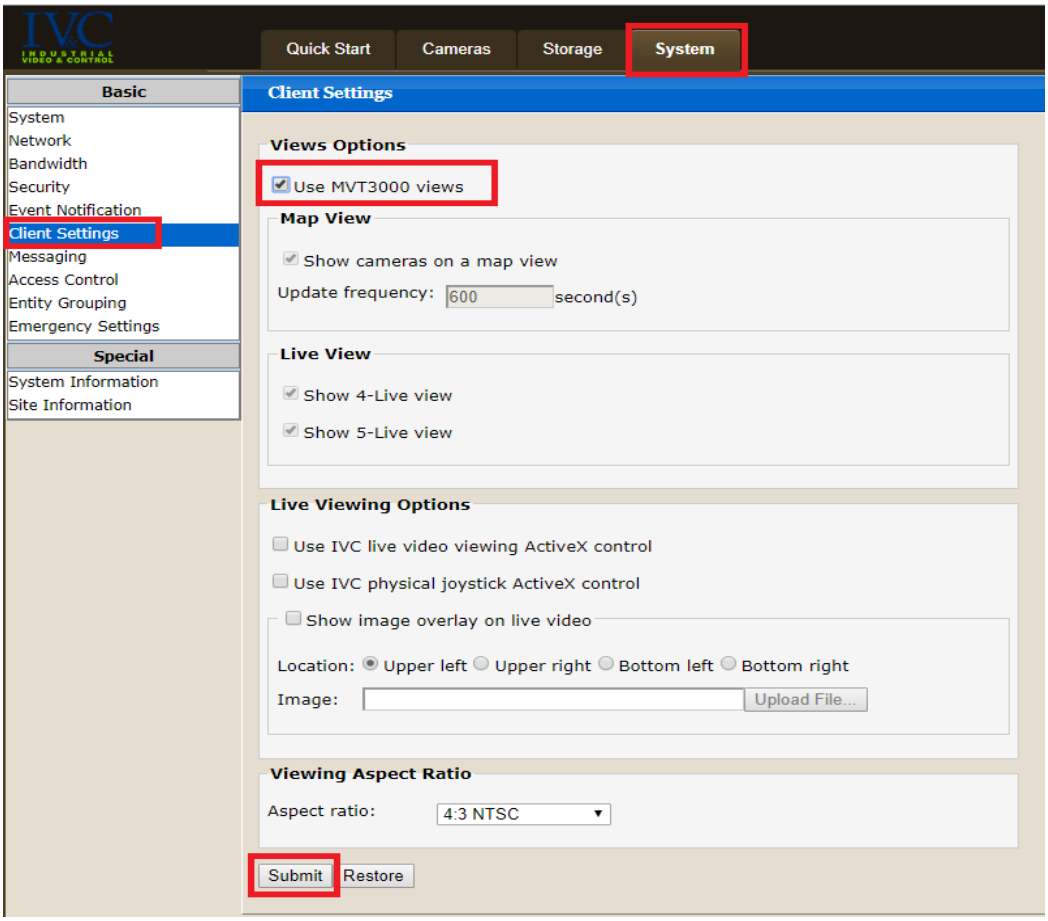
Examples :

1) */statuspanel/1/statuspanel* will show the status of the camera #1 in a grid view on a web page
2) */statuspanel/0//statuspanel* will show the status of all the cameras in a grid view on a web page
3) */statuspanel/0//statuspanel&feeds=1,5,16-30* will show the status of camera #1, #5 and from #16 to #30 in a grid view on a web page

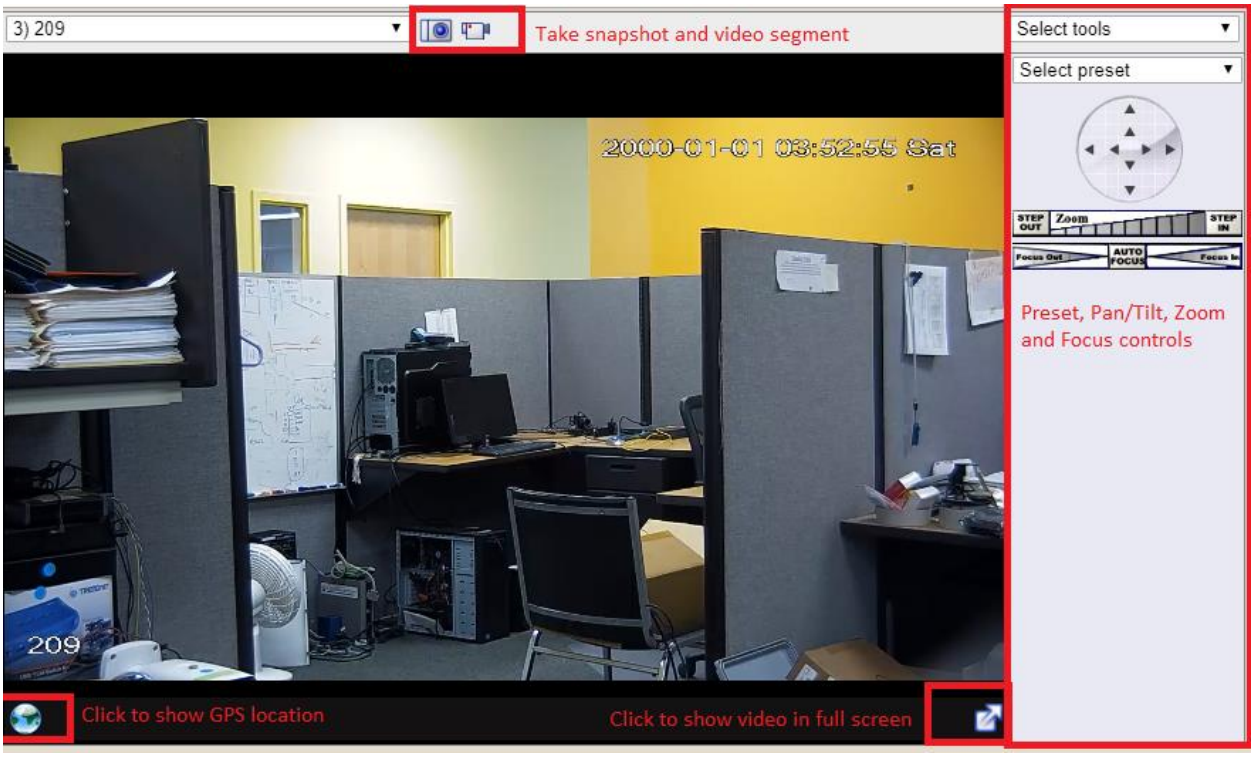
4.3 Main Panel UI

There are two kinds of main panel UI layouts depending on the Relay Server client setting. The Main Panel UI can be changed using the Relay Server management web page as shown below. By default, the "use MVT3000 views" checkbox is off.

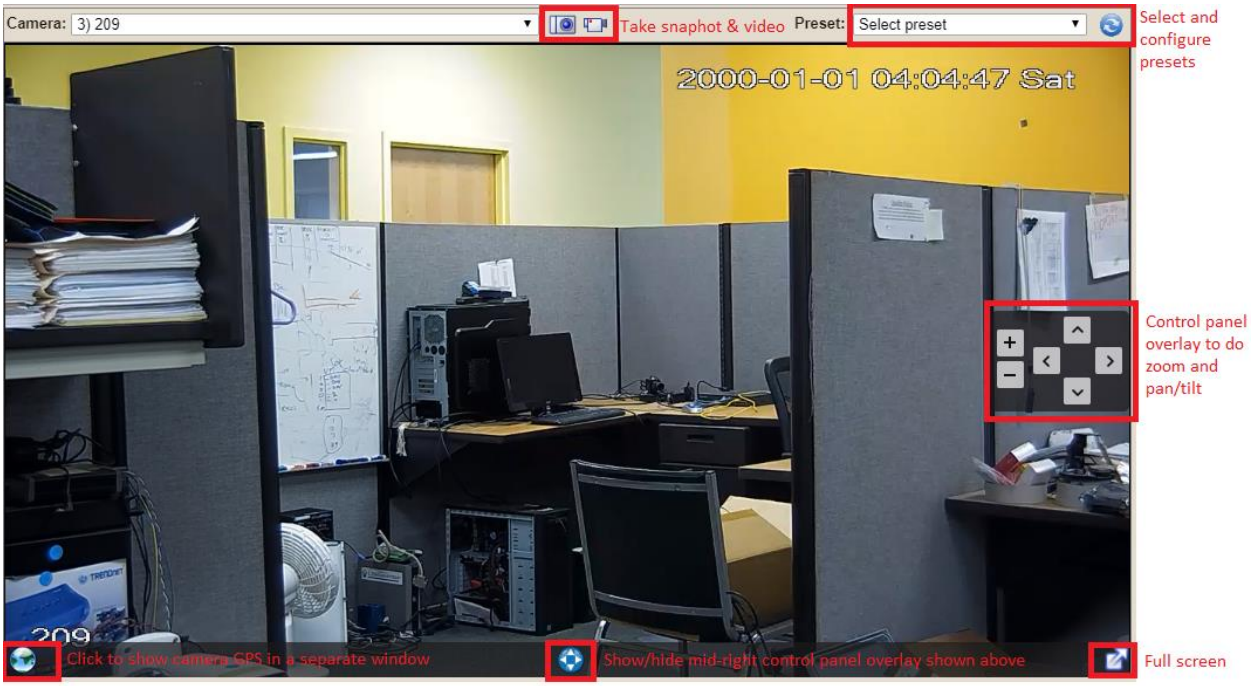




4.3.1 Default Main Panel UI



4.3.2 MVT3000 Views Main Panel UI



4.3.3 Main Panel UI Components

This section describes the UI components as shown in the sub-sections above. The screenshots above show a PTZ camera with absolute positioning capabilities. The camera control UI looks slightly different for cameras don't have absolute positioning or no PTZ.

1) 1-up camera live view

   This shows the live video of the selected camera. If the camera is a PTZ camera, clicking on the video window will move the camera to the center point x and y of the mouse click. The upper top left coordinate is (0,0).

2) Camera drop down list

   This shows a list of cameras that are configured in the Relay Server. The list shows the camera number and name pairs. Changing the selection will change the live video inside the live view window.

3) Snapshot icon 

   Clicking on the icon will save a snapshot file on the specified snapshot location. The snapshot location can be configured using the Relay Server configuration page.

4) Video dump icon 

   Clicking on the icon will create a short video segment file on the specified stored video location. The stored video location can be configured using the Relay Server configuration page.

5) GPS overlay icon 

   The overlay icon is located at the bottom left corner of the live video window. Clicking on the icon will bring up a new browser window containing a map to show the GPS location of the camera.

6) Full screen overlay icon 

   The overlay icon is located at the bottom right corner of the live video window. Clicking on the icon will show the live video in a full screen in the browser window.

7) Preset drop down list

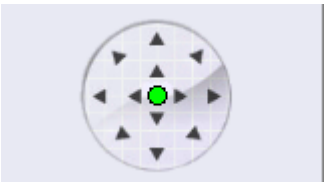
   This shows the preset list of the camera. Selecting the preset will move the camera to the

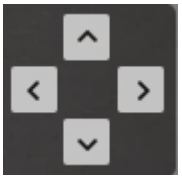
preset. The drop down is disabled if the camera doesn't have the preset capability.

8) Pan/Tilt graphic/button control

The pan/tilt control shows the arrows of the directional movements. Clicking on the directional arrows will move the camera to the selected direction. The inner arrows have smaller magnitude movements than the outer arrows. If the camera supports absolute movements, clicking on the arrow will move the camera by a half or one frame of the selected arrow direction. The measurement of a frame in the pan direction is from left to right of the live video window and top to bottom in the tilt direction. If the camera supports continuous movements, mouse down on the arrows will move the camera in the arrow direction and the camera will stop moving when the mouse is up. The graphic control doesn't show if the camera doesn't have the pan and tilt capability.

Default view (absolute): 

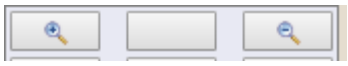
Default view (continuous): 

MVT3000 view: 

9) Zoom graphic/button control

If the camera supports absolute zoom positions, the zoom graphic shows the 10 zoom levels and Step In and Step Out. Clicking on the zoom level graphic will move the camera to the specific zoom level. Clicking on the Step In area will zoom in one level and Step Out area will zoom out one level. If the camera has the continuous zoom capability, mouse down on the zoom in and out buttons will control the camera to continuously zoom in or out until the mouse is released from the buttons. This zoom graphic/button control doesn't show if the camera doesn't have the zoom capability.

Default view (absolute): 

Default view (continuous): 

MVT3000 view: 

10) Focus graphic/button control

If the camera supports absolute focus, clicking on the focus graphic will move the camera to the specific focus level. If the camera supports continuous focus, mouse down on the focus far and near buttons will continuously focus far or near until the mouse click is released. If the focus control UI doesn't show if the camera doesn't have the focus capability.

Default view (absolute): 

Default view (continuous): 

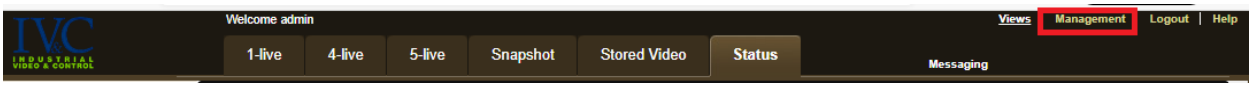
11) Panorama control

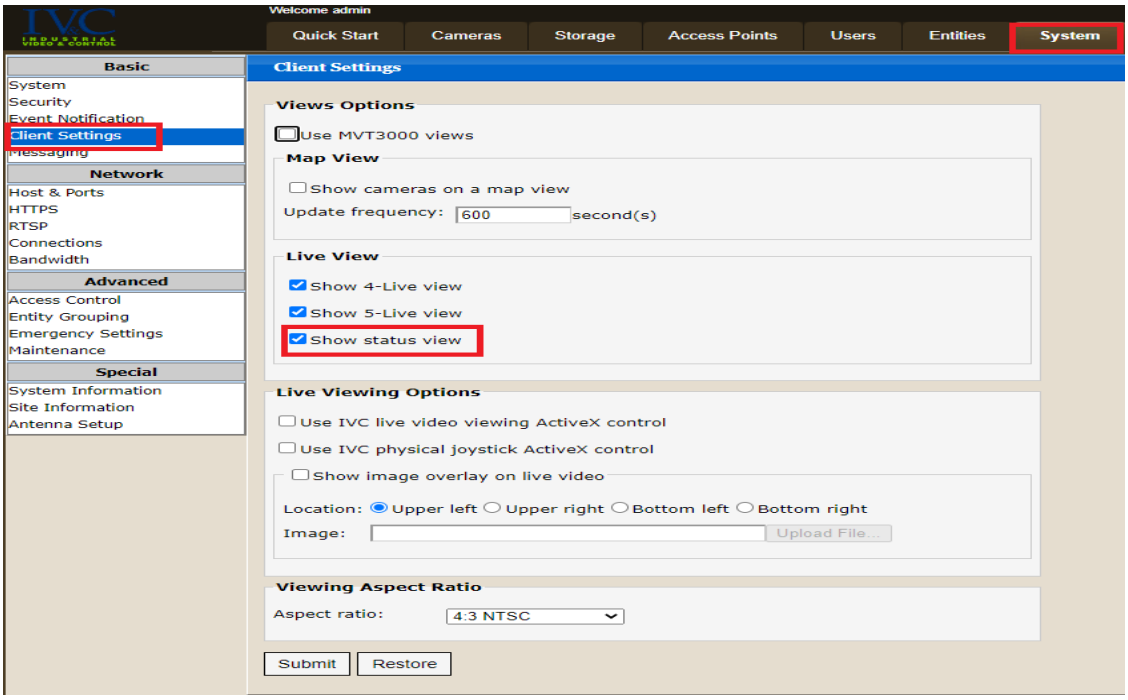
This control shows on the mainpanel UI if the panorama is explicitly created for the selected camera.

4.4 Status Panel UI

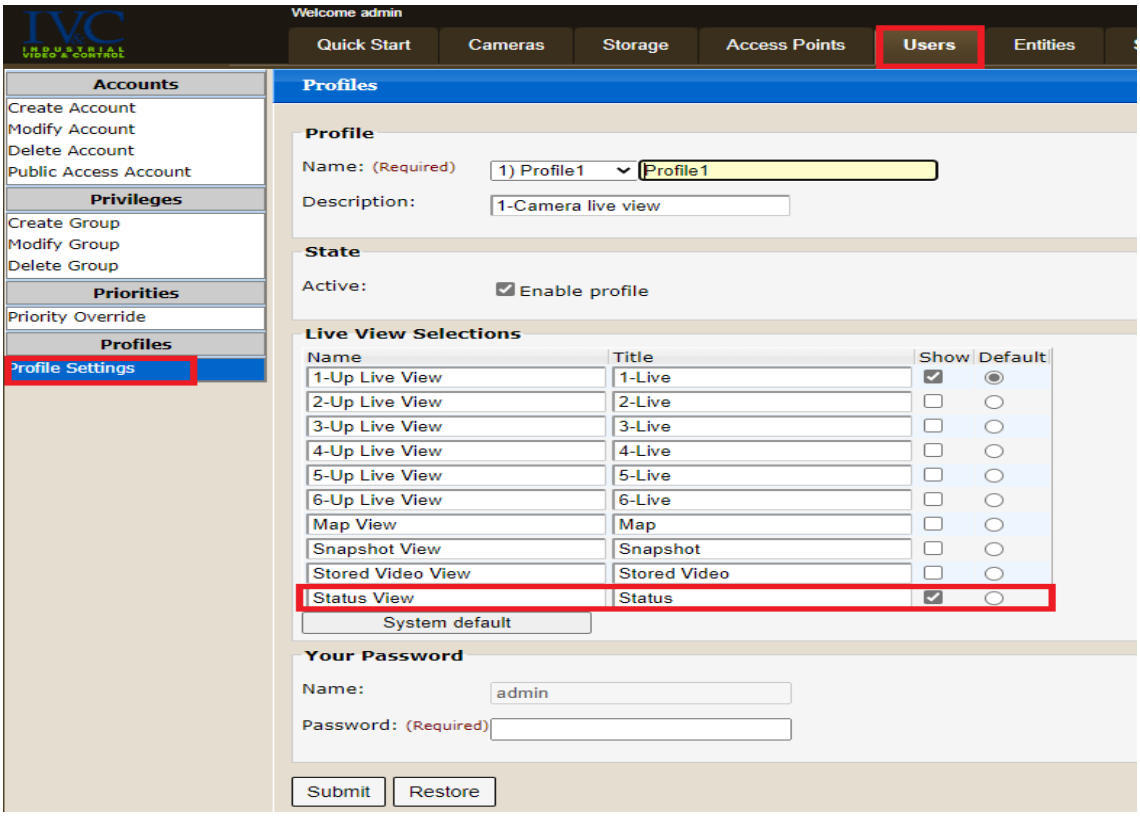
The Status UI is an optional Views tab and it can be enabled and disabled within the system.

Under the standard Views, the Status tab is enabled by default. To disable the Status tab, this can be changed on the Client Settings page within the Management as shown below.

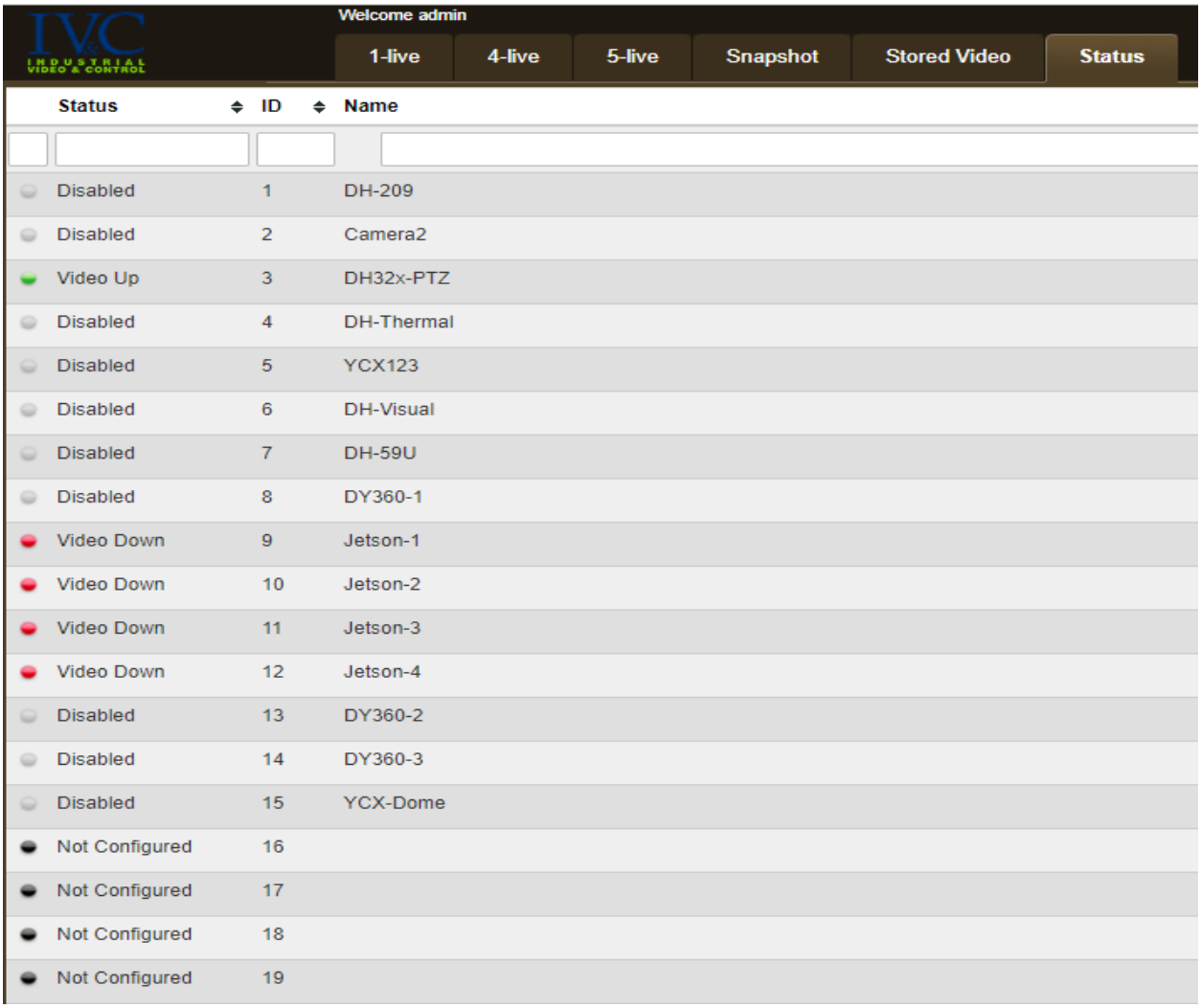




Under the MVT3000 Views, the Status tab is assigned under the User Profile configuration. By default, the Status tab is part of the system administrator Views.

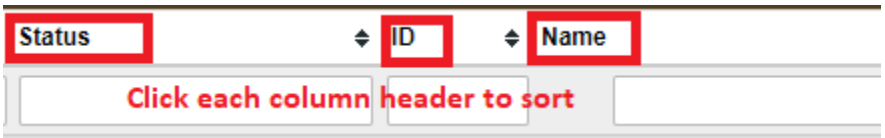


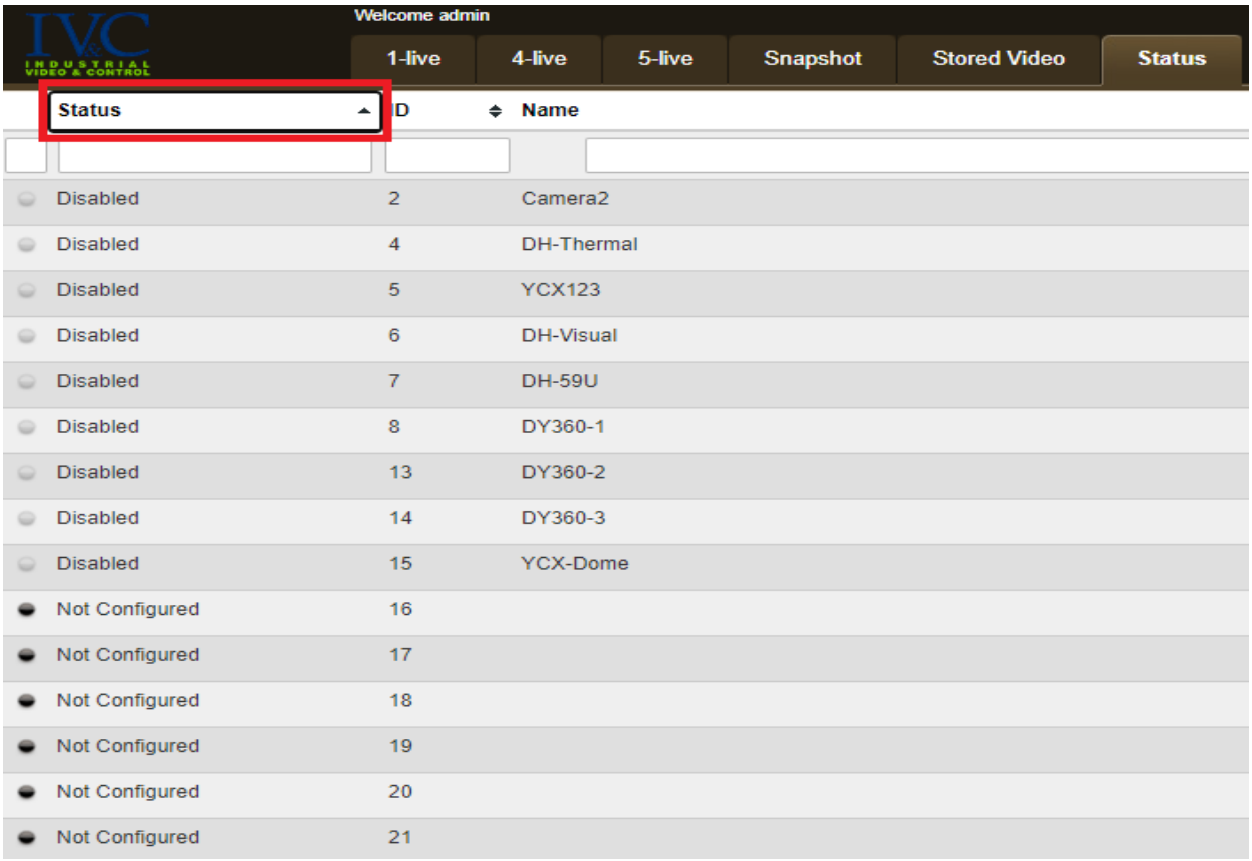
The Status grid has 4 columns, status icon, Status, ID and Name. There are total of four states, **Video Up**, **Video Down**, **Disabled** and **Not Configured**. There are four icons, green, red, grey and black bullet icons to represent the four states respectively. The first column is not sortable and filterable and the rest of them are.



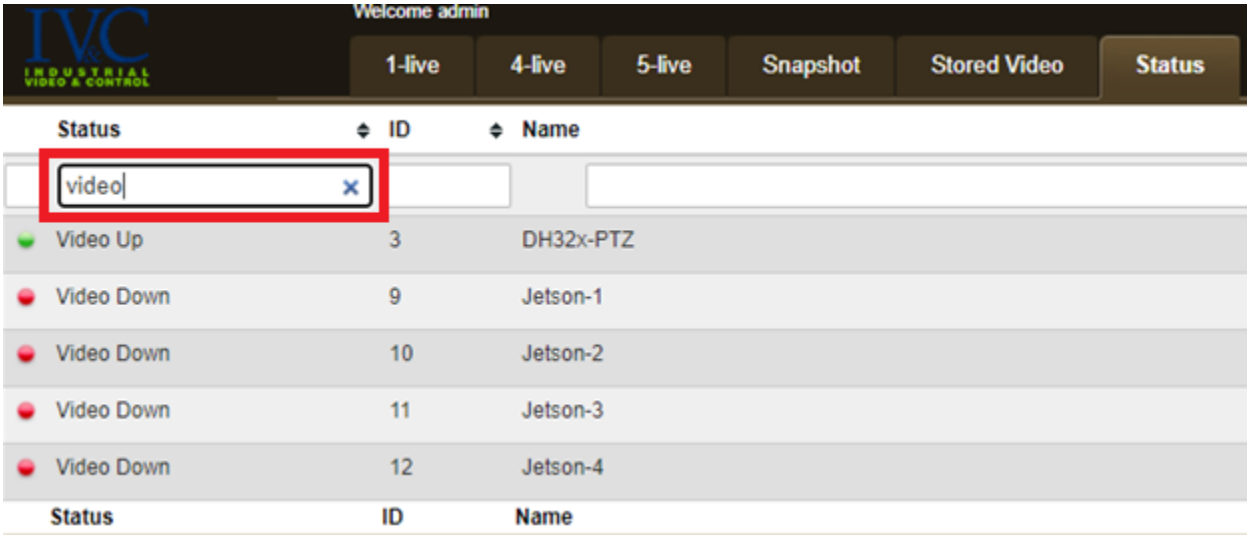
Status	ID	Name
Disabled	1	DH-209
Disabled	2	Camera2
Video Up	3	DH32x-PTZ
Disabled	4	DH-Thermal
Disabled	5	YCX123
Disabled	6	DH-Visual
Disabled	7	DH-59U
Disabled	8	DY360-1
Video Down	9	Jetson-1
Video Down	10	Jetson-2
Video Down	11	Jetson-3
Video Down	12	Jetson-4
Disabled	13	DY360-2
Disabled	14	DY360-3
Disabled	15	YCX-Dome
Not Configured	16	
Not Configured	17	
Not Configured	18	
Not Configured	19	

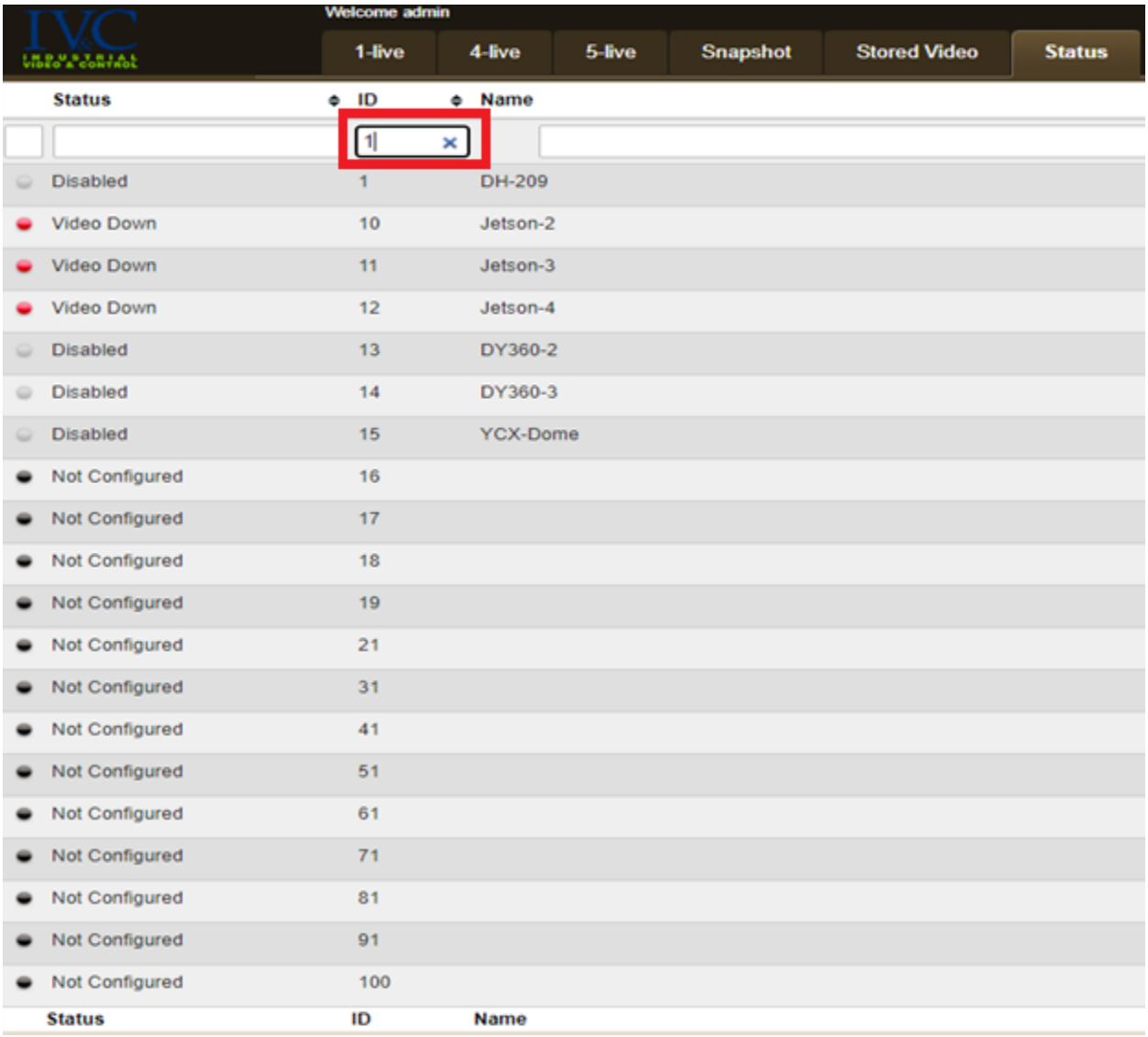
Click column header to sort columns.

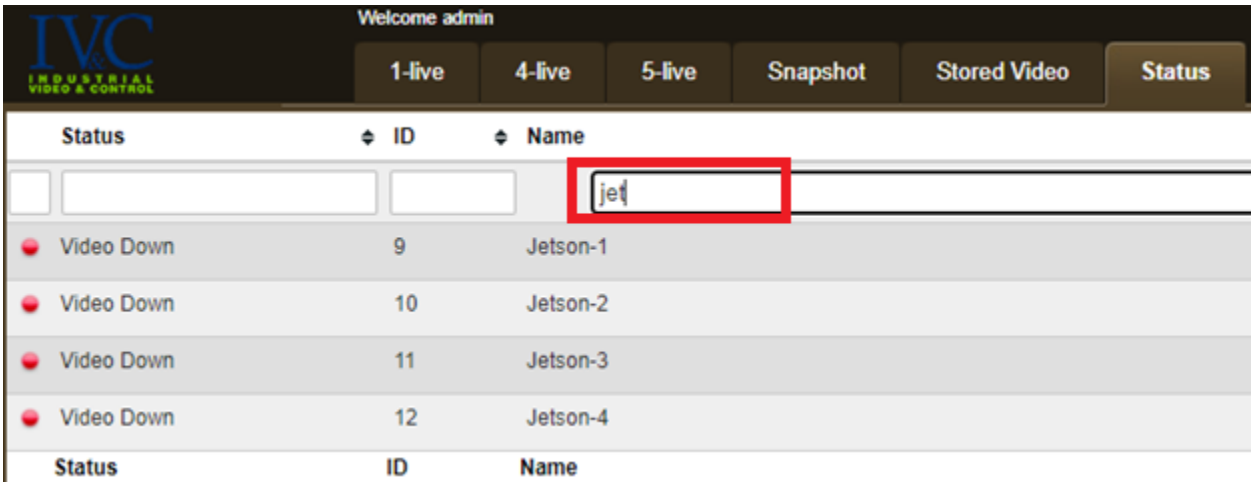




Filtering can be done by typing in the text inside the edit boxes as shown.




Welcome admin
1-live
4-live
5-live
Snapshot
Stored Video
Status
Status
ID
Name
1
Disabled 1 DH-209
Video Down 10 Jetson-2
Video Down 11 Jetson-3
Video Down 12 Jetson-4
Disabled 13 DY360-2
Disabled 14 DY360-3
Disabled 15 YCX-Dome
Not Configured 16
Not Configured 17
Not Configured 18
Not Configured 19
Not Configured 21
Not Configured 31
Not Configured 41
Not Configured 51
Not Configured 61
Not Configured 71
Not Configured 81
Not Configured 91
Not Configured 100
Status ID Name


Welcome admin
1-live
4-live
5-live
Snapshot
Stored Video
Status
Status
ID
Name
jet
Video Down 9 Jetson-1
Video Down 10 Jetson-2
Video Down 11 Jetson-3
Video Down 12 Jetson-4
Status ID Name

4.5 HTTP Commands

4.5.1 PTZ Control Commands

Control commands send commands that control the PTZ and camera. The general format is /control/<*camera number*>/<*command arguments*>

The <*command arguments*> are broken down into several sub commands.

- cmd - command request type.
- dir - directional movement
- point - point & click navigation
- pan - panoramic navigation
- aux - pre-configured auxiliary commands

Directional movement

Directional movement contains several arguments to control the camera pan, tilt, zoom and presets.

cmd = dir - signifies the command is a direction movement command

dir = <u,d,l,r,x,y,xy,z,p> - tells the relative direction for the PTZ to move.
dist = <m> where 0.01 >= m <= N* for unit=frame and -M* >= m <=N* for unit = step/degree - Tells the camera to move specified number of frame/step/degree (pan or tilt) depending on the unit specified as explained below.

dist = <m,n> where -M* >= m, n <= N* - Tells the camera to treat m as pan position and n as tilt position for unit = step/degree

dist = <m,n,k> where 0 >= m, n <= N* and -M* <= k <= N* - Tells the camera to treat (m, n) as pan postion, which is basically a (latitude, longitude) pair and k as elevation for tilt for unit = gps

unit =<frame, step, degree, gps> - Tells the camera to treat the dist or x,y parameters of directional movement as one of the parameters shown for Pan/Tilt operations. If unit=frame, then the dist parameter is the number of frames that the camera moves in the specified direction. If unit=steps, then the x parameter is number of pan steps in camera units and y parameter is number of tilt steps in camera units. If unit=degree, then the dist parameter is offset in degrees, the x parameter is the pan position in degrees and the y parameter is the tilt position in degrees. If unit=gps, then the x parameter is the (latitude, longitude) pair for the pan position, and the y parameter is the elevation for the tilt position. Default is frame if dist is less than or equal to 1, else the default is steps.

presetnumber – specifies a preset number if the dir=p (preset number “99999” is the last preset before any PTZ movement)

* M, N represent any minimum/maximum permissible value for the specific unit used.

Examples:

1) */control/1/cmd=dir&dir=u&dist=.99* will move camera 1 up almost one frame.
2) */control/1/cmd=dir&dir=u&dist=10&unit=degree* will move camera 1 up 10 degrees.
3) */control/3/cmd=dir&dir=r&dist=20* will move camera 3 20 steps to the right.
4) */control/3/cmd=dir&dir=x&dist=20&unit=degree* will move camera 3 right at 20 degrees.
5) */control/3/cmd=dir&dir=y&dist=10&unit=degree* will move camera 3 down at 10 degrees.
6) */control/3/cmd=dir&dir=xy&dist=20,10&unit=degree* will move camera 3 to 20 degrees to the right and 10 degrees downward.
7) */control/3/cmd=dir&dir=xy&dist=N20.88,W5.52,10&unit=gps* will move camera 3 to latitude, longitude (north 20.88 degrees, west 5.52 degrees) and elevation 10.
8) */control/3/cmd=dir&dir=xy&dist=N20:8:2.2,W5:22:4.5,10&unit=gps* will move camera 3 to latitude (north 20 degrees, 8 minutes and 2.2 seconds) and longitude (west 5 degrees, 2 minutes and 4.5 seconds) and elevation 10.
9) */control/1/cmd=dir&dir=z&dist=3* will move camera 1 to zoom level 3
10) */control/4/cmd=dir&dir=z&dist=0* will zoom camera 4 out 1 zoom step
11) */control/4/cmd=dir&dir=z&dist=11* will zoom camera 4 in 1 zoom step
12) */control/1/cmd=dir&dir=p&presetnumber=2* will move camera 1 to preset #2
13) */control/1/cmd=dir&dir=p&presetnumber=99999* will move camera 1 back to preset

Point & Click Movement

- cmd = point - signifies the command is a point & click movement command
- iheight – number of pixels tall of the view image
- iwidth – number of pixels wide of the view image
- ?(x,y) - this is appended by the web browser in relation to the area of the image that was clicked.

Examples:

1) */control/1/cmd=point&iheight=240&iwidth=352?59,185* Will move camera 1 a

percentage based on the image dimensions of 352 x 240 and the coordinates passed by the browser (59,185)

Panorama Navigation

- cmd=pan - signifies the command is a panorama navigation command
- panpresetumber – an integer of the panorama preset which was clicked on
- iheight – number of pixels tall of the panoramic image
- iwidth – number of pixels wide of the panoramic image
- ?(x,y) - this is appended by the web browser in relation to the area of the image that was clicked

Examples:

1) */control/1/cmd=pan&panpresetnumber=2&iheight=300&iwidth=400?274,2* Will move camera 1 a percentage of the panoramic image based on the panorama dimensions 400x300 and the coordinates passed by the browser (274,24).

Focus Commands

- cmd=video – signifies the command is a video camera function (other than zoom)
- function=focus – tells the server this is a focus command
- focusvalue=(-10 through 10) – The number of relative steps to move the focus. Negative vaues will move the focus back, positive values will move the focus in, and a 0 value will trigger a "one touch" autofocus.

Examples:

1) */control/1/cmd=video&function=focus&focusvalue=0* will trigger the autofocus

Overlay Commands

- cmd=video – signifies the command is a video camera function (other than zoom)
- function=setovl – tells the server this is a set overlay command
- txt=overlay text string .

Examples:

1) */control/1/cmd=video&function=setovl&txt=xyz* will overlay "xyz" on the camera

Auxiliary

Auxiliary commands are pre-configured command strings that can be sent to the camera.

- cmd=aux - signifies the command is an auxiliary command
- auxCommand=(1 through 4) – the preconfigured auxiliary command number to be sent to the camera.

Examples:

1) */control/1/cmd=aux&auxCommand=2* Will send the pre-configured command string at auxiliary setting #2 to the camera.

Continuous (joystick) movement commands

Continuous (joystick) commands provide start and stop type movements for pan,tilt,zoom,focus and iris functions.

- cmd=c - signifies the command is a continuous movement command
- xy=<x,y> specifies the direction and speed for pan/tilt movements. The range of values for x is -10000 to 10000. A negative sign means to go left. A positive sign means to go right. The larger the magnitude of the value, the faster the speed. For most drivers 5000 means to go slowly and 10000 means to go quickly. Some drivers support all other magnitude values. 0 means no movement in that direction. The range of values for y is -10000 to 10000. A negative sign means to go up. A positive sign means to go down. The larger the magnitude of the value, the faster the speed. 0 means no movement in that direction. If both x and y are 0 this is a stop command.
- z=<zoom> specifies the direction and speed for the zoom operation. The range of values for zoom is -10000 to 10000. A negative sign means to zoom in. A positive sign means to zoom out. The larger the magnitude of the value, the faster the speed. 0 means to stop.
- f=<focus> specifies the direction and speed for the focus operation. The range of values for focus is -10000 to 10000. A negative sign means to focus near. A positive sign means to focus far. 0 means to stop.
- i=<iris> specifies the direction and speed for the iris operation. The range of values for iris is -10000 to 10000. A negative sign iris open. A positive sign means to close iris. 0 means to stop.

Examples:

1) */control/1/cmd=c&xy=-10000,0* Start panning left at high speed
2) */control/1/cmd=c&xy=10000,0* Start panning right at high speed
3) */control/1/cmd=c&xy=0,-5000* Start tilting up at low speed
4) */control/1/cmd=c&xy=0,10000* Start tilting down at high speed
5) */control/1/cmd=c&xy=0,0* Stop pan/tilt movement
6) */control/1/cmd=c&z=-10000* zoom in at high speed
7) */control/1/cmd=c&z=5000* zoom out at low speed
8) */control/1/cmd=c&z=0* Stop zooming

9) */control/1/cmd=c&f=-10000* focus near at high speed
10) */control/1/cmd=c&f=5000* focus far at low speed
11) */control/1/cmd=c&f=0* Stop focus operation

4.5.2 Archival Commands

Archival Commands allow for the storage and retrieval of single images and video.

Snapshot Storage Functions

Saving a Snapshot

/snapshot/<camera number>/cmd=snap&copyNoStamp=<1>&name=<picture base name>.jpg

<camera number> - number of the camera to save a snapshot
<copyNoStamp> is a flag to indicate whether an extra copy of the picture will be stored without prepending a generated name. (optional)
<picture base name> - a character string of the base name of the saved picture

Examples:

1) */snapshot/1/cmd=snap* – will save a picture. The relay server will generate a default name of the file.
2) */snapshot/1/cmd=snap&name=mypicture* – will save a snapshot called mypicture appended to the generated file name.
3) */snapshot/1/cmd=snap&copyNoStamp=1&name=mypicture* – will save two snapshots. One is named using the picture name appended after the generated name (eg. 1193772502-mypicture.jpg). And a second file using the supplied picture name (eg. mypicture.jpg).

Video Storage Functions

Saving the video buffer to disk.

/storage/<camera number>/cmd=dump&copyNoStamp=<1>&name=<video name>

<camera number> is the camera video to save to disk.

<dumpDuration> is the video duration in number seconds to be saved. If the value is less than or equal to the duration that can be cached by video buffer size, then only the specified video buffer will be saved. If the value is greater, then the video buffer plus the remainder live video will be saved. A “0” duration will stop the currently saving video. A “-1” duration will start saving until a stop or another start is received in which only one live dump can be occuring at once. (optional)

<dumpPrebufferDuration> is the pre-buffered video duration in number of seconds to be saved. If the value is greater than the actual amount of pre-buffered video in the FIFO, then only up to the actual amount is saved. A "-1" duration will save all of the actual pre-buffer. A "0" duration will not save any pre-buffered video. (optional)

<dumpFps> is the frame rate to be saved for the video. This value will override the video frame rate to be saved for the camera feed if it is smaller. (optional)

<copyNoStamp> is a flag to indicate whether an extra copy of the video will be stored without prepending the timestamp to the name of the file. (optional)

<video name> is the name to call the archive (optional)

Examples:

1) */storage/1/cmd=dump&name=* Will save the video buffer for camera 1 with no name.
2) */storage/1/cmd=dump&name=myvideo* Will save the video buffer for camera 1 with the name 'myvideo'.
3) */storage/1/cmd=dump&copyNoStamp=1&name=myvideo* Will save the video buffer for camera 1 with the name 'myvideo' and another copy of the video without the timestamp in the name.
4) */storage/1/cmd=dump&dumpPrebufferDuration=10&dumpDuration=100* Will save 10 seconds of the pre-buffered video if available plus 90 seconds of post-event live video for a total of 100 seconds.