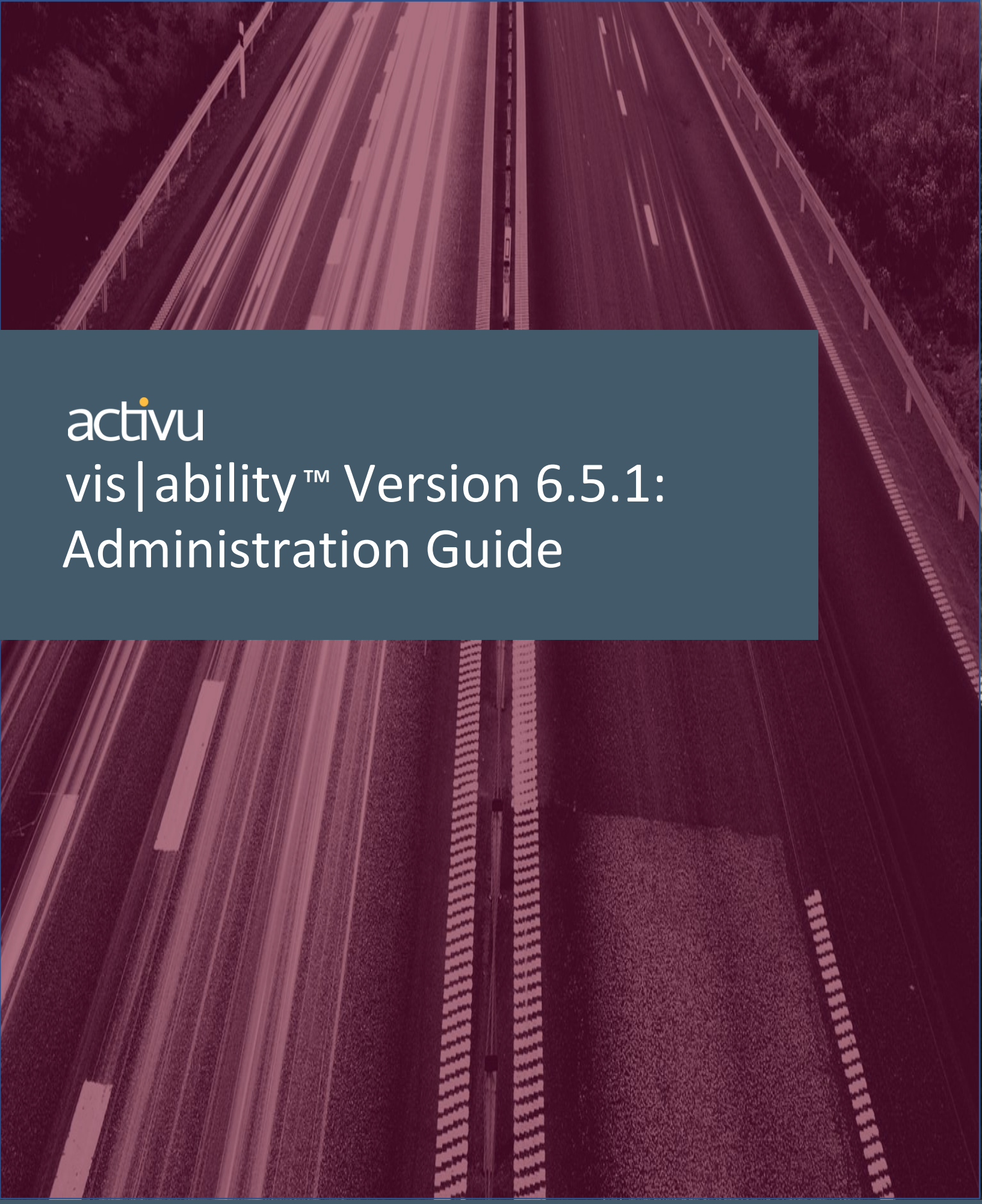

activu

vis|ability™ Version 6.5.1: Administration Guide

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Document Management

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Version	Date	Author	Notes
1.1	01/27/2023	Melissa Nicholas	Release

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Document Conventions

Text Formatting Standards

Table 1: Text Formatting Standards

Text Type	Appearance
Chapter Heading	Font: Calibri, 20 points, Bold, Color: Blue-Grey Hex #425A69, RGB: 66,90,105, Left; Line spacing: 21-point, Space Before: 3 points Example: Chapter Heading
Chapter Sub-Heading	Font: Calibri, 18-point, Font Color: Blue-Grey Hex #425A69, RGB: 66,90,105, Line spacing: Multiple 1.08 Example: **Chapter Sub-Heading**
Section Heading	Section Headings are used to label a series of terms or sub-sections within a Chapter or Chapter Sub-Heading. Example: **Section Heading** This section describes the process of….
Body Text	Font: Callibri, Regular, 10.5 point. Example: This is body text.
Titles and Names: Screen Titles, Field Names, Product Names, Table Column Titles, Command Names, Menu Titles	Titles are capitalized and in **bold**. Example: Figure 1: Main **System Tree** screen of the **System Administration Client**
Task or step-by-step instructions	Task instructions are usually numbered and often preceded by the statement, “To execute this task, complete the following steps:” Example: “To perform this task, complete the following steps: 1. Step 1 2. Step 2
Buttons	Example: Buttons within body text, such as this Remove button, are relatively the size shown, and in line with the text baseline, as this **Share** button is also displayed.
Activu product names are capitalized, appear in bold, followed by the Trademark symbol: ™	Example: **Activu vis|ability™**

Hyperlinks	Text that is underlined in a blue color are links to cross-referenced topics in another area of the document. If the link is active, when the mouse is hovered over it, a tag pops up instructing the **User** to press **CTRL+ Click** to follow the link, as in the example below: Example: Sources or Figure 58: Graphics **Sources** branch and **Details** Adding a Graphics Source

Warnings, Tips, Cautions, and Important Notes

The following message boxes may appear within the text to call special attention to the information being described:

Tip: a note to provide insight about the software and its operation.

Warning: improper execution can cause unwanted operational effects.

Caution: similar to warning, but results will not be non-operational, or dire, if improperly followed.

Important: part of a process that needs to be completed to ensure changes or updates are completed.

Scope of This Manual

This manual provides a description of the architecture and administration of the Activu **vis|ability™** system and step-by-step instructions for how to use the **Activu vis|ability™ System Administration Client** software. Refer to the following manuals for additional instructions and information regarding other aspects of the **Activu vis|ability™** system:

vis|ability™ 6.1 Desktop Client User Guide
vis|ability™ Scripting Guide
vis|ability™ API Guide
vis|ability™ Getting Started
vis|ability™ Installation Guide

Introduction

Activu vis|ability™ is a network-distributed, software platform designed to provide an intuitive, simple management and collaboration system for the complex mix of content found in a modern, control environment. It offers control of the entire spectrum of shared visual displays, from "meeting room to meeting room" video walls, to fluid communication within an organization and between colleagues, all using live content. **Activu vis|ability™** ensures that all critical information Sources are visible, anywhere in an organization, supporting fast and accurate decision making. Although this manual primarily covers instructions for the **administration** of the **vis|ability™** system, it is useful to know and understand what constitutes *all* the components of the complete **vis|ability™** system:

System Manager is the central repository of configuration information concerning a **vis|ability™** deployment. Included in this information are definitions of **Users** and their permissions, associated **Sources**, **Displays**, and other component definitions, as well as licensing information. The **System Manager** (and other associated components) are typically installed on a server-class computer or virtual machine.

Display Node is a software component that is installed on workstations that drive video walls, or unmanned displays of any size and configuration. Placing content on a **Display Node**-enabled computer is done using the **Desktop Client**.

Capture Client is specialized software used to capture content from computers (screen capture) and allows remote **Users** to view and control (with permission) that content. **Capture Client** is used in conjunction with **Desktop Client** to enable **Users** to easily share anything on their desktop with **Display Walls**, **Spaces**, and other **Users**.

Desktop Client is the primary **User** interface for the **vis|ability™** system. (See the user guide listed above in the section entitled, **Scope of this Manual**)

vis|abilty™ System Architecture

The following sections describe the functionality and capability of the **vis|ability™** system software and hardware components. Administrative features and system tools are described in detail and directions are provided for accessing, logging into, and using the system management, database-administrator, known as the **System Administration Client**. Step-by-step instructions are provided for all procedures required to work with and control access to each **vis|ability™** system resource (i.e., **Network Sources**, **Graphics** files, **Media** files, Sources, **Display Walls**, etc.). Although some parts of the software and hardware defined here may not be a part of the **vis|ability™** system installed, it is helpful to understand the *full* potential of the **Activu vis|ability™** platform.

The **vis|ability™** system architecture is designed for high performance across a broad spectrum of deployment configurations, such as multiple, geographically-dispersed sites running **Activu**-driven **Display Walls**, **Devices** and **Sources**. Operators can access these remote sites from any location on the network. A **User's** individual **Profile**, with their log-in credentials, limits their access to specific **Display** devices and content. **User Profiles** are managed through the **System Administration Client**. The section entitled, Accessing the System Administration Client, demonstrates how to access the **SAC** interface. The figure below depicts the **Activu vis|ability™** concept architecture.

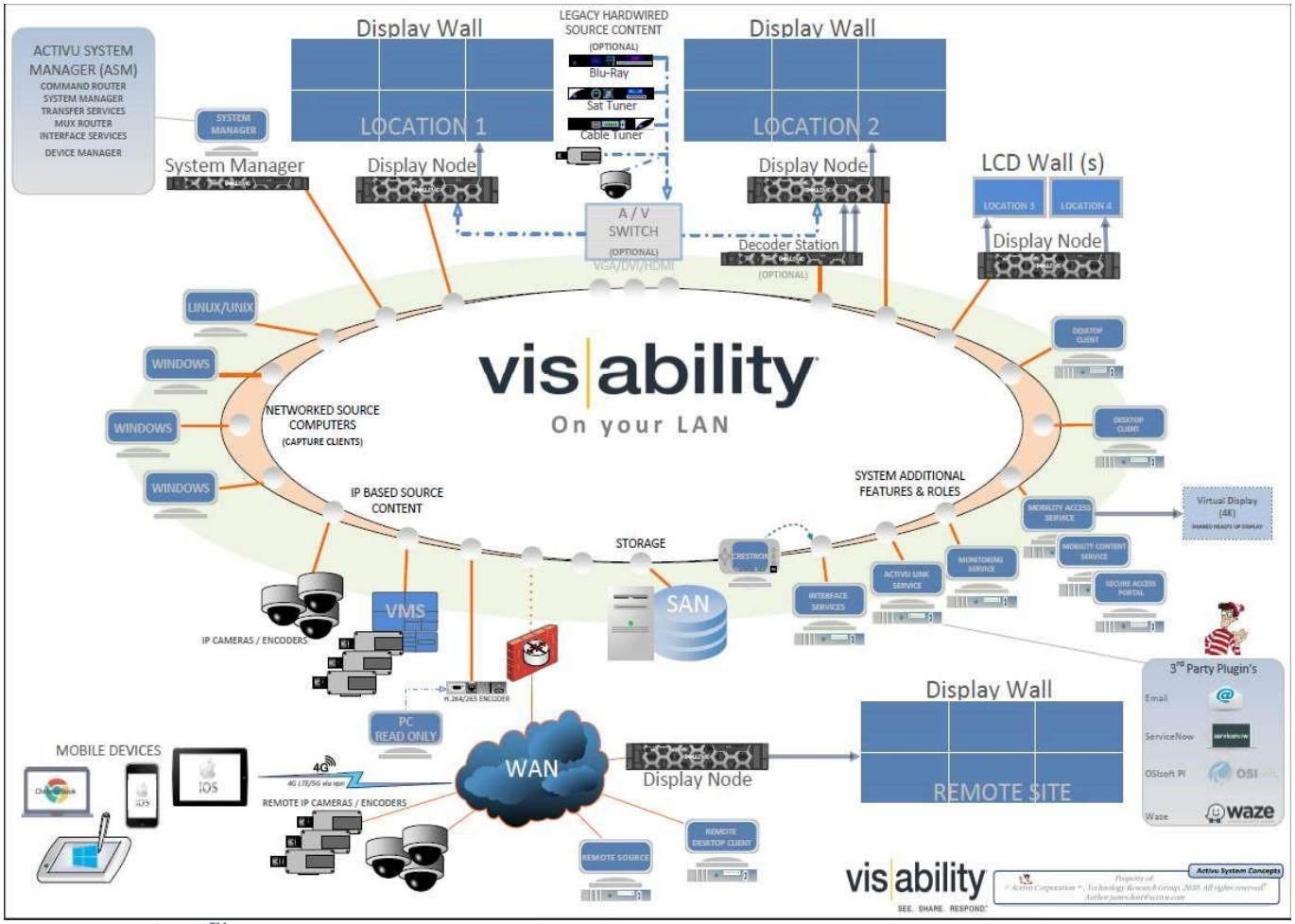


Figure 2: Activu vis|ability™ Concept Architecture

vis|ablity™ Hardware Components

A **vis**|**ability**™ platform incorporates all the necessary hardware to create a complete "visual information" solution for sharing and displaying graphical content. A typical **vis**|**ability**™ installation includes all, or a subset, of the following server and device types:

vis|ability™ System Manager Server

The **vis**|**ability**™ **System Manager**, **Nexus**, **Logging Service**, **Device Manager**, **Logging Service**, and **MUXrouter** are all typically installed on this server.

Display Node

The **vis|ability**™ **Display Node** hardware (also called **Display Server**) drives **Display Walls**. A **Display Wall** is constructed from a matrix of display devices, such as Cubes, LCD panels, Direct View LED displays, front projectors, and screens. A single **Display Node** can be configured to drive multiple **Display Walls**. Multiple **Display Nodes** can be configured in a **vis**|**ability**™ installation. **Display Nodes** typically are configured with standard COTS hardware, such as a Dell workstation and AMD professional graphics cards. In certain circumstances, specialized cards that capture baseband video, or provide IP decoding offload, can be optionally configured. **Activu** installation conventions label these devices as DSA, DSB, etc.

Decoder Server

The **vis**|**ability**™ **Decoder Server** is an optional computer that is used to decode IP video for a specified **Display Node**. Physical outputs from the **Decoder Server** are captured by baseband capture cards installed in a **Display Node**. This combination is used when specialized integration with VMS platforms or IP cameras is needed, and more decoding is required of the **Display Node** than it can internally handle. Multiple **Decoder Servers** can be configured, as necessary, to offload the **Display Node**.

RGB/DVI System Router

An **RGB/DVI System Router** is an optional system device used for routing, high quality, baseband video as an RGB, DVI, HDMI, or DisplayPort signal. The **vis**|**ability**™ platform controls this router to seamlessly integrate the routing and display of these signals.

Activu Analog Equipment

Analog equipment includes all the necessary non-network components that support the **vis**|**ability**™ platform functions. This can include analog Sources, **Display Walls**, LCD panels, routing components, audio components, and ancillary equipment. The **Activu Device Manager** (ADM), via serial interface (RS-232) or network interface (Internet Protocol), controls these devices.

IP Capture Device

The **IP Capture Device** serves as an additional means of capturing baseband video from non-**Activu**-supported operating systems or **Source** devices. The **IP Capture Device** is a standalone device that captures baseband **Sources** and makes them available on the network as IP streams.

vis|ablity™ Software Components

This section describes each **Activu** software component to provide a broad and thorough understanding of the system. The **vis**|**ability**™ platform suite is comprised of distributed, network software components. Each component provides a specific range of functionality to the system. Knowledge of these components can be especially helpful when troubleshooting becomes necessary.

vis|ability System Manager

The **vis**|**ability**™ **System Manager** application, (and the Nexus), is a centrally located component that contains the system configuration database and generates route system communication. It resides on the System Manager server. All definitions for **Sources**, **Devices**, **Display** elements, **User Rights** and **Permissions**, are stored on this server. The **System Manager** also provides **User** authentication and roaming **Profile** support, allowing **Users** to log into the **vis**|**ability**™ platform from anywhere on the network.

Device Manager

The **Device Manager** software controls all **Devices** via serial or IP network connections. It typically runs on the **System Manager** server. Device control is normally managed via the **Activu Desktop Client** (see below) that communicates with the appropriate **Device Manager**. Common **Devices** include analog video and audio switching, volume control, power to devices such as **Display Walls** and PTZ camera controls, lighting and other environmental equipment.

Desktop Client

The **Desktop Client** is a client application that is installed on Windows-based systems. The **Desktop Client** provides a graphical user interface (GUI) for control and manipulation of **vis**|**ability**™ platform **Displays** and **Sources** of information (i.e., analog or IP content). The **Desktop Client** is typically installed on operator workstations. The user interface is entirely defined by the **User** login information. Depending on their needs, operators, through **Group Permissions**, may have unique and custom **User** interfaces assigned to them. The **Desktop Client** application allows command and control operators and supervisors to push information windows to any **Display** that is driven by **Activu** software. This achieves a real-time, common operational picture and enables the dissemination of it to subject-matter experts and other decision makers, anywhere on the network.

The **Desktop Client** application includes tools for collaboration such as **Spaces** and **QuickShare** (see the **Activu vis**|**ability**™ **Version 6.5.1 Desktop Client User Guide** for more information). **Spaces** allow you to aggregate and present real-time, network-based information **Sources** directly on the desktop or on shared **Displays**. This platform increases situational awareness by creating a **User**-defined operational picture. **Spaces** also improve speed of decision-making by allowing you to easily share your user-defined operational picture with other individuals and/or teams (i.e., authorized **Activu Users** or **Activu**-connected **Displays**).

Capture Client

The **Capture Client** is an application installed on Windows-based computers for capturing and securely transmitting desktop content anywhere on the network, subject to **User** authentication and authorization. This content can then be viewed in real-time, on **vis**|**ability**™-powered **Displays** (such as **Display Walls**) and operator workstations, using the **Desktop Client**.

MUXrouter

The **MUXrouter** can run on the **System Manager** server and act as a proxy for network Sources running the **vis|ability™ Capture Client**. In addition, multiple **MUXrouters** can run on multiple System Manager servers. This component offers security and performance benefits by centralizing all network traffic and relieving **Source** computers from delivering content to multiple destinations. This creates a "One-to-Many " architecture that allows enterprises to centralize remote-control security by providing a single point of access to all **Source** computers connected to the network. This minimizes the performance loss caused by multiple, concurrent viewing of a remote session.

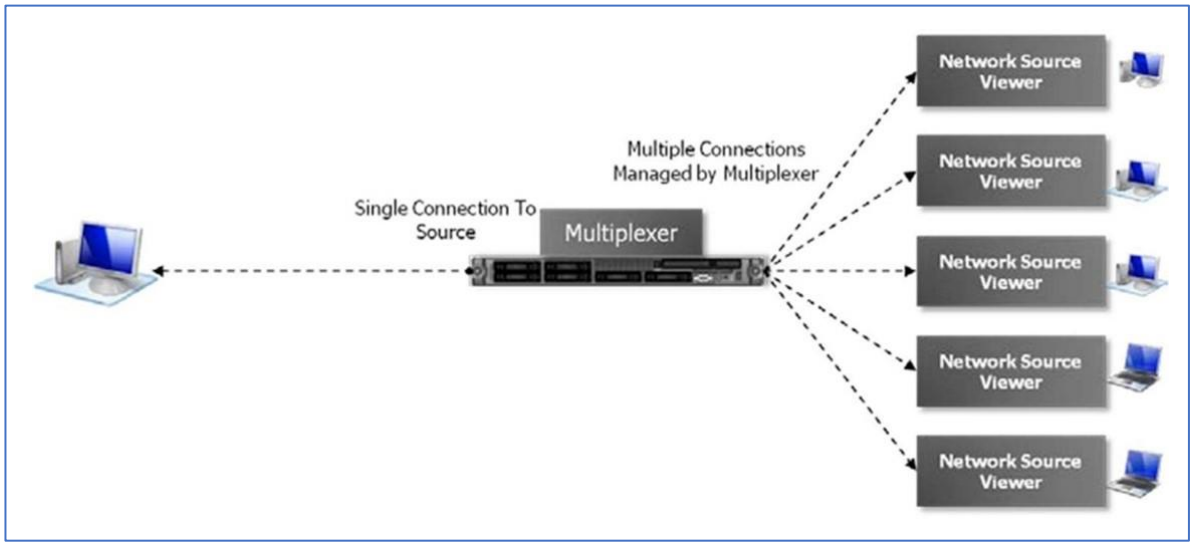


Figure 3: MUXrouter

Interface Server

The **Interface Server** is designed to accept and interpret commands initiated by third-party software applications. These commands perform functions in **Activu** like those found in the **Script Editor** environment (see **Vis|ability Scripting Guide**). Types of commands can include loading **Layouts**, placing Sources on **Display Devices**, clearing **Display Walls**/**Devices**, or accessing foreign **Devices** connected to **Activu**. The **Interface Server** can be used to perform numerous actions within the **vis**|**ability**™ platform, based on environmental variables triggered by third-party software. The **Interface Server** accepts commands via serial (RS-232) or IP-based connections. The **Interface Server** uses an open Application Programming Interface (API) for embedding **vis**|**ability**™ functionality into third-party applications. The **vis**|**ability**™ **Software Development License Kit** (**SDK**) is an option available with all **vis**|**ability**™ platforms.

Display Node

The **Display Node** (DN) application runs on a high-end workstation with multiple graphic cards and optionally video input capture cards to drive the system's **Display** elements, such as projection cubes, LCD panels, or direct-view LED arrays. The **Display Node** provides remote mirroring capabilities for collaborative environments. A virtually unlimited number of **Display Nodes** can be configured within a single system, allowing multiple **Display** elements and groupings to be integrated.

The System Administration Client

Overview of the Interface

The **vis|ability™** administrative interface, the **System Administration Client**, is the primary avenue for modifying the **vis|ability™** system administration database. From here, the system administrator can create, modify, and delegate access to **Activu** Sources and **Activu**-driven **Display Walls**. The **System Administration Client** is also used to manage the **vis|ability™** platform components such as Device Managers, MUXrouters, and all connected **Devices**.
This section describes procedures for working with the **System Administration Client** interface. The purpose of each screen, window, section, and menu option is provided with step-by-step instructions for all tasks related to managing and controlling access to **vis|ability™** resources (i.e., **Applications**, **Network Sources**, **Graphic Files**, **Media Files**, **Sources**, **Display** areas, etc.).

A tree structure on the main **System Tree** screen is used for easy navigation through the different components and **Source** types available for **vis|ability™** deployment (See Working with the Tree Branches and Working with Sources).

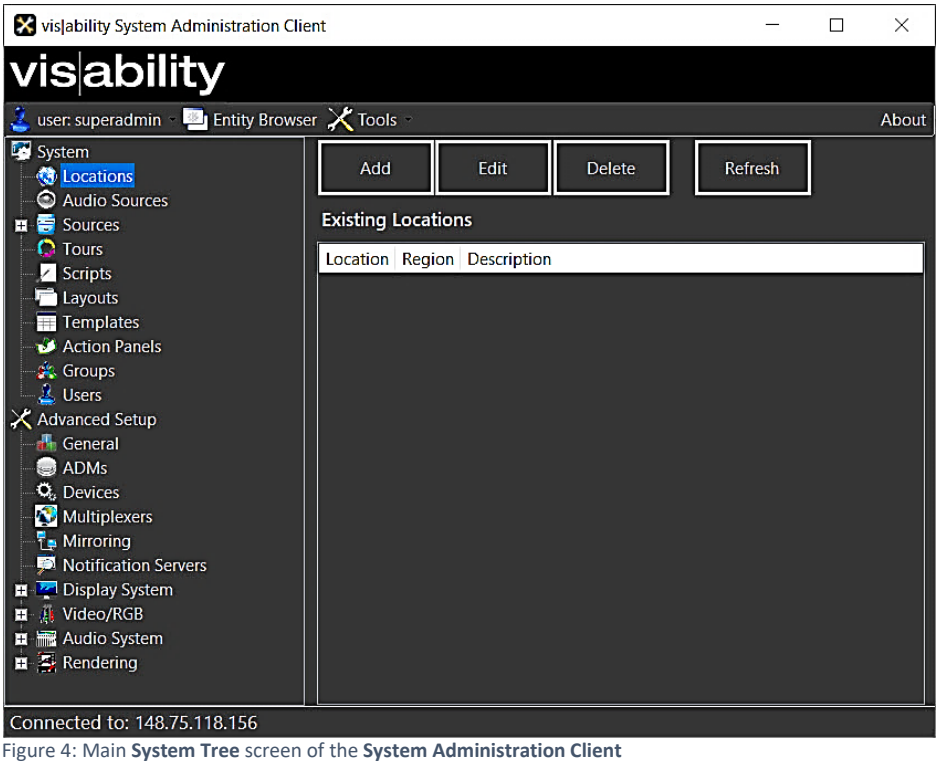


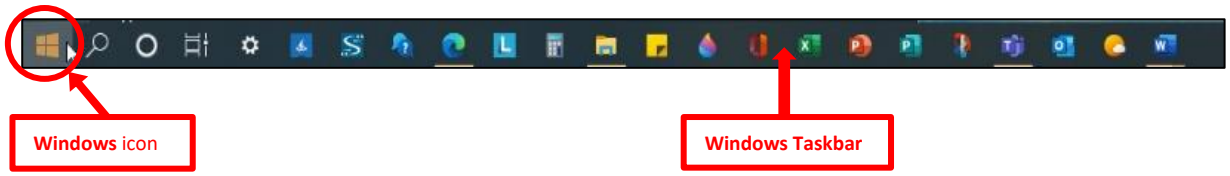
Figure 4: Main **System Tree** screen of the **System Administration Client**

Caution: **Scripts**, **Layouts**, **Templates** and **Action Panels** are all branches on the tree that must be managed by **System Administrators** only.

Accessing the System Administration Client

To open the **vis|ability™ System Administration Client** from the **Windows Start** menu, complete the following steps:

1. On the left end of the **Windows Taskbar**, click or tap the **Windows** icon (or press the **Windows Logo** key on your keyboard), to open the **Start** menu.



The **Start** menu is displayed:

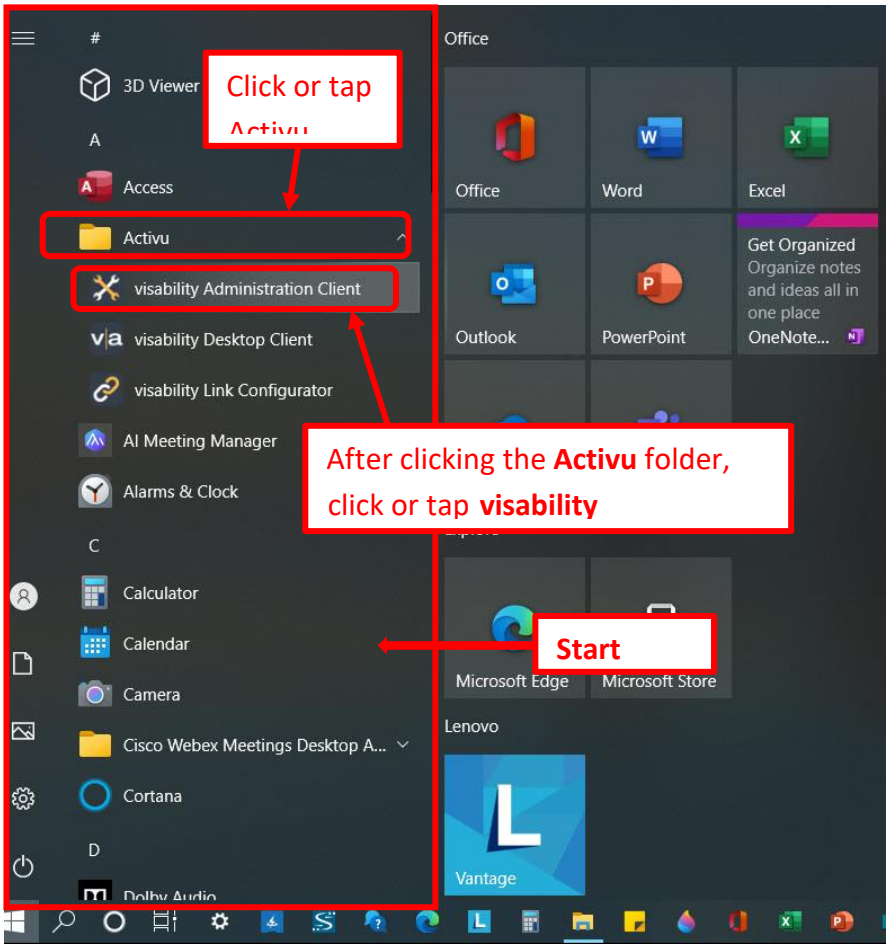
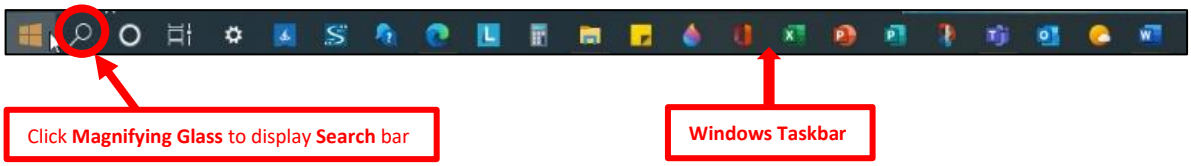


Figure 5: Click or tap **Activu**, then **visability Administration Client** on the **Start** menu

2. Scroll through the **Start** menu to locate the **Activu** folder in the list of installed applications.
3. Click the **Activu** folder.
4. Click **visability™ Administration Client** under the **Activu** folder on the **Start** menu.

OR



1. Click the **magnifying glass** on the left end of the **Windows Taskbar** to display the **Search** bar.

2. Type "**administration client**" in the **Search bar**.

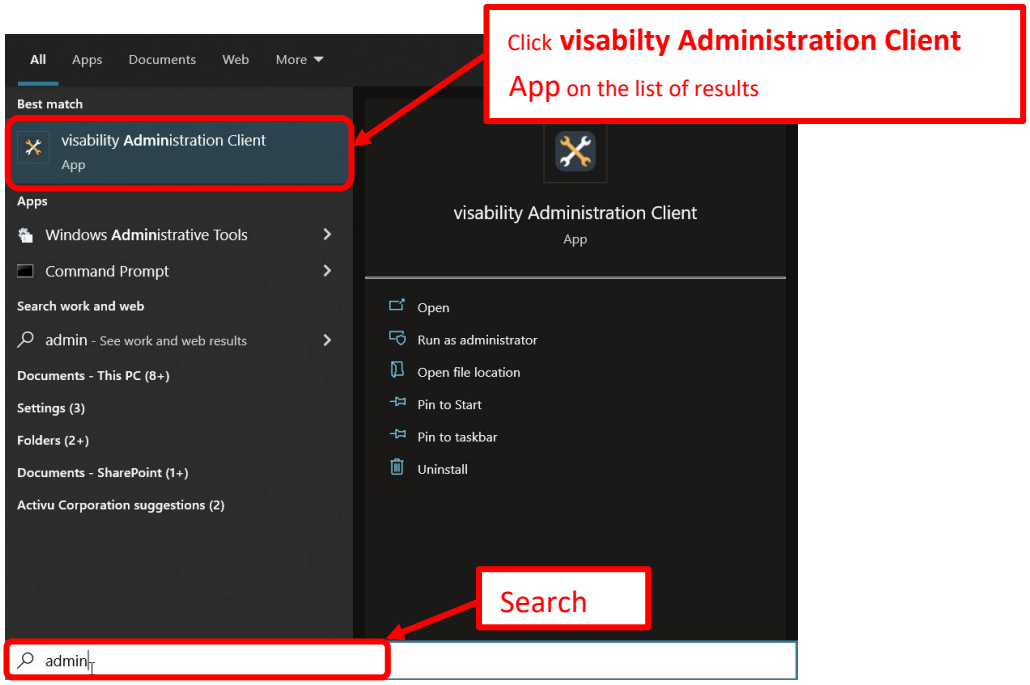


Figure 6: Type "**administration client"** in the **Search** bar, then click **Administration Client** App on the **Start** menu

3. The **Search Results** are displayed on the **Start** menu.

4. Click on the 

application on the **Start** menu. The **vis|ability™ Login** screen is displayed, as shown in the figure below, in the next section.

Logging into the System Administration Client

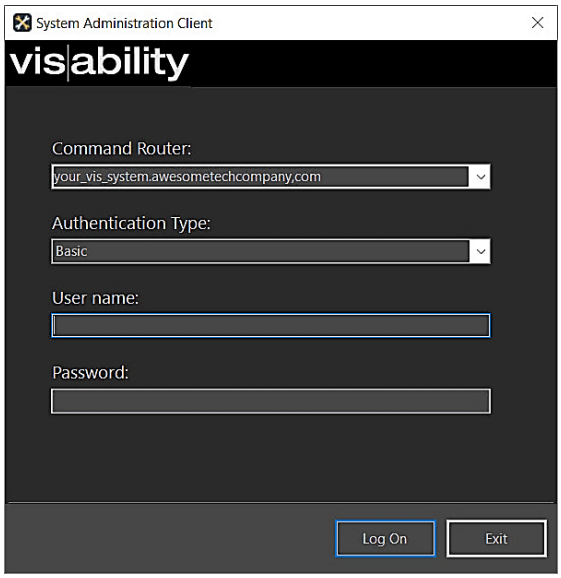


Figure 7: The **vis|ability System Administration Client Login** screen

To log into the **vis|ability™ System Administration Client**, complete the following steps:

1. On the **vis|ability™ Login** screen, enter a **Username**.
2. Enter a **Password**.
3. From the **Command Router** drop-down menu, select the IP address or network name of the **System Management Server** to be configured. You can also enter the IP address manually or specify a host name for the server.
4. Click the **Log On** button. The **vis|ability™ System Administration Client** begins the loading process:

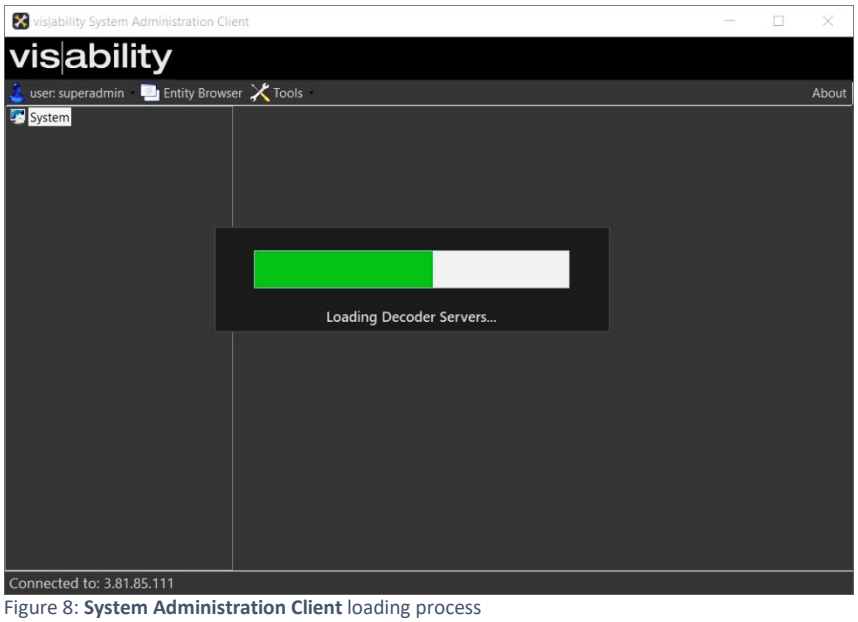


Figure 8: **System Administration Client** loading process

5. If there is an error in your input (for example, if you input the wrong password), an error dialog is displayed with this message:

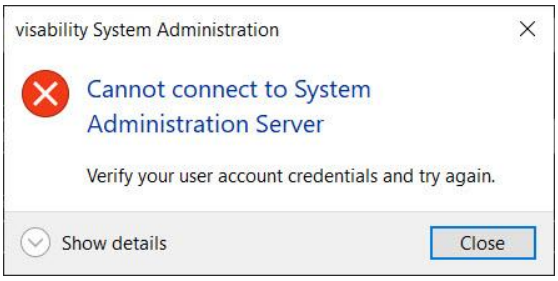


Figure 9: **Cannot connect** dialog

If this occurs, enter the correct **username**, **password**, and validate that the correct value (in the correct format) has been entered in the **Command Router** field, then click or tap the **Log On** button again.

Once the authentication process is completed successfully, the main **System Tree** screen is displayed.

Logging Off and Exiting the System Administration Client

Use the following procedure to log off or exit from the **System Administration Client**.

1. Click anywhere on the **Username** in the top-left corner of the screen. A drop-down menu is displayed.
2. Click **Log Off** or **Exit** to close the application.

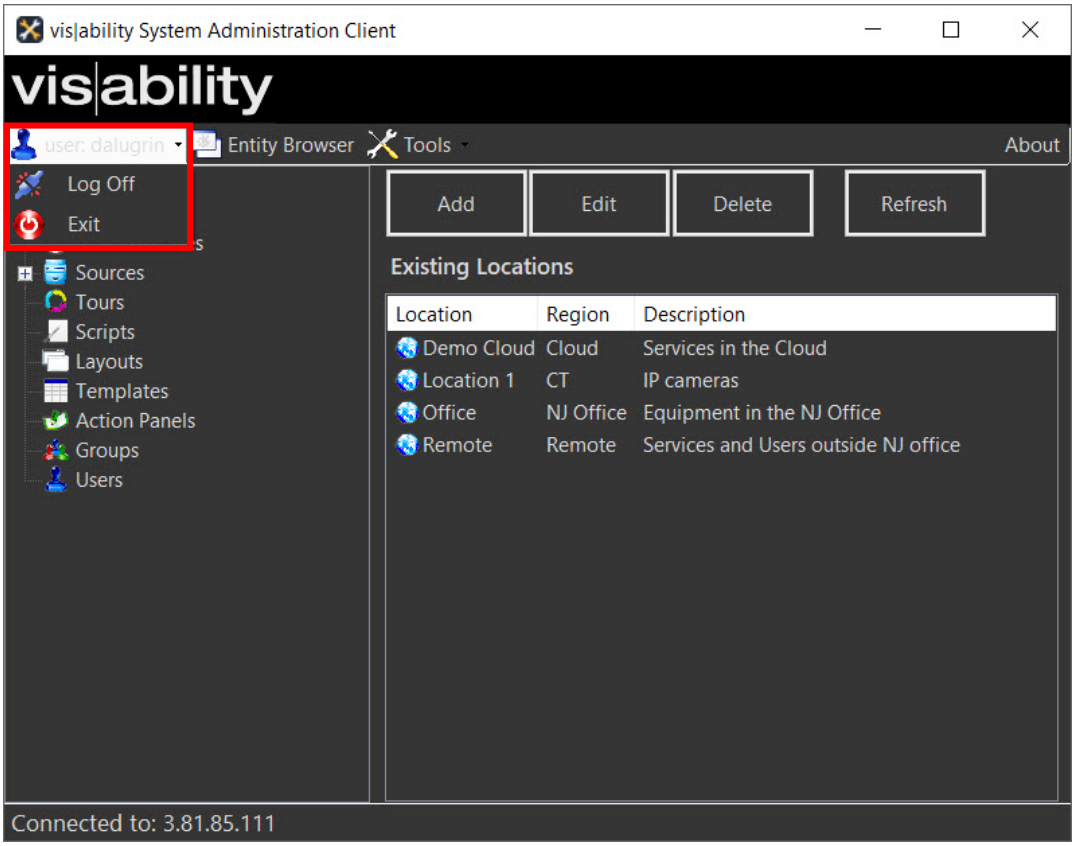


Figure 10: **Log Off** and **Exit** options

Working with the Tree Branches

A tree structure on the main **System Tree** screen of the **System Administration Client** is used for navigation through the different components and **Source Types** available for **vis|ability™** deployment.

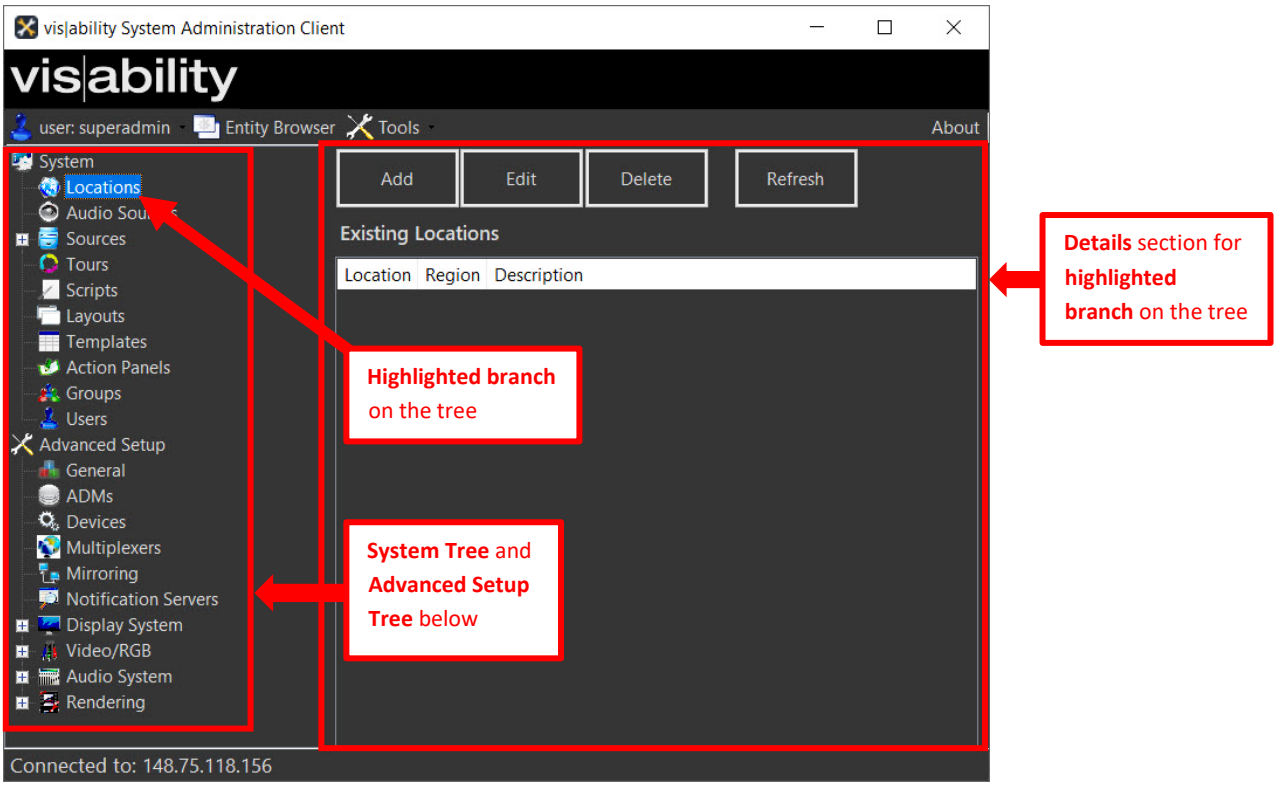


Figure 11: Main **System Tree** screen of the **System Administration Client**

The **System Tree**, from which branches are extended for configuring and managing all elements in the system, is on the left side of the screen. When a branch on the tree is clicked to highlight it, the **Details** for that branch are displayed on the right side.

Each branch on the **System** tree is listed and described in the tables below:

Table 2: **System Administration Client Screens**

System Administration Client Screens	
Locations	Use this screen to create labels for specific locations (rooms, buildings etc.) within your system. These tags are for future use and although stored in the database, are not used by the system at present.
Audio Sources	Use this screen to add **Audio Sources** to the **vis|ability™** platform.
Sources	Defines and lists all elements input into the **vis|ability™** platform. **Users** or **Operators** can place and manipulate these input elements, or **Sources**, on **Activu Display Devices**. Access to these **Sources** is controlled through **Groups**.
Tours	Use this screen to create **Activu Tours** that consecutively display the **Sources** they cycle through.
Scripts	Lists all **Scripts** created using **Activu vis|ability™ Desktop Client**. In the **System Administration Client**, they can only be deleted.
Layouts	Lists all the **Layouts** created in **Activu Desktop Client**. In the **System Administration Client**, they can only be renamed or deleted.
Templates	Lists all the **Templates** created in **Activu Desktop Client**. In the **System Administration Client**, they can only be renamed or deleted.
Action Panels	Lists all the **Action Panels** created in **Activu Desktop Client**. In the **System Administration Client**, they can only be renamed or deleted.
Groups	Lists all the **Groups** within the **vis|ability™** platform.
Users	Lists all the **Users** within the **vis|ability™** platform.
API Key	Lists all API Keys within the **vis|ability™** platform.

Locations

Caution: Although the vis|ability database can contain Locations, the use of this date, other than information, is reserved for future version of the platform and are not used in v6.5.1.

The **Locations** branch on the **System** tree is used to create **Labels** for specific **Locations** (rooms, buildings etc.) connected to the system. These tags are for future use and although stored in the database, are not yet utilized.

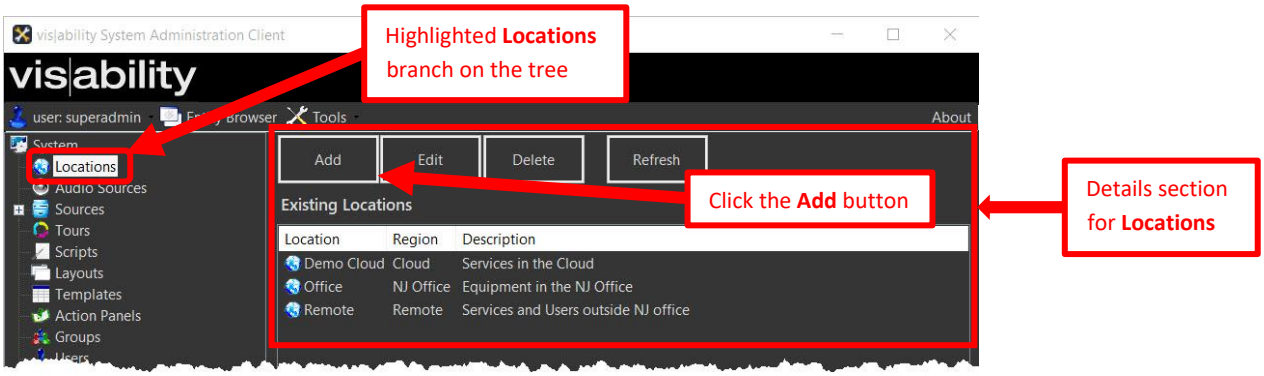


Figure 12: The **Locations** branch and Details section

Adding a Location

To **Add** a **Location** to the system database, complete the following steps:

1. In the **Details** section for the **Location** branch, click the **Add** button at the top of the screen. The **Add a Location** window is displayed.
2. Type the **Name**, **Region** and **Description** in their respective fields.
3. Click the **Add Location** button at the bottom of the window.

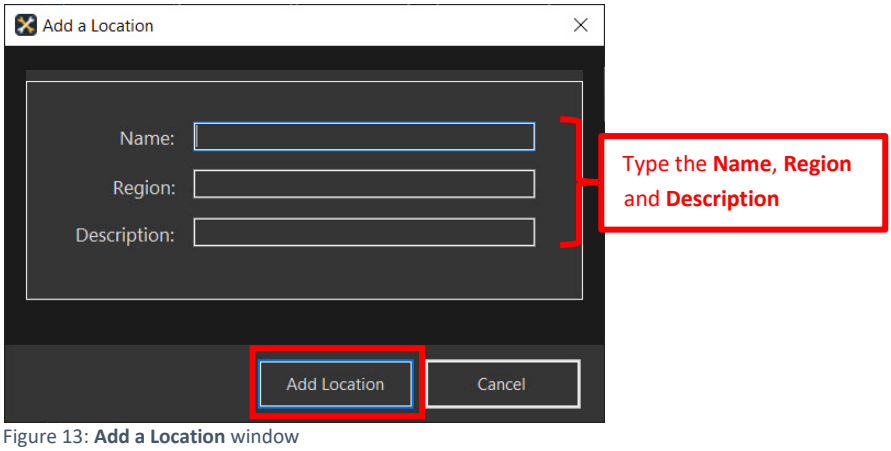


Figure 13: **Add a Location** window

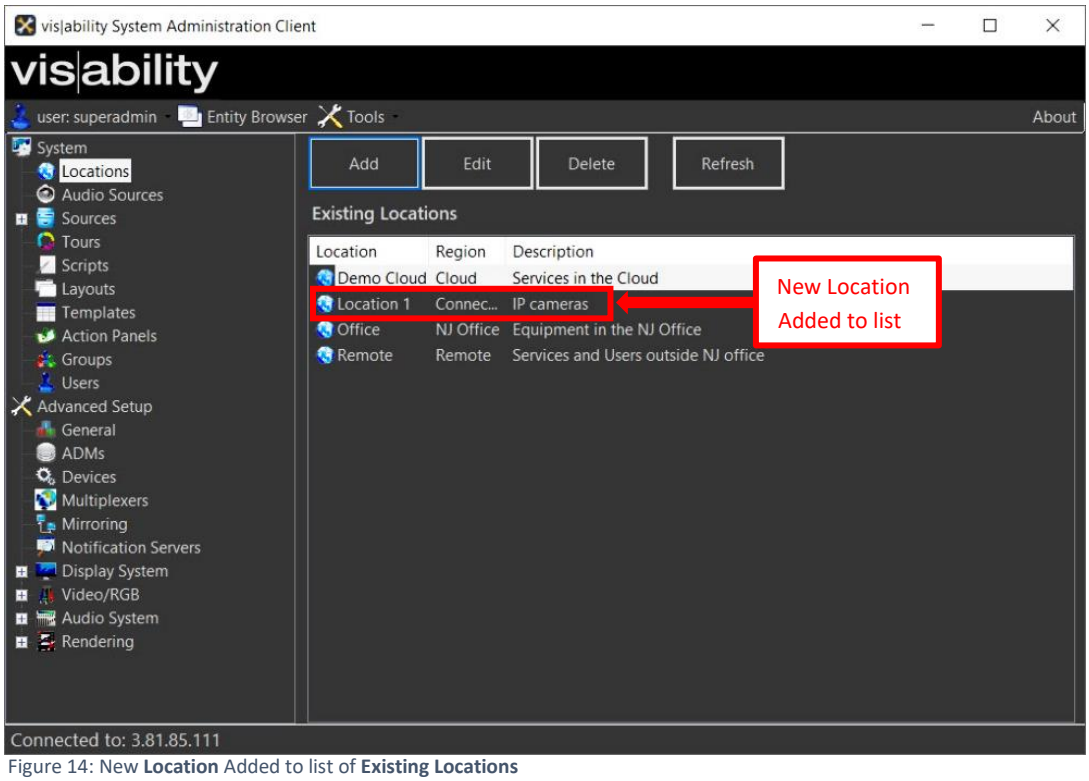


Figure 14: New **Location** Added to list of **Existing Locations**

Editing a Location

1. In the **Details** section of the **Location** branch, click (to highlight) the name of the **Location** that is to be edited, in the **Existing Locations** list.

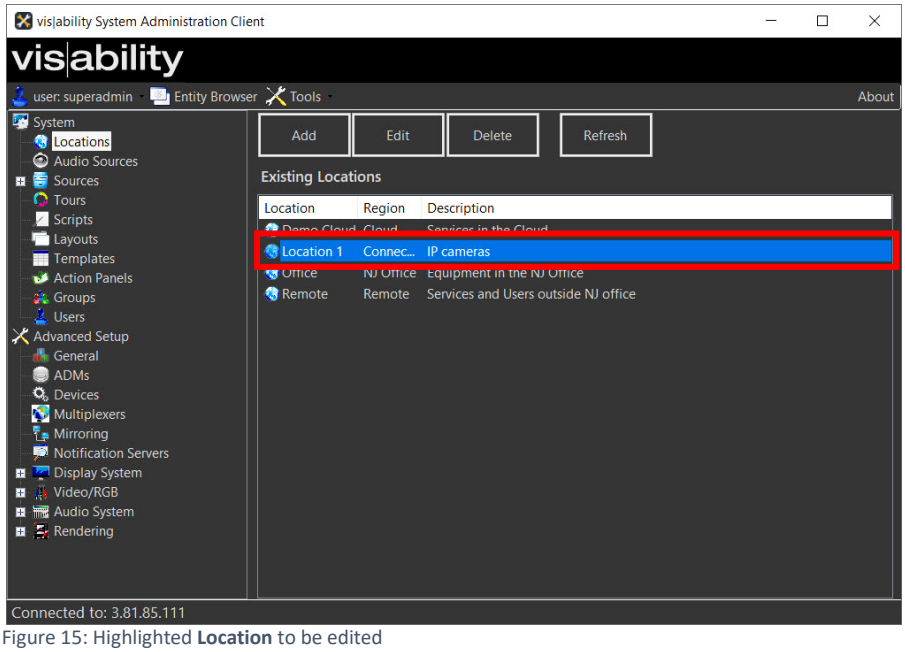


Figure 15: Highlighted **Location** to be edited

2. Click the **Edit** button above the list of **Existing Locations**. The **Update a Location** dialog appears:

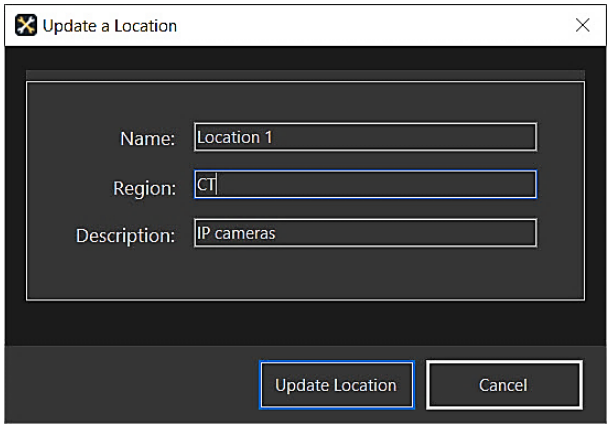


Figure 16: The **Update a Location** window

4. Type the **Name**, **Region** and **Description** in their respective fields.
5. Click the **Update Location** button at the bottom of the window. The **Location** appears in the list with the alterations made.

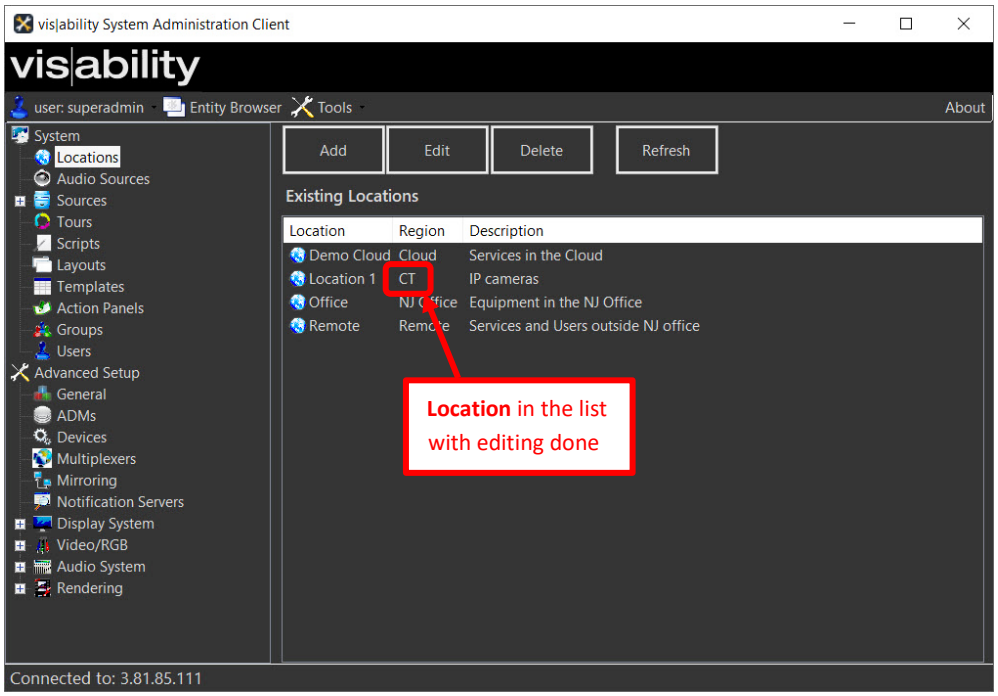


Figure 17: Location in list with editing done

Deleting a Location

To delete a Location, complete the following steps:

1. In the **Details** section of the **Location** branch, click (to highlight it) the name of the **Location** in the **Existing Locations** list that is to be deleted.
2. Click the **Delete** button above the list of **Existing locations**. The following dialog appears:

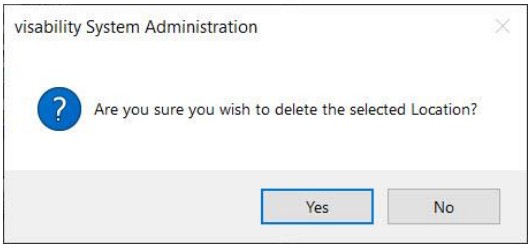


Figure 18: Are you sure you want to delete the selected **Location**?

3. Click the **Yes** button to **Delete** the **Location**.

Refreshing a Location

There is a **Refresh** button on the **Details** section of every branch on the **System** tree. It is used to confirm that the data for a specific **Source** (or other component in the system) has been loaded into the **System** database, by reloading it again. To **Refresh** or reload a **Location**, complete the following steps:

1. In the **Details** section of the **Locations** branch, click on a **Location** name that is to be deleted (to highlight it), in the **Existing Locations** list.
2. Click the **Refresh** button above the list. The highlighted **Location** has now been reloaded into the **System** database.

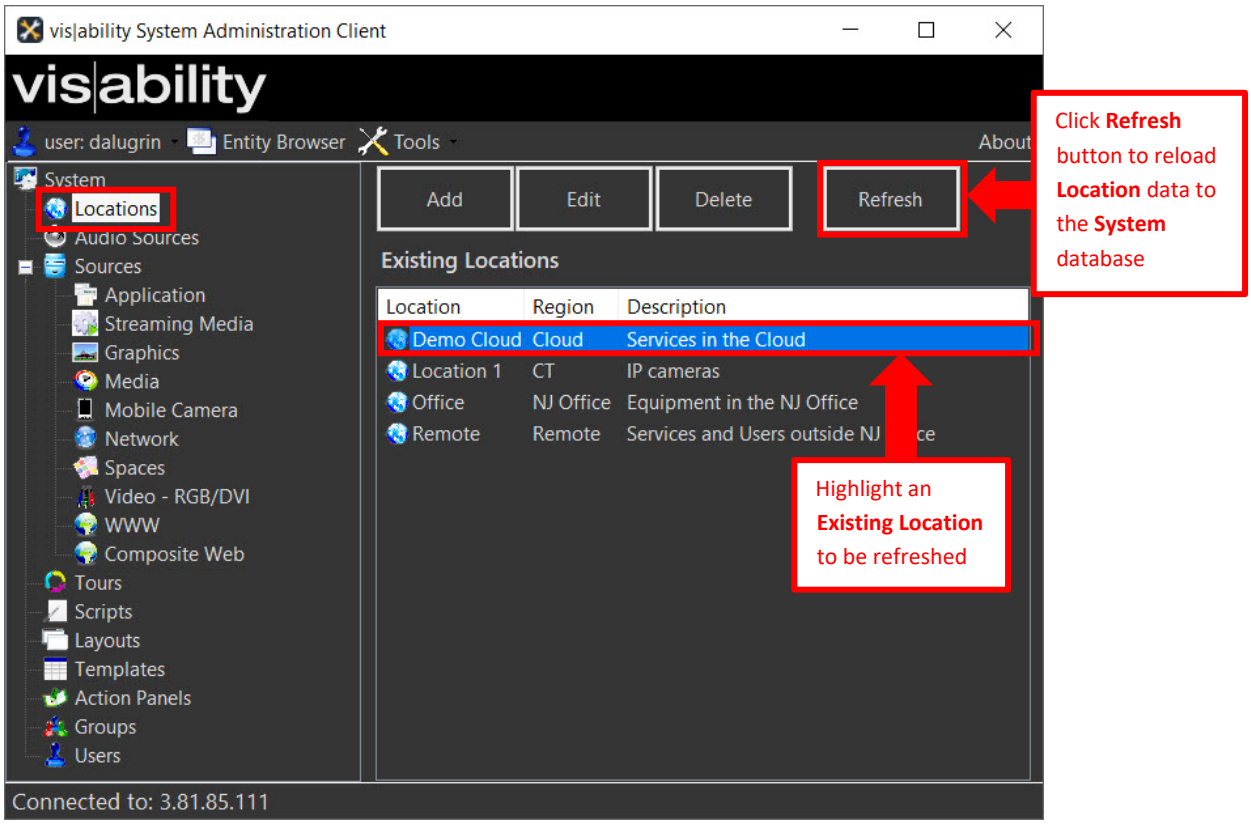


Figure 19: Refreshing a **Location**

Audio Sources

Audio Sources are specifically defined entries in the **System** database that represent the physical mechanisms by which sound is provided and directed to **Audio Routers** for distribution to various locations in the **vis|ability**™ system. **Audio Sources** are set up by **Activu** administrators when the entire **vis|ability**™ system is installed. This is a complicated process and should only be undertaken by **System Administrators**, not by general **Users**. If *new* physical **Audio Sources** are added to the **vis|ability**™ platform, then they must be added by system administrators on the **Audio Sources** branch of the **System Tree** screen. The procedure for adding new **Audio Sources** is described in the section to follow, entitled, Adding Audio Sources.

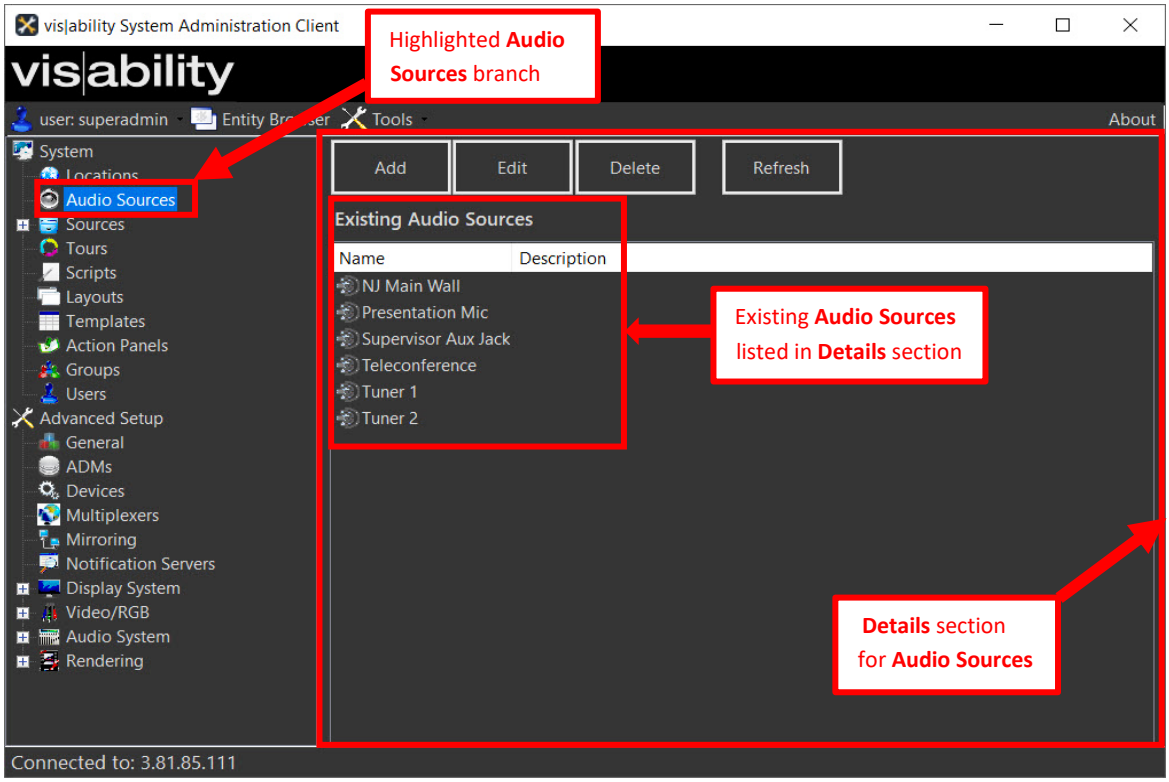


Figure 20: The **Audio Sources** branch on the **System Tree**

When the **Audio Sources** branch is clicked on the **System Tree**, all *existing* **Audio Sources** are listed on the right side of the screen, in the **Details** section.

Adding Audio Sources

To **Add** a new **Audio Source** to the system database, complete the following steps:

1. Click the **Audio Sources** branch on the **System Tree** to display the **Audio Sources Details** section to the right.
2. Click the **Add** button above the list of existing **Audio Sources** in the **Details** section for **Audio Sources**.

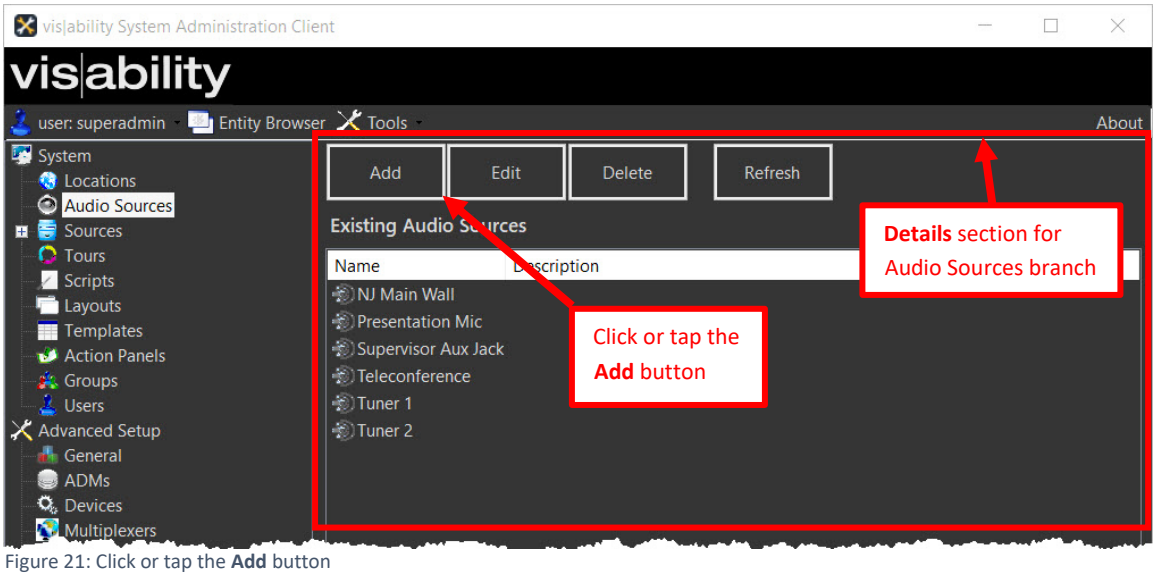


Figure 21: Click or tap the **Add** button

The **Add an Audio Source** window appears.

3. Type the **Name** of the new **Audio Source** to be added, in the **Name** field, in this case **Audio Input 1**.

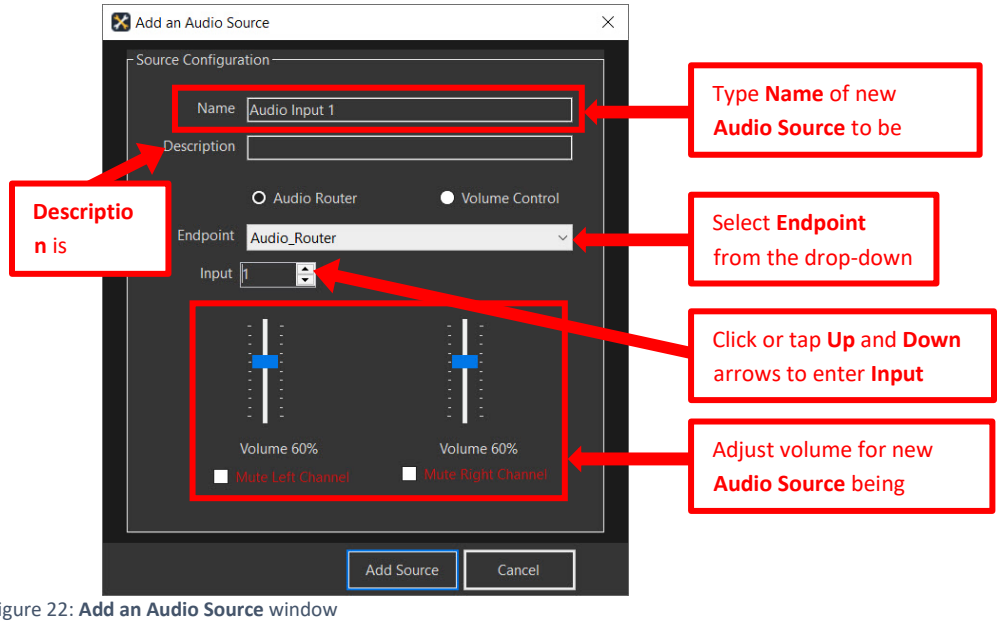


Figure 22: **Add an Audio Source** window

4. Click an **Endpoint** from the **Endpoint** drop-down menu. There may be only one option to select (i.e., **Audio_Router**).
5. Select the appropriate input value in the **Input** field with the **Up** and **Down** arrows.
6. Move the blue buttons up or down on the **Left Channel** and/or **Right Channel** volume sliders to raise or lower the volume. The default volume is always set at 40% as the starting point.
7. Click the **Add Source** button at the bottom of the dialog.
8. The **Adding Record Successful** message box appears. Click the **OK** button.

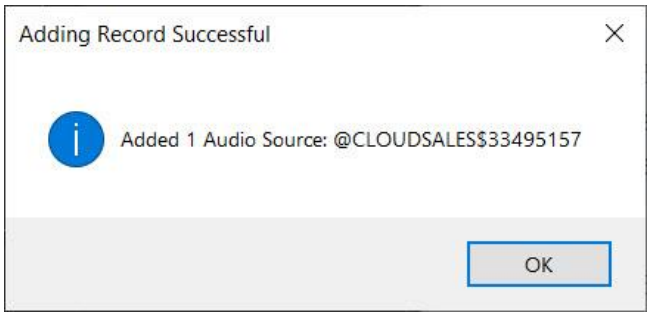


Figure 23: **Adding Record Successful** dialog appears

9. The dialog closes and the **Name** of the new **Audio Source** is added to the list of existing **Audio Sources**.

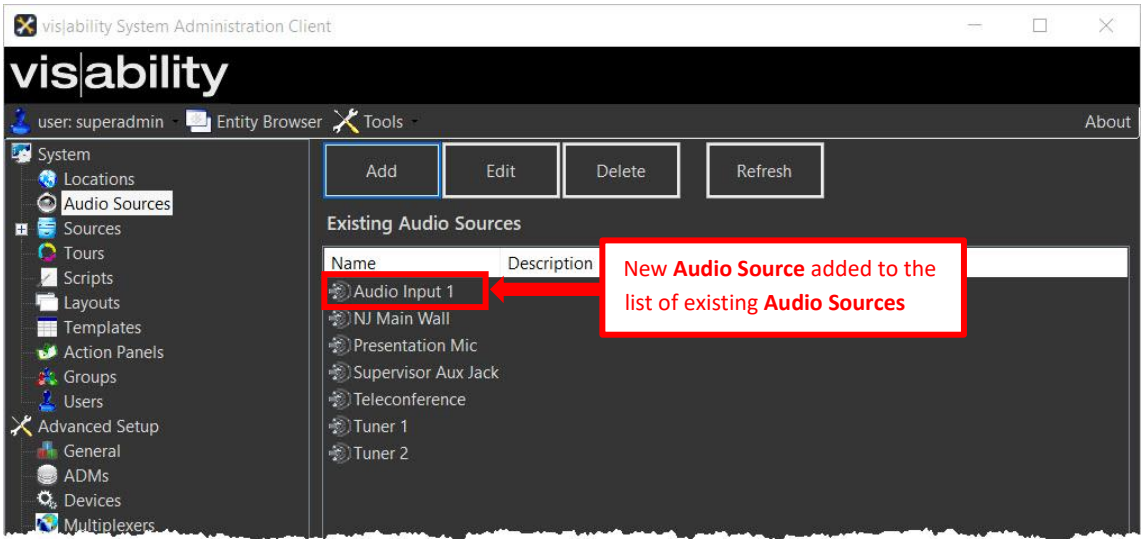


Figure 24: New **Audio Source** is added to list of existing **Audio Sources**

Editing Audio Sources

The only settings to be altered on this dialog are to change the **Name** of the **Audio Source** and/or change the **Default Volume** level. To do this, complete the following steps:

1. Click the **Audio Source** name on the **Details** list to be altered.
2. Click the **Edit** button.
3. Type a new name in the **Name** field if it is to be changed.

4. Move the blue buttons up or down on the **Left Channel** and/or **Right Channel** volume sliders to raise or lower the volume. The default volume is always set at 40%.

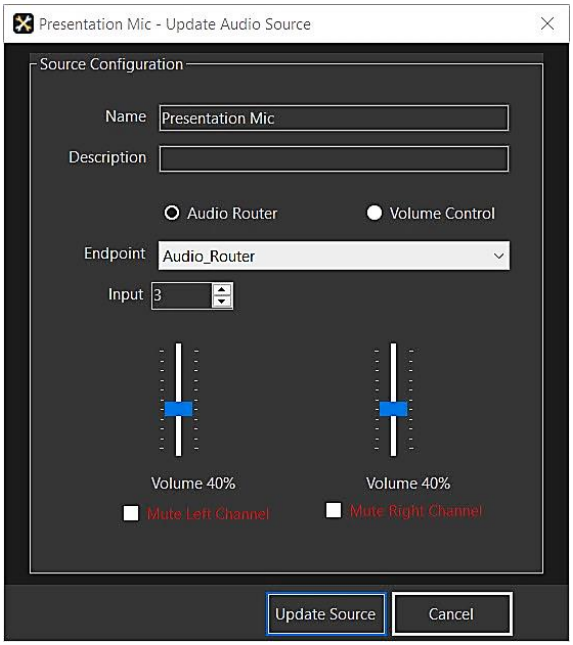


Figure 25: **Update Audio Source** dialog

Deleting Audio Sources

To **Delete** an **Audio Source**:

1. Click on the name of the **Audio Source** to delete in the list of existing **Audio Sources** on the **Audio Sources** screen.
2. Click the **Delete** button above the list. The **Confirm Deletion** dialog is displayed:

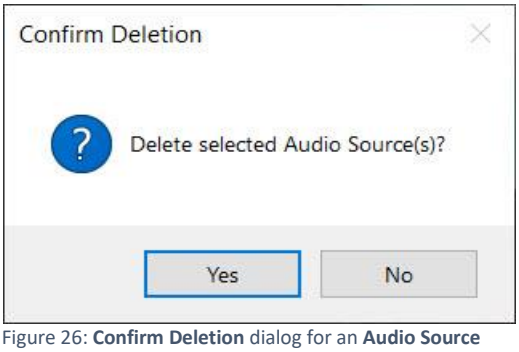


Figure 26: **Confirm Deletion** dialog for an **Audio Source**

3. Click the **Yes** button to complete the deletion. The name of the **Audio Source** has been eliminated from the list of existing **Audio Sources**.

Refreshing Audio Sources

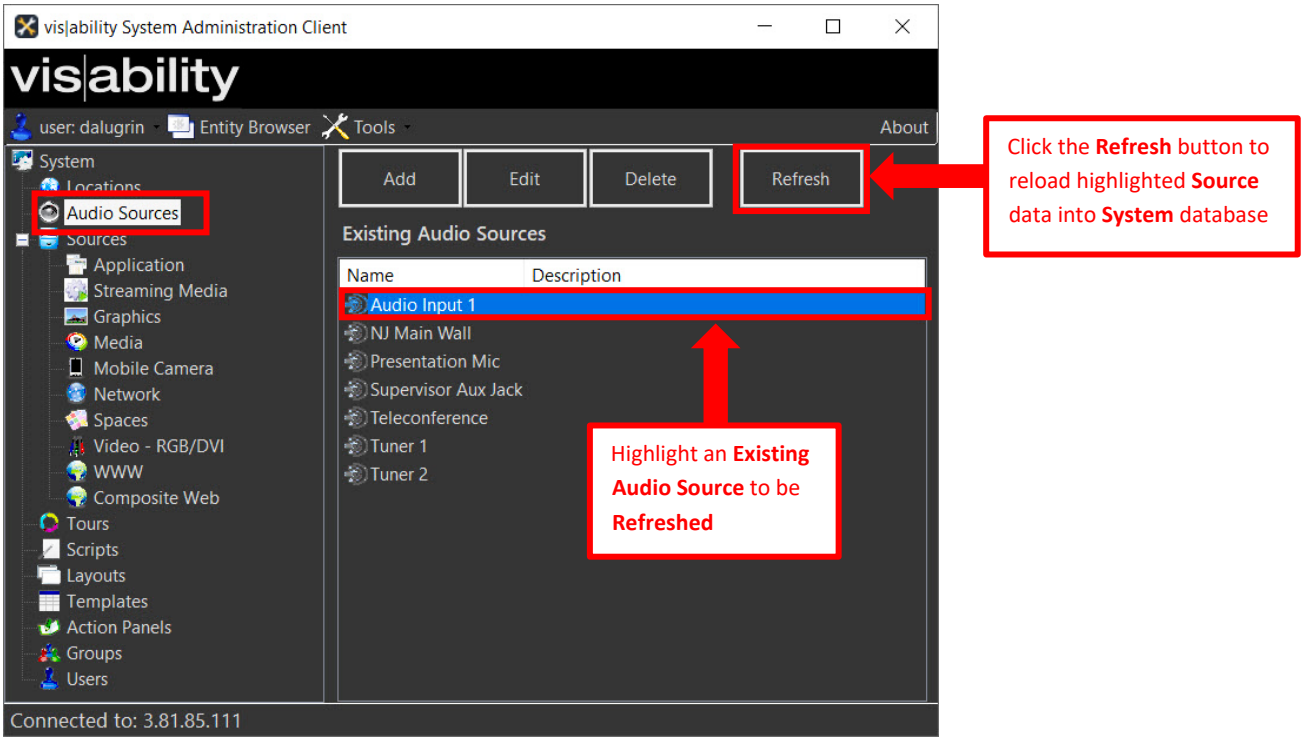


Figure 27: **Refresh** button on **Audio Sources** screen

There is a **Refresh** button on the **Details** section of every branch on the **System** tree. It is used to confirm that the data for a specific **Source** (or other component in the system) has been loaded into the **System** database, by reloading it again. To **Refresh** or reload an **Audio Source**, complete the following steps:

1. In the **Details** section of the **Audio Sources** branch, click on an **Audio Source** name that is to be deleted (to highlight it), in the **Existing Audio Sources** list.
2. Click the **Refresh** button above the list. The highlighted **Audio Source** has now been reloaded into the **System** database.

Working with Sources

Sources are supported, visual media, compatible with the **vis|ability**^{TM} architecture, and stored as **Source** definitions, each as a separate record in the **System** database. A **Source** definition typically refers to a "source" of content that can be displayed within the **vis|ability**^{TM} platform, such as a web site, IP camera stream, or desktop capture stream, but can also be file-based, in which case, the *file* is stored in the system.

In the **System Administration Client,** a variety of **Source types** may be added, edited, copied, or removed from the **vis|ability**^{TM} **System Management** database. After a **Source** is added to and configured in the database, it can be viewed and manipulated via the **vis|ability**^{TM} **Desktop Client**, across **Activu**-driven **Display Walls**, LCD panels, desktop monitors, laptops, and mobile phones.

The System Tree on the main screen of the **System Administration Client,** has a branch called **Sources** where most **Types** of **Sources** are configured. The **Sources** branch has sub-branches for each of these **Source Types**. The following sections describe what they are and how to configure them.

The table below lists each of these **Source Types**:

Table 3: **vis|ability Source Types**

vis|ability Source Types	
Source Type	**Description**
Application	An **Application Source** represents a process running on the **Display Node** which can be controlled via **Activu**. Examples of a process include Radar, SCADA, or Microsoft Office applications.
Streaming Media	IP cameras and encoders.
Graphics	Lists and stores images such as GIF, PNG, and JPG's.
Media	Lists and stores video files.
Network	Defines and lists all computer sources on the network with the **Capture Client** installed, including **Activu Display Devices**.
Spaces	This is a read-only list of S**paces**. **Spaces** are virtual 4K video walls used to organize content to share and collaborate with team members.
Video – RGB/DVI	Defines and lists baseband-captured video S**ources** such as VCR, DVD, Cable, Digital tuners, and computer outputs that cannot be captured via software.
WWW	Stores web pages.
Component Web	Enables the display of up to four different URLs in one web Source window that is always displayed in an even, two-by-two arrangement.
Tours	A T**our** is a single-**Source** window that rotates through multiple **sources** in a continuous loop. Supports all visual **Source** types.

Application Sources

An **Application Source** is a defined entry in the **System** database that represents a software application running locally on a Display Node computer.

Adding an Application Source

For the **Application Source** to function, the application must be installed on the **Display Node**. The path to the application's executable file, as well as unique parameters accepted by the software application, can be configured on the **General** tab of the **Add an Application Source** window. The path to the application must be the exact location where the executable has been installed on the **Display Node**. In addition, you can configure the **Application Source** to launch a **Script** (see the **vis|ability Scripting Guide**) and/or the **Audio** interface for the **Display Node** where the application resides. The **Audio Source** must also be configured on the **vis|ability**™ system (see Adding Audio Sources). The following table lists the parameters, and their functions, that appear on the **General** tab of the **Add an Application Source** window:

Table 4: **Application Source Parameters**

Application Source Parameters		
Parameter		**Description**
Application Configuration		
Name	Required	Name for Application Source. This name is used to identify the Source on the Remote Control GUI of the Desktop Client application. You can enter a maximum of 64 characters as a name.
Path	Required	Absolute path of the application executable to be launched on an **Activu Display Node**. For example, to launch the Internet Explorer application, enter a path of: C:\Program Files\Internet Explorer\iexplore.exe
Parameters	Optional	Application specific parameters.
IMPORTANT INFORMATION: File paths must be accessible on the **Display Node** for an **Application Source** to work.		
Description	Optional	Identifying text for the Application Source. This text is used by the Activu Desktop Client application when searching for Sources on the Resource Explorer. You can enter up to 64 characters for a description.
Resolution	Required	Specifies an initial Resolution value used by the **Application Source** when it is placed on an **Activu**-driven **Display Wall**.
Start Delay	Required	Time delay value (in milliseconds) used by the Desktop Client application to determine if the application successfully loaded on a remote Display Node.
Process List	Optional	The purpose of the information entered in this field is to help vis|ability™ find the associated Source on the Display Node. It is not required. If entered, the name should match the name of the Application as it is listed in the Windows Task Manager, but it does not need to include the file extension (i.e., simply enter Notepad).
Force Program Termination	Optional	Immediately ends the application process on the Display Node. This is equivalent to terminating a process from the Windows Task Manager.
Related Source Links		
Audio Source	N/A	This parameter is disabled for application sources.

Tip: To directly manipulate (resize, move, etc.) this **Source Type** on a **Display Node**, a **User** can use the **KM** tool, accessed on the **Display Control** window of a specific, **Display**, in the **vis|ability™ Desktop Client.** (See the section entitled, "**Interacting with Displays**" in the **Activu vis|ability™ Version 6.1 Desktop Client User Guide**)

To **Add** an **Application** to the **vis|ability™** system database, complete the following steps:

1. Double-click the **Source** branch on the **System Tree** to open the list of **Sources.**
2. Click the **Application** branch on the **Tree** to display the **Application Details** to the right:

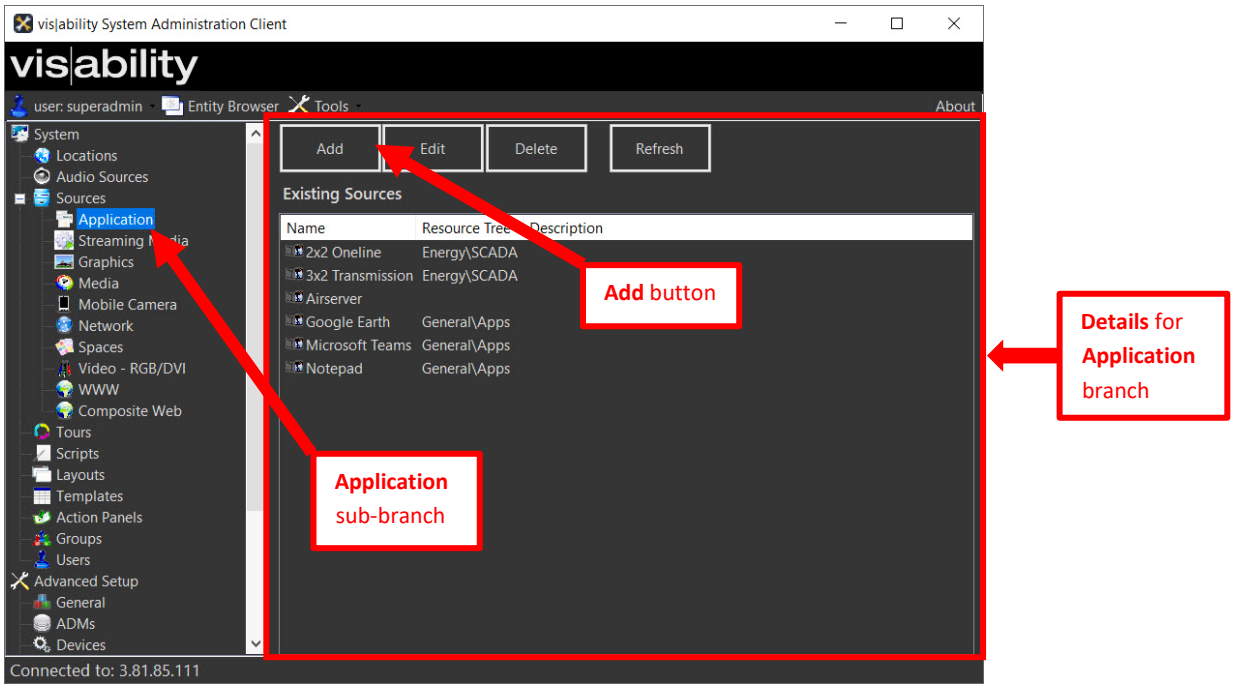


Figure 28: Application Details to the right

3. Click the **Add**  button at the top of the **Details** section of the screen to display the **Add an Application Source** window:

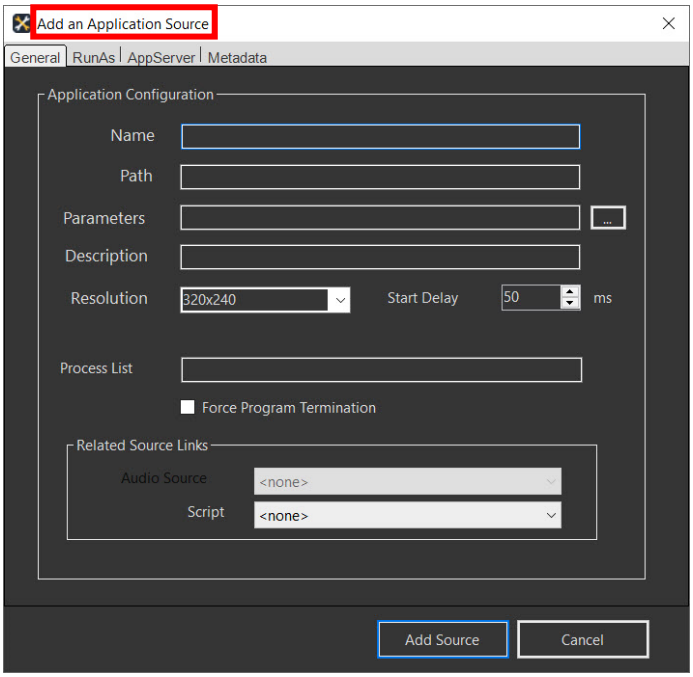


Figure 29: **Add an Application Source** window - **General** tab

On the **Add an Application Source** window, there are four tabs where parameters for this new **Application Source** can be entered:

4. On the **General** tab, enter the following information (as described in the table above):
    a. **Name**: Each folder name that is before a backslash (example: **General\Apps\Notepad**) matches a folder listed on the **Sources Hub** menu in the **Desktop Client** (see the **Activu vis|ability™ Version 6.1 Desktop Client User Guide**).
    b. **Path**: Enter the exact path to the executable file on the **Display Node** for this **Application**
    c. **Parameters**: Parameters can be typed in this field, OR...

    the **Ellipsis** [...] can be clicked to display the **Advanced Parameters Editor**.

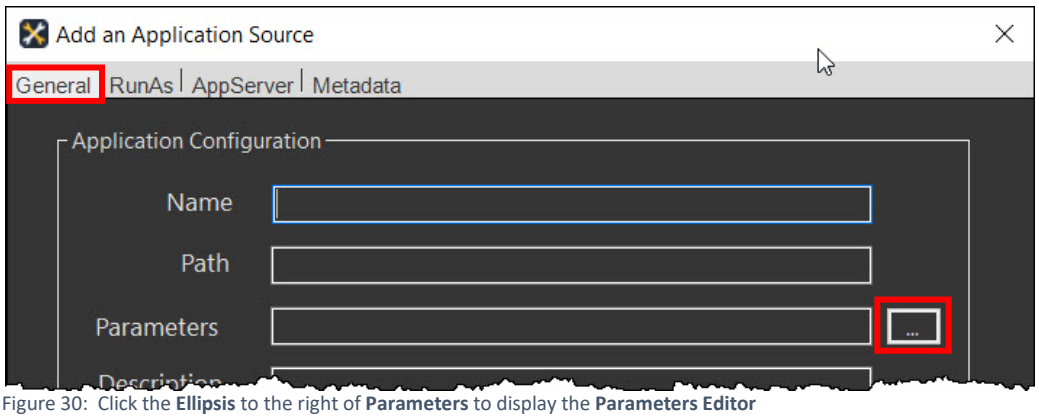


Figure 30: Click the **Ellipsis** to the right of **Parameters** to display the **Parameters Editor**

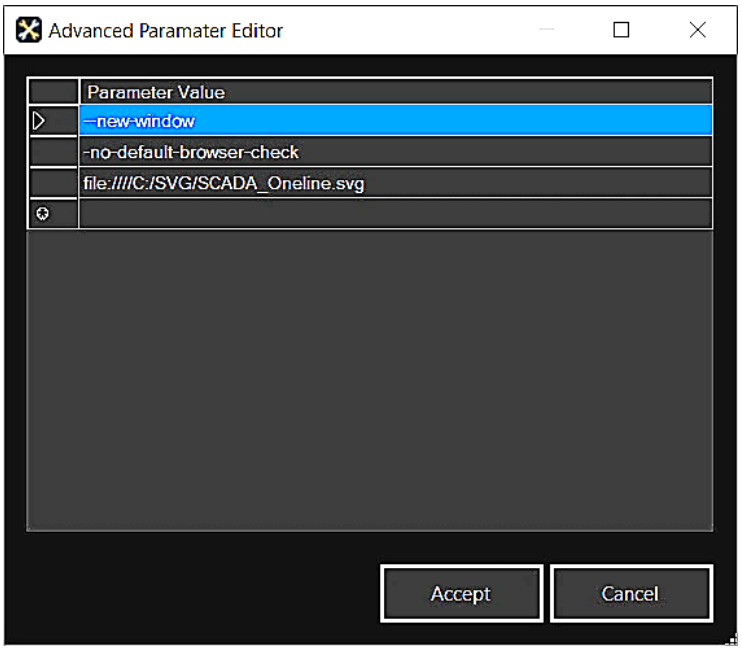


Figure 31: **Advanced Parameter Editor** window displayed when **ellipsis** is clicked

The **Editor** makes it easier to enter multiple **Parameters**, each on a separate line. To move to the next row press, **Enter** or the **Down** arrow. Type in all parameters, then click the **Accept** button at the bottom of the **Editor** window. The parameters that were just typed in the **Editor** now appear in the **Parameters** field of the **Add an Application Source** window.

d. **Description**: This field is optional.

e. **Resolution**: This defines the initial size of a **Source** when it is first placed on a **Display Wall**. Click on the **Down** arrow to select a resolution from the drop-down list or manually type the value in the field. 1280 x 720 is a common mid-sized setting to use, but the resolution can be set at any value desired.

f. **Start Delay**: This setting determines how long before **vis|ability**™ attempts to identify the **Application Source** window as fully open on the **Display Wall** and ready for resizing and placement. This value should allow enough time for the **Application** to launch both its splash screen and it's executable. A smaller **Application**, such as Notepad, will need less time.

g. **Process List**: The purpose of the information entered in this field is to help **vis|ability**™ find the associated **Source** on the **Display Node**. It is not required. If entered, the name should match the name of the **Application** as it is listed in the **Windows Task Manager**, but it does not need to include the file extension (i.e., simply enter **Notepad**).

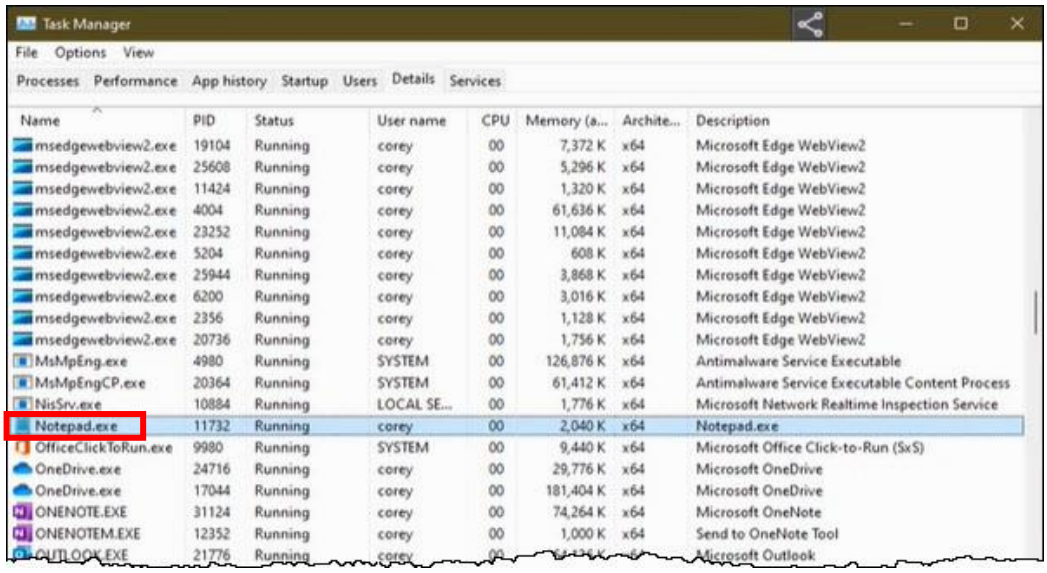


Figure 32: In the **Process List** field, enter, optionally, the application name as it is listed in **Windows Task Manager**

h. **Force Program Termination**: If this box is checked, the **Application** immediately, automatically closes when the **Source** is closed on the **Display Wall,** without first asking the **User** if they want to **Save** a file or perform any other functions.

i. **Related Source Links**: This area is not presently functional and should not at present be used.

5. **vis|ability**™ allows you to configure an **Application Source** to run with specific **User** credentials. This is common for environments where certain software applications can only be launched with administrative permissions. This feature is like a Windows systems administrator running an application as an administrator from a workstation that is logged onto by a **User** that has no administrative rights on the domain. If the **Application** should be run as a specific **User** (i.e., **Administrator**), complete the following steps:

   a. Click the **RunAs** tab and enter the **Domain**, **Username** and **Password** of that **User**:

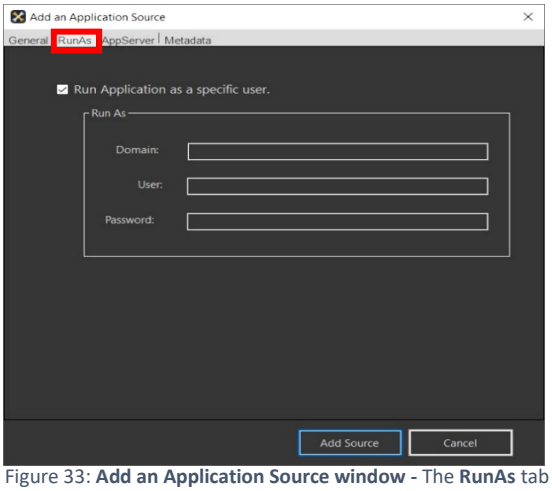


Figure 33: **Add an Application Source window -** The **RunAs** tab

b. Click the **Add Source** button at the bottom of the screen.

6. The **AppServer** tab: The functionality on this tab is not yet being utilized. It can be left blank.

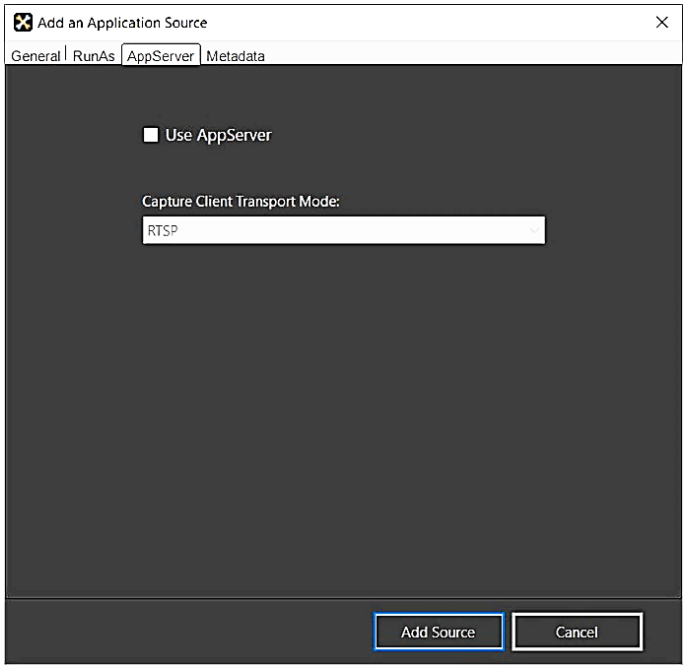


Figure 34: Add an Application Source window - The App Server tab

7. The **Metadata** tab can be left blank. It is not yet being utilized but will be, at some point in the future.

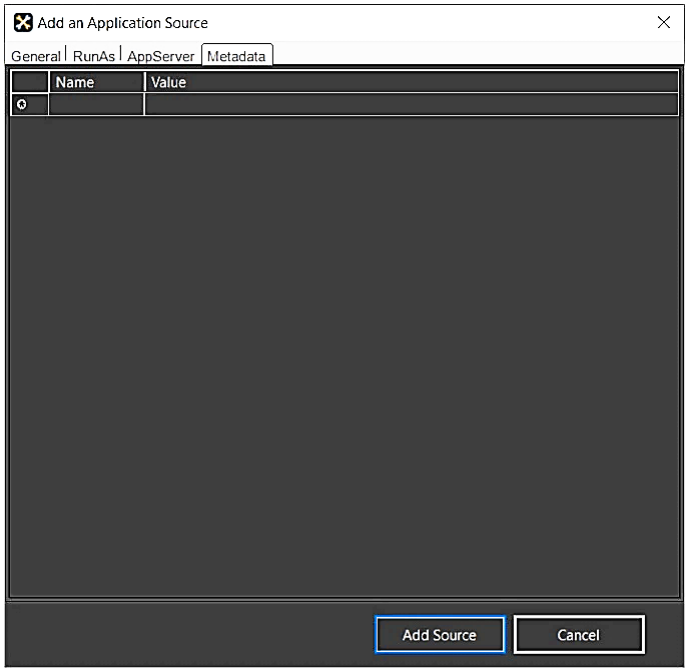


Figure 35: **Add an Application Source window** - The **Metadata** tab

Editing Application Sources

To edit an existing **Application Source**, complete the following steps:

1. In the **Details** section of the **Application Sources** branch, click on the name of the **Application Source** that is to be edited, in the **Existing Sources** list.
2. Click on the **Edit** 

button at the top of the **Details** section to open the **Update Application Source** window shown below.
3. Click on the tab where the parameters to be changed are located.
4. Make changes to parameters in the same way it is done for **adding** a new **Application Source** (see previous section entitled, Adding an Application Source).
5. Click the **Update Source** button on each tab screen where changes have been made, to execute the new parameters.

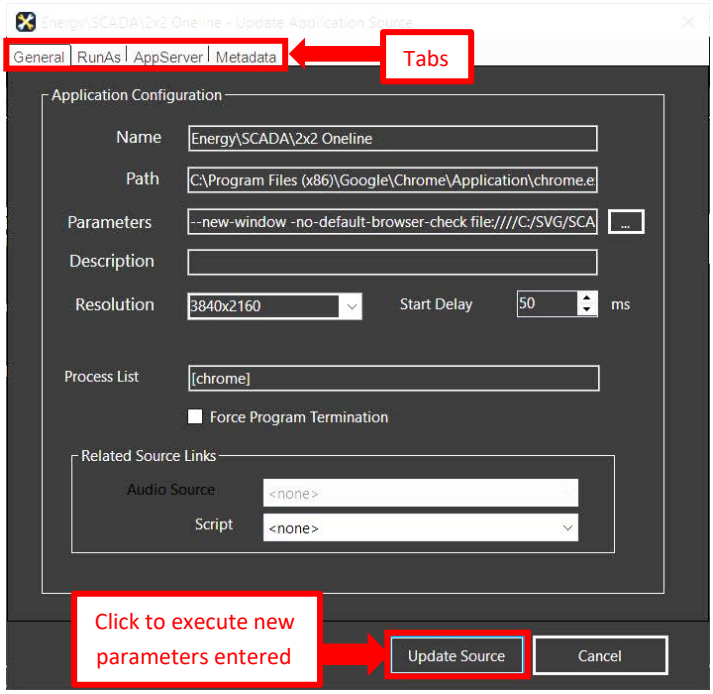


Figure 36: **Update Application Source** window

Deleting Application Sources

To **Delete** an **Application Source**, complete the following steps:

1. On the **Details** section of the **Application Source** branch of the **System** tree, click on the name of the **Application Source** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

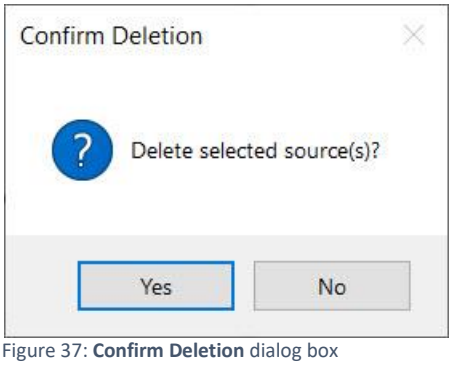


Figure 37: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Refreshing an Application Source

There is a **Refresh** button on the **Details** section of every branch on the **System** tree. It is used to confirm that the data for a specific **Source** (or other component in the system) has been loaded into the **System** database, by reloading it again. To **Refresh** or reload an **Audio Source**, complete the following steps:

1. In the **Details** section of the **Application Sources** branch, click on an **Application Source** name that is to be deleted (to highlight it), in the **Existing Sources** list.
2. Click the **Refresh** button above the list. The highlighted **Application Source** has now been reloaded into the **System** database.

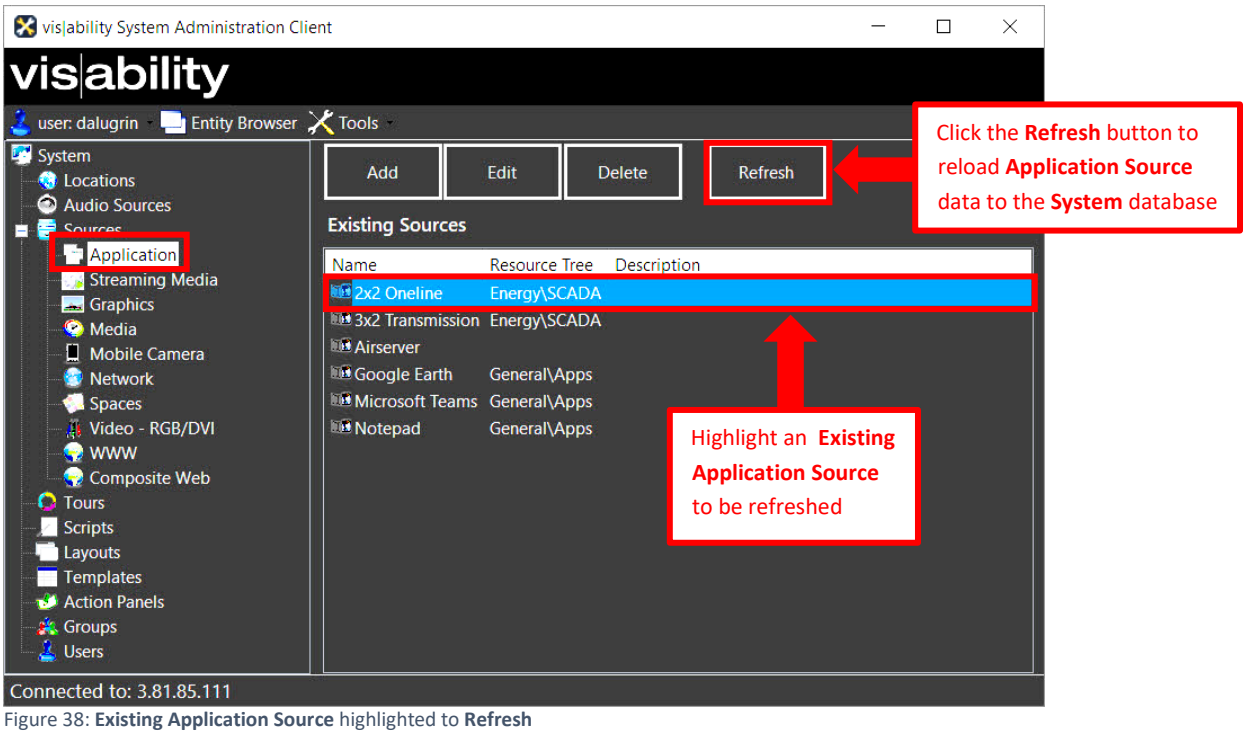


Figure 38: **Existing Application Source** highlighted to **Refresh**

Duplicating Application Sources

Duplicating Application Sources allows you to efficiently create Sources that have common attributes. The following procedure demonstrates how to duplicate Application Sources.

To Duplicate Application Sources

1. To duplicate multiple Application Sources, hold down the **Ctrl** key and select the Sources you want to duplicate. Alternatively, you can use the **Shift** key to select a contiguous range of Sources or click and drag a list of Sources to select them.
2. Right-click one of the selected Sources and choose > **Copy Source(s)**.
3. Click the **Ok** button on the confirmation alert message.
4. To copy a single **Source**, right-click on a single source and choose Copy Source(s). Observe how the Sources Duplicate window opens with pre-populated fields from the copied Source.

IMPORTANT INFORMATION

Source Duplicates Window
The Duplicate Source window is available only when a single Source is duplicated. Multiple selection will disable the duplicate function.

5. Change any **Application Source** parameters as you see fit.
6. Click the **Update** button to modify add the Source to the system database.
7. Click the **OK** button on the Record Updated dialog box.

Streaming Media Sources

A **Streaming Media Source** is a defined entry in the System database that represents anything that is an IP video stream (IP cameras, tv tuners hooked up to encoders, etc.) **Streaming Media** can be viewed anywhere in the **vis|ability™** platform: on a desktop, in a **Space**, or on a video wall driven by a **Display Node**. On desktops, and in **Spaces**, **Streaming Media** is decoded in software (with appropriate local CPU and GPU support, where provided). The **vis|ability™ Display Node**, however, can use three methods to decode **Streaming Media**: decoder servers, "add-in board" decode cards, and the CPU and GPU(s) of the **Display Node** computer itself. Depending on the specific demands of the application, each of the methods, or all three, can be used. Heuristically, the **Display Node** balances these decoding responsibilities in this order:

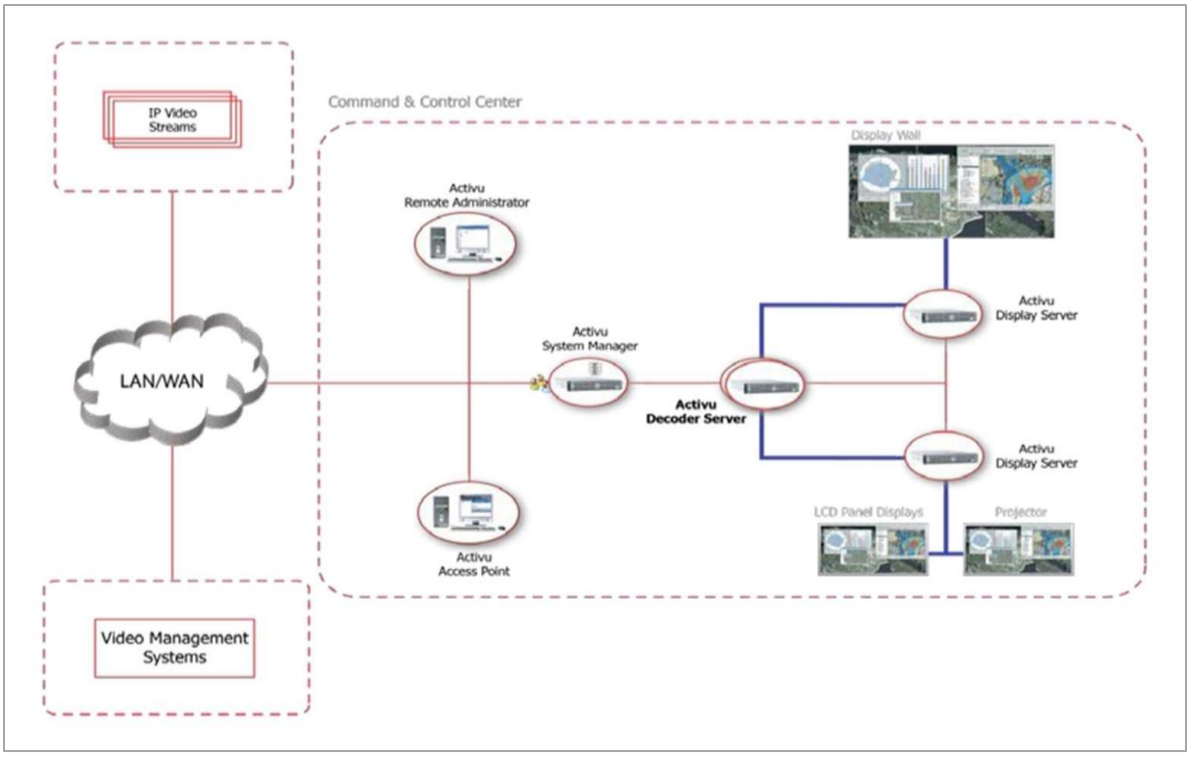


Figure 39: **Activu Decoder Server** configuration connected to two **Activu Display Nodes**

The **Decoder Server** is a server application running on a dedicated workstation for IP video decoding. In systems with minimal IP streaming requirements, a **Display Node** is capable of decoding IP video sources without external support. For systems that require a high number of IP streaming videos, however, using the **Display Node** alone places considerable demand on this server's resources. Even with the inclusion of dedicated add-in boards to support offloaded decoding, the IP streams may still be sufficiently proprietary in nature to require OS-hosted software to decode the stream(s). The **Decoder Server** provides an alternative method to decoding IP videos on **Display Nodes** by off-loading the decoding to a dedicated workstation (or workstations) freeing up resources on a **Display Node**. The **vis|ability™** platform can support multiple **Decoder Servers** for processing or rendering additional IP videos.

Adding a Streaming Media Source

To **Add** a new **Streaming Media Source** to the system database, complete the following steps:

1. Click the **Streaming Media** branch on the **System** tree.

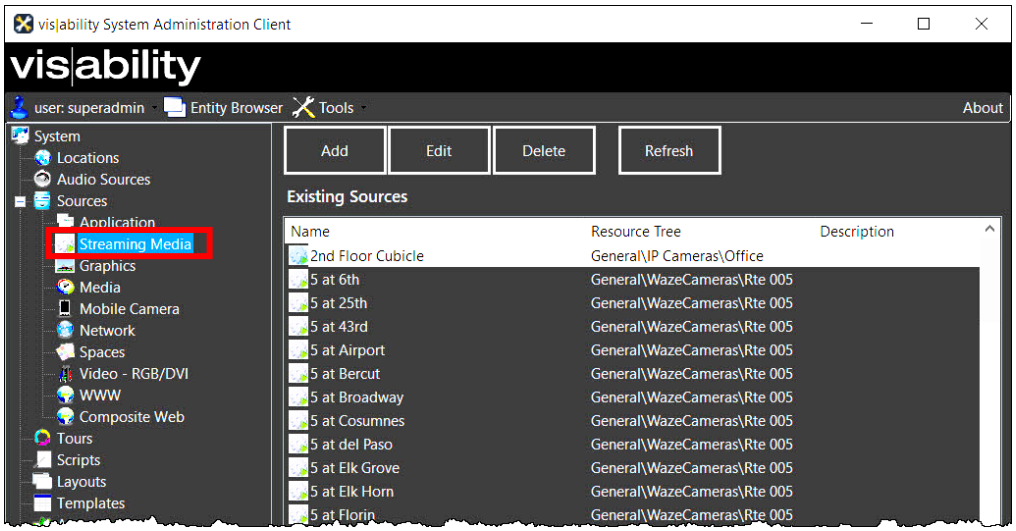


Figure 40: **Streaming Media** branch and **Details** section

2. Click the **Add** button at the top of the **Details** section of the **Streaming Media** branch, to display the **Add a Streaming Media Source** window: This window allows you to configure everything from the encoder resolution of the IP Stream to the type of viewer (VLC, WMP, etc.) that is used to view the **Source**.

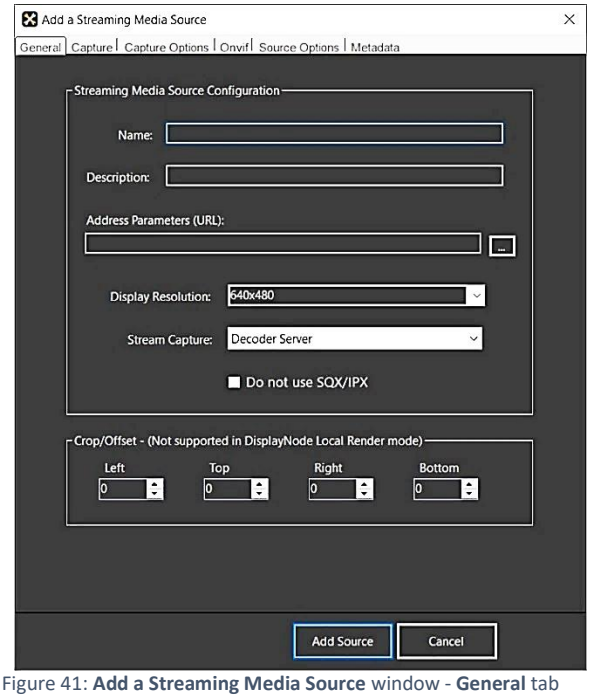


Figure 41: **Add a Streaming Media Source** window - **General** tab

3. On the **General** tab of this window, enter the following information:
    a. **Name**: Enter any name that is desired. It can be the folder structure for where the **Streaming Media Source** is located or anything else to identify that particular **Source**.
    b. **Description**: This field is optional.
    c. **Address Parameters (URL)**: Enter the URL for this **Streaming Media Source**. If it is an IP Camera this should be a path known by the **Administrator**. If it is TV tuner encoder, it will be set up by **Activu**.
    d. **Display Resolution**: Select the resolution from the drop-down menu or type the resolution manually.
    e. **Stream Capture**: If the **vis|ability™** system being installed has either a **Datapath SQX Decoder** card or a **Matrox IP** card, then select that option from this drop-down menu. Otherwise, leave **Decoder Server** as the selected option.

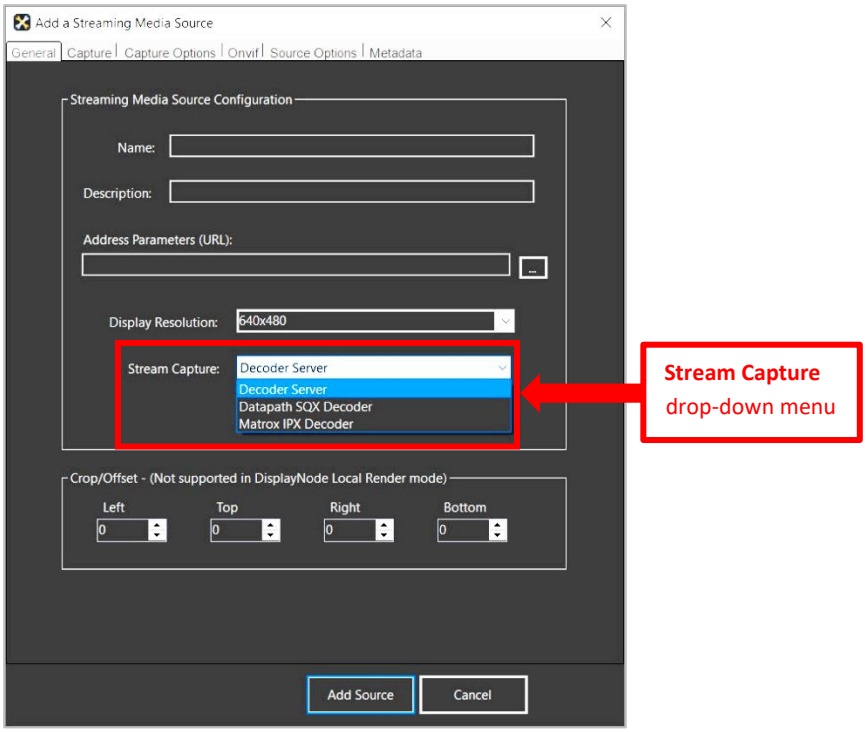


Figure 42: **Stream Capture** drop-down menu

    f. **Do not use SQX/IPX**: This checkbox can be left unchecked.
    g. **Crop/Offset settings**: If the **vis|ability™** system being installed has either a **Datapath SQX Decoder** card or a **Matrox IP** card, then this area of the screen can be used to crop the original **Source** before it is placed on a **Display Wall** or **Space**. This means that it will be displayed with this cropped setting no matter where it appears. It is not supported by **Display Node Local Render** mode and is optional.

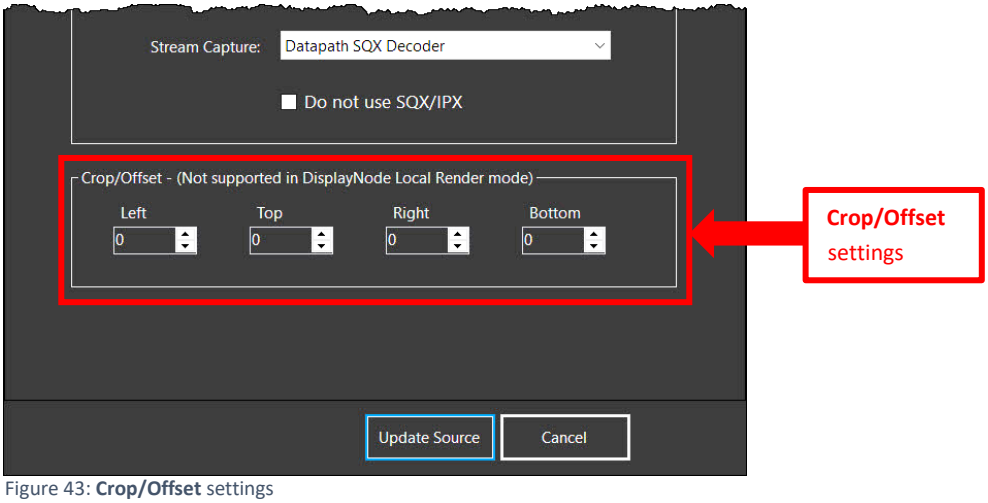


Figure 43: **Crop/Offset** settings

h. Click the **Add Source** button to execute the parameters that have been set on the **General** tab.

4. **Capture** tab: Enter the following **Decoder** parameters.

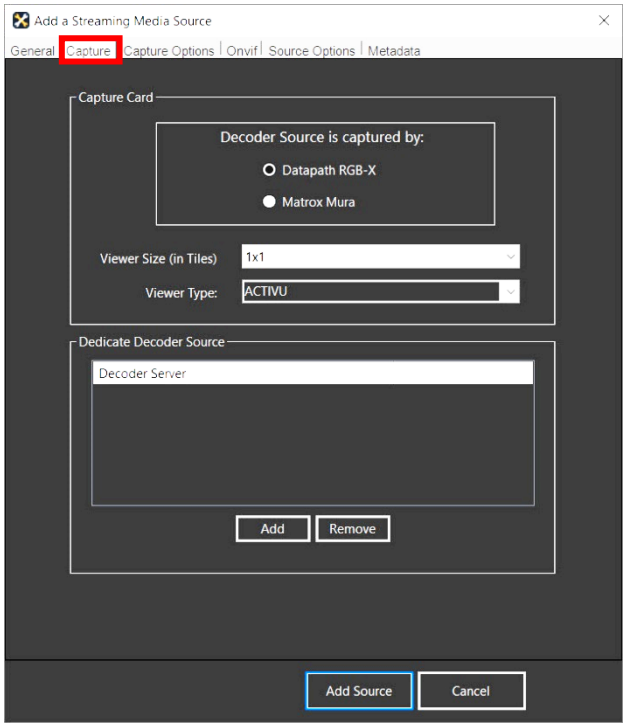


Figure 44: **Add a Streaming Media Source** window - **Capture** tab

a. In the **Capture Card** section, enter the following parameters:

i. **Decoder Source is captured by**: Select the appropriate **Decoder Source**. In most cases, this does not need to be changed.

ii. **Viewer Size (in Tiles)**: If no decoder is being utilized, then this field can be left as is. If a **Decoder Server** is being used, select the number of tiles that images will occupy when displayed on the **Display** wall. Make a note about the various resolution settings.

b. **Viewer Type**: Select the appropriate **Viewer** software that is used to play **Streaming Media Sources**, from the drop-down menu. Only the **Activu** (universal) viewer and the **VLC** viewer are installed by default. If another viewer is needed for specific types of **Streaming Media**, **Activu** must provide that **Viewer** and/or install it into the **vis|ability**™ system. It must be installed before it can be selected from this drop-down menu:

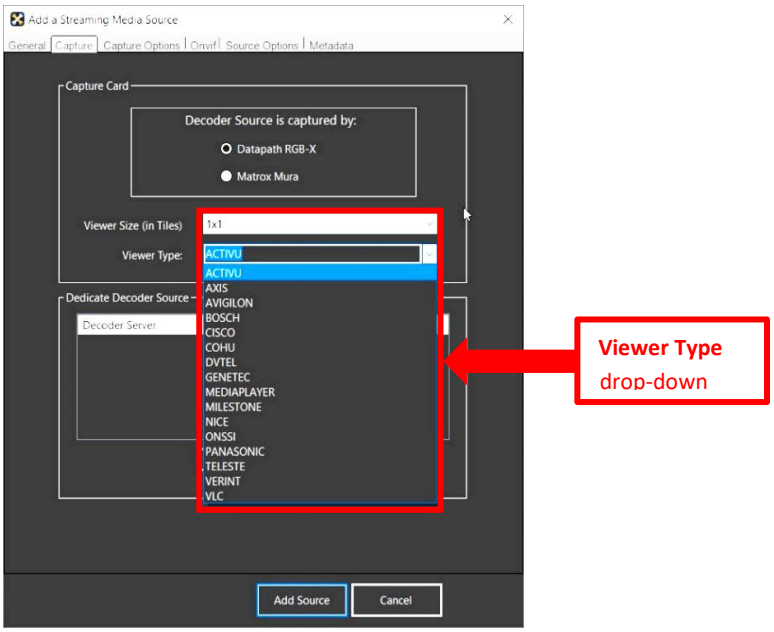


Figure 45: **Viewer Type** drop-down menu

c. **Dedicate Decoder Source**: All the **Decoder Servers** defined in the system are listed here. A new one can be added or an existing one deleted.

i. To **Add** a new **Decoder Server,** complete these steps:

1. Click the **Add** button at the bottom of the **Dedicate Decoder Source** area to display the **Select a Decoder Server** window.
2. Select a **Decoder Server** from the list.
3. Click the **Apply** button to see the **Decoder Server** name added to the list.

ii. To **Remove** an existing **Decoder Server,** complete these steps:

1. Click the **Remove** button at the bottom of the **Dedicate Decoder Source** area to display the **Select a Decoder Server** window.
2. Select a **Decoder Server** from the list.
3. Click the **Apply** button to see the **Decoder Server** name deleted from the list.

5. **Capture Options** tab: This tab should be left as is. Do not make any changes to the parameters on this window. The **Cancel** button or another tab can be clicked to exit this tab.
6. **Onvif** tab: Enter the following parameters for **Tilt Control** of the camera that is streaming this **Source**:

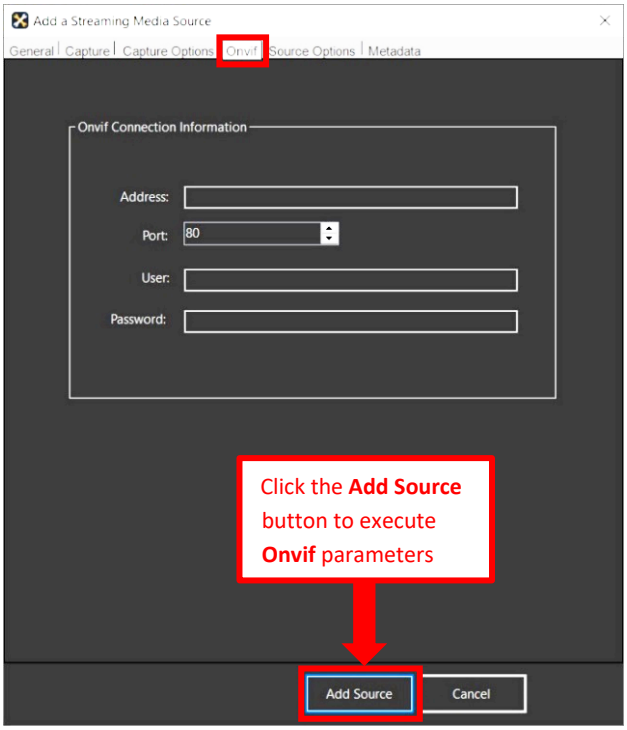


Figure 46: **Add a Streaming Media Source** - **Onvif** tab

   a. **Address**: Enter the **Address** for the camera that is streaming this **Streaming Media Source**.
   b. **Port**: Enter the **Port** value for the camera that is streaming this **Streaming Media Source**.
   c. **User**: Enter the **Username** for the camera that is streaming this **Streaming Media Source**.
   d. **Password**: Enter the **Password** for the camera that is streaming this **Streaming Media Source**
   e. Click the **Add Source** button to execute the parameters that have been set on the **Onvif** tab. This enables the **PTZ** button in the **Camera Source** window that can be opened from the **Source** menu of the **Desktop Client Hub**. Clicking this button displays the **Tilt and Pan** panel, as shown in the figure below:

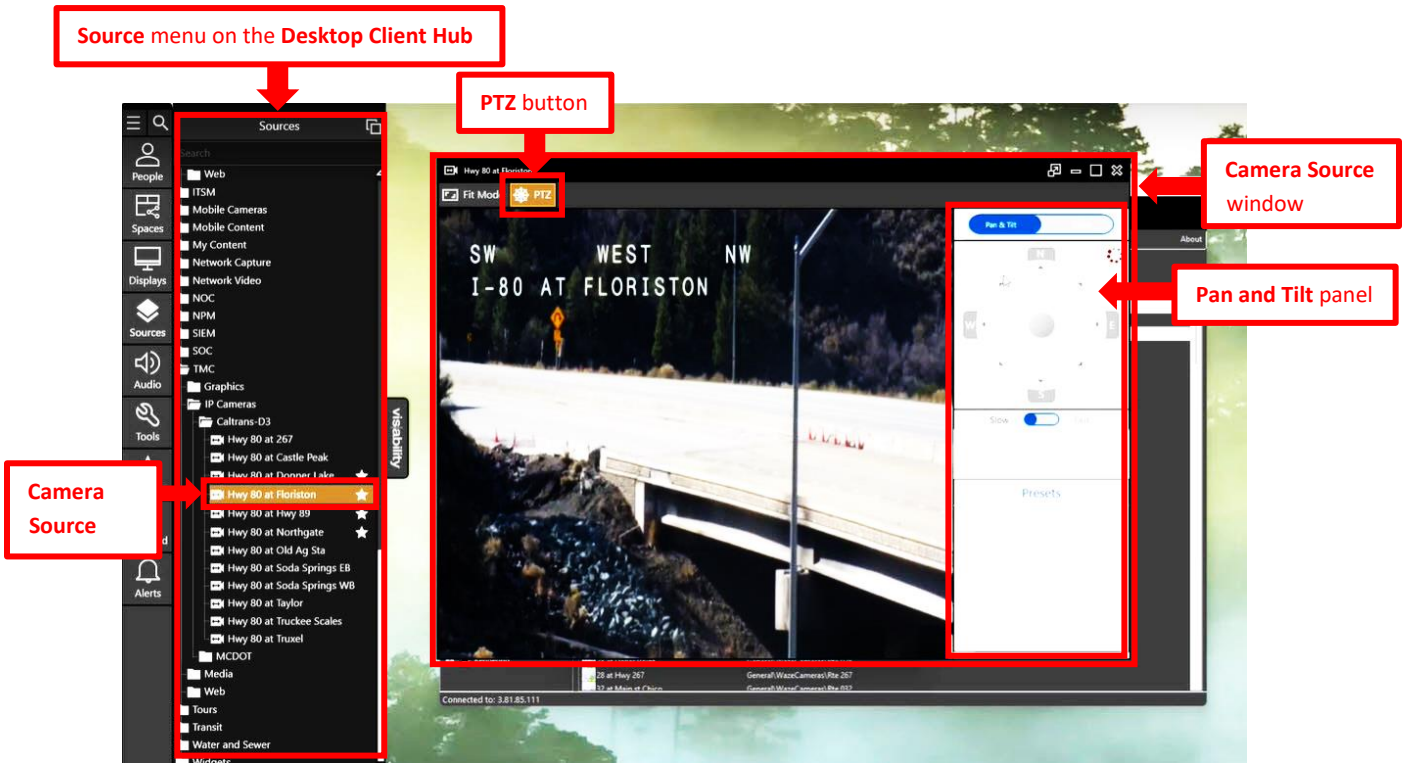


Figure 47: On **Sources** menu of **Desktop Client**, **PTZ** button on **Camera Source** window activated to show **Pan & Tilt** panel

7. **Source Options** tab: This tab enables the **Administrator** to create a **Label** and/or a **Border** for this **Source**. Unlike creating a label in the **Desktop Client** (which takes effect only for one display occurrence), a label created here is applied every time this **Streaming Media Source** is displayed, until such time as it is changed again on this tab. Enter the following parameters:

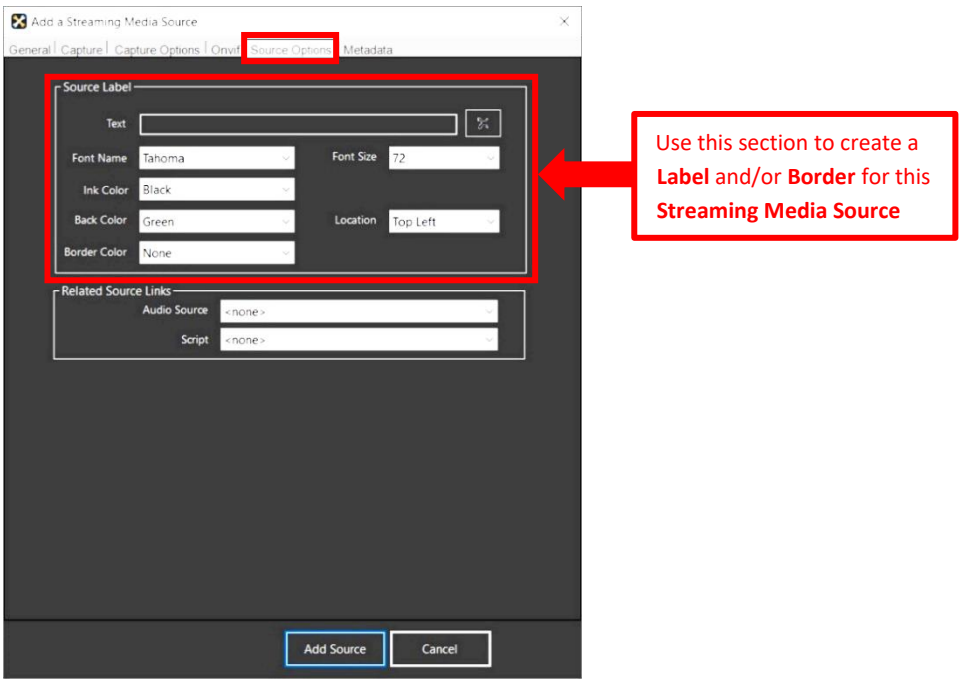


Figure 48: **Add a Streaming Media Source** - **Source Options** tab

a. **Source Label**:
   i. **Text**: Enter the text for this **Label** as it is to appear on the **Display** wall. There is a maximum of 32 characters.
   ii. **Font Name**: From the drop-down menu, select the **Font Name** for this **Label**. The default is **Tahoma**.
   iii. **Ink Color**: From the drop-down menu, select the **Font Color** for this **Label**. The default is **Black**.
   iv. **Back Color**: From the drop-down menu, select the **Background Color** for this **Label**. The default is **Green**.
   v. **Border Color**: If a border is desired, select the **Border Color** for this **Label** from the drop-down menu. There is no default.
   vi. **Font Size**: From the drop-down menu, select the **Font Size** for this **Label**. The default is **20**.
   vii. **Location**: From the drop-down menu, select the location on the **Source** window where this **Label** is to appear. The default is: **Top Left**.

b. **Related Source Links**: This field is no longer in use. No entry is necessary.

8. **Metadata** tab:

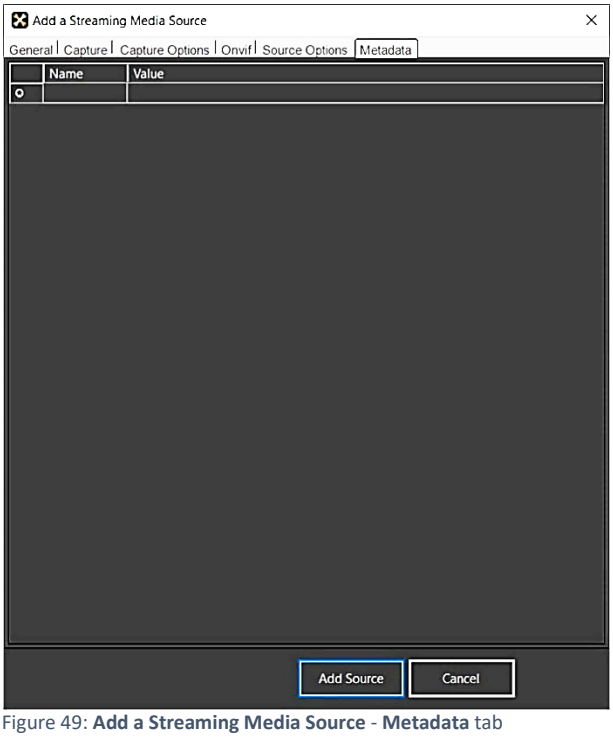


Figure 49: **Add a Streaming Media Source** - **Metadata** tab

a. Click the **Metadata** tab.

b. Enter the **Name** and **Value** for each element of metadata on a separate line. Move to the next column by pressing the **Tab** key, and to the next line by pressing the **Enter** key. The two essential metadata components that must be entered are **Longitude** and **Latitude**, to make it easy to locate the camera closest to an incident when it occurs.

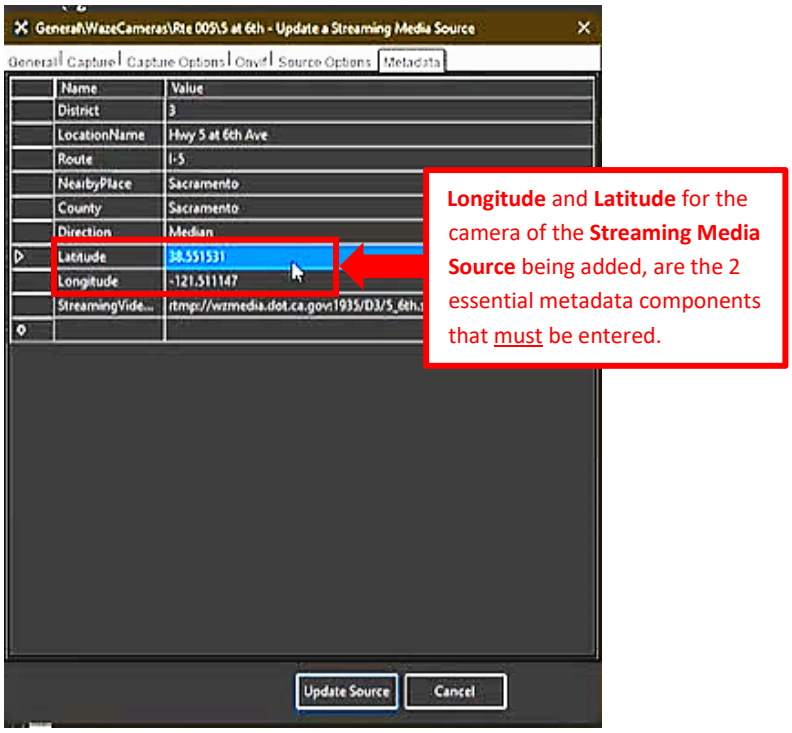


Figure 50: **Metadata** tab with metadata entered

Editing A Streaming Media Source

To **Edit** a **Streaming Media Source**, complete the following steps:

1. From the **Existing Sources** list in the **Details** section of the **Streaming Media** branch, click on the name of the **Streaming Media Source** to be altered.

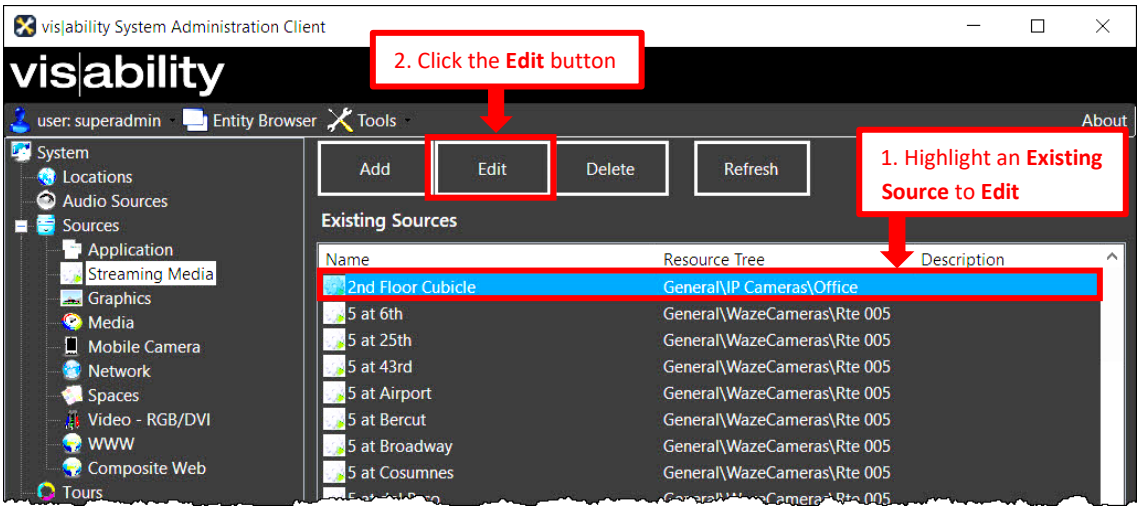


Figure 51: Highlight an **Existing Source** to **Edit**

2. Click the **Edit**  button above the **Existing Sources** list to display the **Update a Streaming Media Source** window:

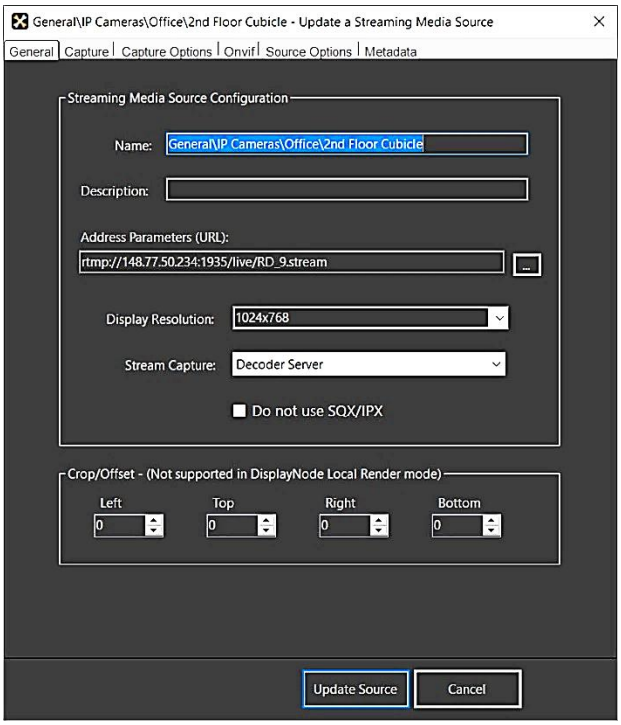


Figure 52: **Update a Streaming Media Source** window

3. Make changes on any of the tabs, in the same way you entered parameters to **Add** a new **Streaming Media Source** (see Adding a Streaming Media Source)
4. After making changes on each tab, click the **Update Source** button at the bottom of the tab window to execute the changes.

Deleting a Streaming Media Source

To **Delete** a **Streaming Media Source**, complete the following steps:

1. From the **Existing Sources** list in the **Details** section of the **Streaming Media** branch, click on the name of the **Streaming Media Source** to be deleted. The **Confirm Deletion** dialog appears:

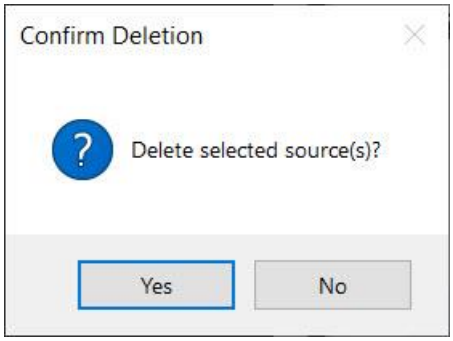


Figure 53: **Confirm Deletion** dialog

2. Click **Yes** to execute the deletion or **No** to cancel the deletion.

Refreshing a Streaming Media Source

There is a **Refresh** button on the **Details** section of every branch on the **System** tree. It is used to confirm that the data for a specific **Source** (or other component in the system) has been loaded into the **System** database, by reloading it again. To **Refresh** or reload a **Streaming Media Source**, complete the following steps:

1. In the **Details** section of the **Streaming Media Sources** branch, click on a **Streaming Media Source** name that is to be deleted (to highlight it), in the **Existing Sources** list.
2. Click the **Refresh** button above the list. The highlighted **Streaming Media Source** has now been reloaded into the **System** database. (See figure below)

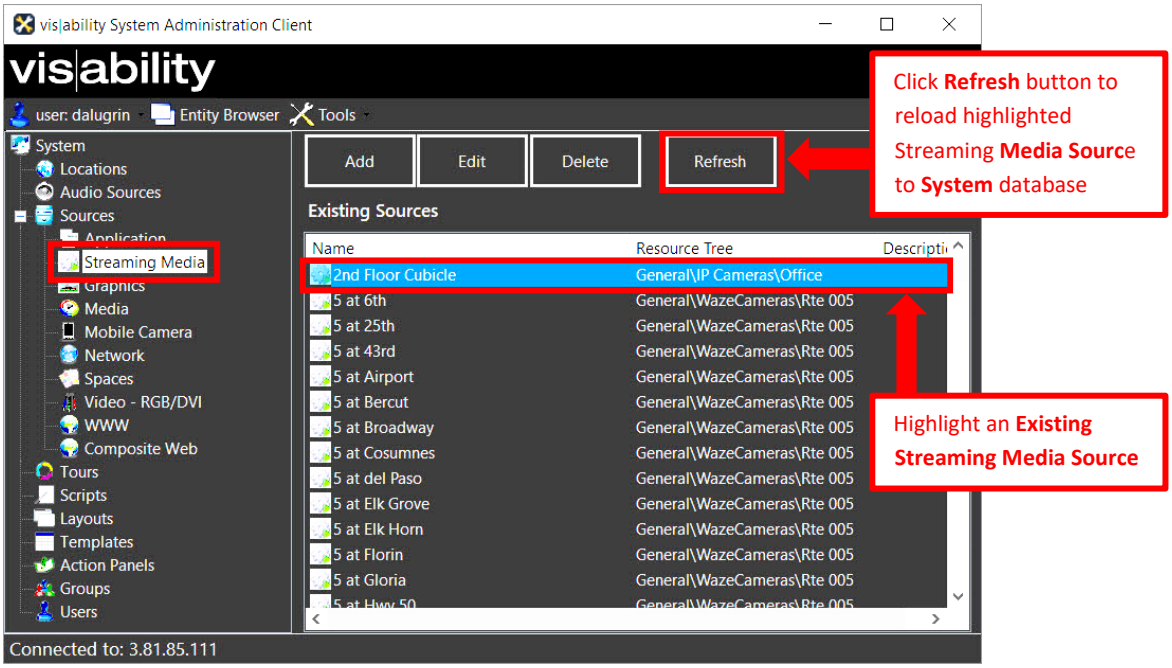


Figure 54: Highlighted **Streaming Media Source** to be **Refreshed**

Duplicating Streaming Media Sources

This feature allows users to duplicate existing media sources. To start, complete the following steps:

1. In the **Existing Sources** section of the **Media** branch, right-click a **Media Source** name that is to be duplicated. Note: Click a **Media Source** while holding down the **Shift** key to make multiple selections.
2. Select **Copy Source(s)**. The **Add Media Source** window displays with auto-populated information.
3. Optionally, update the existing **Media Source** content.

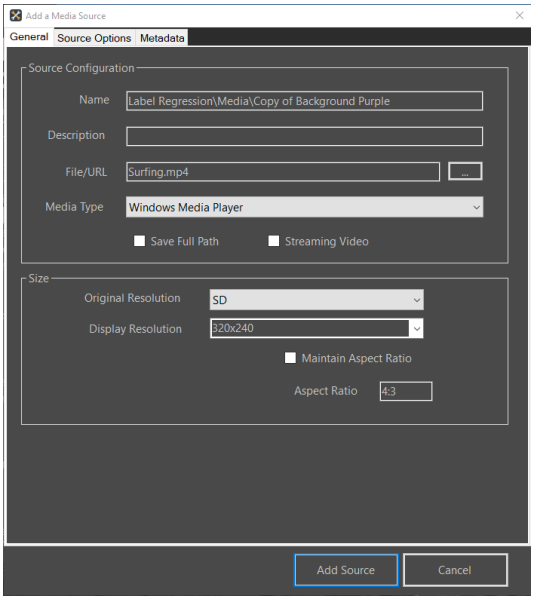


Figure 55: Add a Media Source Window

4. Click **Add Source**. A confirmation pop-up box appears.

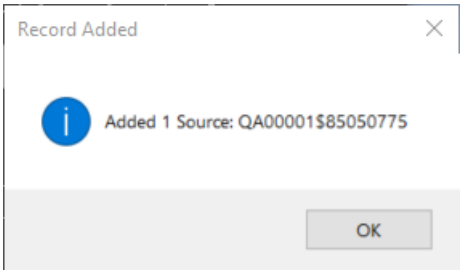


Figure 56: Copied Media Source Confirmation Pop-Up Box

5. Click **OK** to confirm. A copy of the Media Source appears in the Existing Sources list.

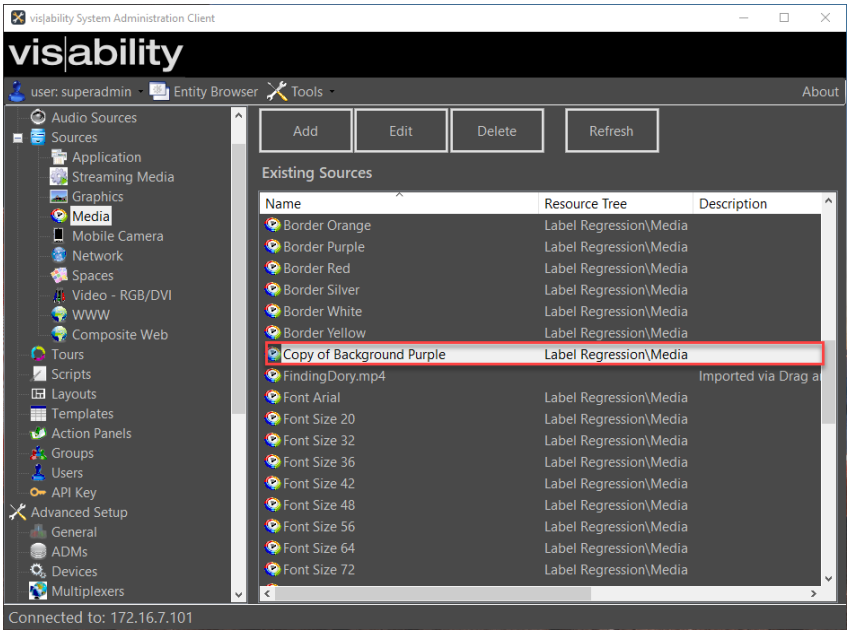


Figure 57: Copied Media Source

Graphics Sources

Graphic Sources are defined entries in the **System** database that represent image files such as GIF's, JPEG's, PNG's, WMF's, TIFF's, etc. These files may reside anywhere on a network or an external storage medium. After the **Sources** are added to the **System Manager** database, the files associated with them are transferred to the **System Manager** in an encrypted file store database through the **Transfer Service**. These files can be subsequently removed by removing the **Source** from the system. Graphic files can be made available to multiple **Display** walls, LCD panels, as well as system **Users** through the **Desktop Client** application. The table below describes each parameter on the **General** tab of the **Graphics Source window**:

Table 5: Graphics Sources Parameters on General Tab

Graphics Sources Parameters on General Tab		
Parameter		**Description**
Graphics Source Configuration		
Name	Required	Name for the Graphic Source. Maximum length is 64 characters. This name is used to identify the Source on the Remote-Control GUI and Script Editor interface.
Description	Optional	A brief description for the Graphic Source. You can enter a maximum of 64 characters in this field.
File	Required	The location of the file.
Size		
Original Resolution	Required	Read Only. This parameter cannot be changed. It displays the native resolution of the file being added to the Vis|ability platform.
Display Resolution	Optional	Specifies the resolution for the file when it is viewed on an Activu-driven Display Wall (s).
Fit 1:1	Optional	Forces the Graphic Source to display at its native resolution regardless of its size on an Activu Display Wall.
Maximize	Optional	Maximizes the Graphic Source each time it is added to a Display Device.
Aspect Ratio	Optional	Specifies the aspect ratio of the Source. Default: 4:3.
Maintain Aspect Ratio	Optional	If enabled, this parameter forces the Source to maintain a single aspect ratio.
Cropping		
Left	Optional	Specifies the left position (in pixels) of the crop area that is applied to the Graphic Source.
Top	Optional	Specifies the top position (in pixels) of the crop area that is applied to the Graphic Source.
Width	Optional	Specifies the width (in pixels) of the crop area that is applied to the Graphic Source.
Height	Optional	Specifies the height (in pixels) of the crop area that is applied to the Graphic Source.

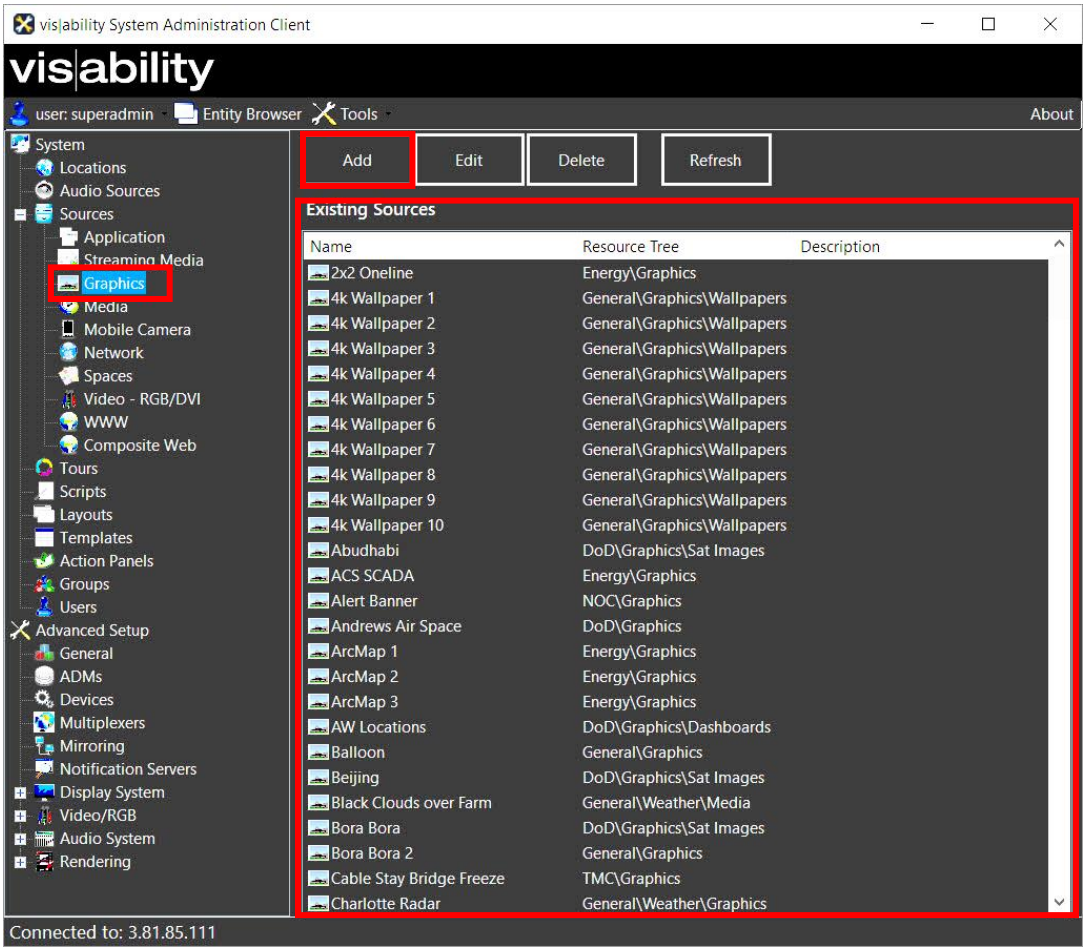


Figure 58: **Graphics Sources** branch and **Details**

Adding a Graphics Source

There are 3 ways to create a **Graphics Source**. These methods are described in the following section.

Method #1:

To **Add** a **Graphics Source** to the system database, complete the following steps:

1. Click on the **Graphics** branch under **Sources**, on the **System** tree.
2. Click the **Add** button at the top of the **Details** section for the **Graphics** branch, to display the **Add a Graphic Source** window:

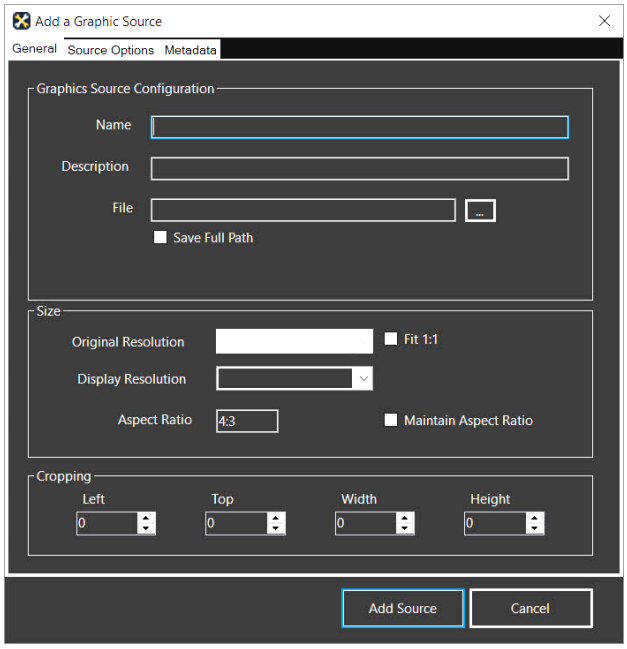


Figure 59: Add a Graphics Source window

On the **General** tab, enter the following information:

a. **Graphics Source Configuration**:
   i. **Name:** Enter any **Name** that will help you to identify the image.
   ii. **Description**: This field is optional.
   iii. **File:** Click the **Ellipsis** to open the directory window to select the file with the image for this **Source**. When the file is selected and the **Open** button clicked, the path for this image is entered in the **File** field of the **General** tab on the **Add a Graphics Source** window.
   iv. **Save Full Path**: If the image for this **Graphics Source** is to be used again and again but an updated version is to replace the previous one on a regular basis, this box can be checked. Example: If a calendar is to be displayed on a wall but will be altered at the beginning of every month, then, if this box is checked, this **Source** will grab the updated image at this exact path. If this box is not checked, the image will be uploaded to the **System Manager** and this same image will be used each time this **Source** is displayed, until such time as a change is made on this tab.

b. **Size**:
   i. **Original Resolution**: This resolution is taken from the selected graphic. It is filled in automatically in this field.
   ii. **Fit 1:1**: If this box is checked, the image will keep its original resolution, no matter what size it is on the **Display** wall.
   iii. **Display Resolution:** This determines the size of the image when it is displayed on a **Display** wall. Select a size from the drop-down menu or type in the size manually. (Be aware that if you make a change in this field, it may affect the **Fit 1:1** setting.)
   iv. **Aspect Ratio:** Type the desired ratio of width in relation to height for the **Source** image. If the aspect ratio is set here, and then the **Maintain Aspect Ratio** box is

checked; when the image is displayed and resized on a **Display** wall, it will maintain the ratio that has been set here. If the box is not checked, the **Aspect Ratio** can be changed on the wall.

c. **Cropping:** The image can be cropped here, but in most cases, it is desirable to crop the image in the original image file. The fields in this section are optional.

d. Click the **Add Source** button at the bottom of the screen to execute the parameters entered on this tab.

3. **Source Options** tab:
   a. **Source Label**: This field is used to create **Labels** and **Borders** in the same way that it is done for **Streaming Media** (see Source Label).
   b. **Related Source Links**: Leave this area blank.
4. **Metadata** tab: This tab can be left as is.

Method #2:

1. Click on the **Graphics** branch under **Sources**, on the **System** tree.
2. Open the **Windows File Explorer** window.
3. Click on the **Pictures** directory or whatever folder where graphics files are saved.
4. Locate the desired image and drag it to anywhere on the **System Administration Client** window. The **Add a Graphic Source** window automatically opens with the **Name**, **Path** and **Display Resolution** of that image already entered in their respective fields.
5. Make any desired changes on each tab, if any, as described in **Method #1** above, then click the **Add Source** button at the bottom of each tab screen to execute the settings for each tab.

Method #3:

Multiple **Graphics Sources** can be created at one time by dragging and dropping from the **Windows File Explorer** window.

1. Click on the **Graphics** branch under **Sources**, on the **System** tree.

2. Click the **Add** button at the top of the **Details** section for the **Graphics** branch, to display the **Add a Graphic Source** window:

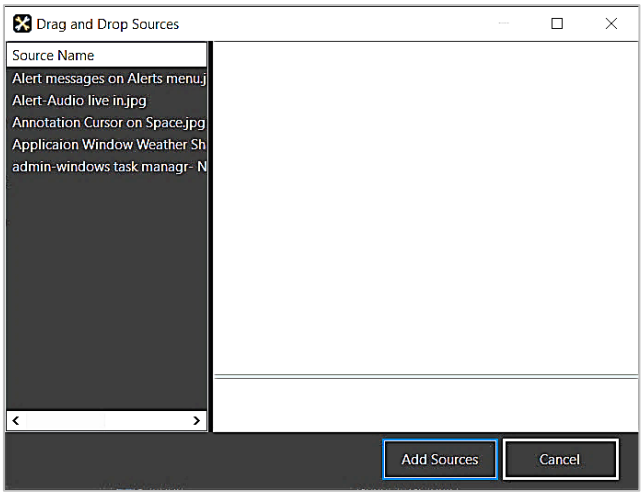


Figure 60: **Drag and Drop Sources** window for creating multiple **Sources** at once

3. In the **Windows File Explorer** window, press the **Shift** or **Control** key + **Click** on multiple files and **drag** them as a group onto the **System Administration Client** window. The **Drag and Drop Sources** window opens:

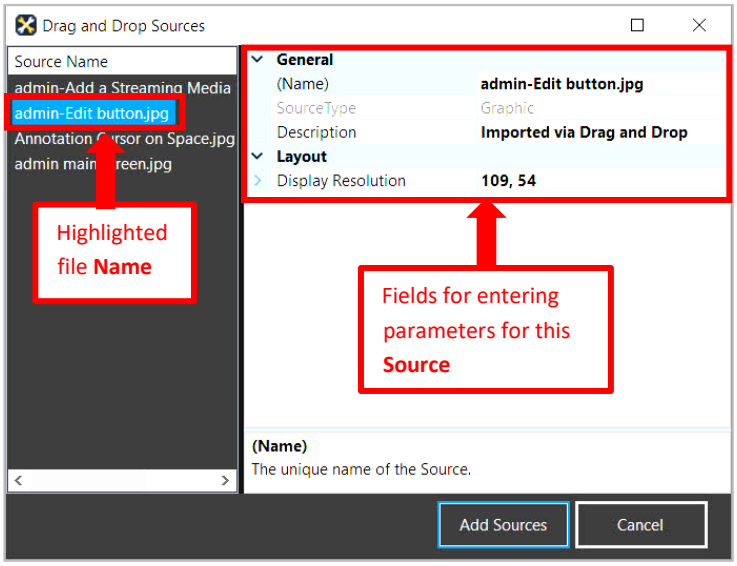


Figure 61: **Source Name** clicked to the left to display **Fields** to the right.

4. Click on one of the **File Names** on the left side of the **Drag and Drop Sources** window to create the first **Graphics Source**. Fields for entering parameters for this **Source** appear to the right:
5. If desired, the **Name**, **Description**, and **Display Resolution** can be changed.
6. Click on the next **File Name** to the left, then enter the parameters to create the 2nd new **Source**.
7. Repeat steps 2 and 3 above for each **File Name** listed.

8. When parameters are entered for all files in the list, click the **Add Sources** button at the bottom of the window to execute the creation of all the **Sources** in the list.

Tip: To be able to view all parameter settings when creating a **Graphic Source** and the ability to change or enter them as desired, use **Methods #1** and **#2**, above, to create one **Source** at a time.

Editing a Graphics Source

To **Edit** a **Graphics Source**, complete the following steps:

1. From the **Existing Sources** list in the **Details** section of the **Graphics** branch, click on the name of the **Graphics Source** to be altered.
2. Click the **Edit**  button above the **Existing Sources** list to display the **Update a Graphic Source** window:

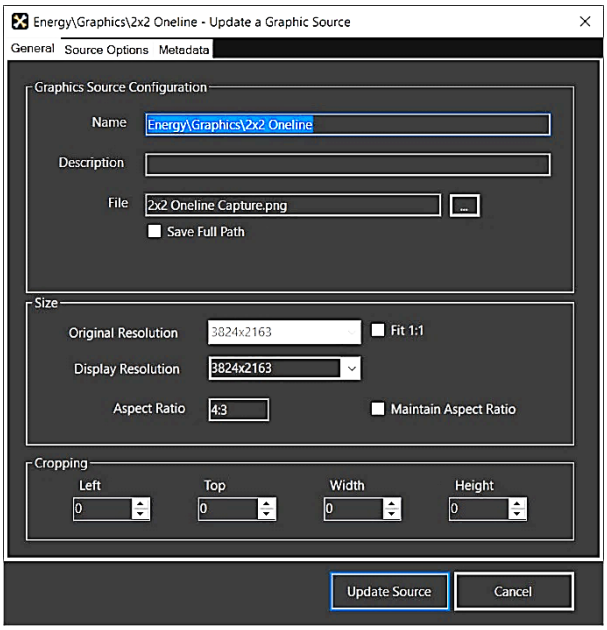


Figure 62: **Update a Graphic Source** window

3. Make changes on any of the tabs, in the same way that parameters are entered to **Add** a new **Graphic Source** (see Figure 58: Graphics **Sources** branch and **Details**
4. Adding a Graphics Source).
5. After making changes to a tab, click the **Update Source** button at the bottom of the tab window, to execute the changes.

Deleting a Graphics Source

To **Delete** a **Graphics Source**, complete the following steps:

1. In the **Details** section of the **Graphics** branch, click on the **Graphics Source** to be deleted in the **Existing Sources** list, to highlight it.
2. Click on the **Delete** button above the list to display the **Confirm Deletion** dialog:

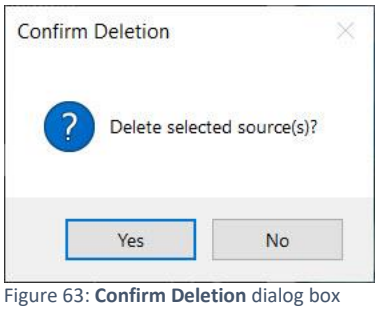


Figure 63: **Confirm Deletion** dialog box

3. Click **Yes** to **Delete** the highlighted **Graphic Source** or **No** to cancel the deletion.

Refreshing a Graphics Source

There is a **Refresh** button on the **Details** section of every branch on the **System** tree. It is used to confirm that the data for a specific **Source** (or other component in the system) has been loaded into the **System** database, by reloading it again. To **Refresh** or reload a **Graphics Source**, complete the following steps:

1. In the **Details** section of the **Graphics Sources** branch, click on a **Graphics Source** name that is to be deleted (to highlight it), in the **Existing Sources** list.
2. Click the **Refresh** button above the list. The highlighted **Graphics Source** has now been reloaded into the **System** database. (See figure below).

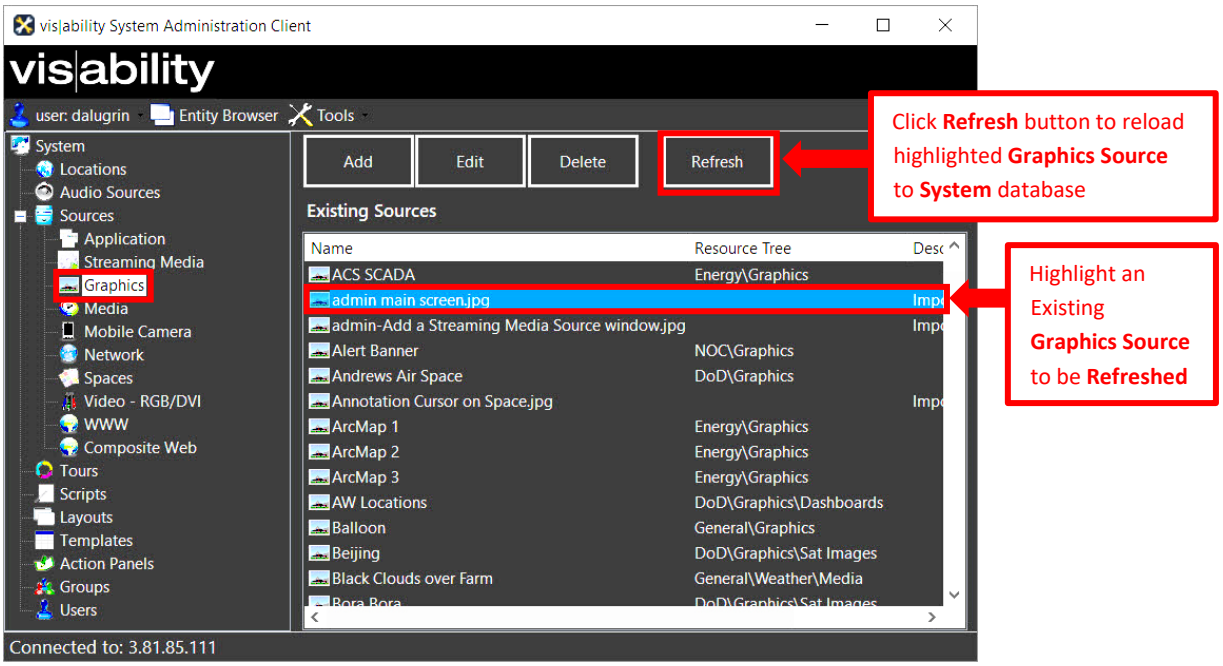


Figure 64: Highlighted **Graphics Source** to be **Refreshed**

Media Sources

Activu Media Sources are specifically defined database entries that represent prerecorded (canned) video files of different formats (mpeg, wmv, avi, mp4s, etc.). Once added to the **System Management** database, these **Sources** can be assigned to specific **Users** by utilizing Groups and are made available for viewing on the platform. The following sections describe procedures for working with **Media Sources**.

Activu Media Sources, except for streaming media, are transferred (copied not moved) from their original location on the **System Manager**. When streaming **Media** files from a public URL, each **Activu Display Node** must have access to the URL host.

Important: In order for an **Actvu Display Node** to play a media file of a certain format (i.e., avi), the **vis|ability**™ system must have the appropriate player and CODECs installed on each **Activu Display Server**. By default, only **Windows Media Player** is installed on all **Activu Display Nodes**. Contact **Activu Customer Support** for additional information on installing other viewers or players for **Media Sources**.

Adding a Media Source

There are 3 ways to create a **Media Source**. These methods are described in the following section.

Method #1:

To **Add** a new **Media Source** to the system database, complete the following steps:

1. Click on the media branch on the **System** tree.
2. In the **Details** section, click the **Add** 

button at the top of the screen to display the **Add a Media. Source** window:

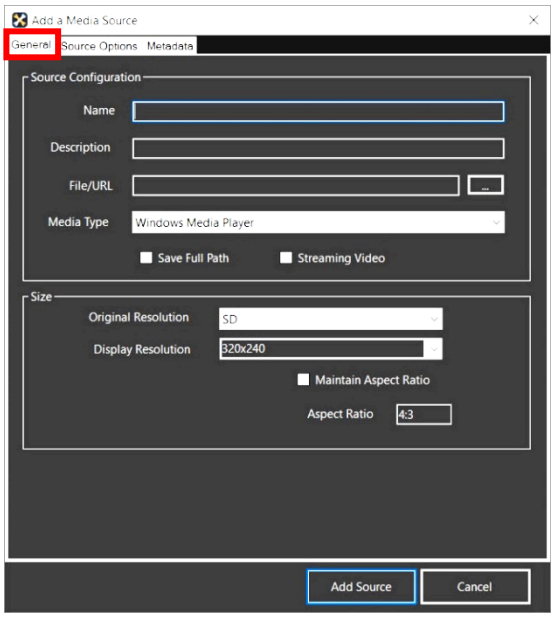


Figure 65: **Add a Media Source** window - **General** tab

3. On the **General** tab, enter the following parameters:
    a. In the **Source Configuration** section:

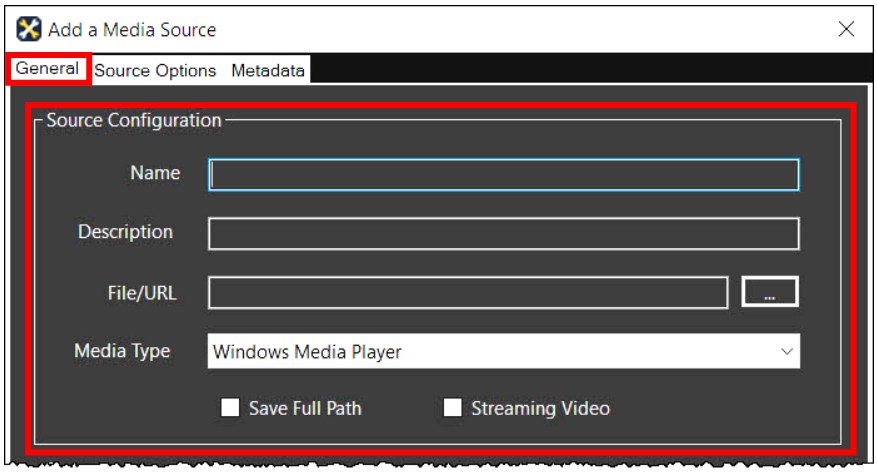


Figure 66: Source Configuration section of General tab on Add a Media Source window

i. **Name:** Enter any **Name** that will help you to identify the video.

i. **Description**: This field is optional.

ii. **File/URL:** Click the **Ellipsis** to open the **Windows** directory window to select the file with the video for this **Source**. When the file is selected and the **Open** button clicked, the path for this video is entered in the **File** field of the **General** tab on the **Add a Media Source** window.

iii. **Media Type**: The default is set as **Windows Media Player**. **VLC Media Player** can be selected from the drop-down menu, although, in most cases, **Windows Media Player** is the best viewer for PCs. If a different player is needed to play a specific type of file, see the Important box on the previous page regarding having it installed.

iv. **Error! Reference source not found.**: If the video for this **Media Source** is to be used again and again but an updated version is to replace the previous one on a regular basis, this box can be checked. Example: If a video is to be displayed on a wall but will be altered at the beginning of every month, then, if this box is checked, this **Source** will grab the updated video at this exact path. If this box is not checked, the video will be uploaded to the **System Manager** and this same video will be used each time this **Source** is displayed, until such time as a change is made on this tab.

v. **Streaming Video**: The preferred method, in most cases, is to add a new **Streaming Media Source** from the **Streaming Media** branch on the **System** tree, under the **Sources** branch (see Adding a Streaming Media Source).

b. **Size**: Enter the following parameters:

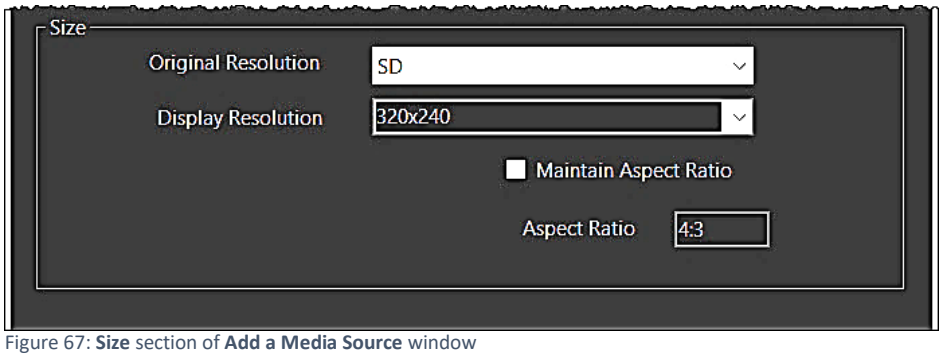


Figure 67: **Size** section of **Add a Media Source** window

i. **Original Resolution**: This resolution is taken from the selected video. It is filled in automatically in this field.

ii. **Display Resolution:** This determines the size of the video when it is displayed on a **Display** wall. Select a size from the drop-down menu or type in the size manually.

iii. **Aspect Ratio:** Type the desired ratio of width in relation to height for the **Source** video. If the aspect ratio is set here, and then the **Maintain Aspect Ratio** box is checked, when the video is displayed and resized on a **Display** wall, it will maintain the ratio that has been set here. If the box is not checked, the **Aspect Ratio** can be changed on the wall.

c. Click the **Add Source** button at the bottom of the screen to execute the parameters entered on the **General** tab.

4. **Source Options** tab:
   a. **Source Label**: This field is used to create **Labels** and **Borders** in the same way that it is done for **Streaming Media Sources** and **Graphics Sources** (see Source Label).
   b. **Related Source Links**: Leave this area blank.
5. **Metadata** tab: This tab can be left as is.

Method #2:

1. Click on the **Media** branch under **Sources**, on the **System** tree.
2. Open the **Windows File Explorer** window.
3. Click on whatever folder where video files are saved.
4. Locate the desired video and drag it to anywhere on the **System Administration Client** window. The **Add a Media Source** window automatically opens with the **Name**, **Path**, **Original Resolution** and **Display Resolution** of that video already entered in their respective fields.
5. Make any desired changes, if any, then click the **Add Source** button at the bottom of the screen to execute the settings on **General** tab.
6. Click on any other tabs where changes are to be made. Be sure to click the **Add Source** button at the bottom of each tab screen to execute the changes.

Method #3:

Multiple **Media Sources** can be created at one time by dragging and dropping files from the **Windows File Explorer** window.

1. In the **Windows File Explorer** window, press the **Shift** or **Control** key **+ Click** on multple files and drag them as a group onto the **System Administration Client** window. The **Drag and Drop Sources** window opens:

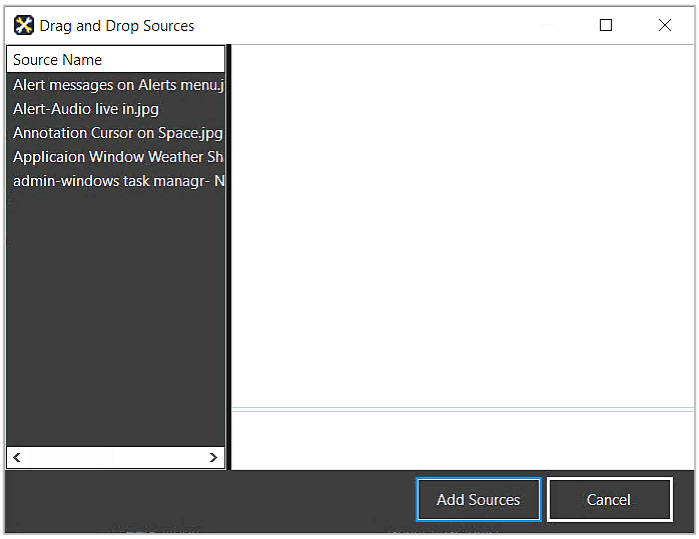


Figure 68: **Drag and Drop Sources** window for creating multiple **Sources** at once

2. Click on one of the **File Names** on the left side of the **Drag and Drop Sources** window to create the first **Media Source**. Fields for entering parameters for this **Source** appear to the right:

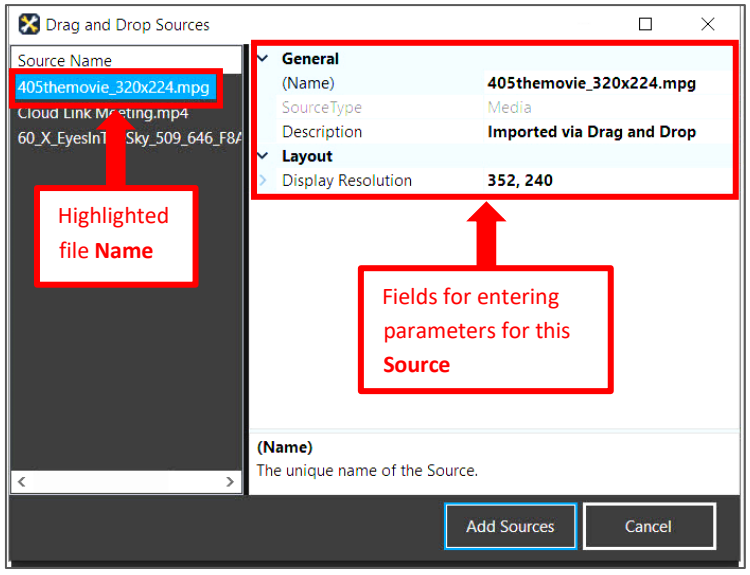


Figure 69: **Source Name** clicked to the left to display **Fields** to the right.

3. If desired, the **Name**, **Description**, and **Display Resolution** can be changed.

4. Click on the next **File Name** to the left, then enter the parameters to create the 2nd new **Source**.
5. Repeat steps 2 and 3 above for each **File Name** listed.
6. Once parameters are entered for all files in the list, click the **Add Sources** button at the bottom of the window to execute the creation of all the **Sources** in the list. The **Uploading** bar appears for each new **Source** file:

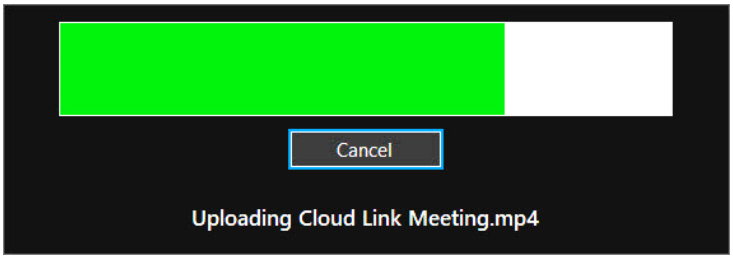


Figure 70: **Uploading** bar appears for each **Source** file

When the loading process is complete, the **Uploading** bar disappears. The new **Media Sources** are now added to the **Existing Sources** list in the **Details** section of the **Media** branch. They are inserted in the list in alphabetical order.

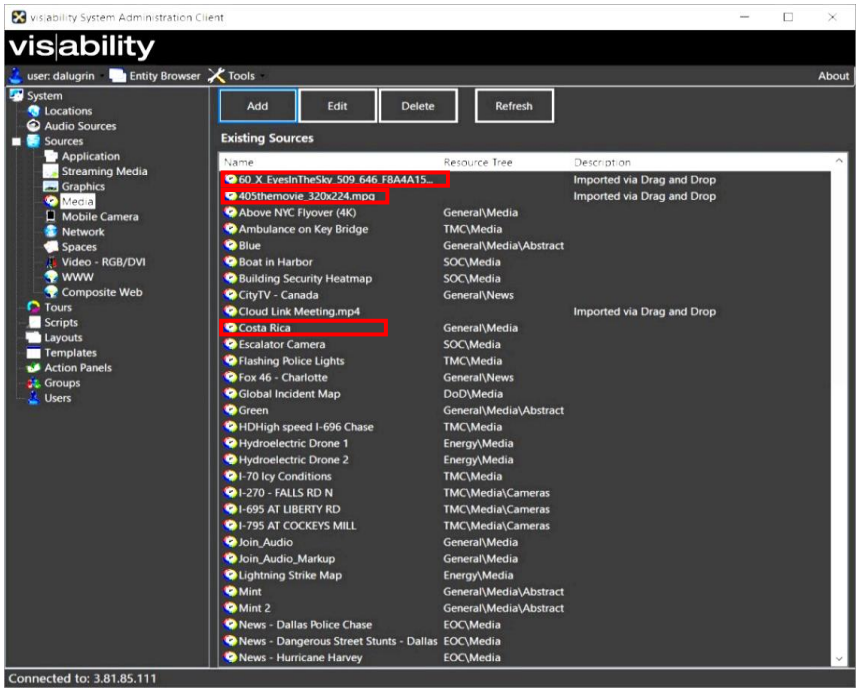


Figure 71: New **Media Sources** are now added to **Existing Sources** list in **Details** section

Tip: To be able to view all parameter settings when creating a **Media Source** and the ability to change or enter them as desired, use **Methods #1** and **#2**, above, to create one **Source** at a time.

Editing a Media Source

To **Edit** a **Media Source**, complete the following steps:

1. From the **Existing Sources** list in the **Details** section of the **Media** branch, click on the name of the **Media Source** to be altered.
2. Click the **Edit** 

button above the **Existing Sources** list to display the **Update a Media Source** window:

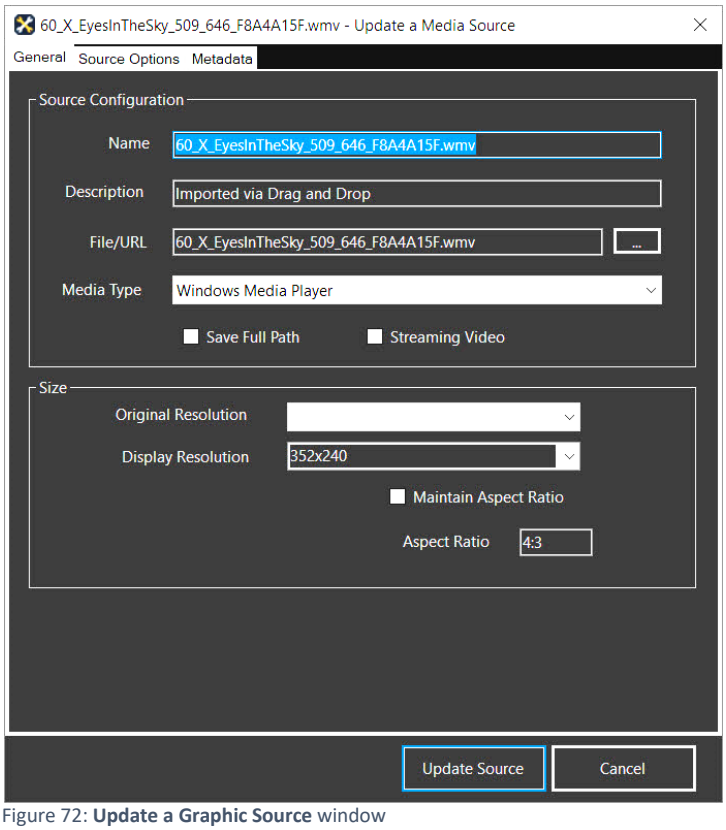


Figure 72: **Update a Graphic Source** window

3. Make changes on any of the tabs, in the same way that parameters are entered to **Add** a new **Graphic Source** (see Figure 58: Graphics **Sources** branch and **Details** Adding a Graphics Source).
4. After making changes to a tab, click the **Update Source** button at the bottom of the tab window, to execute the changes.

Deleting a Media Source

To **Delete** a **Media Source**, complete the following steps:

1. In the **Details** section of the **Media** branch, click on the **Media Source** to be deleted in the **Existing Sources** list, to highlight it.
2. Click on the **Delete** button above the list to display the **Confirm Deletion** dialog:

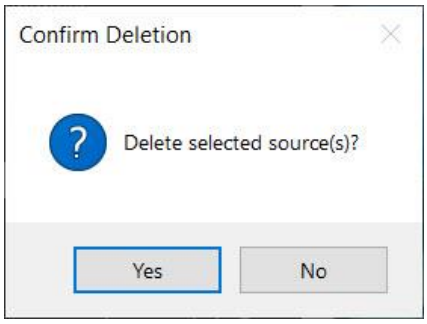


Figure 73: **Confirm Deletion** dialog box

3. Click **Yes** to **Delete** the highlighted **Media Source** or **No** to cancel the deletion.

Refreshing a Media Source

There is a **Refresh** button on the **Details** section of every branch on the **System** tree. It is used to confirm that the data for a specific **Source** (or other component in the system) has been loaded into the **System** database, by reloading it again. To **Refresh** or reload a **Media Source**, complete the following steps:

1. In the **Details** section of the **Media Sources** branch, click on a **Media Source** name that is to be refreshed (to highlight it), in the **Existing Sources** list.
2. Click the **Refresh** button above the list. The highlighted **Media Source** has now been reloaded into the **System** database.

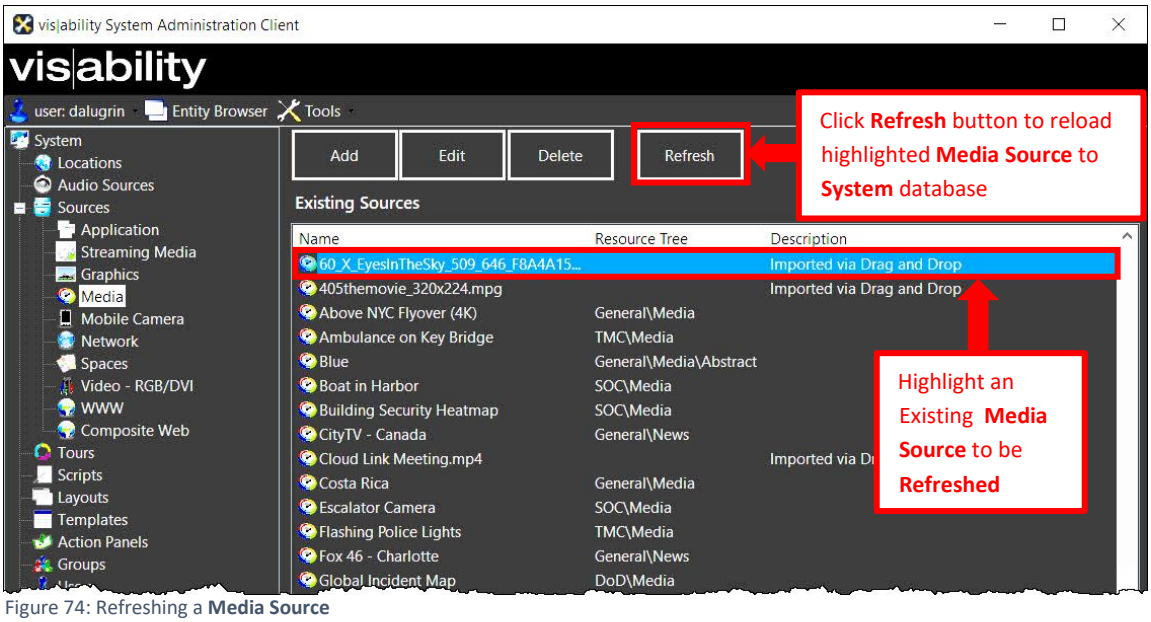


Figure 74: Refreshing a **Media Source**

Mobile Camera Sources

For a **Mobile Camera Source** to function, the system must be connected to **Mobile Camera** equipment.

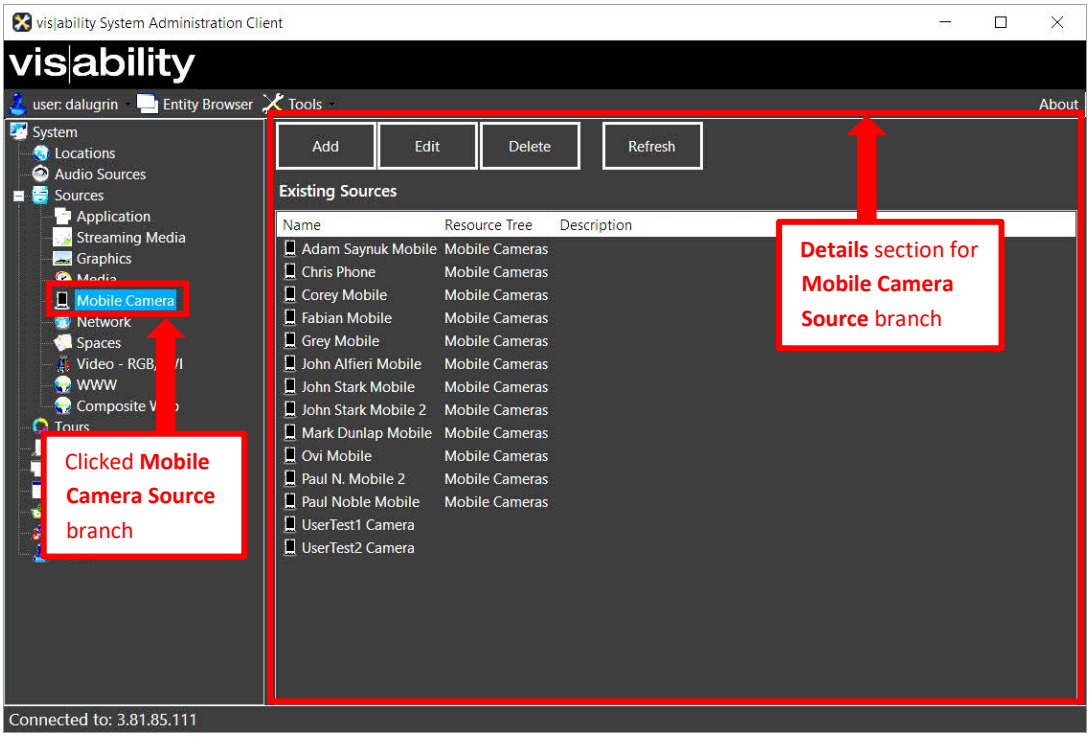


Figure 75: **Mobile Camera** branch and **Details** section

Adding a Mobile Camera Source

To **Add** a new **Mobile Camera Source** to the system database, complete the following steps:

1. Click the **Mobile Camera** branch on the **System** tree.
2. Click the **Add** button at the top of the **Details** section of the **Mobile Camera** branch....

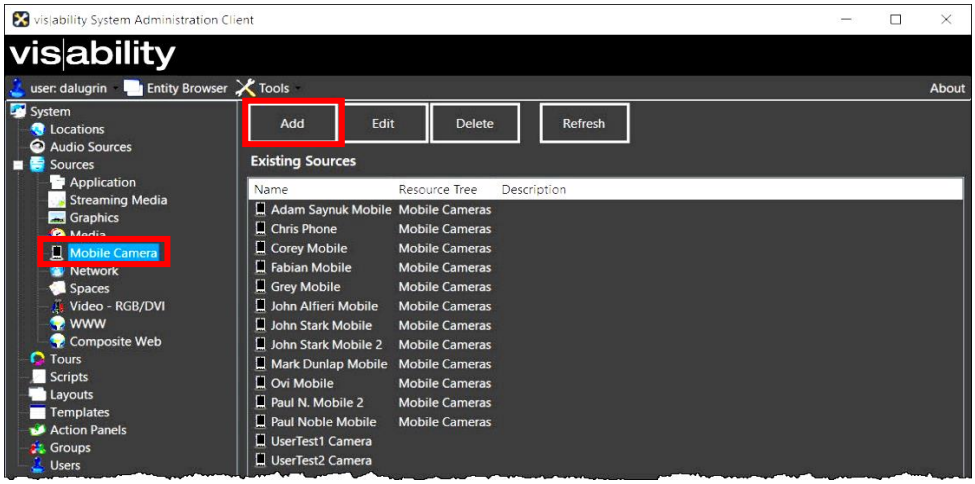


Figure 76 **Mobile Camera** branch and **Details** section

.... to display the **Add a Mobile Camera Source** window:

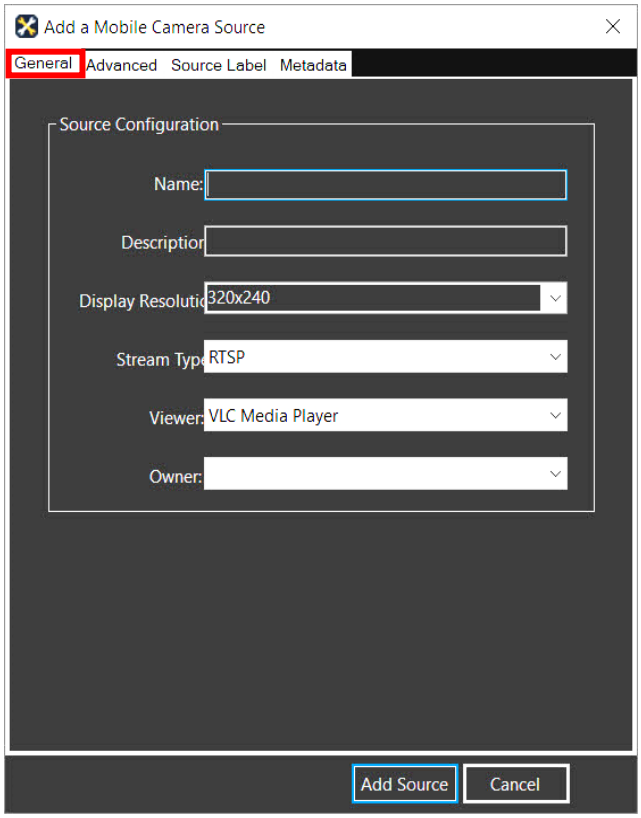


Figure 77: **General** tab on **Add a Mobile Camera Source** window

3. On the **General** tab, enter the following parameters:
    a. **Name**: Enter any name that is desired. It can be the folder structure for where the data for the **Mobile Camera Source** is located or anything else to identify that Source.
    b. **Description**: This field is optional.
    c. **Address Parameters (URL)**: Enter the URL for this **Mobile Camera Source**. If it is an IP Camera this should be a path known by the **Administrator**.

d. **Display Resolution**: Select the resolution from the drop-down menu or type the resolution manually.

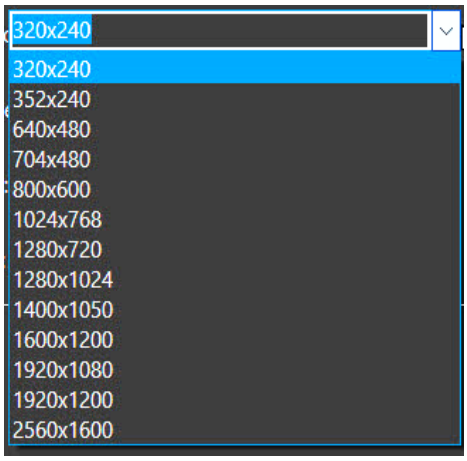


Figure 78: **Display Resolution** drop-down menu

e. **Stream Type**: This should always be set as **RTSP**.

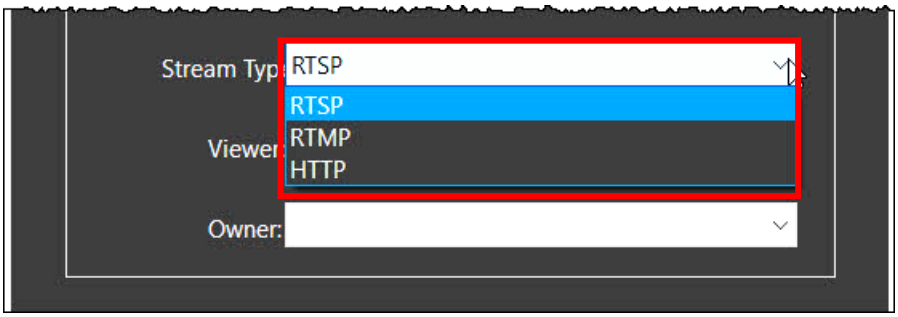


Figure 79: **Stream Type** drop-down menu

f. **Viewer**: The **Viewer** drop-down menu should almost always be set as **Windows Media Player**.

Figure 80: **Viewer** drop-down menu

g. **Owner**: This setting is essential. The drop-down menu contains a list of all **Users** in the **vis|ability™** system for a particular organization. More recently added **Users** are frequently added to the bottom of the list. An **Owner** must be selected from this list.

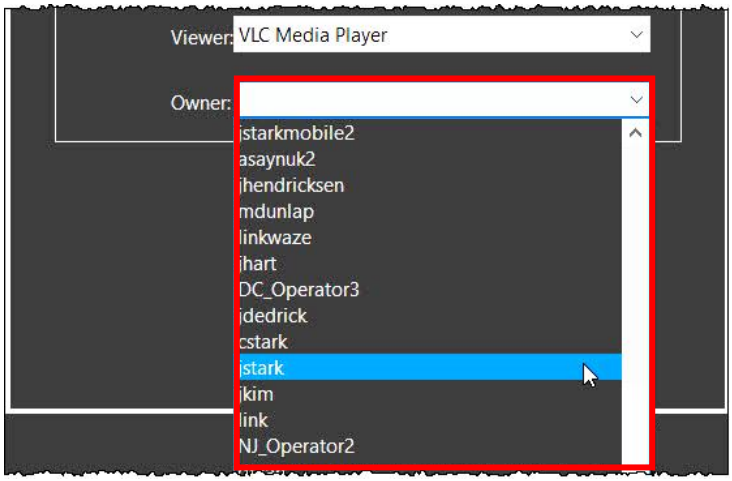


Figure 81: **Owner** drop-down menu

4. The **Advanced** tab is used only for troubleshooting that must be done in partnership with **Activu** personnel.

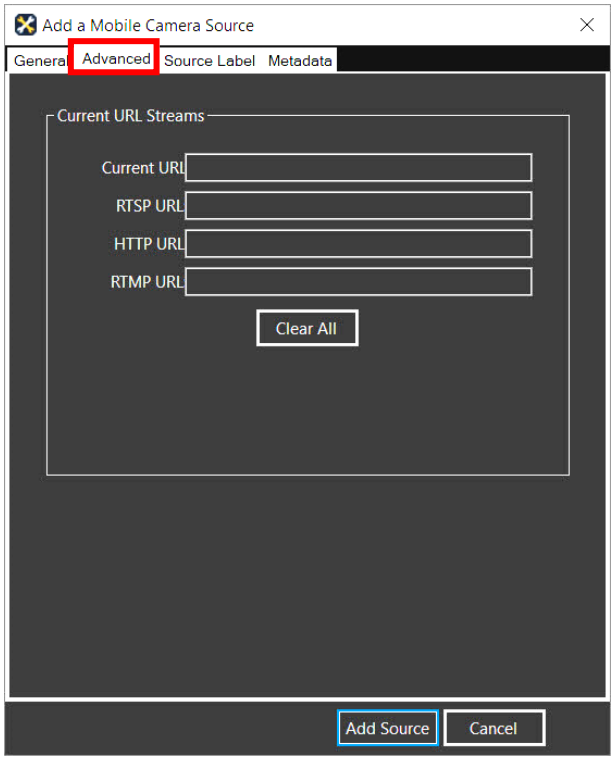


Figure 82: **Advanced** tab

5. The **Source Label** tab - Enter the following parameters for the label that is to be created:

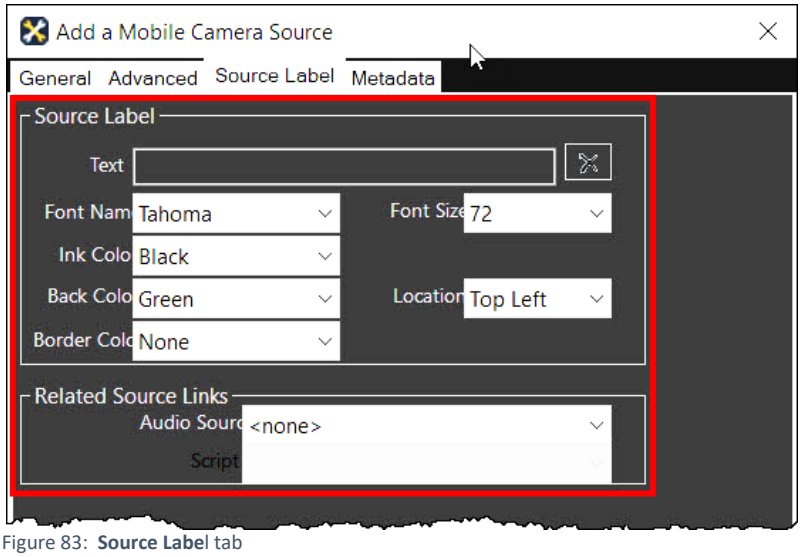


Figure 83: **Source Label** tab

a. **Text**: Enter the text for this **Label** as it is to appear on the **Display** wall. There is a maximum of 32 characters. The Delete button can be used to erase the Text label that has just been typed.

b. **Font Name**: From the drop-down menu, select the **Font Name** for this **Label**. The default is **Tahoma**.

c. **Ink Color**: From the drop-down menu, select the **Font Color** for this **Label**. The default is **Black**.

d. **Back Color**: From the drop-down menu, select the **Background Color** for this **Label**. The default is **Green**.

e. **Border Color**: If a border is desired, select the **Border Color** for this **Label** from the drop-down menu. There is no default.

f. **Font Size**: From the drop-down menu, select the **Font Size** for this **Label**. The default is **20**.

g. **Location**: From the drop-down menu, select the location on the **Source** window where this **Label** is to appear. The default is: **Top Left**.

h. **Related Source Links**: This field is no longer in use. No entry is necessary.

i. Click the **Add Source** button to execute the parameters that have been set on the **Source Options** tab.

6. The **Metadata** tab can be left blank. It is not yet being utilized but will be, at some point in the future.

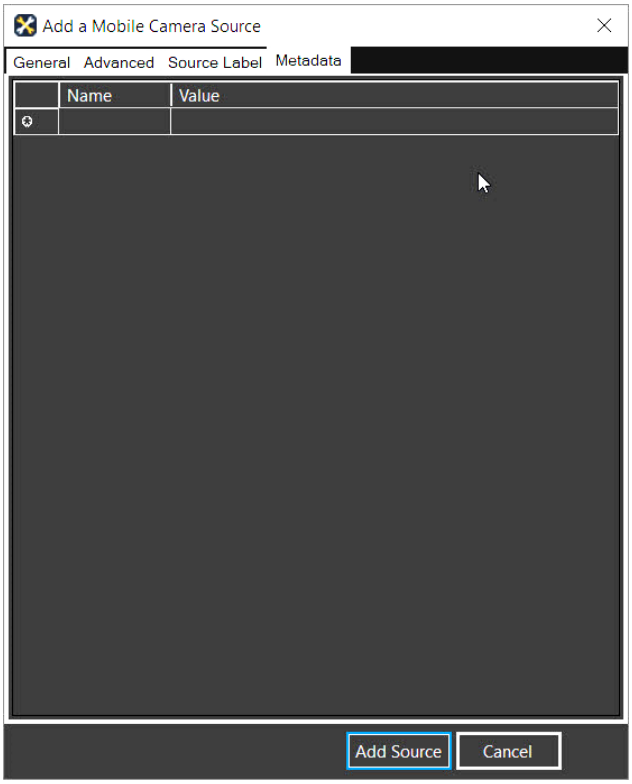


Figure 84: **Metadata** tab

Editing a Mobile Camera Source

To edit an existing **Mobile Camera Source**, complete the following steps:

1. In the **Details** section of the **Mobile Camera Sources** branch, click on the name of the **Mobile Camera Source** that is to be edited, in the **Existing Sources** list.
2. Click on the **Edit** 

button at the top of the **Details** section to open the **Update a Mobile Camera Source** window shown below.
3. Click on the tab where the parameters to be changed are located.
4. Make changes to parameters in the same way it is done for **adding** a new **Mobile Camera Source** (see previous section entitled, Adding a Mobile Camera Source).
5. Click the **Update** button on each tab screen where changes have been made, to execute the new parameters.

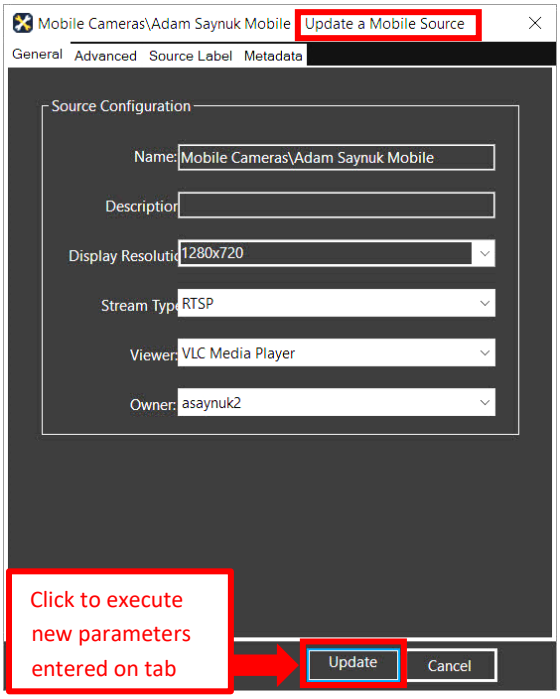


Figure 85: **Update a Mobile Source** window

Deleting a Mobile Camera Source

To **Delete** a **Mobile Camera Source**, complete the following steps:

1. On the **Details** section of the **Mobile Camera Source** branch of the **System** tree, click on the name of the **Mobile Camera Source** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

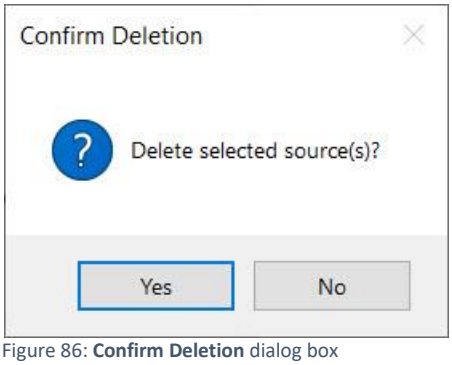


Figure 86: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Refreshing a Mobile Camera Source

There is a **Refresh** button on the **Details** section of every branch on the **System** tree. It is used to confirm that the data for a specific **Source** (or other component in the system) has been loaded into the **System** database, by reloading it again. To **Refresh** or reload a **Mobile Camera Source**, complete the following steps:

1. In the **Details** section of the **Mobile Camera Sources** branch, click on a **Mobile Camera Source** name that is to be deleted (to highlight it), in the **Existing Sources** list.
2. Click the **Refresh** button above the list. The highlighted **Mobile Camera Source** has now been reloaded into the **System** database.

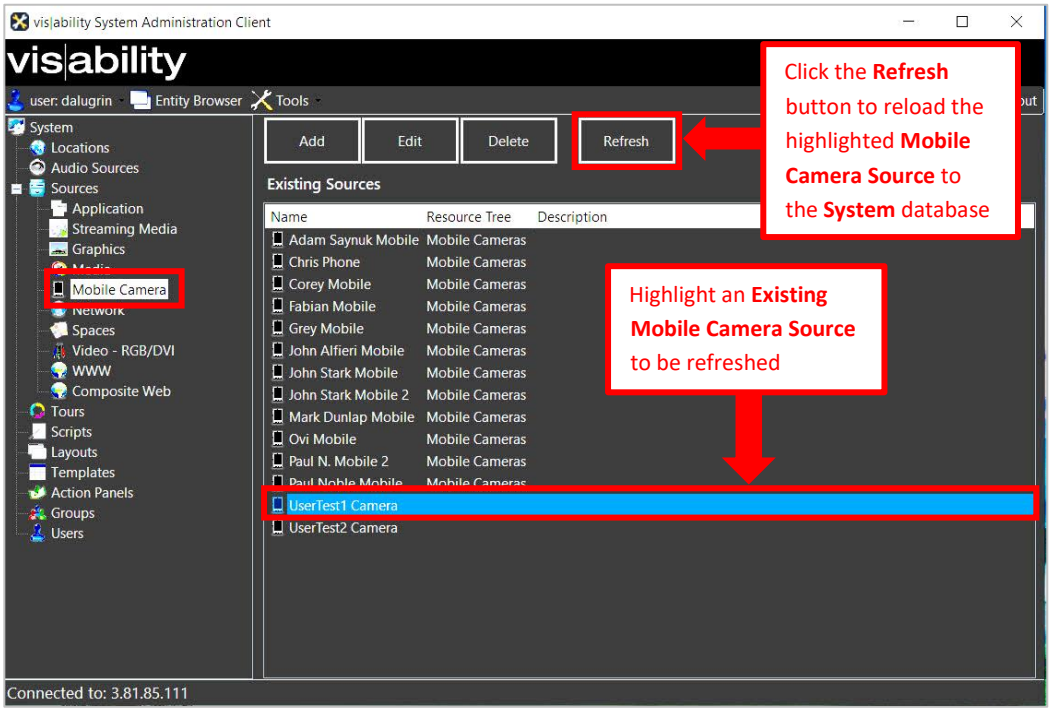


Figure 87: **Existing Application Source** highlighted to **Refresh**

Network Sources

Network Sources represent remote views of computer systems on the network, including **Display Nodes**. Each **Network Source** defines a PC (or other type of computer) screen being captured. With **Network Sources**, computers on the network can be directly accessed, viewed, and manipulated. **Network Sources** use the **Pull** process of capturing screens and are, therefore, created for computers that are unattended or always showing content to be displayed or shared. The **Desktop Client** (in a **Space**, on a desktop or on a **Display Wall**), allows the **User** to remotely view and work with these captured screens. To connect, remotely control, and view a **Network** system running **Windows** or a **Unix**-based operating system, you must install the **Capture Client** or **VNC**, respectively. **Network Sources** are licensed and therefore, there is a limit to how many can be added to the system, according to the license agreement.

Capture Client

Before you define **Network Sources** on the **vis|ability™** platform, install the **Capture Client** on the systems that these **Network Sources** will correspond to, as part of the **Desktop Client** installation. Refer to the **vis|ability™ Installation Guide** for more information on installing and configuring the **Capture Client** for **Windows** systems.

Adding a Network Source

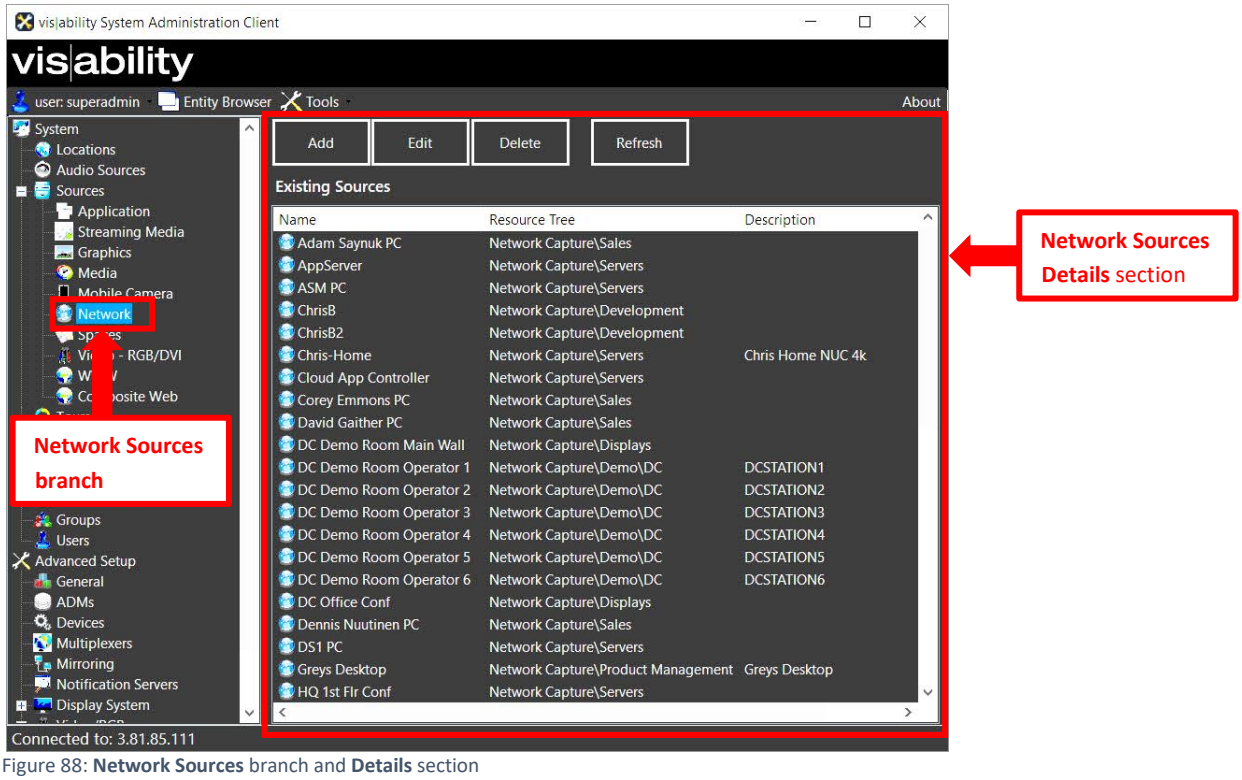


Figure 88: **Network Sources** branch and **Details** section

To **Add** a new **Network Source** to the system database, complete the following steps:

1. Click on the **Network** branch on the **System** tree.
2. In the **Details** section, click the **Add** button at the top of the screen.
3. On the **General** tab, enter the following parameters:

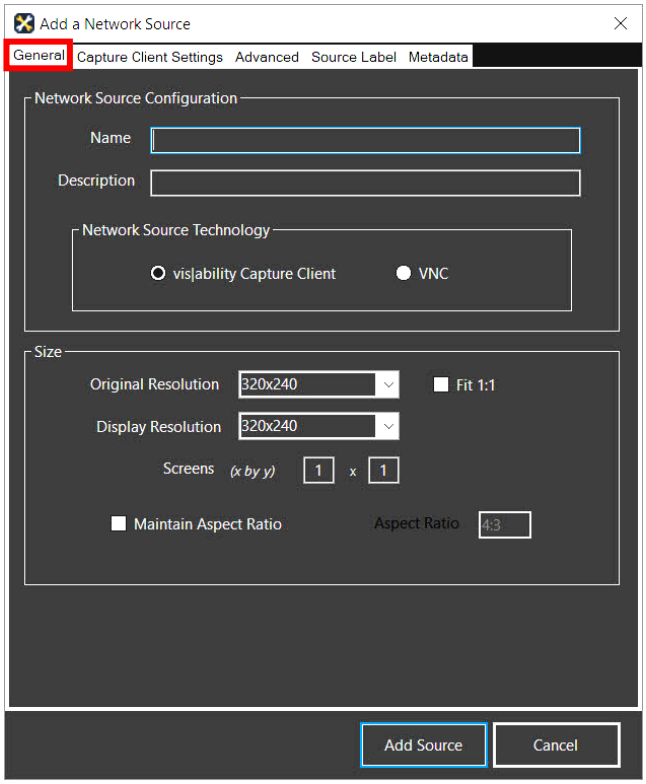


Figure 89: **Add a Network Source** window - **General** tab

a. **Network Source Configuration**:
   i. **Name**: Enter any **Name** for the new **Network Source**.
   ii. **Description**: This field is optional.
   iii. **Network Source Technology**: In most cases, the **vis|ability™ Capture Client** should be used. If specific types of computers being used (i.e., Macs, etc.) that require a different remote access technology, **VNC** can be selected as the more generic choice.

b. **Size**: In this section, enter the following parameters:
   i. **Original Resolution**: This resolution is taken from the captured PC screens. It is filled in automatically in this field.
   ii. **Fit 1:1:** If this box is checked, the image will keep its original resolution, no matter what size it is on the **Display** wall.
   iii. **Display Resolution:** This determines the size of the image when it is displayed on a **Display** wall. Select a size from the drop-down menu or type in the size

manually. (Be aware that if you make a change in this field, it may affect the **Fit 1:1** setting.)

iv. **Screens**: This field is optional. No change is required.

v. **Maintain Aspect Ratio**: Type the desired ratio of width in relation to height for the **Source** video. If the aspect ratio is set here, and then the **Maintain Aspect Ratio** box is checked, when the video is displayed and resized on a **Display** wall, it will maintain the ratio that has been set here. If the box is not checked, the **Aspect Ratio** can be changed on the wall.

4. Click the **Add Source** button at the bottom of the window to execute all the parameters entered on this tab.
5. **Capture Client Settings** tab - Enter the following parameters:

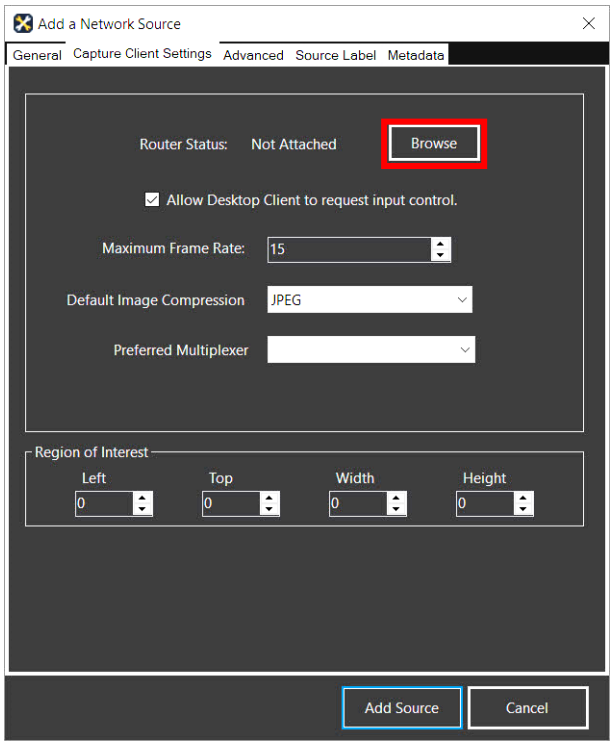


Figure 90: **Capture Client Settings** tab

a. At the top of the tab window, to the right of **Router Status**, it says **Not attached** because a PC has not yet been defined for this new **Network Source**. Click the **Browse** button to the far right, to display a list of every PC connected to the system that has **Capture Client** installed.

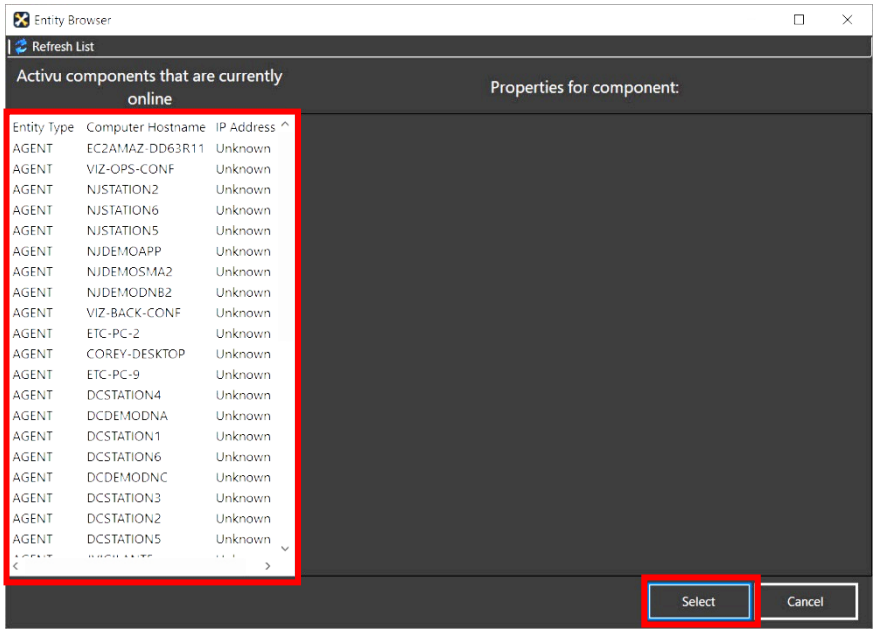


Figure 91: Click the **Browse** button to display the list of PCs connected to the system with **Capture Client** installed

b. Click on one PC to select it and to display the data associated with that machine.
c. Click the **Select**  button at the bottom of the window. This returns the **User** to the Capture **Client Settings** window. The selected PC has now been attached to this new **Network Source** and where it was previously marked **Not attached** has been changed to **Attached**.
d. **Allow Desktop Client to request input control**: This field is optional and does not create any changes.
e. **Maximum Frame Rate**: Adjust the rate according to the associated content to be refreshed. The default value is 15.
f. **Default Image Compression**: **JPEG** as the method of streaming media compression is bandwidth and resource intensive but more universal and less problematic. It is the default choice. **H.264**, though it is the preferred method and less resource intensive, it is more troublesome. **ZLIB** is now obsolete. Select the compression according to content requirements.
g. **Preferred Multiplexer**: Select the appropriate multiplexer (**MUXrouter**).
h. **Region of Interest**: This refers to the area to be viewed on the **Display** wall. It can be cropped here in the same way that is described for Cropping a **Video - RGB/DVI Source**.
i. Be sure to click the **Add Source** button at the bottom of the **Add a Network Source** window to execute all the parameters entered on this tab.

6. **Advanced** tab: **Audio** for **Network Sources** is not yet supported. This tab can be left as is.
7. **Source Label** tab: Use this tab to create a label for this **Network Source** in the same way that is described for all the other **Source** types (see The **Source Label** tab). Be sure to click the **Add Source** button at the bottom of the **Add a Network Source** window to execute all the parameters entered on this tab.
8. The **Metadata** tab can be left blank. It is not yet being utilized but will be, at some point in the future.

Editing a Network Source

To edit an existing **Network Source**, complete the following steps:

1. In the **Details** section of the **Network Sources** branch, click on the name of the **Network Source** that is to be edited, in the **Existing Sources** list.
2. Click on the **Edit** 

button at the top of the **Details** section to open the **Update a Network Source** window shown below.
3. Click on the tab where the parameters to be changed are located.
4. Make changes to parameters in the same way it is done for **adding** a new **Network Source** (see previous section entitled, (Adding a Network Source).
5. Click the **Update** button on each tab screen where changes have been made, to execute the new parameters.

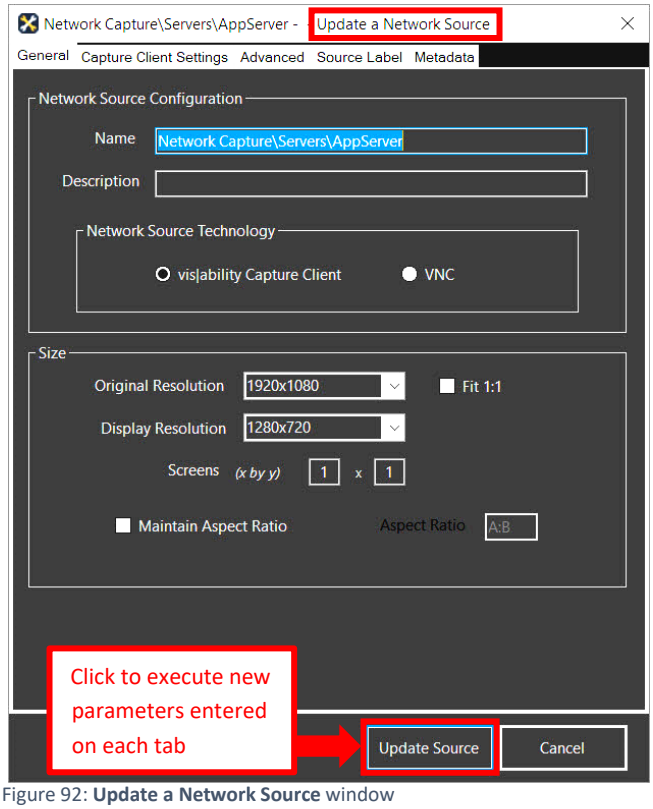


Figure 92: **Update a Network Source** window

Deleting a Network Source

To **Delete** a **Network Source**, complete the following steps:

1. On the **Details** section of the **Network Source** branch of the **System** tree, click on the name of the **Network Source** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

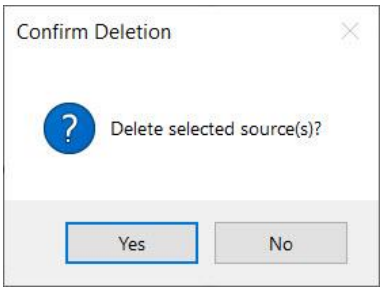


Figure 93: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Refreshing a Network Source

There is a **Refresh** button on the **Details** section of every branch on the **System** tree. It is used to confirm that the data for a specific **Source** (or other component in the system) has been loaded into the **System** database, by reloading it again. To **Refresh** or reload a **Network Source**, complete the following steps:

1. In the **Details** section of the **Network Sources** branch, click on a **Network Source** name that is to be deleted (to highlight it), in the **Existing Sources** list.
2. Click the **Refresh** button above the list. The highlighted **Network Source** has now been reloaded into the **System** database.

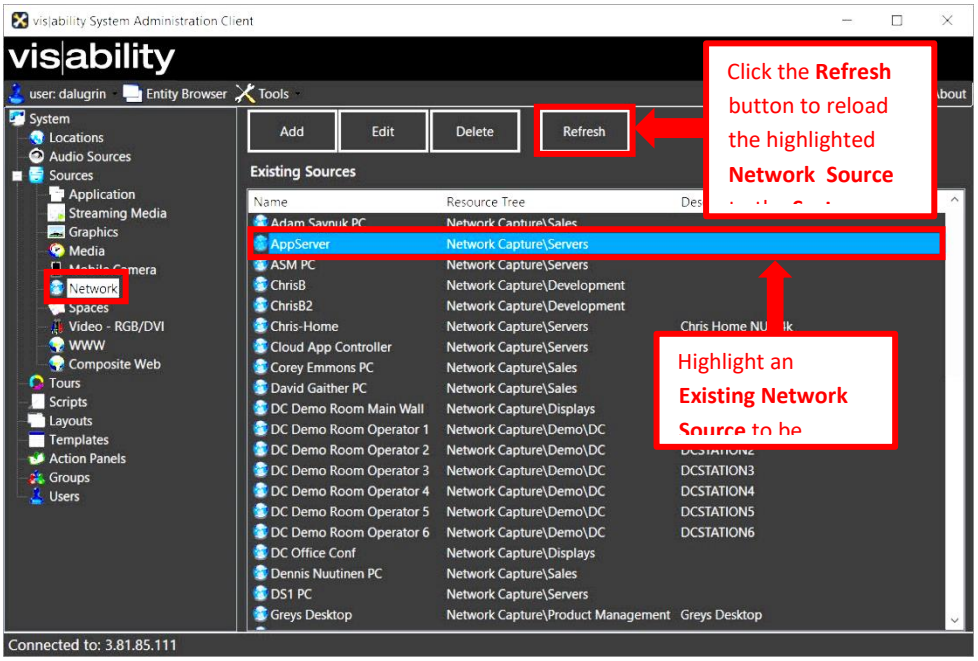


Figure 94: Existing **Network Source** highlighted to **Refresh**

Spaces

A **Spaces Source** can be generated in the **Desktop Client** for each virtual **Video Wall** (**Space**) utilized by **Users** to arrange content for easy recall, viewing, sharing and collaboration. A **Space** can contain any **Source** defined in the **vis|ability™** system. **Spaces Sources** can only be deleted or refreshed in the **System Administration Client**. Creation, manipulation and use of **Spaces Sources** is only done in the **Desktop Client**.

Deleting Spaces

To Delete a **Space**, complete the following steps:

1. On the **Details** section of the **Spaces** branch of the **System** tree, click on the name of the **Space** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

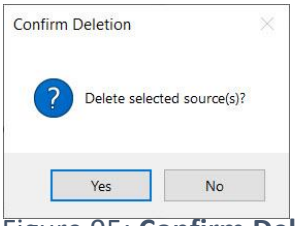


Figure 95: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Refreshing Spaces

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload **Spaces**, complete the following steps:

1. In the **Details** section of the **Spaces** branch, in the **Existing Sources** list, click on a **Space** to delete.
2. Click the **Refresh** button above the list. The selected **Space** is reloaded into the **System** database.

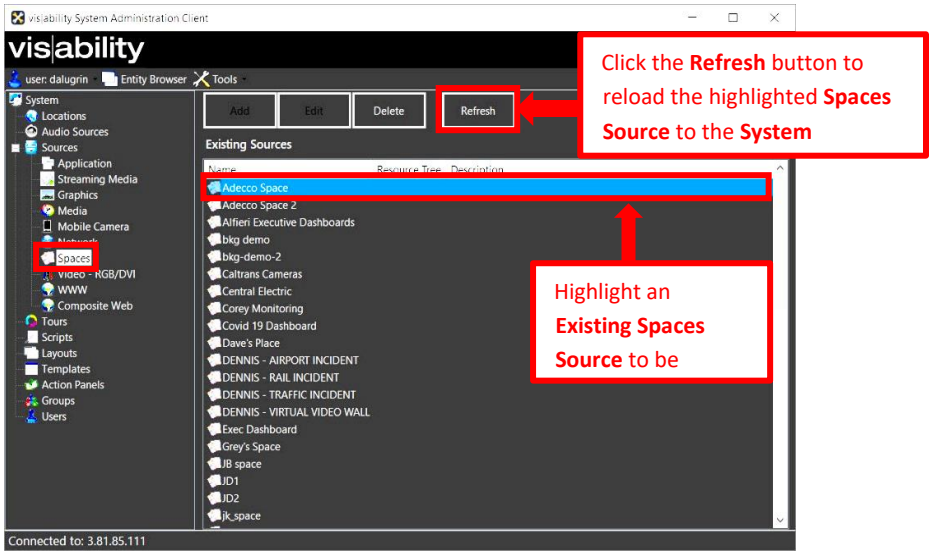


Figure 96: Existing **Network Source** highlighted to **Refresh**

Video - RGB/DVI Sources

Video - RGB/DVI Sources are hardware-dependent. They are created only if the **vis|ability**^{TM} system is using either **Matrox** or **Datapath Display Nodes** or a **Video** or **RGB Matrix** router that interfaces with either of these two **Display Nodes**. This **Source** type can be challenging to understand how to work with, so be sure to seek the advice of an experienced **Activu System Integrator**, when necessary.

Adding a Video - RGB/DVI Source

To **Add** a **Video - RGB/DVI Source** to the system database, complete the following steps:

1. Click the **Video - RGB/DVI Source** branch on the **System** tree.
2. Click the **Add** button at the top of the **Details** section for the **RGB/DVI Source** branch, to the right:

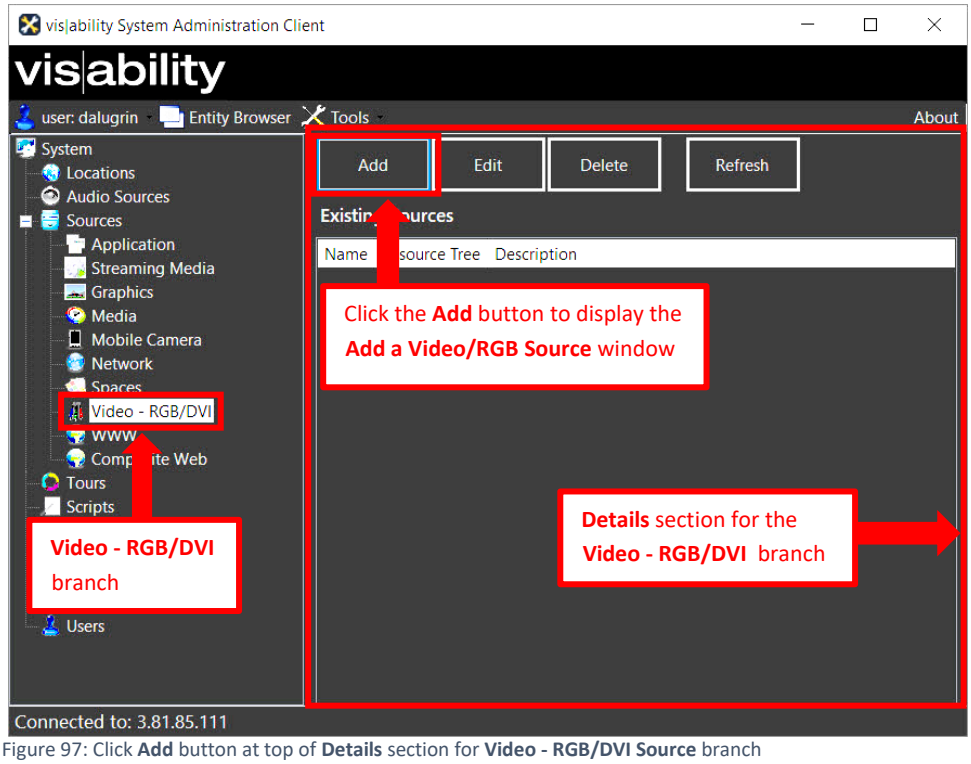


Figure 97: Click **Add** button at top of **Details** section for **Video - RGB/DVI Source** branch

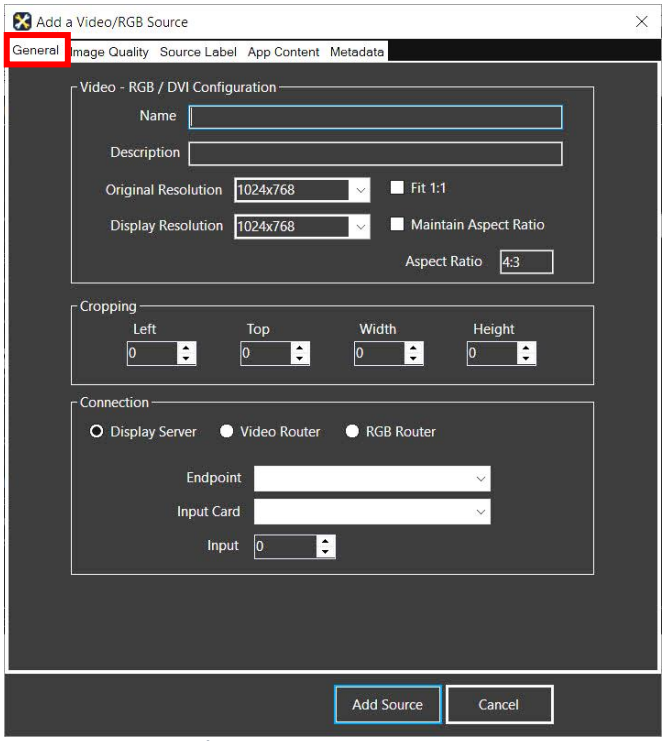


Figure 98: **Add a Video/RGB Source** window

3. On the **General** tab, enter the following parameters:
    a. **Name:** Enter any name for this **Source**.
    b. **Description:** This field is optional.
    c. **Original Resolution**: This resolution is taken from the original **Source**. It is filled in automatically in this field.
    d. **Fit 1:1:** If this box is checked, the image will keep its original resolution, no matter what size it is on the **Display** wall.
    c. **Display Resolution:** This determines the size of the image when it is displayed on a **Display** wall. Select a size from the drop-down menu or type in the size manually. (Be aware that if you make a change in this field, it may affect the **Fit 1:1** setting.)
    d. **Aspect Ratio: (**This field is optional.) Type the desired ratio of width in relation to height for the **Source** image. If the aspect ratio is set here, and then the **Maintain Aspect Ratio** box is checked, when the image is displayed and resized on a **Display** wall, it will maintain the ratio that has been set here. If the **Maintain Aspect Ratio** box is not checked, the **Aspect Ratio** can be changed on the wall.
    e. **Cropping:** The **Source** image can be cropped here, if necessary. The value set in the **Left** field is the zero (0) starting point at the left edge of the image. The **Width** determines how far from the left zero point the image will be cropped on the right. The same is true for the **Top** as the Zero (0) point and the **Bottom** field determining how far down from the **Top** zero point it will be cropped. The fields in this section are optional.
    f. **Connection**: In this section, if the customer does not know what to select, they should consult with Activu for the correct settings:

i. Select the appropriate router or server.

ii. Select an **Endpoint** from the drop-down menu.

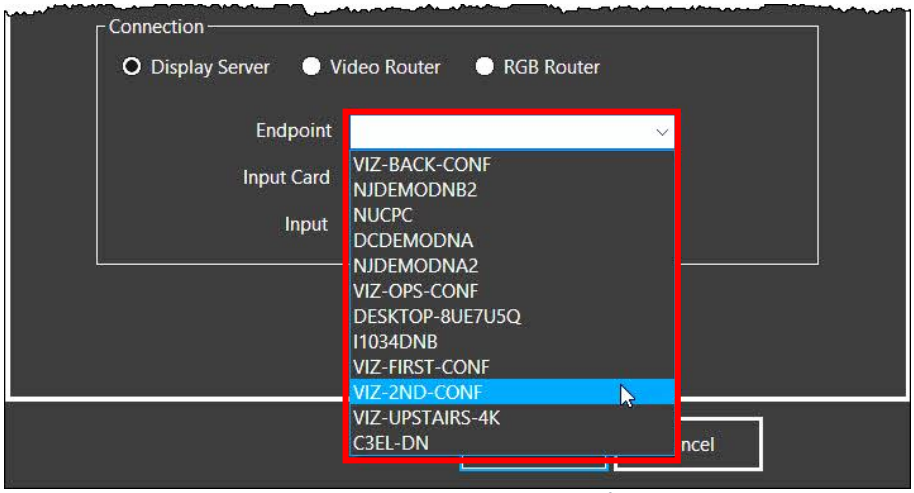


Figure 99: **Endpoint** drop-down menu on **General** tab of **Add a Video/RGB Source** window

iii. Select an **Input Card** from the drop-down menu.

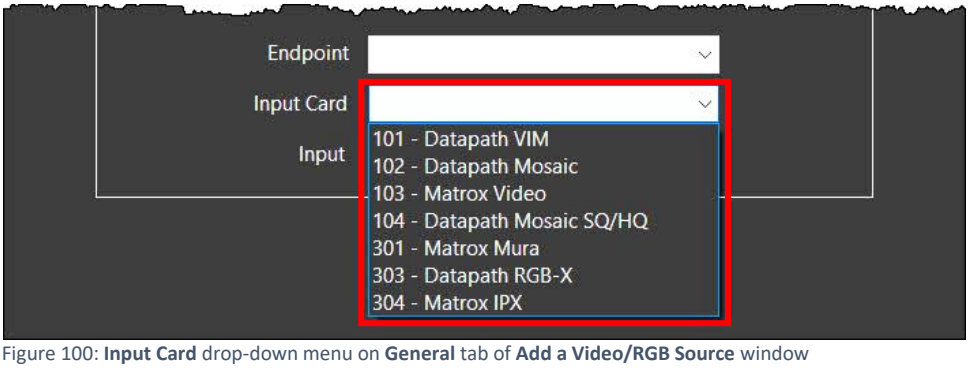


Figure 100: **Input Card** drop-down menu on **General** tab of **Add a Video/RGB Source** window

iv. Set the **Input** value with the **Up** and **Down** arrows or type in a value manually. For the correct values, seek the advice of an **Activu System Integrator (SI)**.

g. Click the **Add Source** button at the bottom of the screen to execute the parameters entered on this tab.

4. The **Image Quality** tab: Default settings are automatically entered on this tab for the **Input Card** selected on the **General** tab, under **Connections**. Whatever has been chosen for the **Input Card**, determines the **Image** Quality settings available. They can be adjusted, as needed. This tab can vary in appearance. It may look something like one of the example figures below**:**

It could look like this:

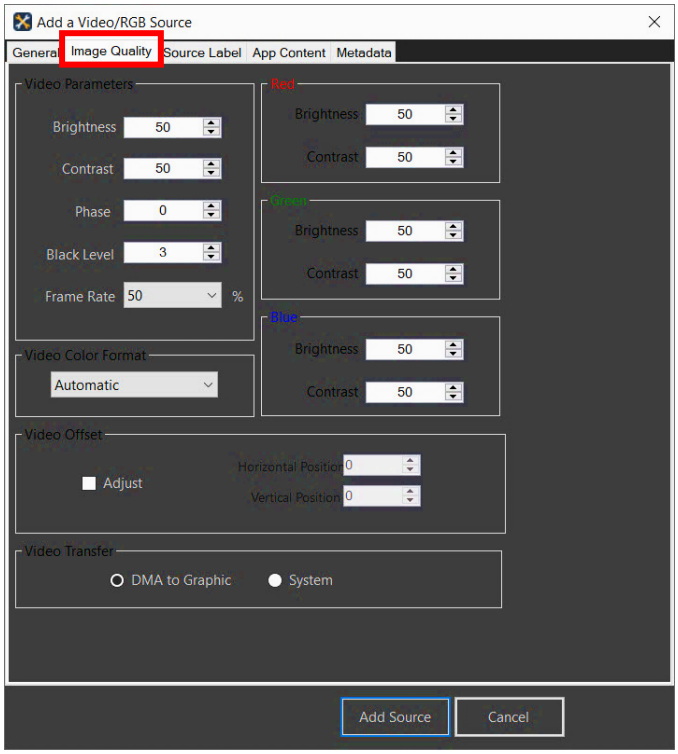


Figure 101: **Image Quality** tab for a**n Input Card** selected on the **General** tab

...or like this, for a different **Input Card**:

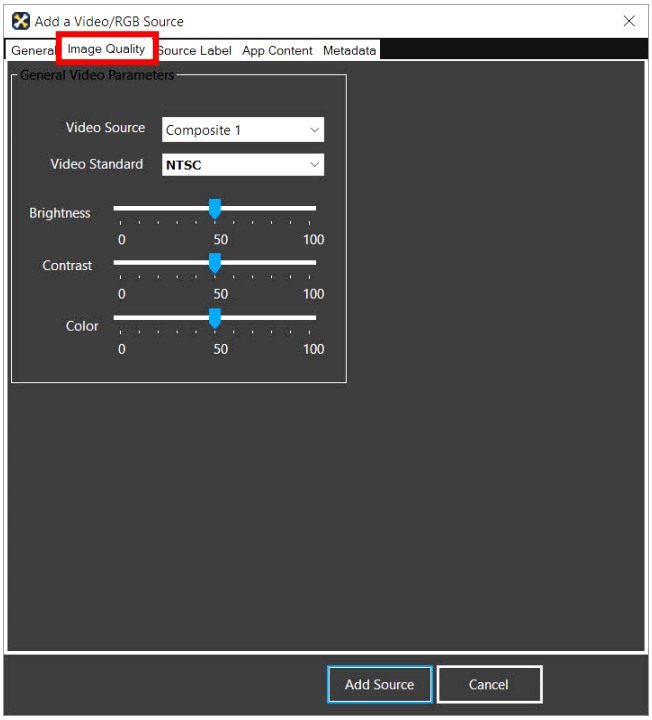


Figure 102: **Image Quality** tab for a different **Input Card** selected on the **General** tab

...or like this, for still another **Input Card:**

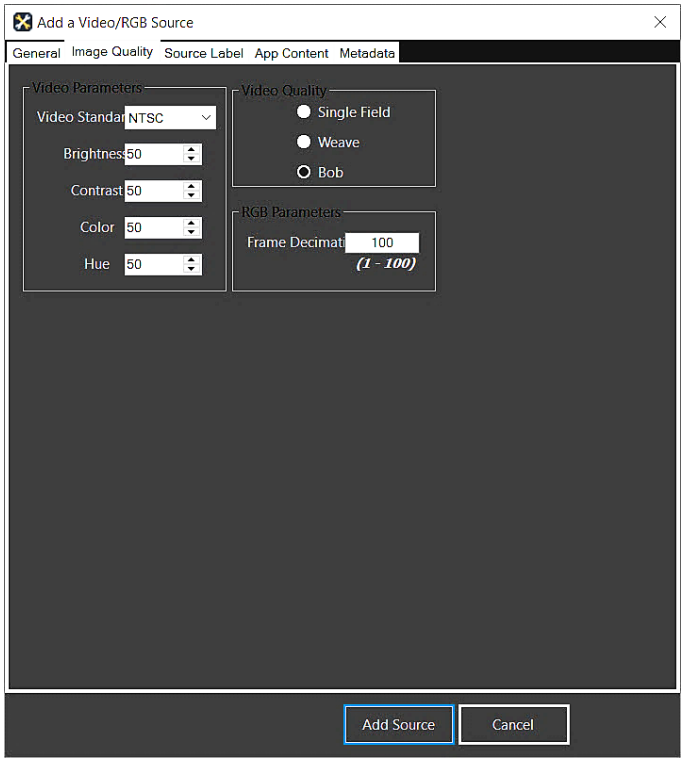


Figure 103: **Image Quality** tab for a third **Input Card** selected on the **General** tab

5. **Source Label** tab: Use this tab to create a label for this **Network Source** in the same way that is described for all the other **Source** types (see The Source Label tab). Be sure to click the **Add Source** button at the bottom of the **Add a Network Source** window to execute all of the parameters entered on this tab.
6. **App Content tab**: Leave this tab blank. It is not being utilized at this time.
7. **Metadata tab**: Leave this tab blank. It is not being utilized at this time.

Editing a Video - RGB/DVI Source

To edit an existing **Video - RGB/DVI Source**, complete the following steps:

1. In the **Details** section of the **Video - RGB/DVI Sources** branch, click on the name of the **Video - RGB/DVI Source** that is to be edited, in the **Existing Sources** list.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update a Video - RGB/DVI Source** window shown below.
3. Click on the tab where the parameters to be changed are located.
4. Make changes to parameters in the same way it is done for **adding** a new **Video - RGB/DVI Source** (see previous section entitled, (Adding a Video - RGB/DVI Source).
5. Click the **Update** button at the bottom of each tab screen where changes have been made, to execute the new parameters.

Deleting a Video - RGB/DVI Source

To **Delete** a **Video - RGB/DVI Source**, complete the following steps:

1. On the **Details** section of the **Video - RGB/DVI Source** branch of the **System** tree, click on the name of the **Video - RGB/DVI Source** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

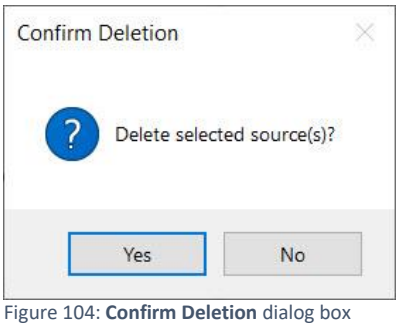


Figure 104: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Refreshing a Video - RGB/DVI Source

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload a **Video - RGB/DVI Source**, complete the following steps:

1. In the **Details** section of the **Video - RGB/DVI Sources** branch, in the **Existing Sources** list, click on a **Video - RGB/DVI Source** to delete.
2. Click the **Refresh** button above the list. The selected **Video - RGB/DVI Source** has now been reloaded into the **System** database.

WWW Sources

WWW (Web) **Sources** are defined in the system database to represent web content at stipulated URLs, that are to be displayed within a web browser on a **Display** wall or **Space**. They can also be created for a file that can be *opened* by a web browser, such as a .PDF or .TXT. **WWW Sources** can display web pages that have **.html**, **.xml** or **.svg** extensions. This allows **Activu** to open, display and enable web-page navigation without opening a separate web browser. Pages are displayed without browser borders, so take up less space. This keeps the **Activu Display** area visually clear and uncluttered. Each web page **Source** can be viewed across any **vis|ability™ Display** wall that has a connection to the internet or access to the web page the **Source** refers to, and if the web page is an internal resource.

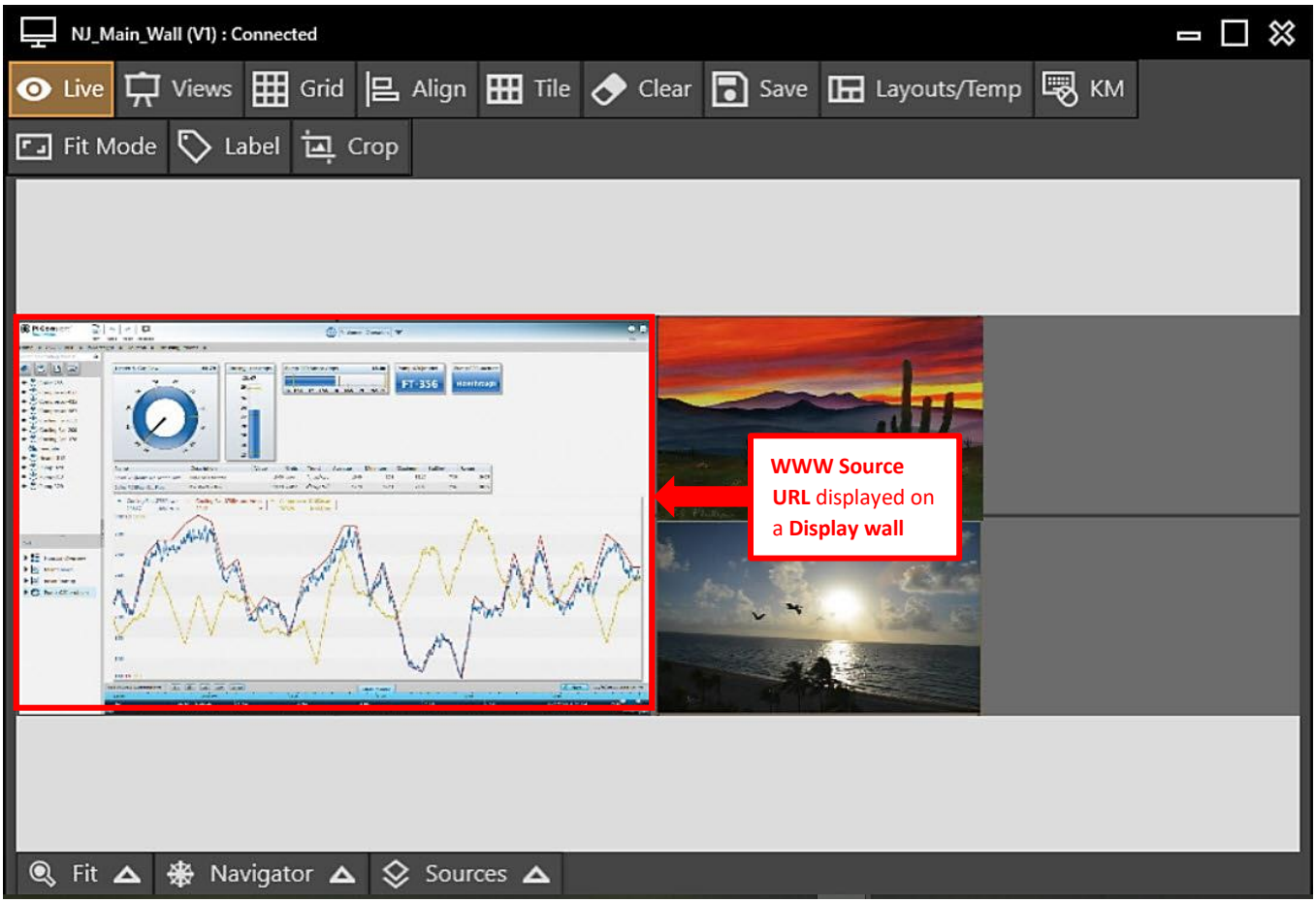


Figure 105: **WWW Source** window on **Display** wall in **Desktop Client**

Table 6: Parameters for WWW Sources

WWW Sources Parameter Settings		
Parameter	**Required or Optional**	**Description**
Name	**Required**	**Activu** name for the **WWW Source**. Maximum length is 64 characters. This name is used to identify a **Source** on the Remote Control GUI of the **Desktop Client** application. This name is also used with **Activu Script** functions.
URL	**Required**	Input the URL of the **WWW Source** (i.e., www.activu.com).
Description	**Optional**	A brief description of the **WWW Source**. You can enter a maximum of 64 characters in this field.
Resolution	**Required**	Specifies the display resolution of the **WWW Source**.
Browser	**Optional**	If the website requires a specific underlying browser type, choose from the list here. Default: **Chrome**.
App Controller	**Optional**	If your **vis|ability™** system has app controllers defined, they can be used to render a web page on that controller, and then stream the content to remote viewers. This ensures that the website is rendered at a specific resolution and will not change layout when the viewer window is resized. Default: none.
Fit 1:1	**Optional**	Only available with Edge browser. Ensures proper 1:1 zoom of the web content in the **WWW Source** viewer window.
Private Browsing	**Optional**	Only available with Edge browser. Does not share or store web cookies or other tracking data on the display node.
Maintain Aspect Ratio	**Optional**	Ensures the web viewer window maintains the specified aspect ratio.

Adding a WWW Source

To **Add** a **WWW Source** to the system database, complete the following steps:

1. Click the **WWW Sources** branch on the **System** tree:

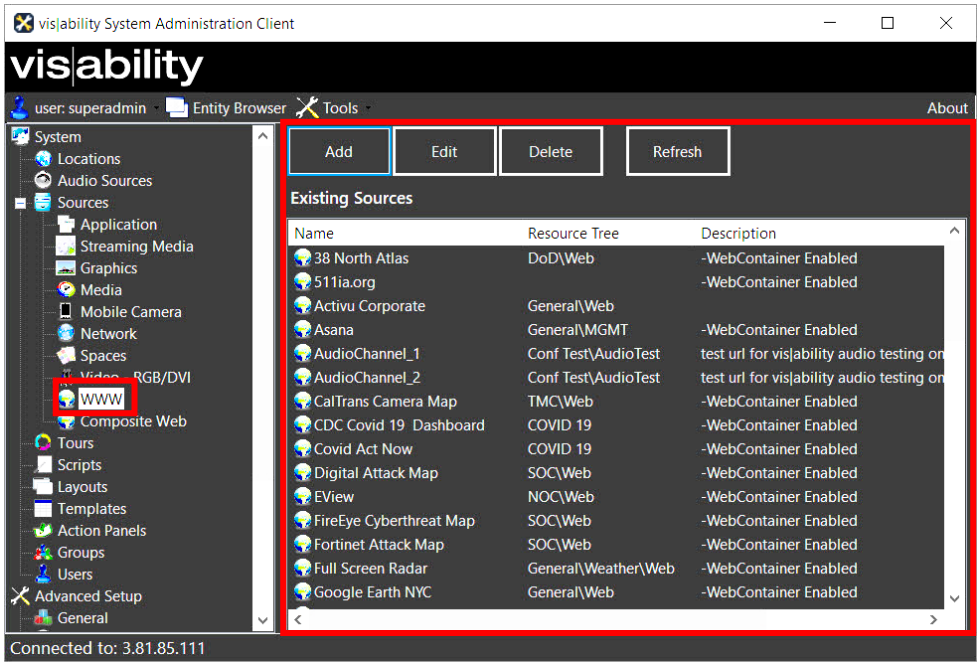


Figure 106: **WWW** branch and **Details**

2. In the **Details** section for **WWW Sources**, click the **Add** button at the top of the screen, above the **Existing Sources** list, to display the **Add a Web Source** window:

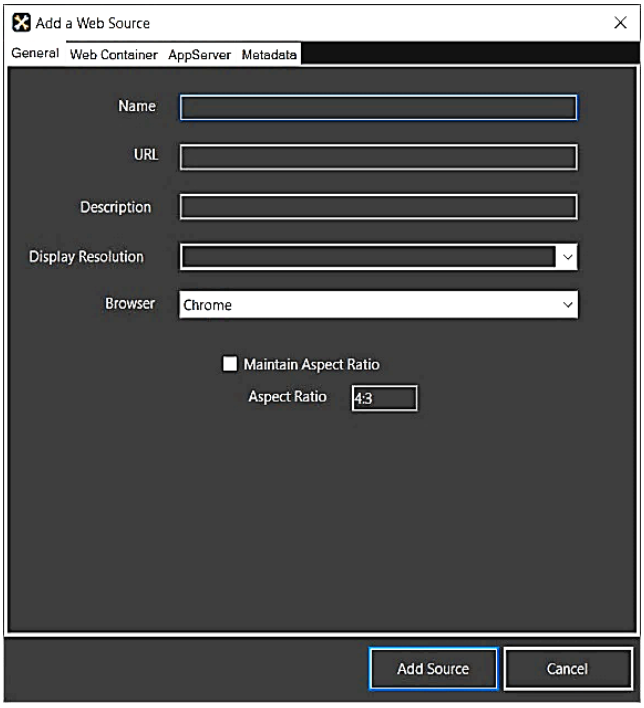


Figure 107: **Add a Web Source** window - General tab

3. On the **General** tab, enter the following parameters:
    a. **Name**: Enter any name for this **Source**.
    b. **URL**: Enter the URL for the website to be displayed or the path for the file to be opened by a browser and displayed.
    c. **Description**: This field is optional.
    d. **Display Resolution**: This determines the size of the image when it is displayed on a **Display** wall. Select a size from the drop-down menu or type in the size manually.
    e. **Browser**: Select the browser to use from the drop-down menu. Keep in mind that some websites are very browser-specific.

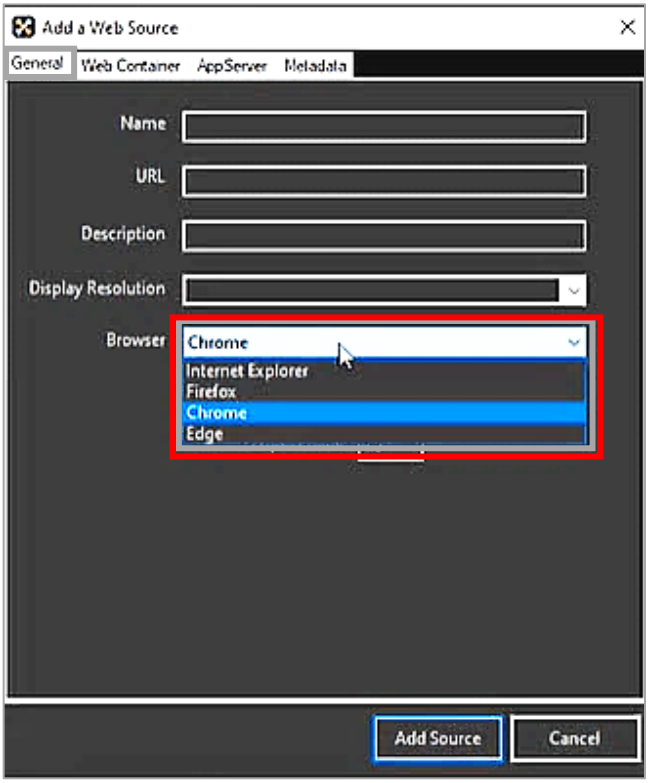


Figure 108: **Browser** drop-down menu on the **General** tab

    f. **Maintain Aspect Ratio**: **(**This field is optional.) Type the desired ratio of width in relation to height for the **Source** image. If the aspect ratio is set here, and then the **Maintain Aspect Ratio** box is checked, when the image is displayed and resized on a **Display** wall, it will maintain the ratio that has been set here. If the **Maintain Aspect Ratio** box is not checked, the **Aspect Ratio** can be changed on the wall.

4. **Web Container** is a separate application that is built into the **Display Nodes**. For specific browsers, it launches the web browser if it cannot be done directly. Certain browsers do not allow the "windowed kiosk" mode and, therefore, need the **Web Container** to display the **WWW Source URL** properly, on the **Display** wall or **Space**.

On the **Web Container** tab, enter the following parameters:

a. **Enable Web Container**: The default and preferred setting for this field is for it to be checked.

b. **Web Container Options**:

i. **Label**: Enter a name for the label for this **Source** window. This field accepts a maximum of 32 characters and is optional.

ii. **Margins**: The **WWW Source's** image margins can be set here, if necessary. It can be used to cut off the title bar and menu bar from the image that will be displayed on the wall. The value set in the **Left** field is the zero (0) starting point at the left edge of the image. The **Width** determines how far from the left zero point the image will be cropped on the right. The same is true for the **Top** as the Zero (0) point and the **Bottom** field determining how far down from the **Top** Zero point it will be set. The fields in this section are optional.

iii. **Refresh**: Using the **Up** and **Down** arrows, enter a time for how often the **WWW Source** window will **Refresh** the web image. This field is optional.

5. No changes need to be made on the **AppServer** tab. It is not presently being used but will be at some time in the future.
6. No changes need to be made on the **Metadata** tab. It is not presently being used but will be at some time in the future.

Editing a WWW Source

To edit an existing **WWW Source**, complete the following steps:

1. In the **Details** section of the **WWW Sources** branch, click on the name of the **WWW Source** that is to be edited, in the **Existing Sources** list.

2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update a WWW Source** window shown below:

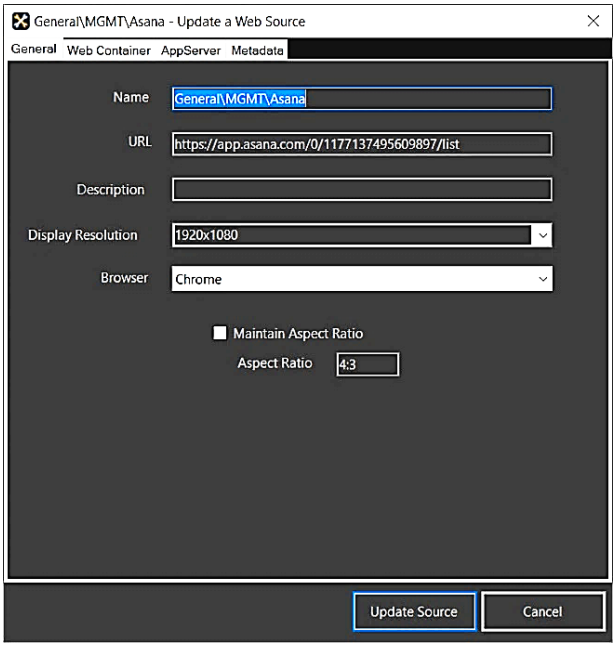


Figure 109: **Update a Web Source** window

3. Click on the tab(s) where the parameters to be changed are found.
4. Amend parameters in the same way it is done for **adding** a new **WWW Source** (see previous section entitled, Add a WWW Source).
5. Click the **Update** button at the bottom of each tab screen where changes have been made, to execute the new parameters.

Deleting a WWW Source

To **Delete** a **WWW Source**, complete the following steps:

1. On the **Details** section of the **WWW Source** branch of the **System** tree, click on the name of the **WWW Source** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

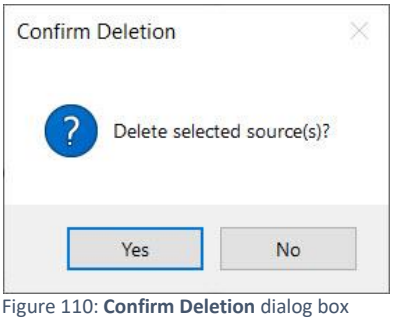


Figure 110: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Refreshing a WWW Source

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload a **WWW Source**, complete the following steps:

1. In the **Details** section of the **WWW Sources** branch, in the **Existing Sources** list, click on a **WWW Source** to delete.
2. Click the **Refresh** button above the list. The selected **WWW Source** has now been reloaded into the **System** database.

Composite Web Sources

Composite Web Sources are created in the system database to enable the display of up to 4 different URLs in one web **Source** window that is always displayed in an even, two-by-two arrangement. They are used specifically for **Link**-generated content and **Activu** system integration, only.

Adding a Composite Web Source

To **Add a Composite Web Source** to the system database, complete the following steps:

1. Click the **Composite Web Source** branch on the **System** tree:

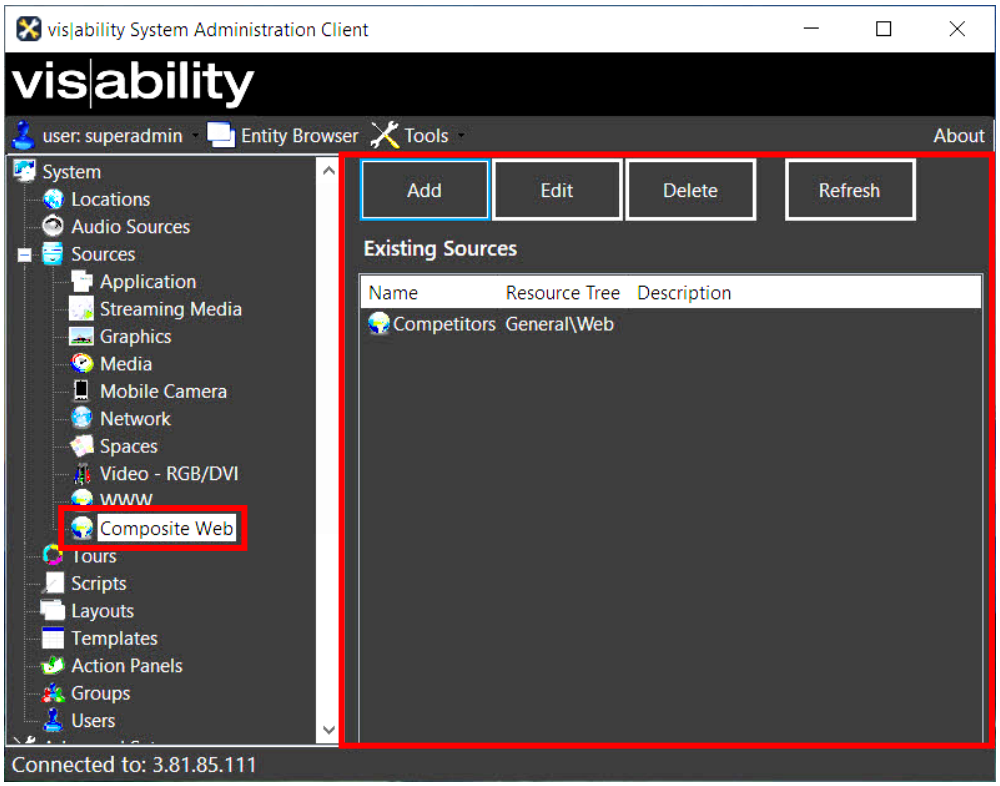


Figure 111: **Composite Web Sources** branch and **Details**

2. In the **Details** section for **Composite Web Sources**, click the **Add** button at the top of the screen, above the **Existing Sources** list, to display the **Add a Composite Web Source** window:

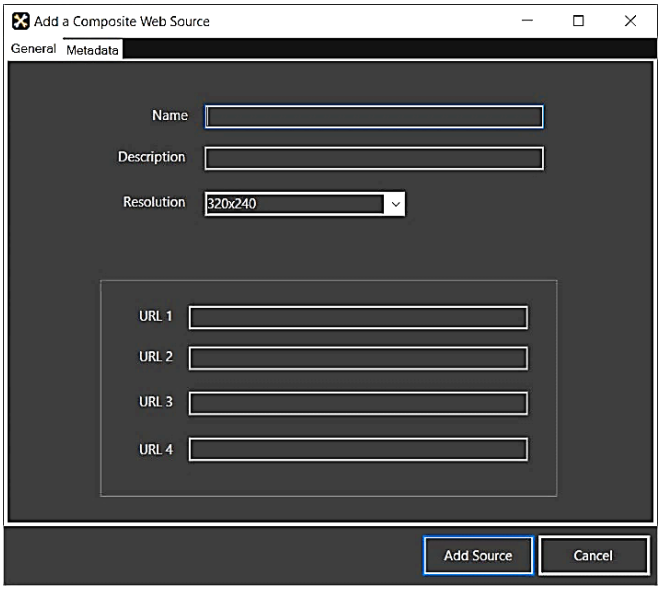


Figure 112: **Add a Composite Web Source** window

3. On the **General** tab, enter the following parameters:
   a. **Name**: Enter any name for this **Composite Web Source**.
   b. **Description**: This field is optional.
   c. **Resolution**: This determines the size of the image when it is displayed on a **Display** wall or a **Space**. Select a size from the drop-down menu or type it in manually.

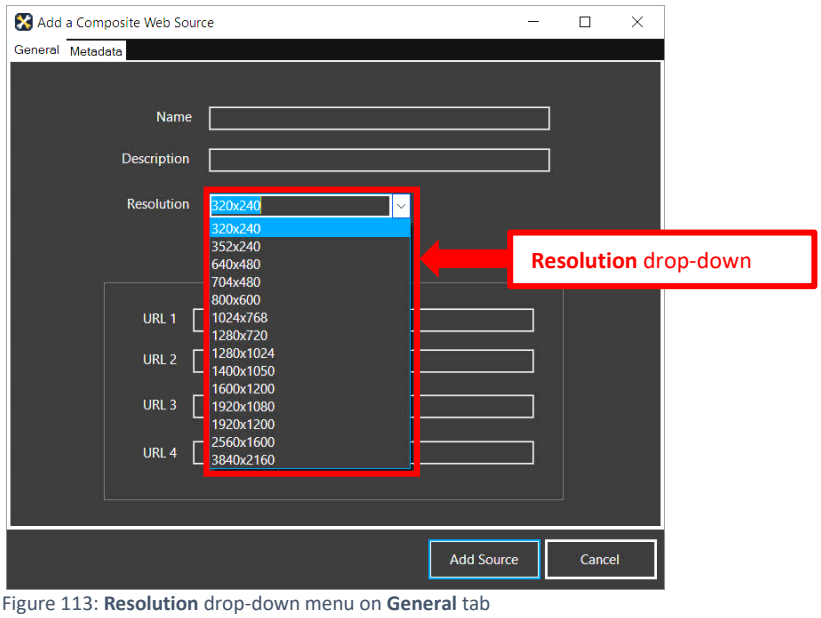


Figure 113: **Resolution** drop-down menu on **General** tab

   d. **URL 1-4**: Add up to 4 URLs, one in each field.

Important: Administrators should be aware that there is a .config file on the **Display Node** that can be altered if it is necessary to specify which browser must be used for this **Source** type.

4. The **Metadata** tab is not being used at present but will be some time in the future. It can be left as is.

Editing a Composite Web Source

To edit an existing **Composite Web Source**, complete the following steps:

1. In the **Details** section of the **Composite Web Sources** branch, click on the name of the **Composite Web Source** that is to be edited, in the **Existing Sources** list.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update a Composite Web Source** window shown below:

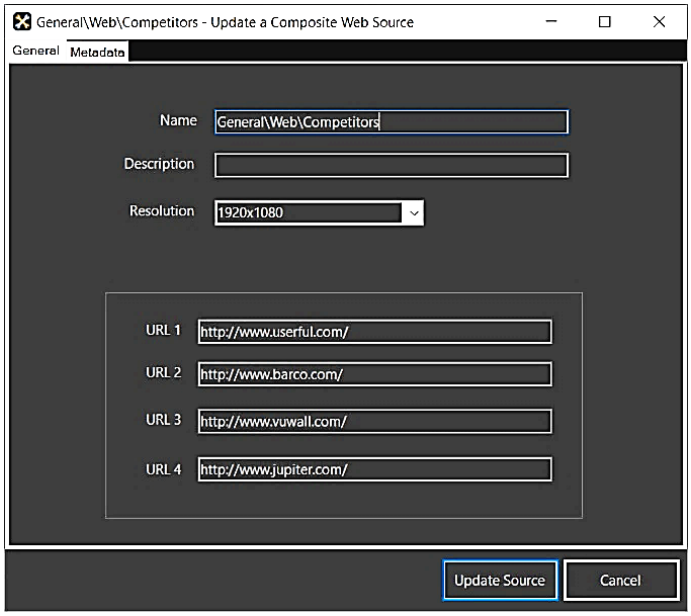


Figure 114: **Update a Web Source** window

3. Click on the tab where the parameters to be changed are located.
4. Make changes to parameters in the same way it is done for **adding** a new **Composite Web Source** (see previous section entitled, Adding a Composite Web Source).
5. Click the **Update Source** button at the bottom of each tab screen where changes have been made, to execute the new parameters.

Deleting a Composite Web Source

To **Delete** a **Composite Web Source**, complete the following steps:

1. On the **Details** section of the **Composite Web Source** branch of the **System** tree, click on the name of the **Composite Web Source** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

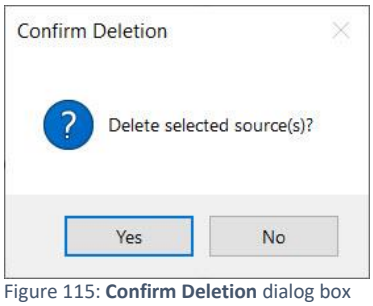


Figure 115: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Refreshing a Composite Web Source

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload a **Composite Web Source**, complete the following steps:

1. In the **Details** section of the **Composite Web Sources** branch, in the **Existing Sources** list, click on a **Composite Web Source** to delete.
2. Click the **Refresh** button above the list. The selected **Composite Web Source** has now been reloaded into the **System** database.

Tours

A **Tour** is a **Source** type that lists a series of *other* **Sources** through which it cycles, displaying them, for a specified, timed, interval. For example, if the customer has thousands of cameras that must all be checked for incidents, on a regular, continuing basis, **Tour Sources** can be set up to check each of these cameras on a rotating, repeated basis, like a carrousel. One **Tour Source** window on a **Display** can cycle through many different cameras in succession, displaying the image from each camera for a selected amount of time before moving on to the next and then repeating the cycle again. In this way, all cameras are continually checked without taking up an enormous amount of space on the **Display**. **Tours** can be used to cycle through most types of **Sources** on the **Sources** branch of the **System** tree of the **System Administration Client** (except for **Spaces**).

Adding A Tour Source

To add a **Tour**, complete the following steps:

1. Click the **Tours** branch on the **System** tree:

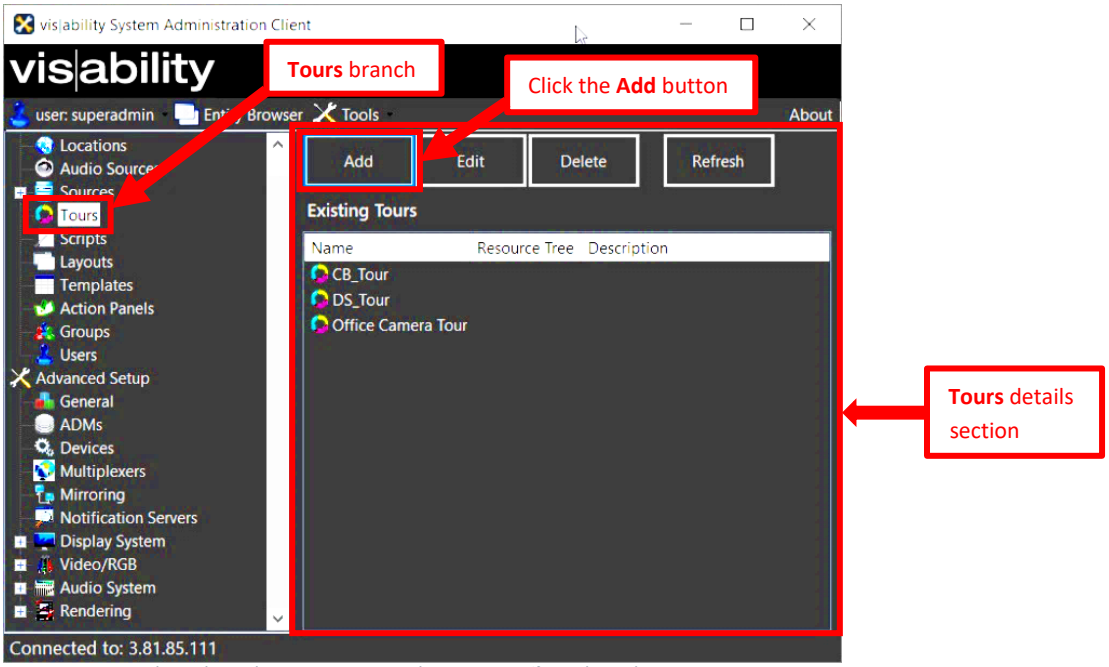


Figure 116: **Tours** branch on the **System** tree with **Tours Details** to the right

2. In the **Details** section for **Tours**, click the **Add** button at the top of the screen, above the **Existing Tours** list, to display the **Add a Tour** window:

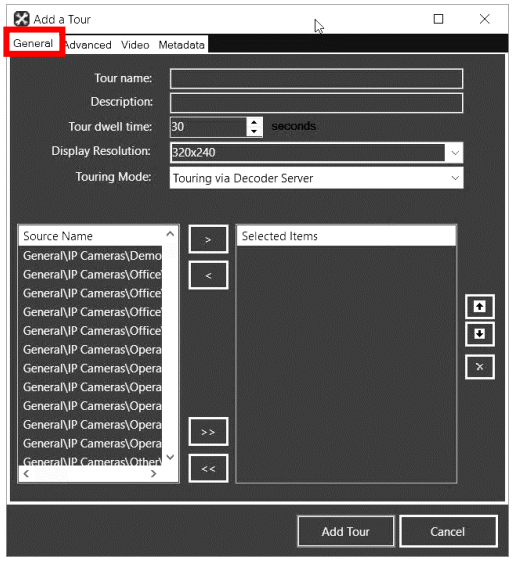


Figure 117: **Add a Tour** window

3. On the **General** tab, enter the following parameters:
    a. **Tour Name**: Type in any desired name for this **Tour**.
    b. **Description**: This field is optional.
    c. **Tour dwell time**: This is the designated amount of time the **Tour** will spend performing the specified task on each **Source** it cycles through.
    d. **Display Resolution**: Select the desired resolution from the drop-down menu or manually type in the desired resolution.
    e. **Touring Mode**: The default setting is **Touring via Decoder Server**. In most cases, it should be left as is. The other settings are hardware-specific, so the **System Administrator** should know if this setting must be changed.
    f. **Source Name**:
    g. **Selected Items**:
    h. Click the **Add Tour** button at the bottom of the screen to execute these new **General** tab settings.

4. On the **Advanced** tab, enter the following parameters:

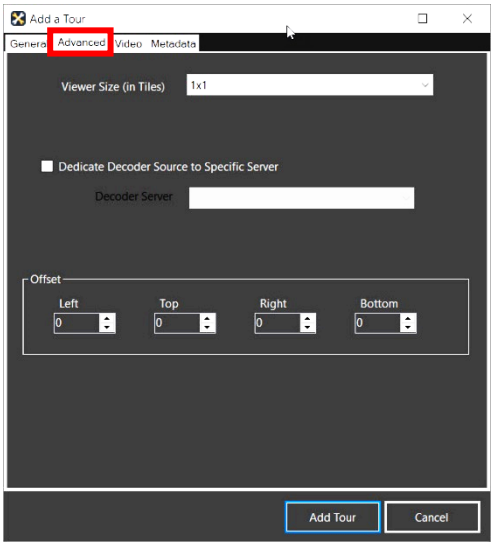


Figure 118: **Add A Tour** window - **Advanced** tab

a. **Viewer Size (in Tiles)**: if you are using a **Decoder Server**, you can set this size to match the setting of your **Decoder Server**. If you are unsure of how to utilize this setting, consult with your **Activu Administrator**. If you are *not* using a **Decoder Server**, (as when using an IPX card), the system will utilize the **Display Resolution** on the **General** tab and this setting will *not* be used. In this case, it can be left as is.

b. **Dedicate Decoder Source to Specific Server**: The default for this setting is **unchecked**. It is rare to require checking it, which is only done if the **Tour (**or **Tour Sources)** must be opened with only one specified **Decoder Server.** If this is required, select the **Decoder Server** from the drop-down list.

c. **Offset**: In most cases, this section can be left as is, since, usually, each **Source** image in the **Tour** is different, and should be cropped individually, when it is created. **Offset** settings would only be used if a **Decoder Server** is being used and, therefore, all **Source** windows are uniformly formatted.

d. Click the **Add Tour** button at the bottom of the tab screen to execute the new parameter settings on the **Advanced** tab.

5. On the **Video** tab, enter the following parameters:

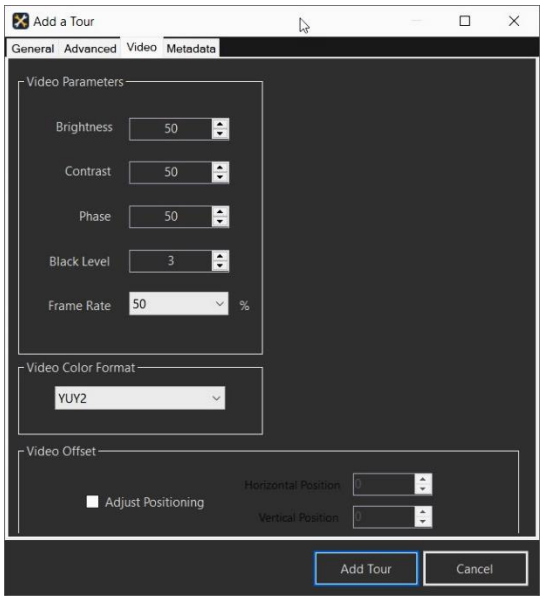


Figure 119: **Add a Tour** window - **Video** tab

   a. **Video Parameters**: These settings are only affected by **Tours** with **Sources** from decoder types that are using **Decoder Servers** streaming video or RGB, such as IPX or SQX. If they are not, these parameters can be left as is.
   b. **Video Color Format**: In most cases, the default setting is sufficient.
   c. **Video Offset**: This setting only applies to analog signals. If the signal is digital, this setting does not take effect.
   d. Click the **Add Tour** button at the bottom of the tab screen to execute the new parameter settings on **Video** tab.

6. The **Metadata** tab is not being used at present but will be some time in the future. It can be left as is.

Editing a Tour Source

To edit an existing **Tour**, complete the following steps:

1. In the **Details** section of the **Tours** branch, click on the name of the **Tour** that is to be edited, in the **Existing Sources** list.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **CB Tour - Update a Tour** window shown below:

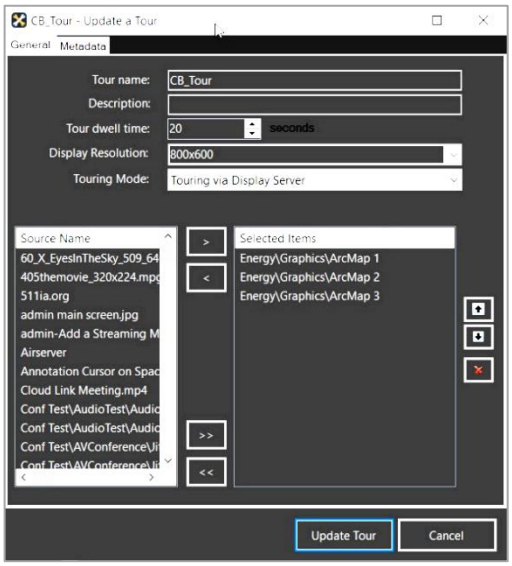


Figure 120: **CB Tour - Update a Tour** window

3. Click on the **General** tab.
4. Make changes to parameters on this tab in the same way it is done for **adding** a new **Tour** (see previous section entitled, **Tours** General tab). There is no **Advanced** tab or **Video** tab on the **CB Tour - Update a Tour** window. These tabs do not need to be edited for an existing **Tour**.
5. Click the **Update Tour** button at the bottom of the **General** tab screen, to execute the new parameters.

Deleting a Tour Source

To **Delete** a **Tour**, complete the following steps:

1. On the **Details** section of the **Tours** branch of the **System** tree, in the **Existing Sources** list, click on the name of the **Tour** to be deleted.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

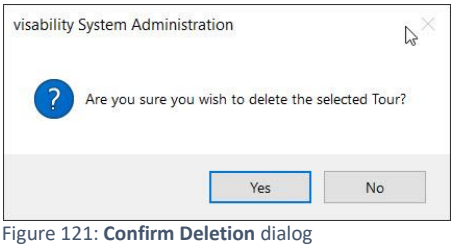


Figure 121: **Confirm Deletion** dialog

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Refreshing a Tour Source

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload a **Tour**, complete the following steps:

3. In the **Details** section of the **Tours** branch, in the **Existing Sources** list, click on the **Tour** to delete.
4. Click the **Refresh** button above the list. The selected **Tour** has now been reloaded into the **System** database.

Organizing Sources

The vis|ability Source tree can be organized in whatever hierarchy makes sense for your operational needs. Each Source name, at time of definition or when editing a definition, can be prepended with a "\" delimited path that defines where in the folder structure the Source is placed. Without a path, the Source is placed in standard sub-folders, which are:

Image/Graphics	→	Graphics
Media	→	Media
Network Sources	→	Network Capture
Web Sources	→	WWW
Tours	→	Tours
Streaming Video	→	Network Video
Widgets	→	Widgets

Source paths must start with the top-level folder name and can include up to 6 levels of sub-folders. For example, a Source named "Activu Website" could be placed in the Websites\Cool Companies subfolder, by giving the Source the name "Websites\Cool Companies\Activu Website". If the top level, or any of the sub folder names do not already exist, they are created at the time of definition.

Important: Folder names are case sensitive and using variations of upper and lower case for the same path will result in multiple folders being created.

The same Source name can be defined in multiple paths without conflict.

Scripts

Refer to the **vis|ability™ Scripting Guide**.

Layouts

Layouts are snapshots of a compilation of saved **Sources** and their placement on Activu-driven **Display** devices. **Layouts** cannot be created in the **System Administration Client**. They can only be created and manipulated from the **vis|ability™ Desktop Client** application. However, all **Layouts** created by **Desktop Client Users** are listed in the **System Administration Client** and can only be renamed, refreshed, or deleted from this interface.

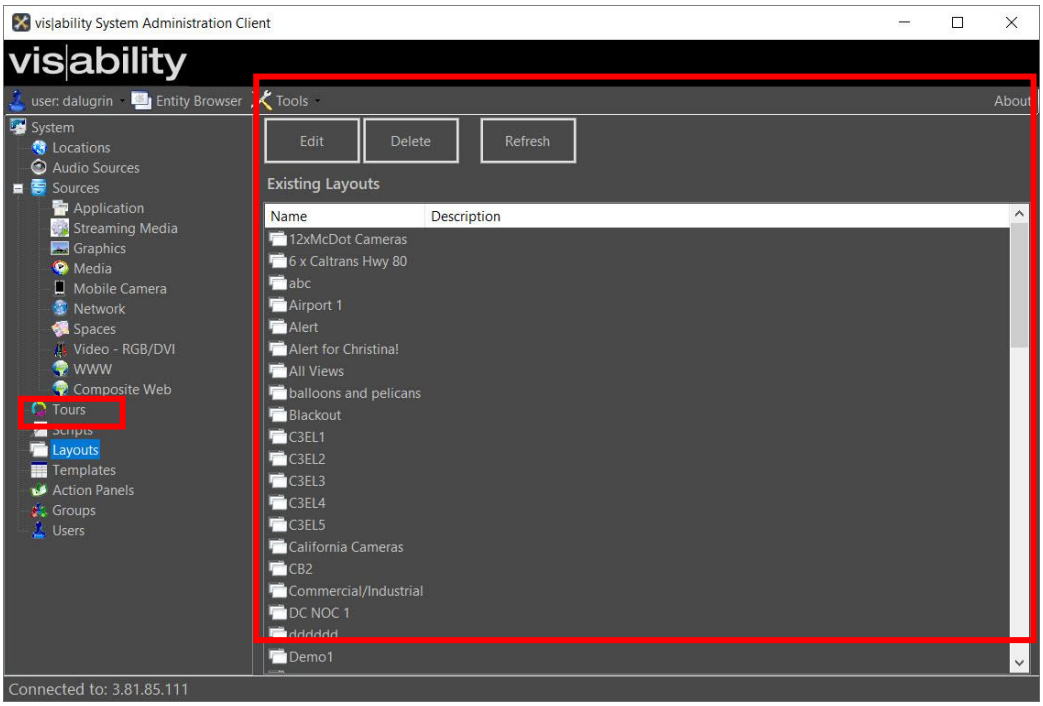


Figure 122: **Layouts** branch and **Details** section

Renaming Layouts

To **Rename** a **Layout**, complete the following steps:

1. Click on the **Layout** name to be changed (to highlight it).
2. Click on the **Edit** button above the **Existing Layouts** list.

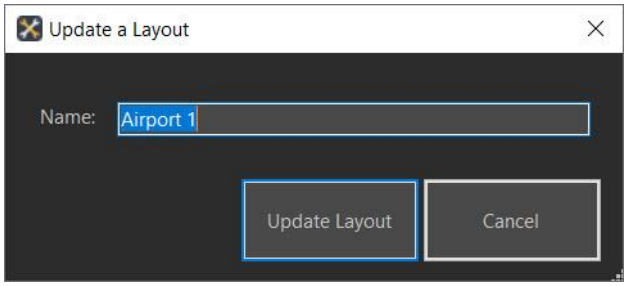


Figure 123: **Update a Layout** dialog for **Renaming** a **Layout**

3. Type a new name in the **Name** text box.

4. Click the **Update Layout** button. The new name of the **Layout** now appears in the **Existing Layouts** list of the **Details** section.

Deleting Layouts

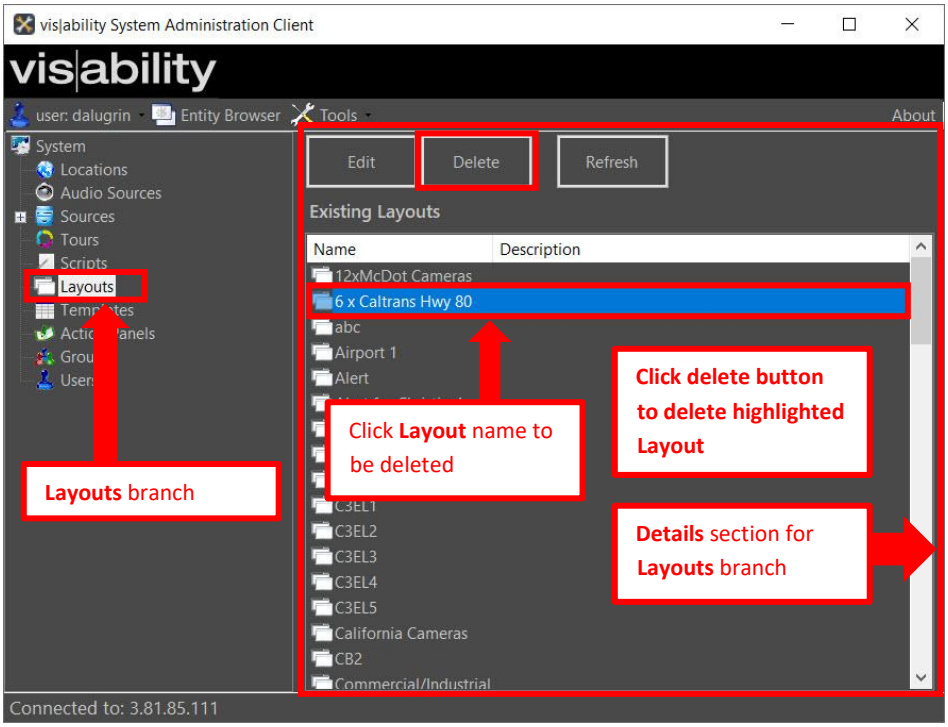


Figure 124: **Deleting Layouts**

To **Delete** a **Template**, complete the following steps:

1. On the **Details** section of the **Template** branch of the **System** tree, click on the name of the **Template** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

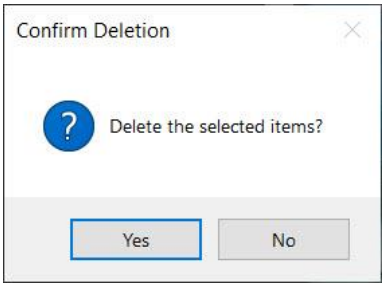


Figure 125: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Caution: **Layouts** can be deleted in bulk (from the **Details** section of the **Layouts** branch of the **System** tree in the **System Administration Client**) by clicking a **Layouts** name in the **Existing Layouts** list, holding down the **Shift** key, then clicking a second **Layouts** name. All the **Layouts** names in between the two that have been clicked, are highlighted. When the **Delete** key is then clicked, all of the highlighted **Layouts** are deleted at one time. Permission to perform this action should only by given to those who have been assigned the role of **Super Administrator** in the **System Administration Client**.

Refreshing Layouts

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload a **Template**, complete the following steps:

1. In the **Details** section of the **Template** branch, in the **Existing Templates** list, click on a **Template** to delete.
2. Click the **Refresh** button above the list. The selected **Template** has now been reloaded into the **System** database.

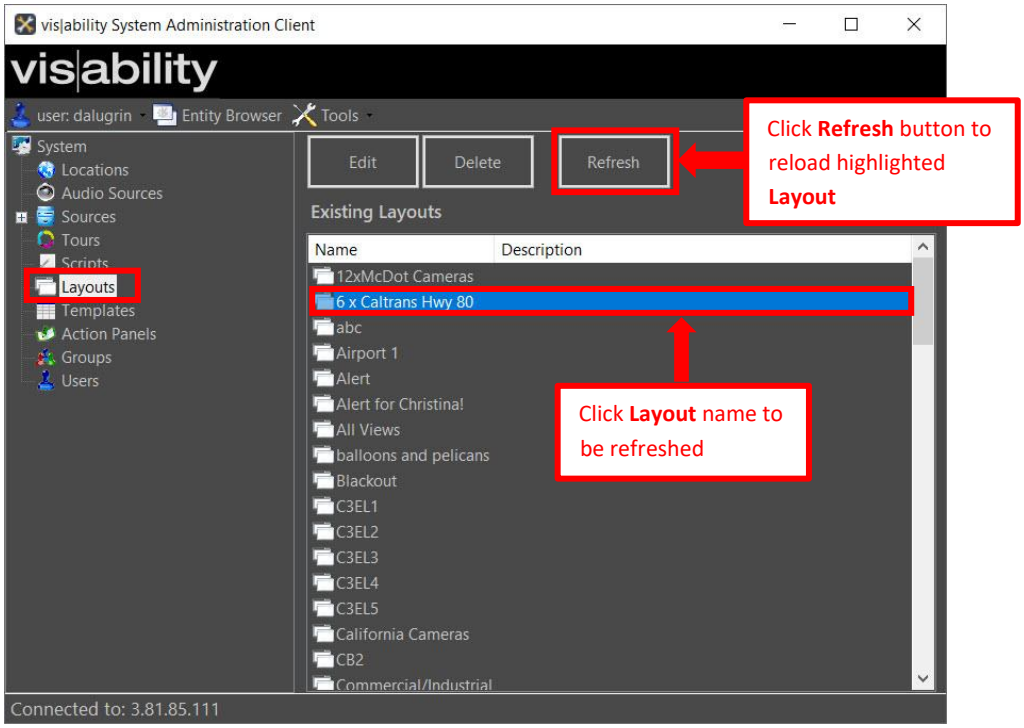


Figure 126: Existing **Network Source** highlighted to **Refresh**

Templates

Templates represent a series of placeholders for content in a specific arrangement on **vis|ability™** driven **Display** devices. **Templates** cannot be *created* in the **System Administration Client**. They can only be generated and edited from the **vis|ability™ Desktop Client** application. However, all **Templates,** created by **Desktop Client Users** are listed in the **System Administration Client**. From this interface, they can only be renamed, refreshed or deleted.

Renaming Templates

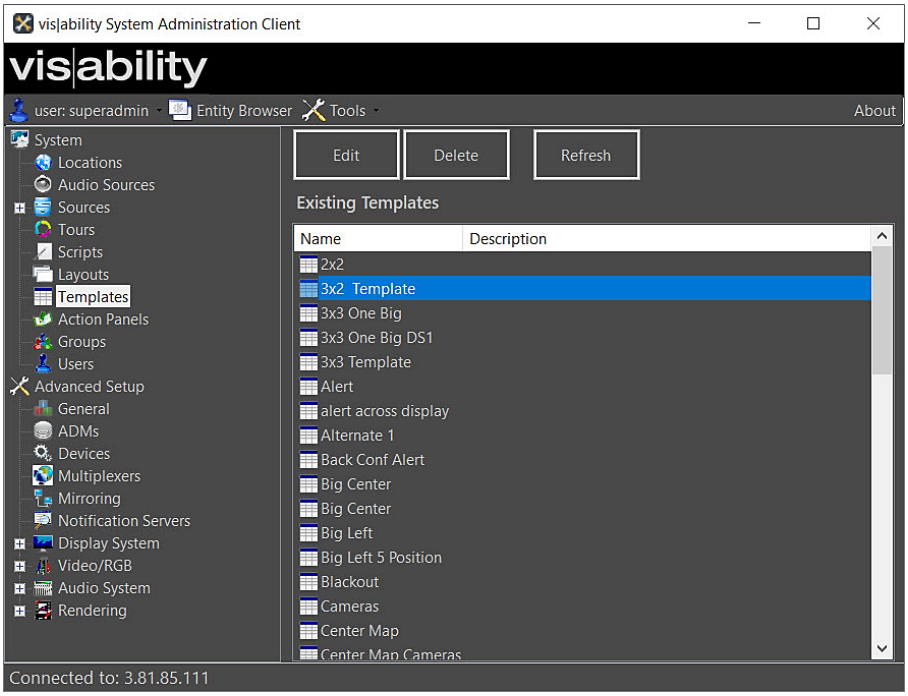


Figure 127: **Templates** branch and **Details** section with **Existing Template** highlighted

To **Rename** a **Template**, complete the following steps:

1. Click on the **Template** name to be changed (to highlight it).
2. Type a new name in the **Name** text box.
3. Click the **Update Layout** button. The new name of the **Layout** now appears in the **Existing Layouts** list of the **Details** section.
4. Click on the **Edit** button above the **Existing Template** list.

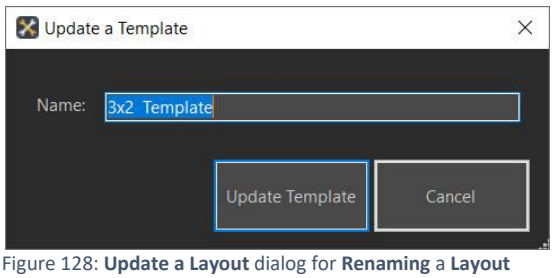


Figure 128: **Update a Layout** dialog for **Renaming** a **Layout**

Deleting Templates

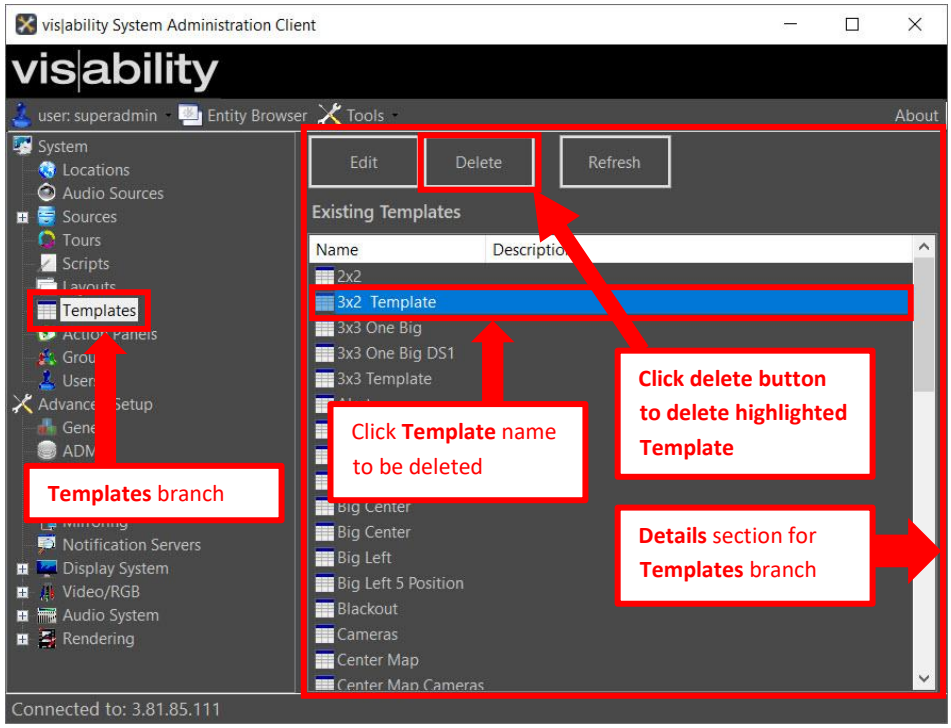


Figure 129: **Action Panels** branch and **Details** section

To **Delete** a **Template**, complete the following steps:

1. On the **Details** section of the **Template** branch of the **System** tree, click on the name of the **Template** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

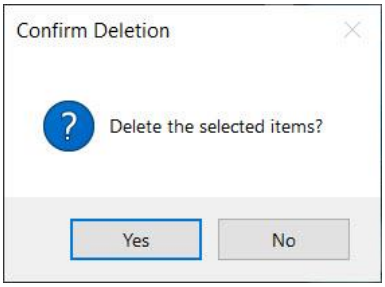


Figure 130: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Caution: **Templates** can be deleted in bulk (from the **Details** section of the **Template** branch of the **System** tree in the **System Administration Client**) by clicking a **Template** name in the **Existing Templates** list, holding down the **Shift** key, then clicking a second **Template** name. All the **Template** names in between the two that have been clicked, are highlighted. When the **Delete** key is then clicked, all of the highlighted **Templates** are deleted at one time. Permission to perform this action should only by given to those who have been assigned the role of **Super Administrator** in the **System Administration Client**.

Refreshing Templates

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload a **Template**, complete the following steps:

1. In the **Details** section of the **Template** branch, in the **Existing Templates** list, click on a **Template** to delete.
2. Click the **Refresh** button above the list. The selected **Template** has now been reloaded into the **System database.**

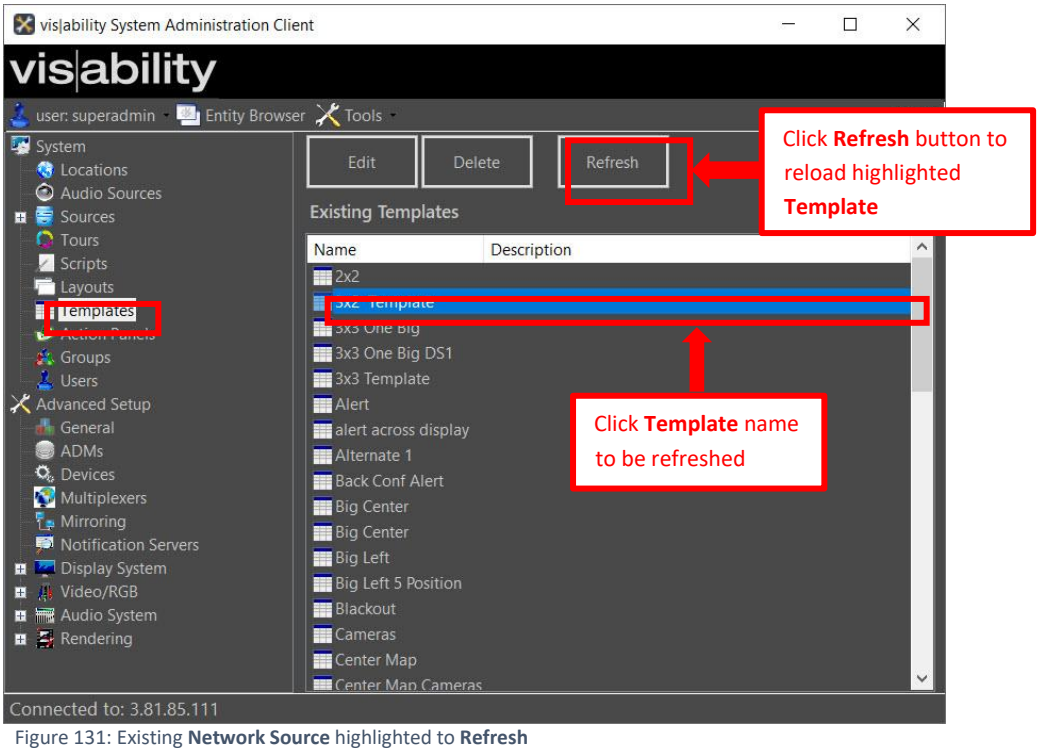


Figure 131: Existing **Network Source** highlighted to **Refresh**

Action Panels

Action Panels are screens or pages that contain buttons (**Elements**) that can be clicked by the **User** to perform an assigned action or task (as shown in the figure below). Various **Elements** can be created and placed on an **Action Panel**, formatted and assigned specific actions to execute. Specific types of **Elements** can also be linked to other **Elements** or **Action Panels** or can display web sites. They can be inserted into **Scripts** where necessary, such as when launching one **Action Panel** from another.

Action Panels are **Created**, **Edited** and **Formatted** in the **vis|ability™ Desktop Client** application. In general, this should only be done by administrators, who have permissions to do so by default. For **End Users** to be able to access the **Action Panel Designer**, the **Standard Users** option must be assigned **Action Panel Editing** permissions for their **Group**, as well as permissions for **Script Editing**, **Script Execution** (to test **Action Panels** that are created), the **Scripts** themselves and any resources the **Scripts** may use. These permissions are done on the **System Administration Client** from the **Details** section of the **Groups** branch on the **System** tree, on the Rights tab and Scripts tab of the **Add a Group** window. **Power Users** can also be assigned these rights. The following section provides instructions for how **Administrators** can generate and work with **Action Panels**.

Tip: In the **System Administration Client**, the **Action Panels** branch on the **System** tree can only be used to **Delete** or **Refresh Action Panels**. (see Action Panels in the System Administration Client).

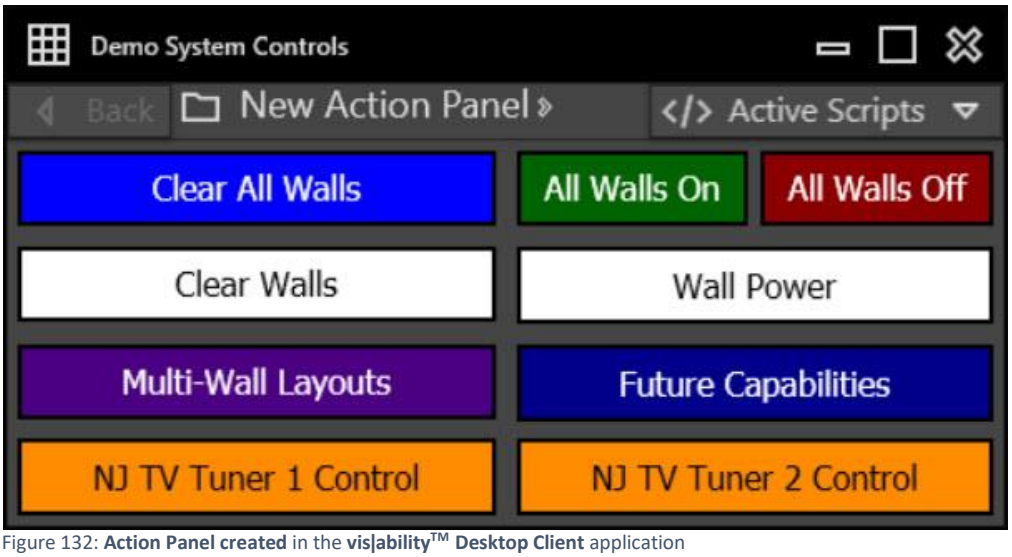


Figure 132: **Action Panel created** in the **vis|ability™ Desktop Client** application

Creating New Action Panels

To create a new **Action Panel**, complete the following steps:

1. On the **Hub** in **Desktop Client**, click the **Tools** button to display the **Tools** menu.

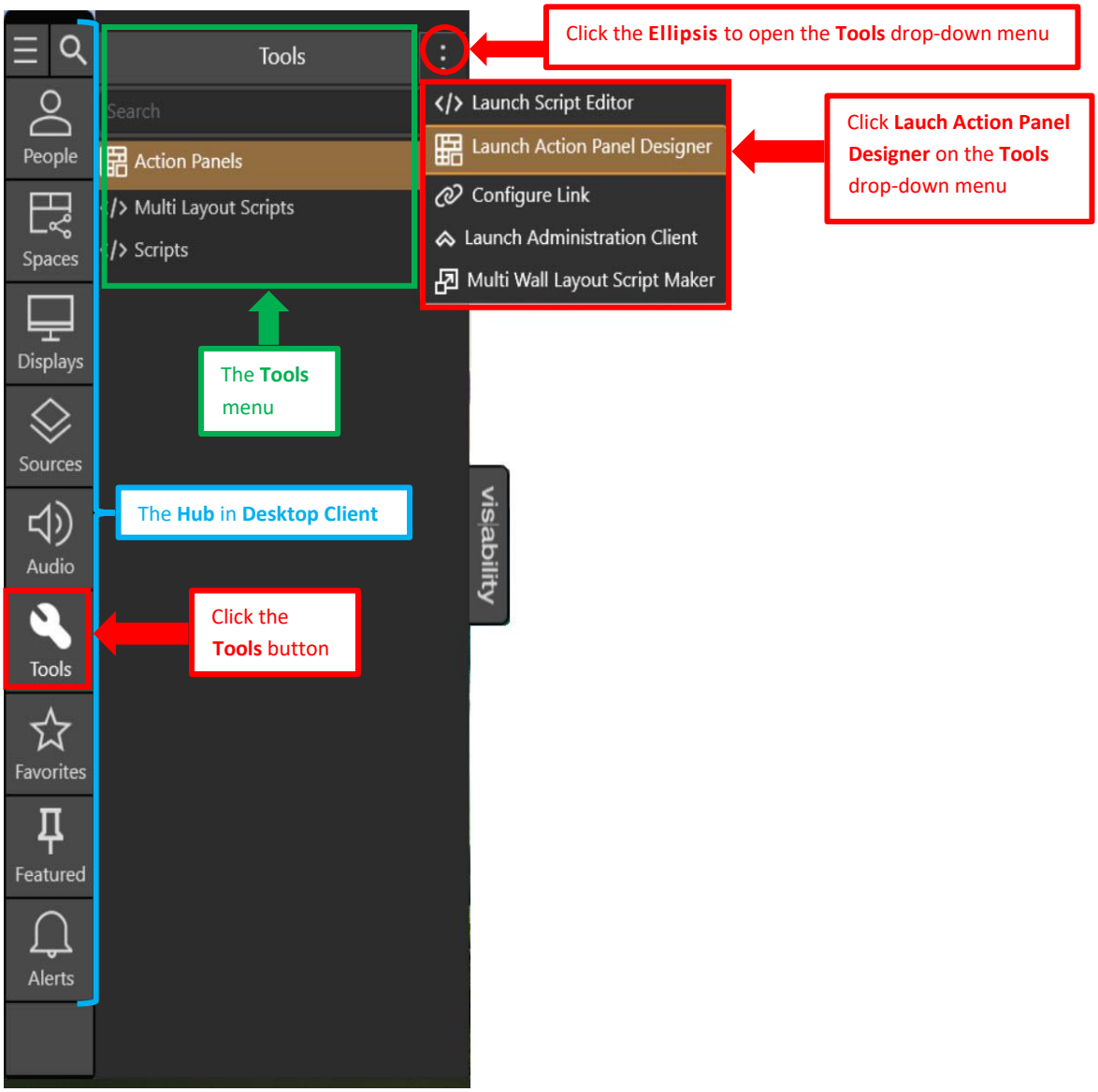


Figure 133: Click **Launch Action Panel Designer** on the **Tools** drop-down menu

2. Click the **Ellipsis** at the top, right corner to display the **Tools** drop-down menu.
3. Click **Launch Action Panel Designer** on the **Tools** drop-down menu to display the **Action Panel Designer**:

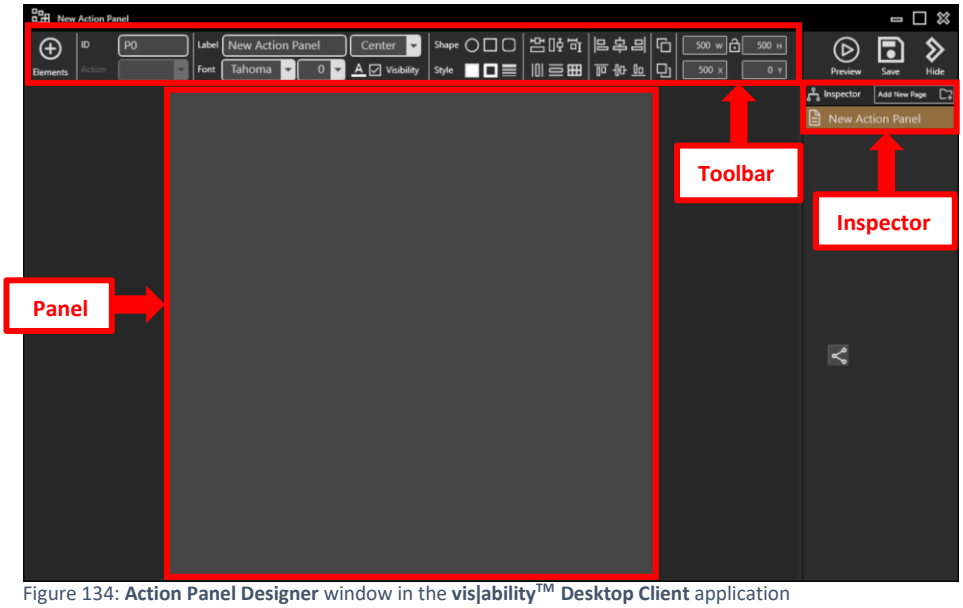


Figure 134: **Action Panel Designer** window in the **vis|ability™ Desktop Client** application

Creating New Elements on an Action Panel

1. Click the **Elements** button on the far left of the **Toolbar**...

Figure 135: The **Element** button

... to display the **Elements** drop-down menu:

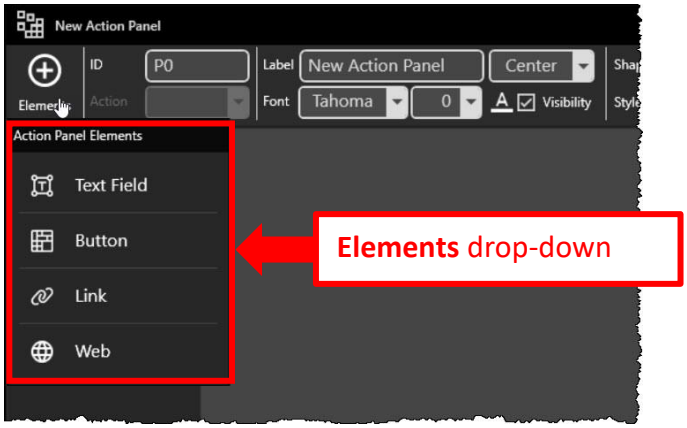


Figure 136: **Elements** drop-down menu

There are four types of **Elements** (buttons):

a) The **Button Element** becomes attached to a **Script** to perform an action.
b) A **Link Element** is used to link to another **Page** (See Error! Reference source not found.). (Example: Create one main **Action Panel** for all tuners with links to different **Pages**, one for each tuner.)
c) A **Web Element** displays a website at an assigned URL.

d) **Text Field Elements** are used to create **Labels** or plain text on the **Action Panel**. They are not active buttons or links.

2. On the **Elements** drop-down menu, click on the **Type** of **Element** to be created and drag it to the **Panel** area, in this case, the **Button Element**:

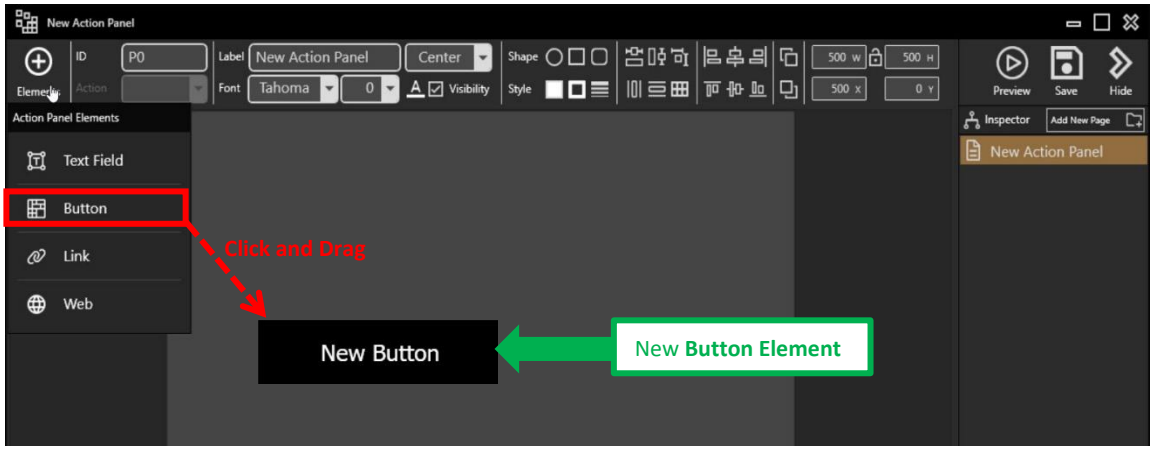


Figure 137: Drag **Element Type** from **Element** drop-down menu to the **Panel** area

Formatting Elements

The **Action Panel Designer Toolbar** has icons and sections that change according to the type of **Element** that is currently selected. The icons for the **Button** type of **Element** are described in the figure and table below:

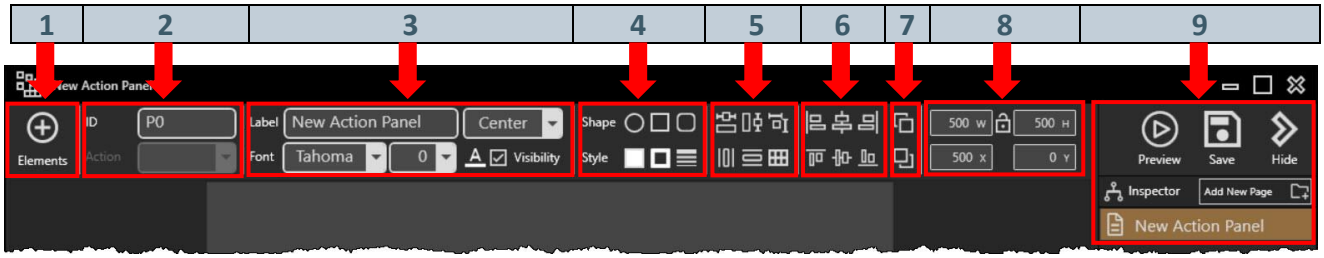


Figure 138: **Toolbar** for **Button** type of **Element** on the **Action Panel Designer** window

Table 7: **Toolbar** sections on **Button** type of **Element**

Toolbar Sections		Function
1	**Elements button**	Click to open **Elements** drop-down menu to select **Type** of **Element** (**Text Field**, **Button**, **Link**, **Web**).
2	**Element ID# and Action menu**	The **Element ID#** is automatically entered. It can be changed manually. An **Action** or **Script** can be selected from the **Action** drop-down menu to attach to a highlighted element.
3	**Element Label Creation**	A **Label** (title) for each **Element** can be created in this section.
4	**Element Shape and Style**	The **Element's Shape** and **Style** for its background and border can be formatted in this section.
5	**Element Likeness & Distribution**	Makes two or more selected **Elements** alike by weight, height or both. Distributes two or more **Elements** evenly across vertical or horizontal space.
6	**Element Alignment**	The bottom 2 values give the X and Y coordinates of the location on the **Panel**.
7	**Element Z-Order**	Sends **Element** to **Front** or **Back**.
8	**Element Size and Position**	Displays width and height values of selected **Element**. Displays coordinates of the position of the selected **Element** on the **Action Panel**. This changes when the **Element** is dragged to a new location.

The **Toolbars** for every other type of **Element** are shown below:

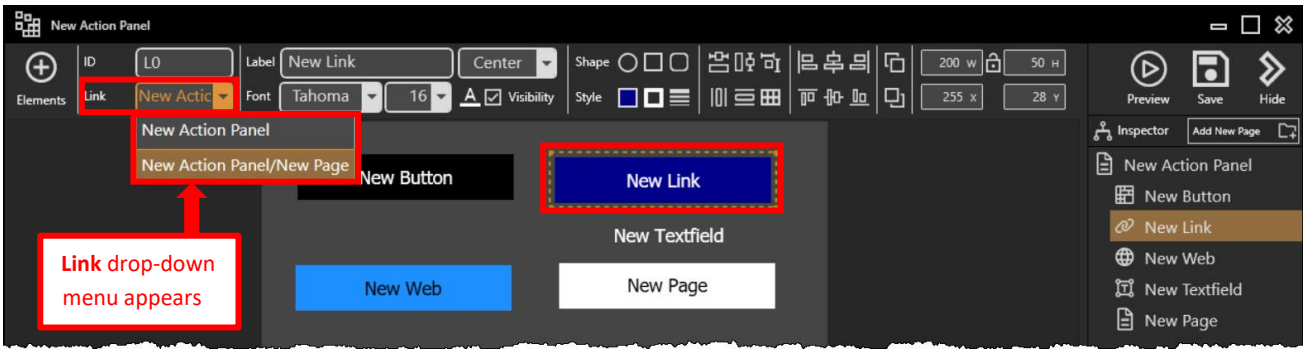


Figure 139: **Toolbar** for the **Link** type of **Element**

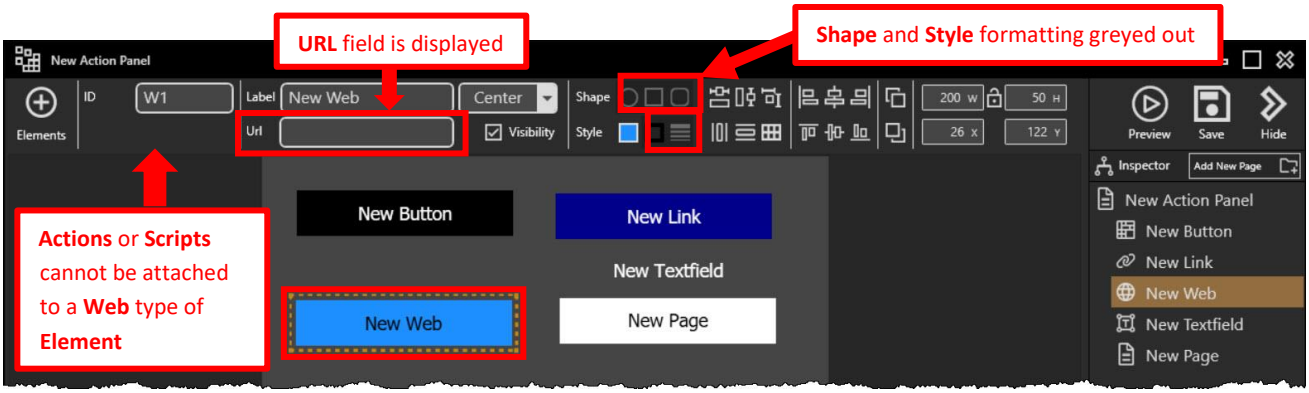


Figure 140: **Toolbar** for the **Web** type of **Element**

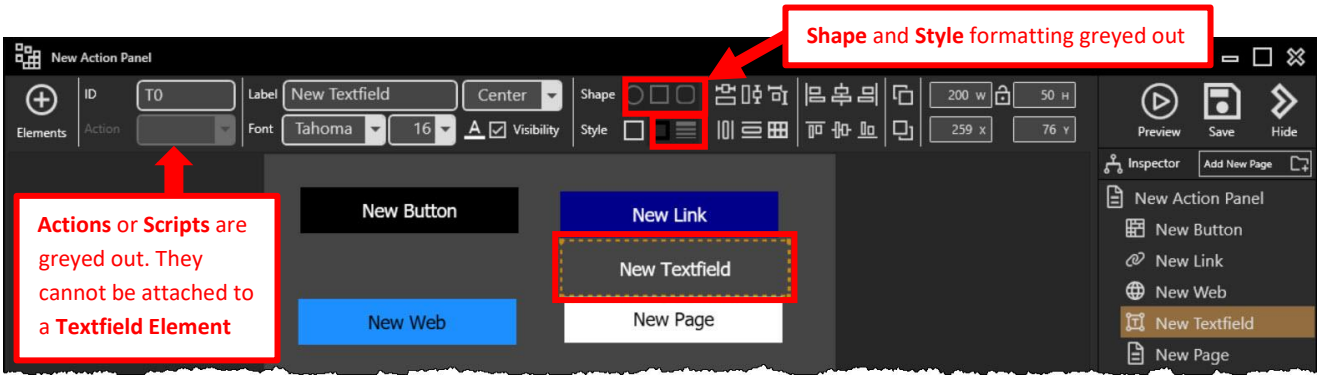


Figure 141: **Toolbar** for **New Textfield** type of **Element**

To format an **Element**, complete the following steps:

1. If the **Element** is not already highlighted, click on it to select it. This places a dotted border around the **Element** to indicate that it has been selected. The formatting on the **Toolbar** that is now designated will be applied to this **Element**.
2. Apply the following formats, if desired, to the selected **Button Element**:
    a. In the **Element ID# and Action** section of the **Toolbar**, the **Element ID #** is automatically entered in the box on top. The letters assigned to the **ID#** usually relate to the *type* of **Element** (i.e., **BO**, **B1, B2**, etc. for **Button Elements**; **L0**, **L1**, **L2**, etc. for **Link Elements**; **W0**,

W1, **W2**, etc. for **Web Elements** and **T0**, **T1**, **T2**, etc. for **Text field Elements**). If a different number is desired, type it in manually.

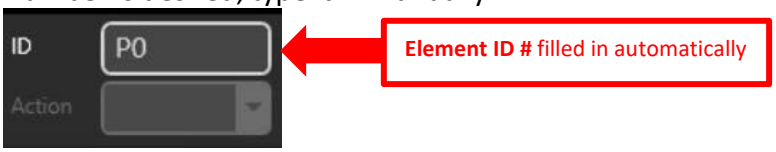


Figure 142: **Element ID#** and **Action** section of the **Toolbar**

b. Just below the **Element ID#** box, click the **Down** arrow on the right side of 

, to display the **Action** drop-down menu (for a **Button** type of **Element** only):

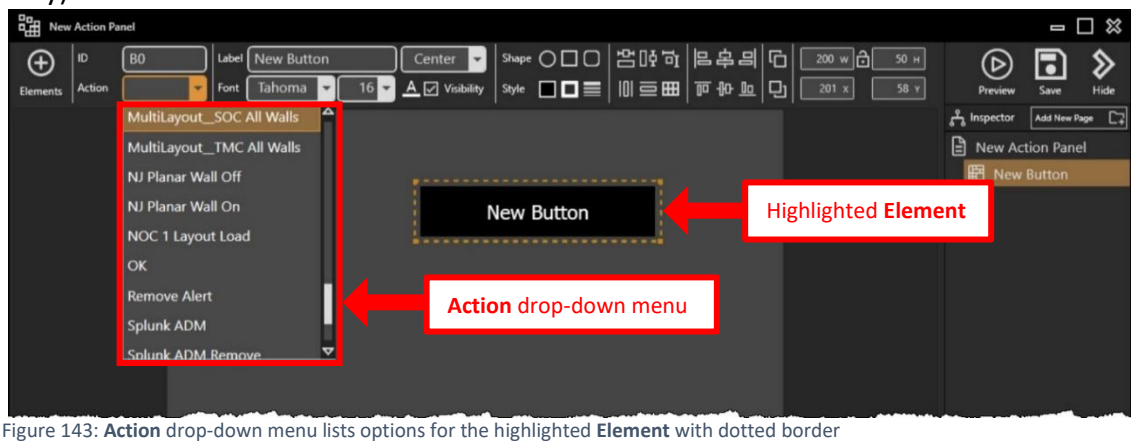


Figure 143: **Action** drop-down menu lists options for the highlighted **Element** with dotted border

c. Select a **Script** to perform the appropriate action, from the drop-down menu. In this case, **All Walls On** is the selected **Script**.

Tip: To learn more about **Scripts**, see the **vis|ability™ Scripting Guide**.

d. In the **Label** section of the **Toolbar**, type a **Label** in the **Label** box. As you type, the **Label** text appears on the selected **Element**. In this case, it is entitled, "**All Walls On**:"

Figure 144: **Label** typed in **Label** box on **Toolbar** appears on **Element**

e. If desired, change the following:

Figure 145: **Label** formatting

i. **Label Position**: Click the **Down** arrow on the **Label Position** drop-down menu to select a position for the **Label** on the **Element**.
ii. **Label Font**: Select a **Font** from the drop-down menu.
iii. **Label Size**: Select a **Size** from the drop-down menu or type it in manually.
iv. **Vis|ability**: If **Vis|ability** is unchecked for a selected **Element**, the **Element** will not show up on the **Action Panel** window that is seen by the end **User**.

Figure 146: Check or uncheck **Visability**

v. **Label Text Color:**
   1. Click the **Label Text Color** icon  to the right of the **Label Size** menu, to display the **Choose a Color Pallet**:

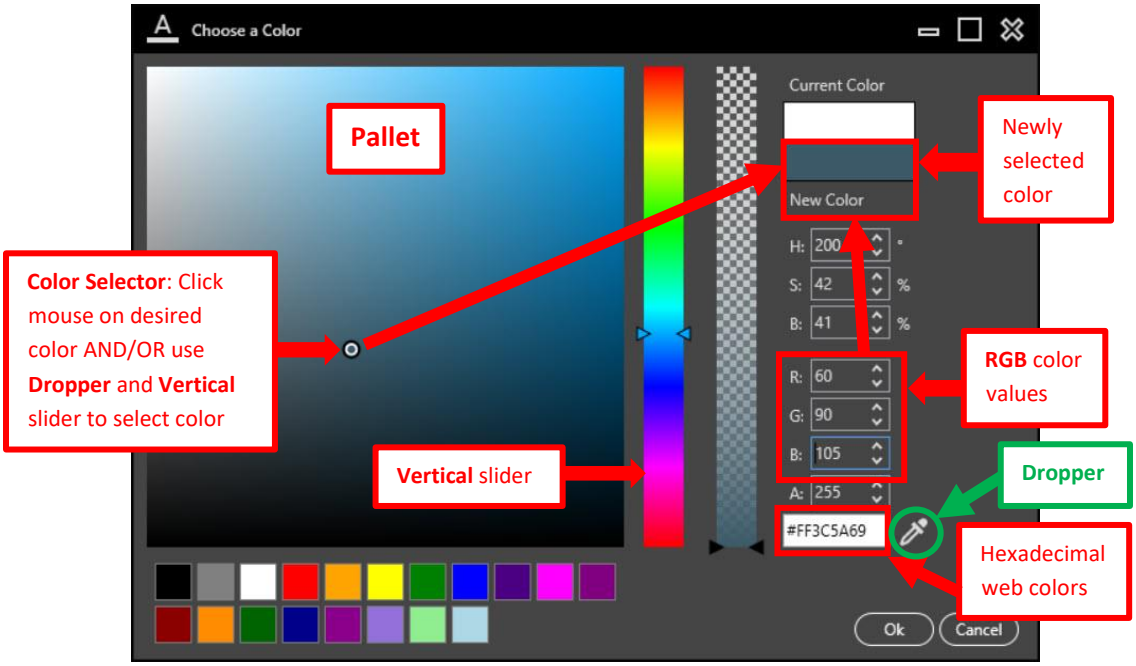


Figure 147: **Choose a Color Pallet**

2. Select a color for the **Label Font** by clicking the mouse and dragging it onto the **Color Pallet** until the desired color is displayed in the bottom half of the **New Color** box, at the top right of the window.

   OR

   A second method is to enter **RGB** values in the fields to the right (Example in figure above: **Red: 60**, **Green: 90**, **Blue: 105**). Hexadecimal triplets for web colors can also be entered in the white box at the bottom right (Example: **#FF3C5A69**), representing the same color expressed with **RGB** values as red, green, and blue. Whatever color has been entered as values to the right, is automatically displayed in the **Color Selector** and the bottom half of the **Current Color** box at the top-right of the **Pallet**.

   OR

   A third method of selecting a color can be done by clicking on the **Dropper**, letting the mouse go, then dragging the mouse onto the **Color Pallet** or **Vertical Slider**, until the desired color is displayed in the **New Color** box, or the desired hexadecimal (web) color number appears on the pallet. When the desired color is selected, click the **Ok** button:

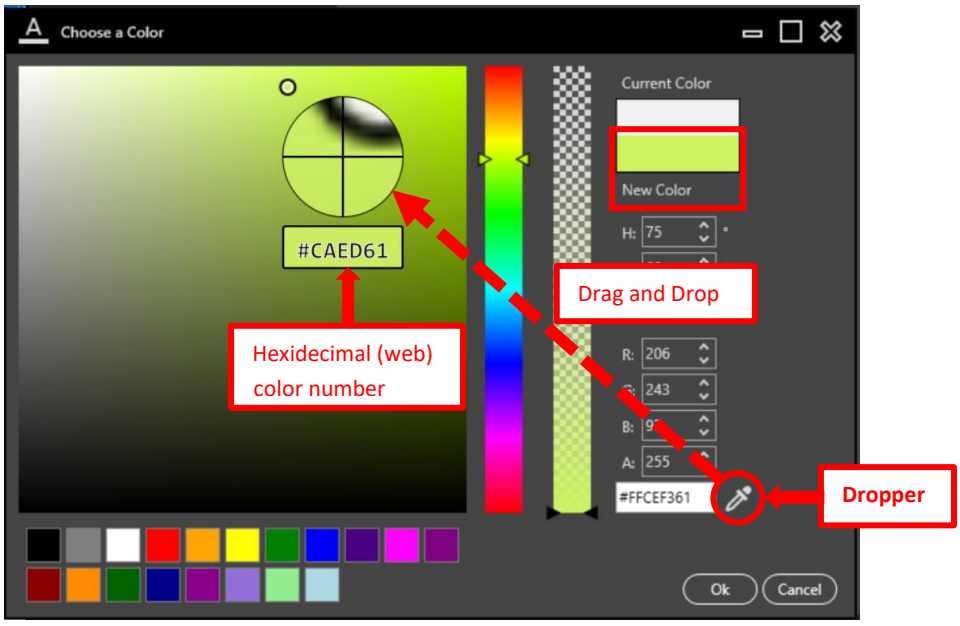


Figure 148: Click **Dropper**, then drag to Pallet or Slider

3. Click the **Ok** button to display the new **Label** with the applied new formatting on the selected **Element**:

Figure 149: **Label Font** color changed

f. If the background color of the **Label** does not stand out enough against the **Font** color, the background should be changed to a more contrasting color. In the **Element Shape and Style** section of the **Toolbar**, click the **Label Background Color** icon to open the Choose a Color Pallet again:

Figure 150: **Element Shape and Style** section of the **Toolbar**

g. On the **Color Pallet** select an **Element Background** color in the same way that the **Label Text Color** was selected in the previous step (see Select a color).

h. Click the **Ok** button to display the new background color on the selected **Element**:

Figure 151: **Element** background color changed to be more contrasting with **Font** color

i. To change the **Shape** of the **Element**:
   i. Be sure that the **Element** to have its **Shape** changed, is selected.

ii. In the **Element Shape and Size** section of the **Toolbar**, click one of the **Shape** icons (**Oval**, **Square** or **Rounded Corners**), to display...

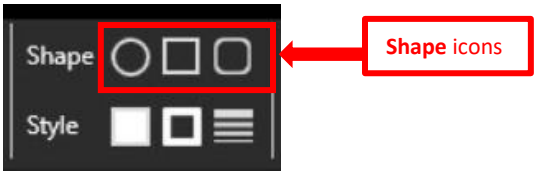


Figure 152: **Element Shape** icons on the **Toolbar**

.... the **Element** with the new **Oval Shape**:

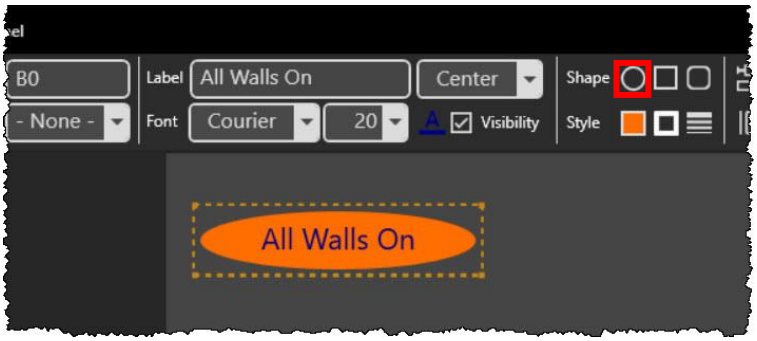


Figure 153: **Element Shape** changed to **Oval**

or the new **Rounded Corner Shape**:

Figure 154: **Element Shape** changed to **Rounded Corner**

j. To change the color and thickness of the **Element Border**:

i. Select the **Element** if it is not already selected.

ii. Click on the **Border Color** icon to display the **Choose a Color Pallet**.

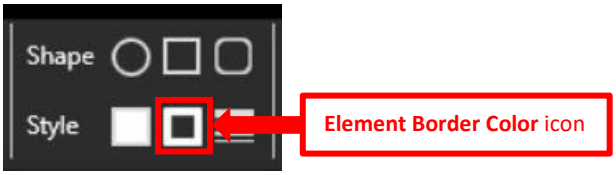


Figure 155: **Element Border Color** icon on the **Toolbar**

iii. Select a color for the **Border** in the same way done to select a **Text** and **Background** color on the **Choose a Color Pallet** (see Select a color).

iv. Click on the **Element Border Thickness** icon:

Figure 156: **Element Border Thickness** icon on the **Toolbar**

Click on the appropriate width for the **Border** on the drop-down menu. The **Element** is displayed with a new **Border**:

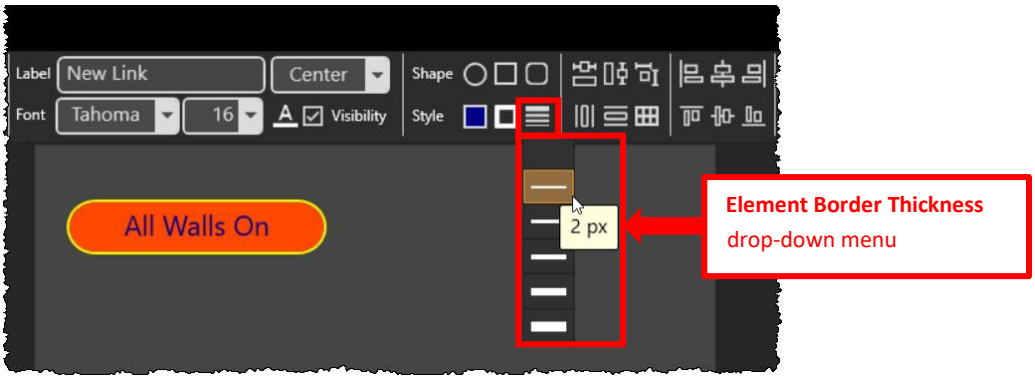


Figure 157: **Element Border Thickness** drop-down menu

Tip: To **Remove** a **Border**, click in the "**0 px**" blank space above the thinnest width bar on the **Element Border Thickness** drop-down menu:

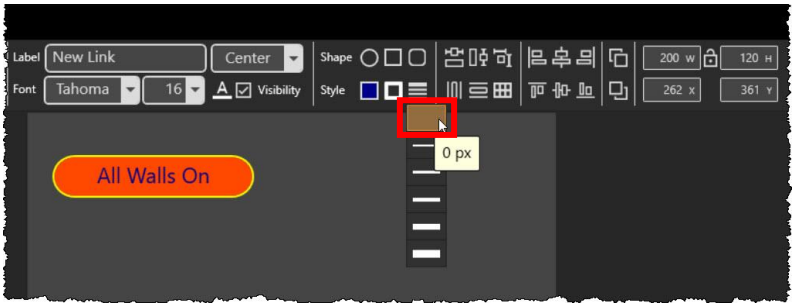


Figure 158: To **Remove** a **Border**, click "**0 px**" blank space above thinnest bar on **Border Thickness** drop-down menu

k. The next three sections of the **Toolbar** are used when more than one **Element** has been created. To create several more **Elements** on this **Action Panel**, complete the same steps that were done to create the first **Element** (see Elements button). Create one of each **type** of **Element** and position them all over the **Action Panel** (see Move an Element to a different Position) with different heights and widths. The mouse can be hovered over an **Element** edge to display a **Double Arrow**, then clicked and dragged to make it taller or wider, as shown below. A corner of the **Element** can also be clicked and dragged in or out, to change the width and height at the same time.

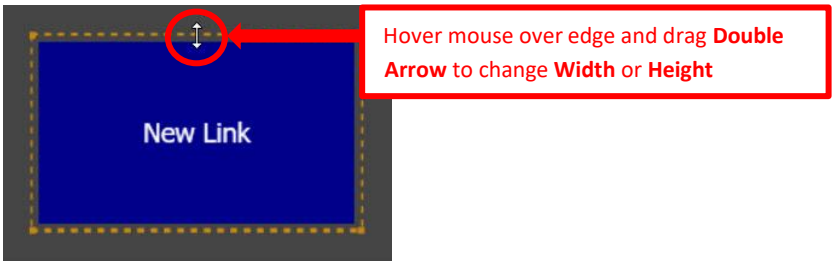


Figure 159: Hover mouse over any Element edge and drag to change Width or Height

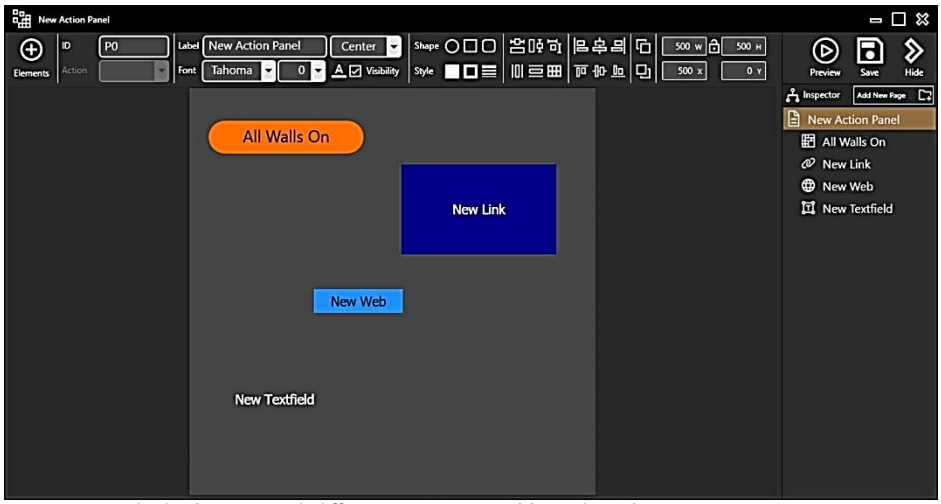
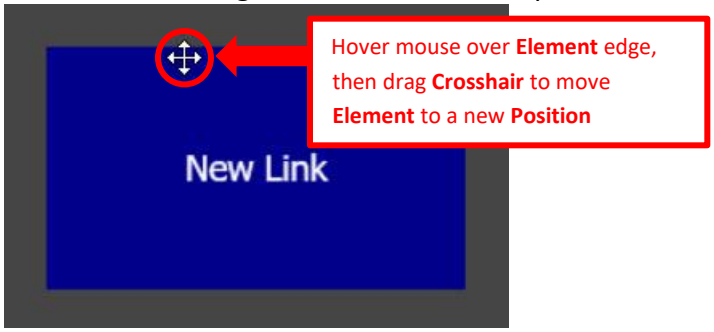


Figure 160: Multiple **Elements** with different **Positions**, **Widths** and **Heights**

Tip: To **Move** an **Element** to a different **Position** on an **Action Panel**, hover the mouse over the **Element's** edge until a **Crosshair** is displayed, then drag the mouse to a new location. Let go of the mouse to drop the **Element**



in the new **Position**.

Figure 161: Hover mouse over **Element** edge until see **Crosshair**, then drag **Element** to a new **Position**

l. Highlight more than one **Element** by clicking the first one, then pressing the **SHIFT** (or **CONTROL**) key. Keeping the **SHIFT** (or **CONTROL**) key held down, click on additional

Elements to select multiple **Elements** at one time. As each **Element** is clicked, a dotted border is added to it.

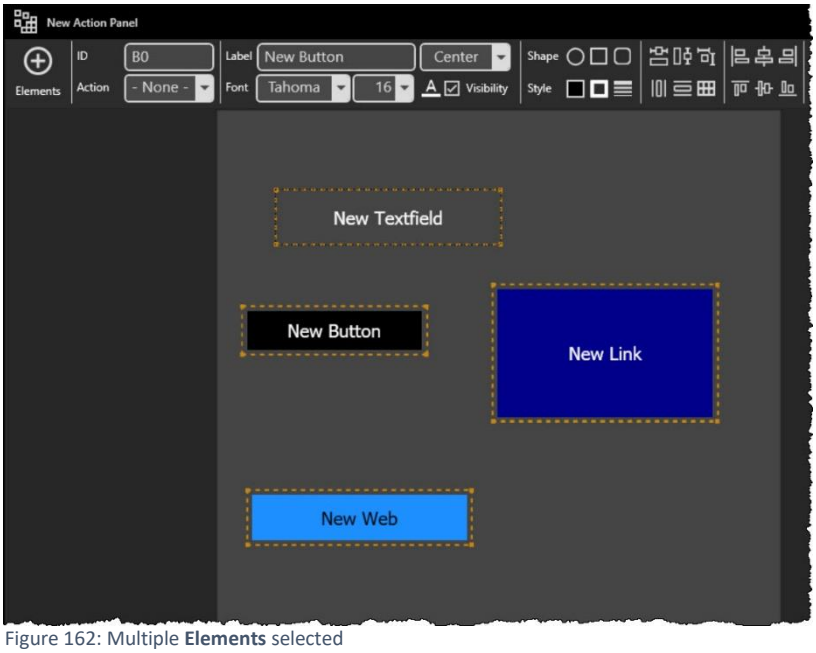


Figure 162: Multiple **Elements** selected

Formatting can now be applied to all the selected **Elements**.

m. The icons in the **Likeness and Distribution** section of the **Toolbar** are as follows:

Figure 163: **Likeness and Distribution** section of the **Toolbar**

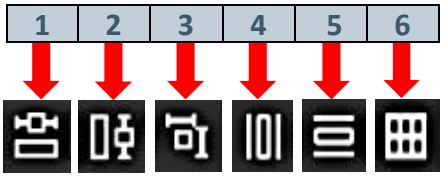


Table 8: Likeness and Distribution icons on the Toolbar

Icons		Function
1	**Width Match**	Two or more selected **Elements** are made to match the width of the **Element** that was selected first.
2	**Height Match**	Two or more selected **Elements** are made to match the height of the **Element** that was selected first.
3	**Both Match**	Two or more selected **Elements** are made to match both width and height of **Element** selected first.
4	**Distribute Horizontal**	Multiple selected **Elements** are distributed evenly across horizontal space
5	**Distribute Vertical**	Multiple selected **Elements** are distributed evenly across vertical space

6	**Tile**	Multiple selected **Elements** are sized and positioned equally into tiled spaces.

n. Be sure two or more of the **Elements** are selected.

o. Click on the **Height Match** icon in the **Likeness and Distribution** section to see the effect on the selected **Elements**:

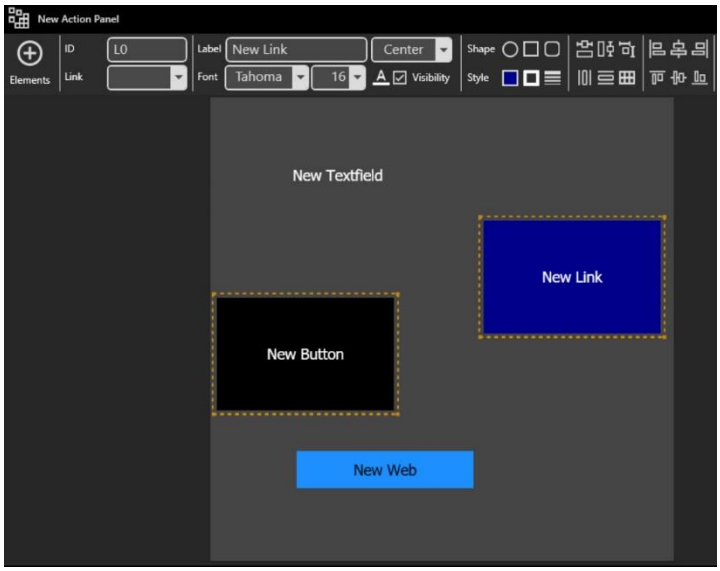


Figure 164: Two selected **Elements** made the same height as the first selected **Element** (the dark blue **Link Element**)

p. Change the various **Elements** to differing widths and heights, as shown below:

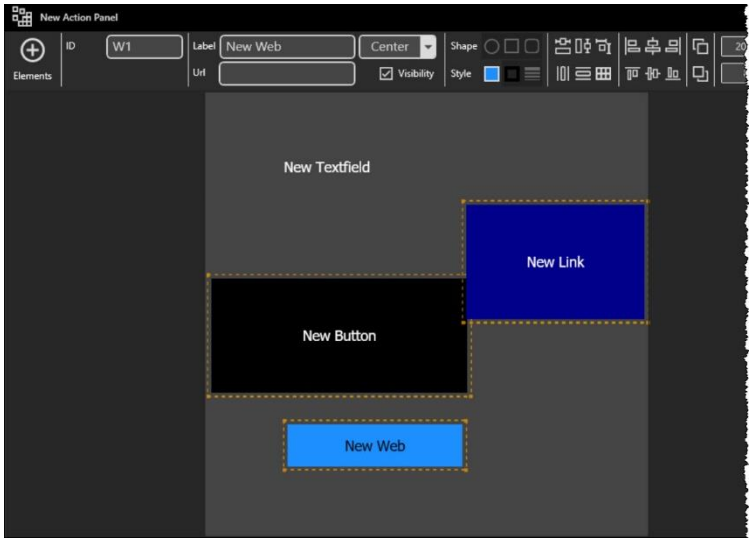


Figure 165: **Elements** with different widths and heights

q. Select multiple **Elements**, then click on the **Both Match** icon to see the effect on the selected **Elements**:

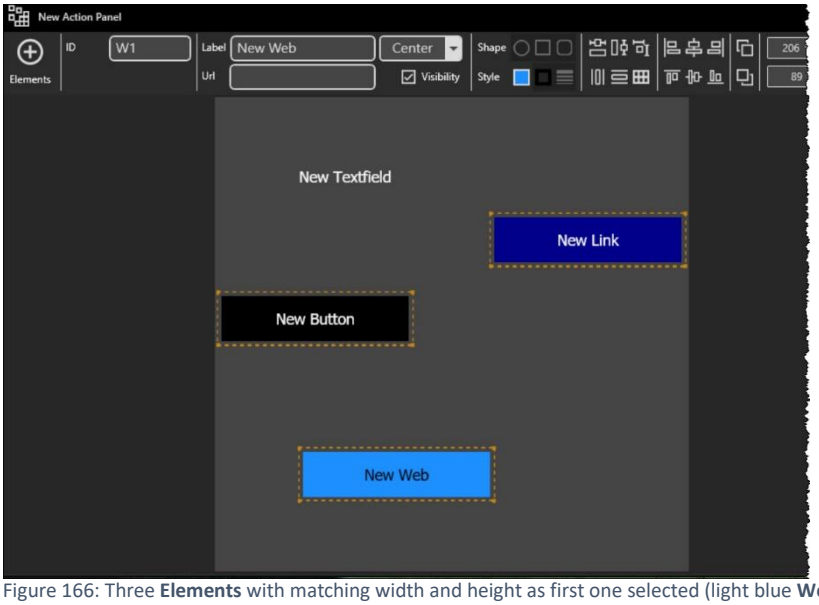


Figure 166: Three **Elements** with matching width and height as first one selected (light blue **Web Element**)

All the selected **Elements** are now both the same **Width** and **Height**.

r. The icons in the **Element Alignment** section of the **Toolbar** are as follows:

Figure 167: **Element Alignment** section of the **Toolbar**

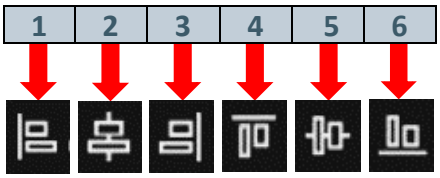


Table 9: Element Alignment icons on the Toolbar

Icons		Function
1	**Align Element Left**	Two or more selected **Elements** are aligned on the left side of the **Element** that was selected first.
2	**Align Element Center**	Two or more selected **Elements** are aligned at the center point of the **Element** that was selected first.
3	**Align Element Right**	Two or more selected **Elements** are aligned on the right side of the **Element** that was selected first.
4	**Align Element Top**	Multiple selected **Elements** are aligned at the top side of the **Element** that was selected first.
5	**Align Element Middle**	Multiple selected **Elements** are aligned at the middle point of the **Element** that was selected first.
6	**Align Element Bottom**	Multiple selected **Elements** are aligned on the bottom side of the **Element** that was selected first.

s. Each of these icons work in the same way that the icons for the **Likeness and Distribution** section do:
    i. Click on multiple **Elements** to apply formatting to them.
    ii. Click on one of the **Alignment** icons to align the **Elements** with one another according to one of the sides or center points of the **Element** that was selected first.

t. The next section on the toolbar is the **Element Z-Order** section.

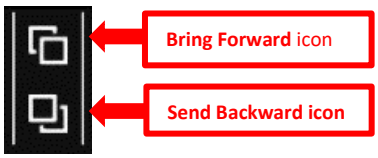


Figure 168: **Element Z-Order** section of the **Toolbar**

u. Position one **Element** behind another **Element**, as shown below:

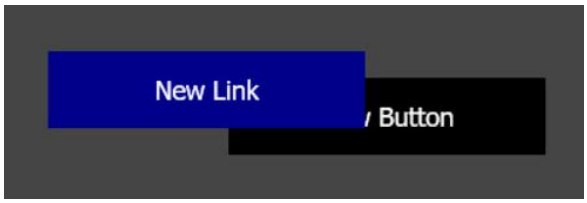


Figure 169: **Z-Order**: One **Element** in front, one **Element** in back

v. Click on the **Element** in front, then click on the **Send Backward** icon in the **Z-Order** section. The **Element** that was in front, is now behind the other **Element**:

Figure 170: **Z-Order**: The Element that was in front is now in the back

w. Click on the **Bring Forward** icon to bring the **Element** back to the front again.

x. The last section on the toolbar, on the far right, is the **Element Size and Position** section:

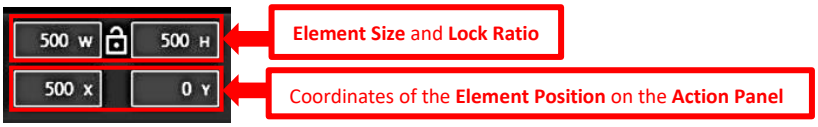


Figure 171: **Element Size and Position** section of the **Toolbar**

    i. The top two boxes in the **Element Size and Position** section, display the **Width** and **Height** of the selected **Element**. Clicking the **Lock** icon in the middle of the **Width** and **Height** boxes, locks the ratio of the **Width** to the **Height** of the selected **Element**, no matter what size it is changed to.

ii. The bottom two boxes display the coordinates of the position of the selected **Element** on the **Action Panel**.

The Inspector

Refer to the **vis|ability Desktop Client User's Guide** to learn more about the Inspector.

Action Panels in the System Administration Client

In the **System Administration Client**, on the **System** tree, the **Action Panels** branch can be used only to **Delete** or **Refresh Action Panels**.

Deleting Action Panels

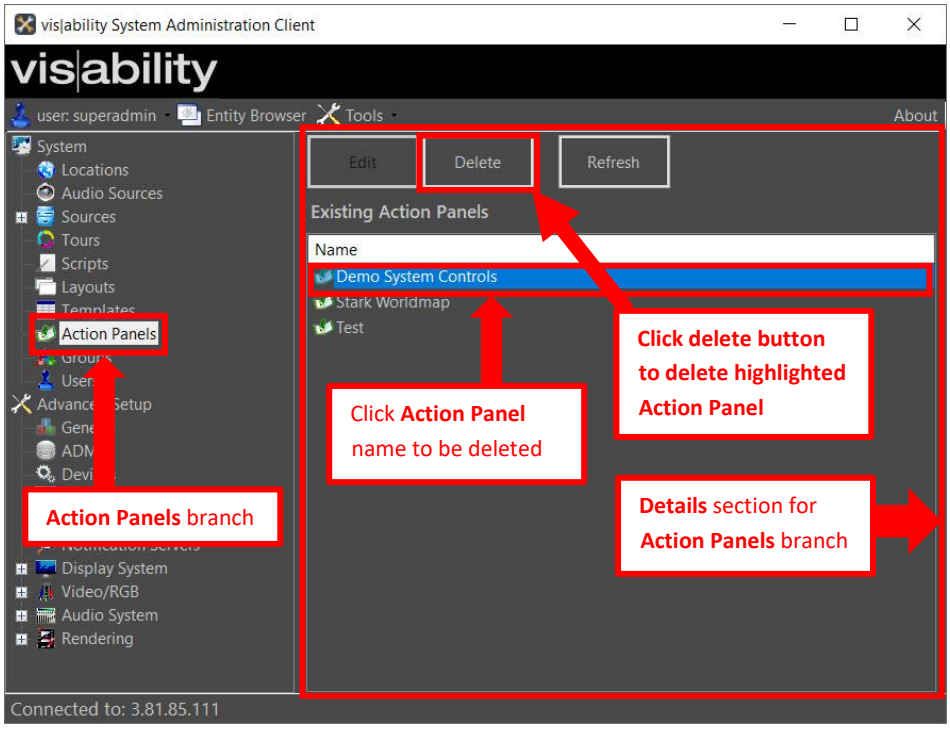


Figure 172: **Action Panels** branch and **Details** section

To **Delete** an **Action Panel**, complete the following steps in the **System Administration Client**:

1. On the **Details** section of the **Action Panel** branch of the **System** tree, click on the name of the **Action Panel** to be deleted, in the **Existing Sources** list.
2. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

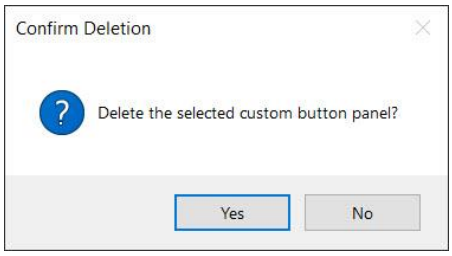


Figure 173: **Confirm Deletion** dialog box

3. Click the **Yes** button to complete the deletion and **No** to cancel the deletion.

Refreshing Action Panels

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload an **Action Panel**, complete the following steps in the **System Administration Client**:

1. In the **Details** section of the **Action Panel** branch, in the **Existing Sources** list, click on an **Action Panel** to delete.
2. Click the **Refresh** button above the list. The selected **Action Panel** has now been reloaded into the **System** database.

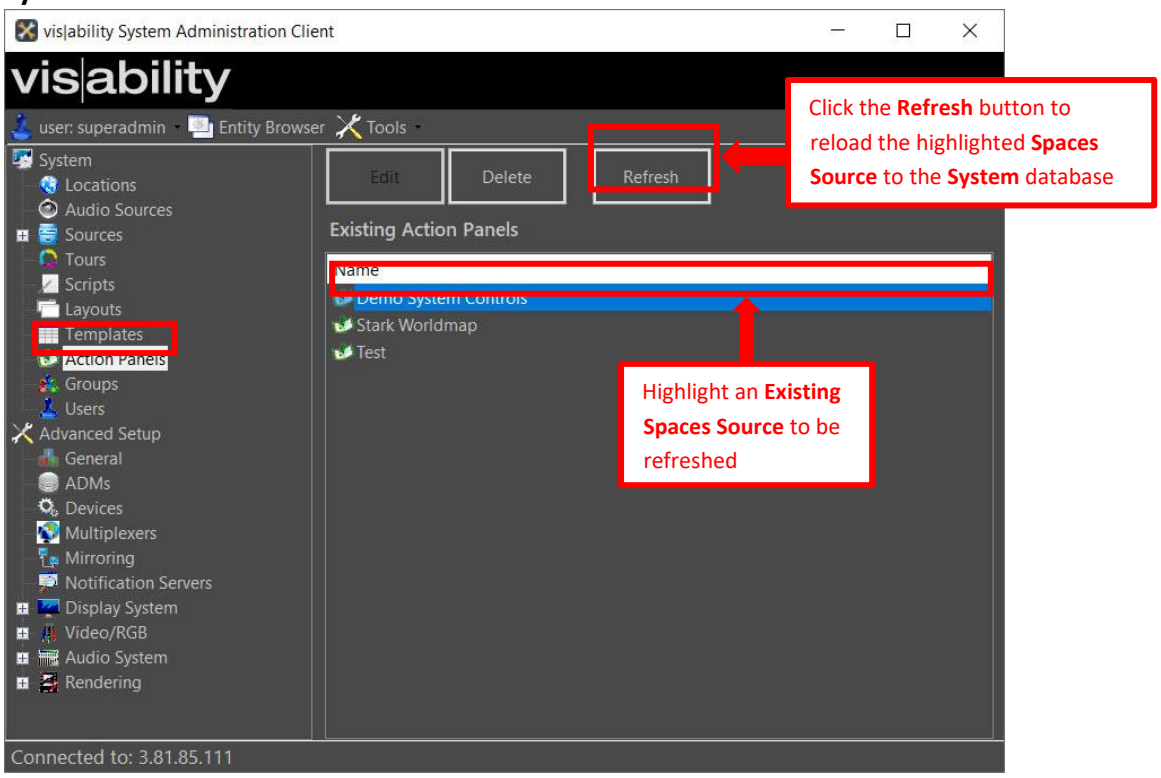


Figure 174: Existing **Action Panel** highlighted to **Refresh**

Action Panel Object Types

Refer to the **vis|ability Desktop Client User's Guide** to learn more about Action Panel Object Types.

Permissions

Groups

Permissions, in the **vis|ability™ System Administration Client**, are similar to **Permissions** for **Windows** or other operating systems. Different **Groups** are created with designated rights. **Users** that are added to specific **Groups**, automatically have the rights of their assigned **Group**. **Groups** are not licensed, but **Users** are (see Users).

Adding a New Group

To **Add a Group** to the system database, complete the following steps:

1. Click the **Groups** branch on the **System** tree:

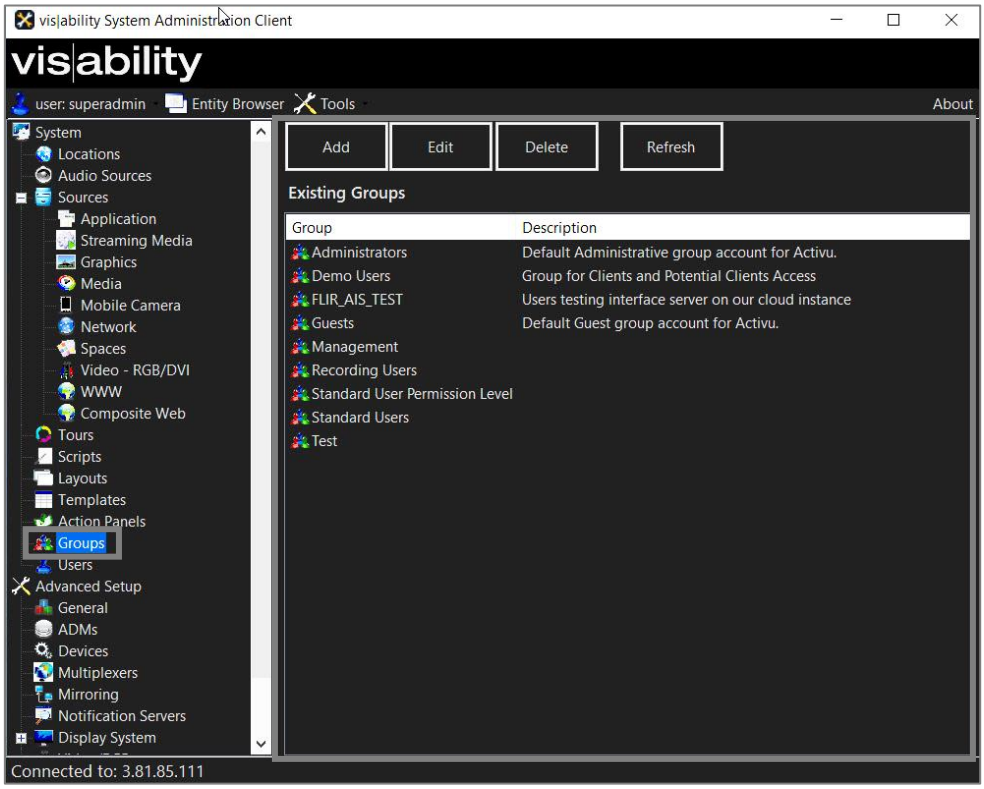


Figure 175: **Groups** branch and **Group Details** section

2. In the **Details** section for **Groups**, click the **Add** button at the top of the screen, above the **Existing Groups** list, to display the **Add a Group** window:

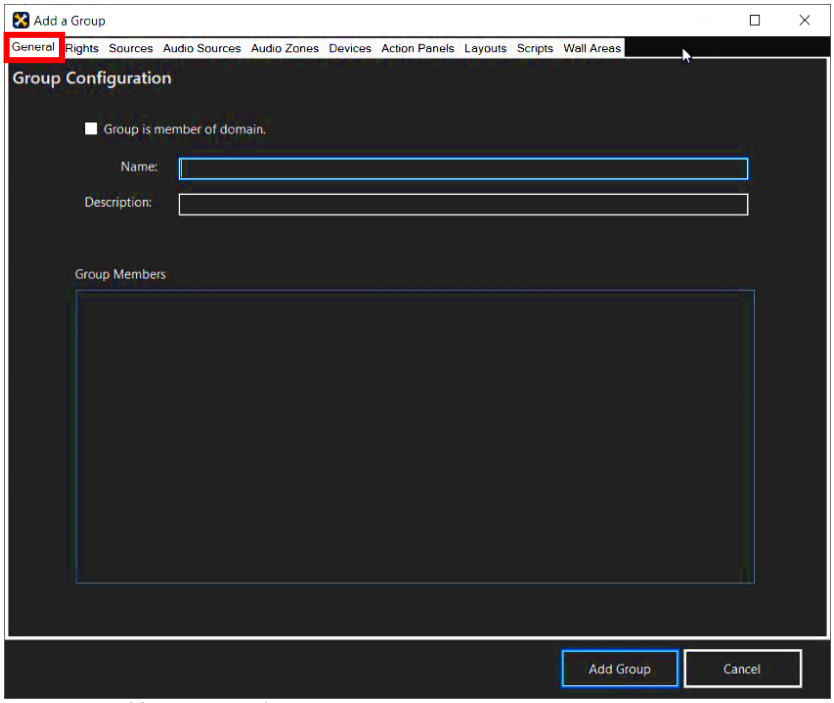


Figure 176: **Add a Group** window

3. On the **General** tab, enter the following parameters:
    a. **Group is member of domain**: Leave the check box next to this field unchecked unless the system is using **Windows Active Directory** authentication. If the system *is* using **Windows Active Directory** authentication:
        i. Check the box to the left of the **Group is member of domain** field to display the **Select Domain Group** button.
        ii. Click the **Select Domain Group** button.
        iii. Type an LDAP path (path to the Windows Active Directory), such as **ldap.company.com**, in the dialog that appears. This directs the system to connect to the **Windows Active Directory** to query **Groups** and **Users**:

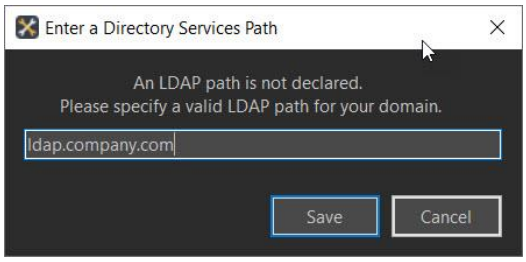


Figure 177: **Enter a Directory Services (LDAP) Path** dialog

        iv. Click the **Save** button.
        v. Click **Search**. A list of existing **Domain Groups** found in the query appears in the **Group Members** box.

vi. A **Message** box appears verifying that the new **Group** should be added to the **System** database named:

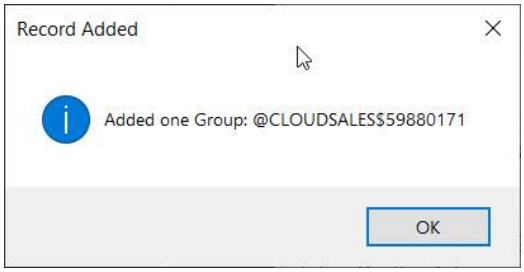


Figure 178: **Record Added** verification message box

vii. Click the **OK** button to complete the addition of the new **Group**.

b. **Name**: Type in the **Name** for this **Group**. It is a good idea to use a name that indicates the category of **Users** that will be added to the **Group**.

c. **Description**: This field is optional.

d. **Group Members**: Once a **User** is added to this **Group** (see Creating New Users and Adding Them to Group), it is listed in this box.

e. Click the **Add Group** button at the bottom of the screen to execute the new parameters on the **General** tab.

4. On the **Rights** tab, enter the following parameters:

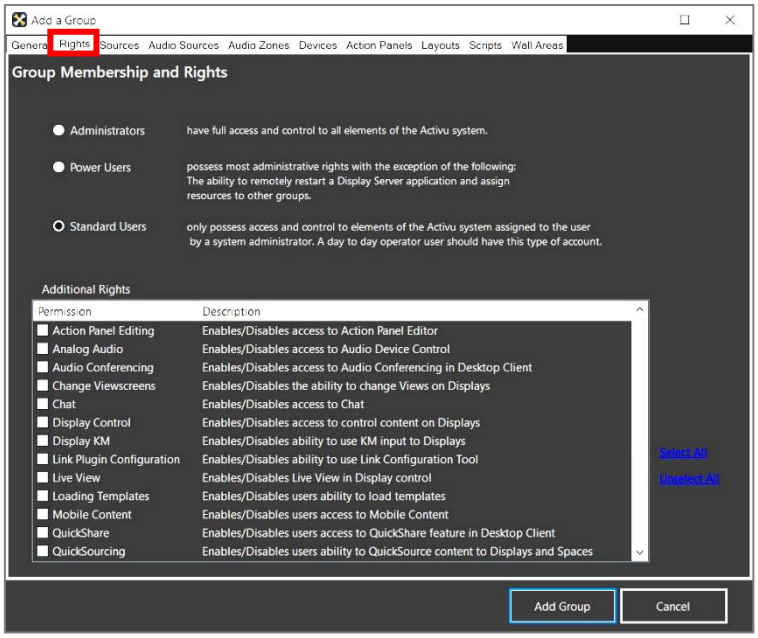


Figure 179: **Add a Group** window - **Rights** tab

a. **Group Membership and Rights**: A description of the **Rights** assigned to each type of **User** is displayed to the right of each category. Click the radio button to the left of one of the categories of **Users**:

i. **Administrators** have permissions to access all functions.

ii. **Power Users** have access to functions that cannot do damage to the system.
iii. **Standard Users** do not have any rights to special functions unless specific **Additional Rights** on the **Rights** tab of the **Add a Group** window, are added to their category or access to **Source** types or other system components are added to the **Group** on the various tabs of the **Add a Group** window.

Additional Rights: When the **Administrators** category is clicked, all **Additional Rights** in the list below are automatically checked. When either **Power Users** or **Standard Users** are clicked, none of the **Additional Rights** are automatically checked. They must be manually added to that category by placing a checkmark next to the **Right** to be added. For the selected category of **Users**, click on any addition **Rights** to be assigned to that category, or click Select All to the right, to select all **Rights** in the list at one time. **Note:** Unselect All can also be clicked to *uncheck* all **Rights** in the list at one time.

b. Click the **Add Group** button at the bottom of the screen to execute the new parameters on the **Rights** tab.

5. On the **Sources** tab, enter the following parameters:

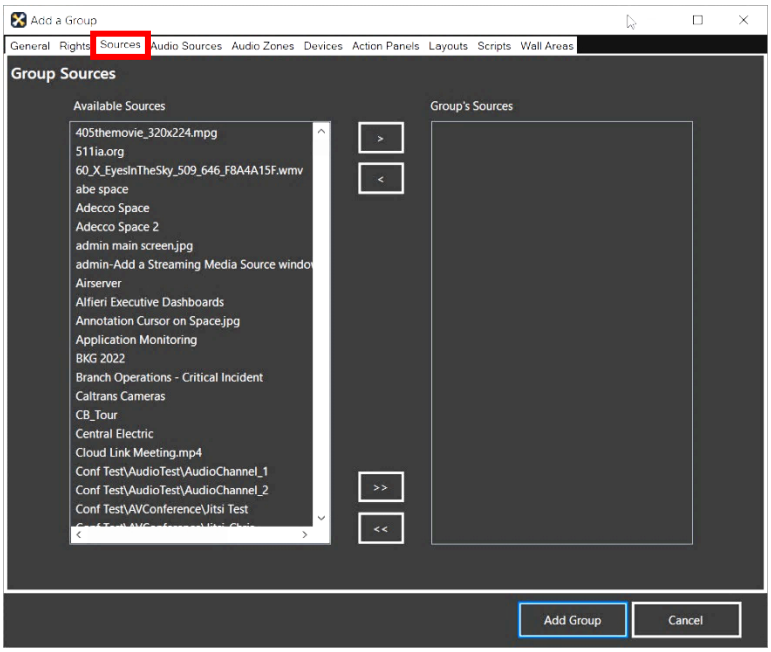


Figure 180: **Add a Group** window - **Sources** tab

a. **Group Sources**: **Sources** can be made available to the **Group** by moving them from the **Available Sources** list to the **Group's Sources** list. This can be done by highlighting a desired **Source** in the list on the left, then clicking the **Single Right Arrow** button that moves the **Source** to the right onto the **Group's Sources** list. Multiple **Sources** can be moved at one time by highlighting a **Source**, holding down the **Shift** key, then clicking a non-adjacent **Source**. All **Sources** in between the two clicked **Sources** are now highlighted and can be moved to the right at one time by clicking the **Single Right Arrow** button. *All* **Sources** in the **Available Sources** list can be moved at one time to the

list on the right, or back again, by using the **Double Right Arrow** and **Double Left Arrow** buttons.

b. Click the **Add Group** button at the bottom of the screen to execute the new parameters on the **Sources** tab.

6. With each of the remaining tabs on the **Add a Group** window (from the **Audio Sources** tab through the **Scripts** tab, including **Audio Zones**, **Devices**, **Action Panels** and **Layouts**), except for **Wall Areas**, **Group** permissions for each component are done in the same way they are done on the **Sources** tab, by moving the desired components from the list on the left to the list on the right, using the **Single** or **Double Arrow** buttons. On each tab, once rights for the desired component have been added to the **Group**, click the **Add Group** button at the bottom of the screen to execute the new parameters.

Important: Particularly when granting **Permissions** for **Action Panels** and **Scripts**, it is important to be aware of what other components they are utilizing. For example, if **Rights** are given to access certain **Action Panels** that are linked to various **Scripts** or any other components, **Rights** to those **Scripts** and other components must also be granted. If **Rights** have been given to a **Script** containing components such as **Devices**, **Layouts, Audio Zones** or **Audio Sources**, then **Rights** must also be granted, on the appropriate tab, for each of those components the **Script** refers to.

7. On the **Wall Areas** tab, enter the following parameters:

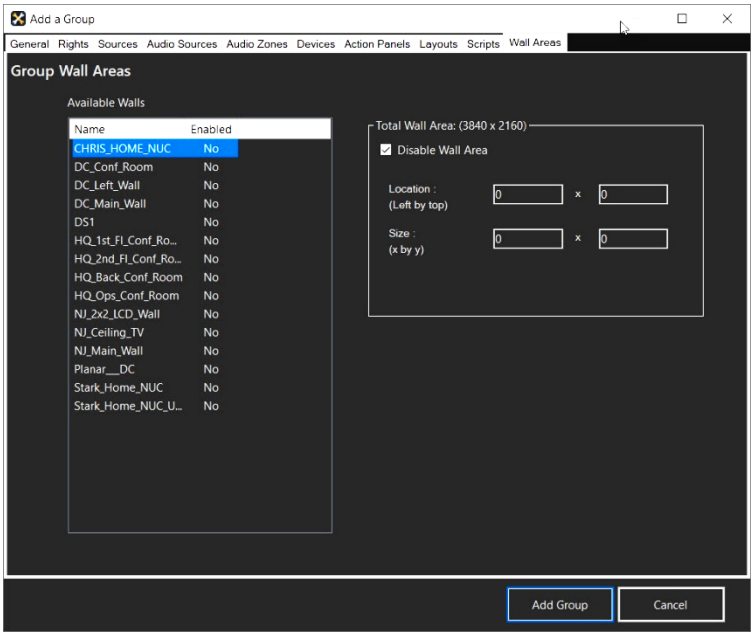


Figure 181: **Add a Group** window - **Wall Areas** tab

a. **Group Wall Areas:** On this tab, **Group Permissions** can be granted for access to specific **Walls** (**Displays**) by completing the following steps:

i. Highlight the name of a **Wall** to be granted **Group Rights** in the **Available Walls** list on the left. (Any **Wall** that has **No** to the right of it, in the **Enabled** column, has not been given **Group Rights**.)
ii. As soon as this is done, the **Total Wall Area** on the right, for that specific, highlighted **Wall**, is also highlighted.
iii. To grant **Group Permissions** to the highlighted **Wall**, click in the **Total Wall Area** checkbox, to remove the checkmark. The highlighted **Wall** now says **Yes** to the right, in the **Enabled** column, meaning that **Rights** have been enabled for the highlighted **Wall**.
iv. If **Permission** is to be granted to only a *section* of the highlighted **Wall**, that area can be specified in the **Location** and **Size** boxes in the **Total Wall Area** section, as shown below:

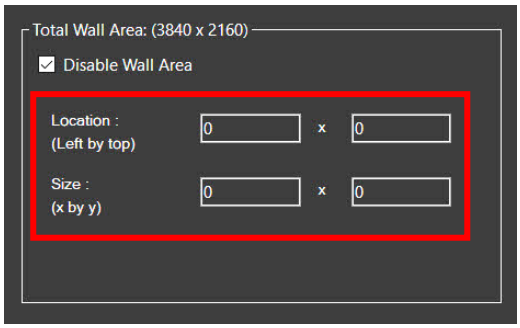


Figure 182: **Total Wall Area** of **Wall Areas** tab on **Add a Group** window

v. To grant **Group Permissions** to additional **Walls**, highlight each **Wall**, one at a time, repeating the same process described in the steps above.

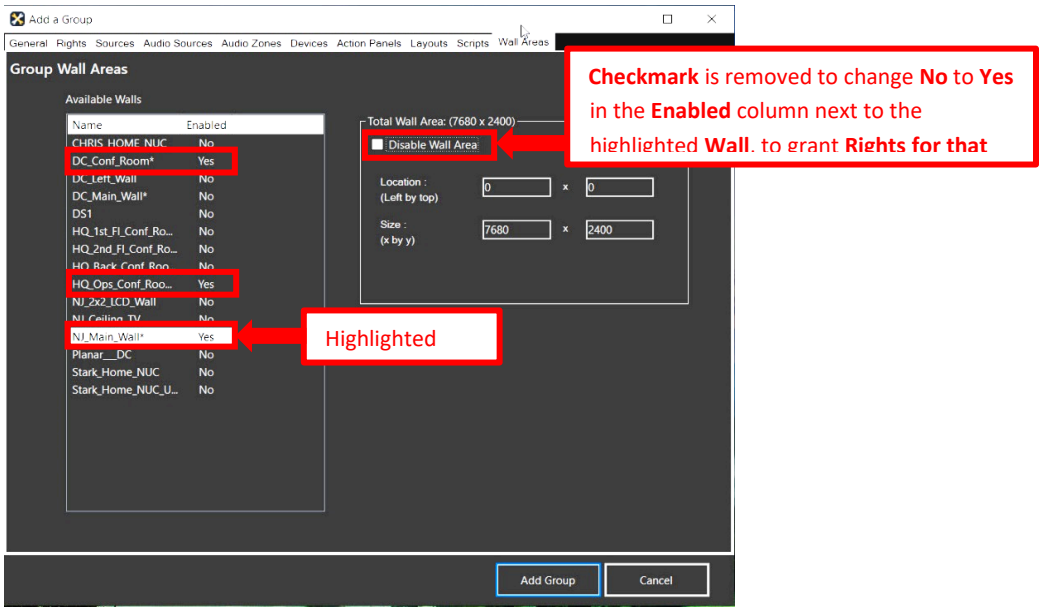


Figure 183: 3 **Walls** have been granted **Permissions**

vi. Click the **Add Group** button at the bottom of the screen to execute the new parameters on the **Wall Areas** tab.

Editing an Existing Group

To edit an existing **Group**, complete the following steps:

1. In the **Details** section of the **Groups** branch, in the **Existing Sources** list, click on the name of the **Group** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Administrators - Update a Group** window shown below:

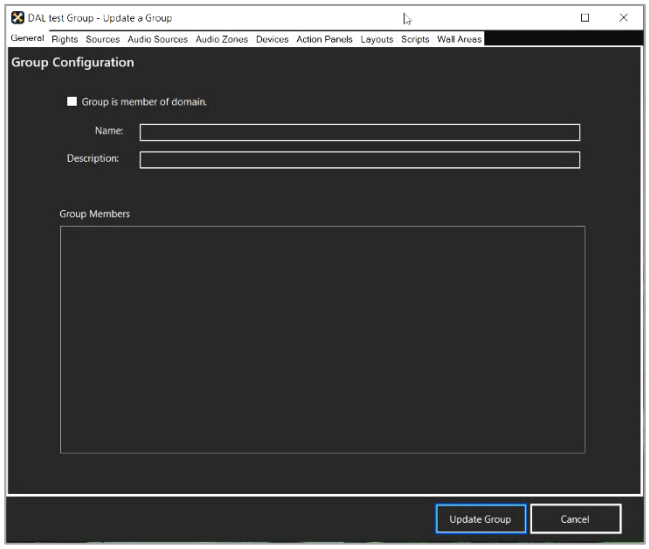


Figure 184: **Administrators - Update a Group** window

3. Click on various tabs where parameters to be changed are located.
4. Make changes to parameters on these tabs (except for the **Wall Areas** tab) in the same way it is done for **Adding** a new **Group** (see previous section entitled, Adding a New Group).
5. Click the **Update Group** button at the bottom of each tab screen where changes have been made, to execute all the new parameters.

Deleting a Group

To **Delete** a **Group**, complete the following steps:

1. From the **Users** branch on the **System** tree, delete all the **Users** in the **Group** that is to be deleted. **Users** in a **Group** must be deleted before the **Group**, itself, can be deleted (see Deleting Existing Users).
2. On the **Details** section of the **Group** branch of the **System** tree, in the **Existing Sources** list, click on the name of the **Group** to be deleted.
3. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

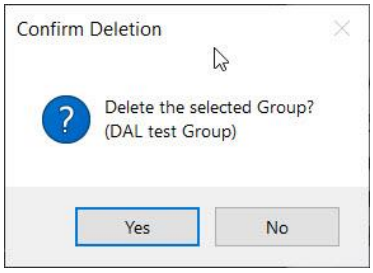


Figure 185: **Confirm Group Deletion** dialog box

4. Click the **Yes** button to complete the **Group** deletion or **No** to cancel the deletion.

Refreshing a Group

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload a **Group**, complete the following steps:

1. In the **Details** section of the **Groups** branch, in the **Existing Groups** list, click on a **Group** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Group** has now been reloaded into the **System** database.

Users

Users are licensed and therefore limited in number according to a company's licensing agreements. **Users** must be added to **Groups** to obtain assigned **Permissions** according to the **Rights** of the **Group**(s) to which they have been assigned.

Creating New Users and Adding Them to Groups

To **Add** a **User** to the system database, complete the following steps:

1. Click the **Users** branch on the **System** tree:

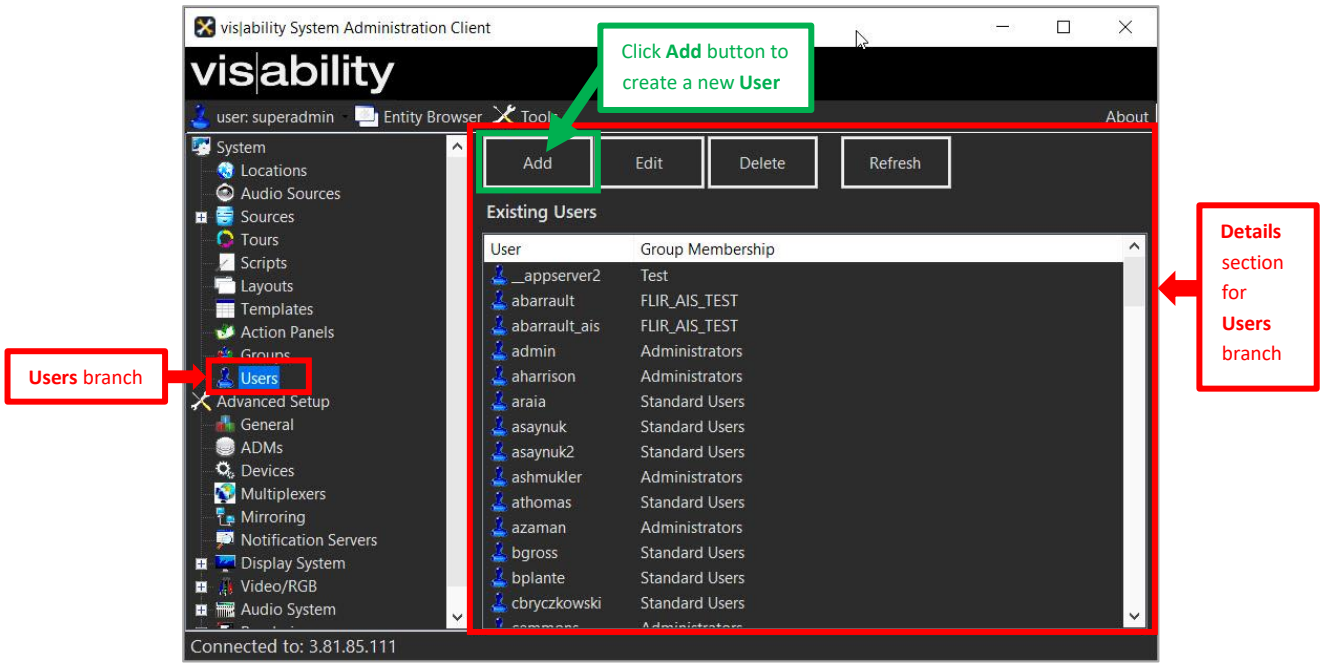


Figure 186: **Groups** branch and **Details** section

2. In the **Details** section for **Users**, click the **Add** button at the top of the screen, above the **Existing Users** list, to display the **Add a User** window:

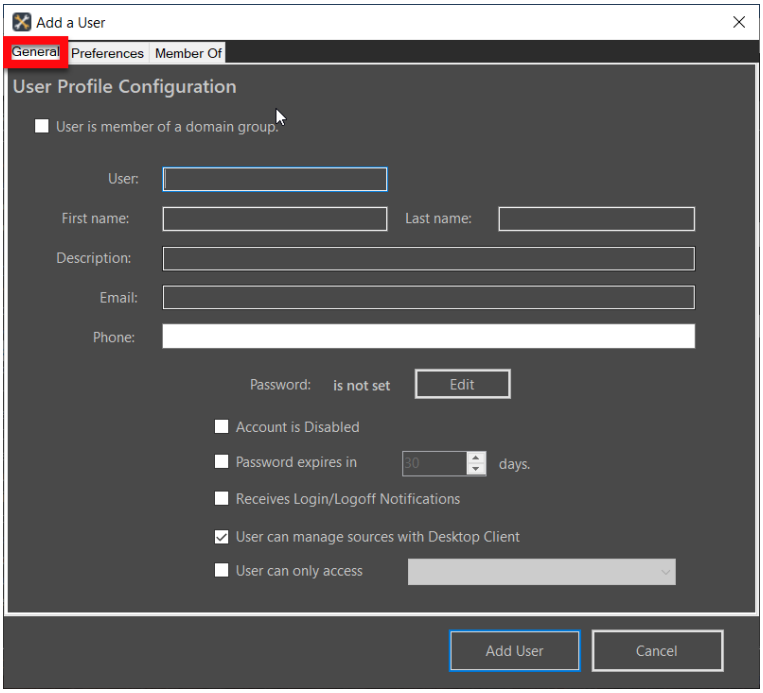


Figure 187: **Add a User** window - **General** tab

3. On the **General** tab, enter the following parameters:
    a. **User is member of domain group**: If the **User** is in the **Windows Active Directory**, the **Domain** can be imported with all its **Users** by clicking in this checkbox.

Figure 188: **User is member of a domain group** box is checked - Click the **Select Domain User** button

    b. The **Select Domain User** button is displayed. Click this button to display the **Enter a Directory Services Path** (LDAP path to the Windows Active Directory, such as **ldap.company.com**) dialog:

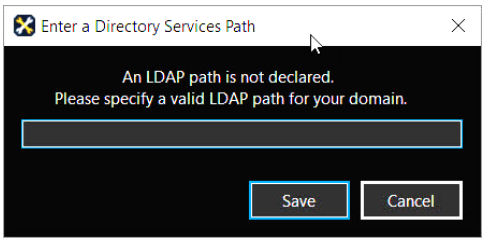


Figure 189: **Enter as Directory Services Path** (**LDAP Path**) dialog

OR

If the **User** will *not* be part of a **Domain** group, but rather is a local **Activu User**, the **User** should be added by leaving the checkbox next to the **User is member of domain group** field unchecked. The additional fields that must be filled in for a local **Activu User** are **User** (User ID) and **Password**. If the **Email** and **Phone** fields are filled in, this allows the system to send **Notifications** and **Two-Factor Authentication** prompts to the **User**, but they are not required.

c. Click the **Add User** button at the bottom of the screen to execute the new parameters on the **General** tab.

4. On the **Preferences** tab, check the appropriate preferences shown below for this **User(s)**:
   a. **Two-Factor Authentication**:
      a. **Authenticator App**
      b. **SMS**
      c. **Email**
   b. **Notifications**:
      a. **SMS**
      b. **Email**
      c. **Push Notifications**
      d. **vis|ability™ Alerts**
   c. Click the **Add User** button at the bottom of the screen to execute the new parameters on the **Preferences** tab.

5. The **Member Of** tab: This tab displays a list of **Groups** the **User(s)** may already be assigned to. **Groups** that they are already in, can be deleted by clicking the **Remove** button, so they will no longer have the **Rights** of that **Group**, or they can be added to new **Groups** by clicking the **Add** button.
   a. To **Add Users** to a new **Group**, complete the following steps:
      a. Click the **Add** button to display the **Select Groups** window:

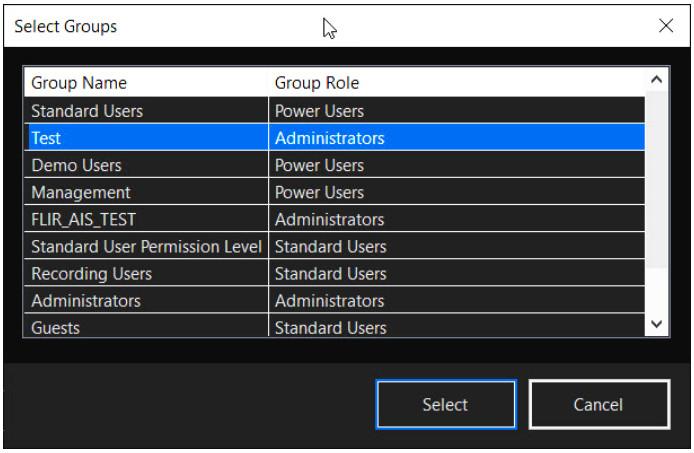


Figure 190: **Select Groups** window

b. Click on a **Group** name to highlight it.
c. Click the **Select** button.
d. The **Group** that this **User(s)** has been added to, appears in the **User Membership** box on the **Member Of** tab.
e. Click the **Add User** button at the bottom of the screen to execute the new parameters on the **Member Of** tab.

Editing Existing Users

To edit an existing **User**, complete the following steps:

1. In the **Details** section of the **Users** branch, in the **Existing Users** list, click on the name of the **User** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **User Name - Update a User** window shown below:

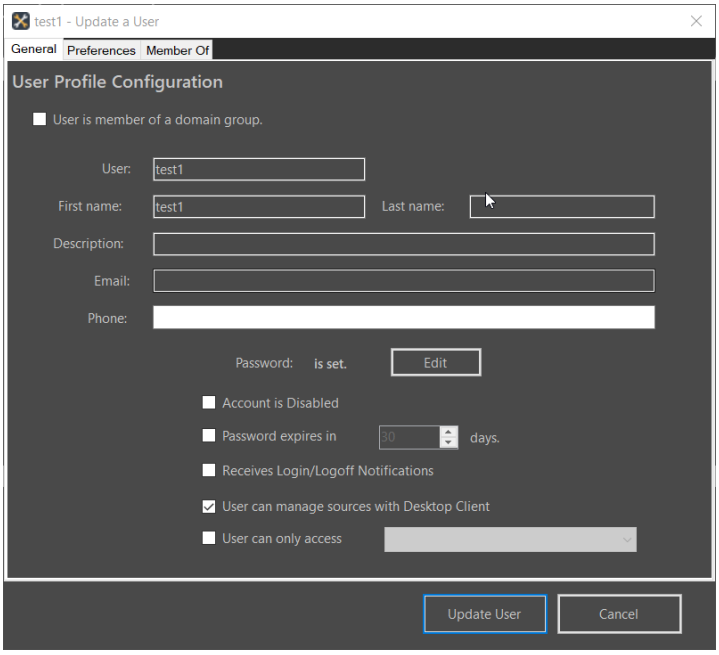


Figure 191: **User Name** - **Update a User** window

3. Click on various tabs where parameters to be changed are located.
4. Make changes to parameters on these tabs in the same way it is done for **Adding** a new **User** (see previous section entitled, Add a User).
5. Click the **Update User** button at the bottom of each tab screen where changes have been made, to execute all the new parameters.

Deleting Existing Users

To **Delete** a **User**, complete the following steps:

1. Click the **Users** branch on the **System** tree.
2. On the **Details** section of the **Users** branch, in the **Existing Sources** list, click on the name of the **User** to be deleted.
3. Click the **Delete** button above the list to display the **Confirm Deletion** dialog:

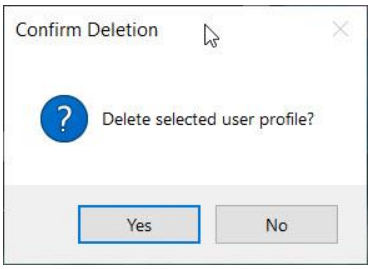


Figure 192: **Confirm Deletion** dialog box

4. Click the **Yes** button to complete the deletion or **No** to cancel the deletion.

Refreshing a User

The **Refresh** button on the **Details** section of every branch on the **System** tree refreshes the entire list of sources. To **Refresh** or reload a **User**, complete the following steps:

1. In the **Details** section of the **Users** branch, in the **Existing Groups** list, click on a **User** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **User** has now been reloaded into the **System** database.

API Key

The API Key feature allows users to create and manage API Keys that allow **Vis|ability** to be used with third-party software.

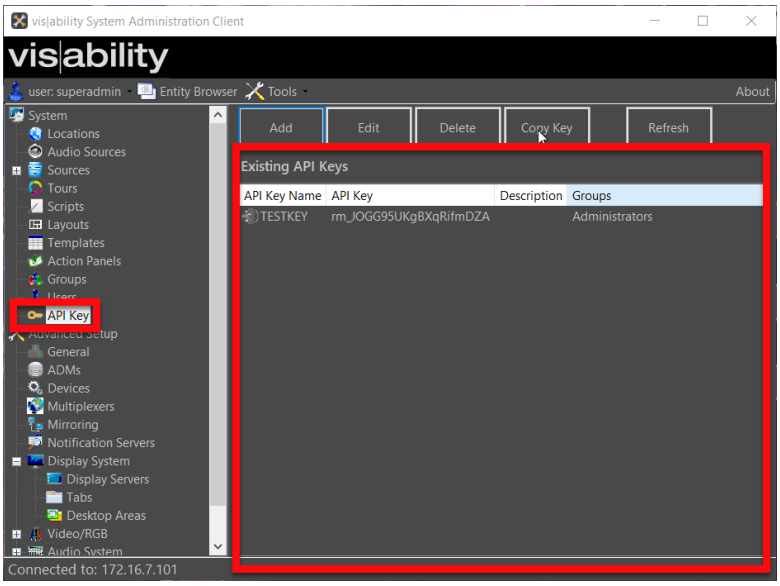


Figure 193: **API Key** window

Adding an API Key

To add an API Key, complete the following steps:

1. Click or tap **Add** button on the API Key window.

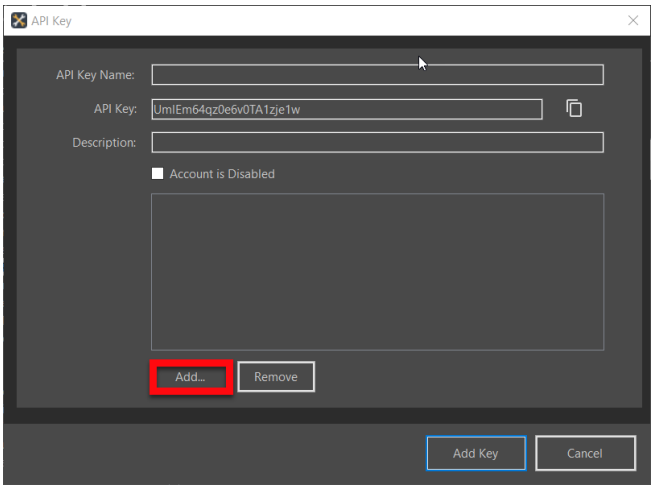


Figure 194: API Key Add Button

2. The **API Key** is autogenerated. Enter the following information in the remaining fields:

a. API Key Name
b. Description

3. Optionally, check **Account is Disabled** for inactive accounts.
4. Click or tap **Add**.
5. Select a group name.

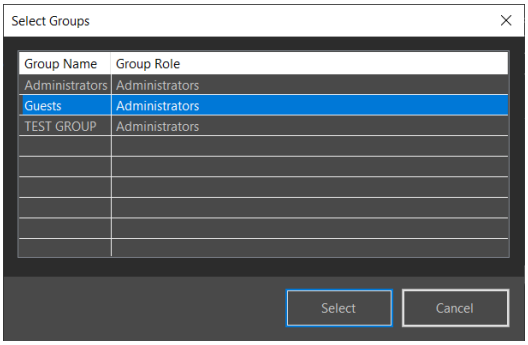


Figure 195: Group Name Selection

6. Click or tap **Select**. The Group name selection displays in the API Key main window.
7. To remove the Group:
   a. Highlight the Group name.
   b. Click or tap **Remove**.

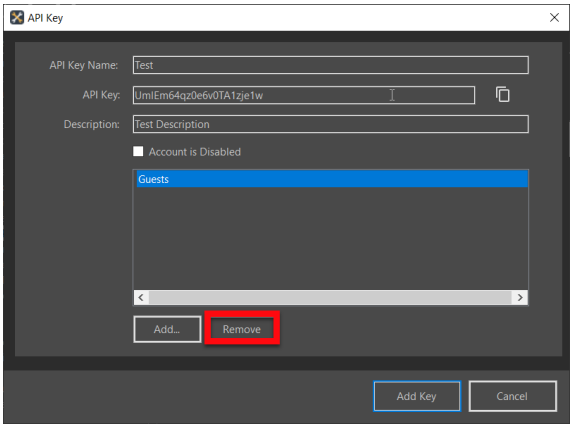


Figure 196: Removing a Group

Note: A new API Key cannot be added without a group.

8. Click or tap **Add Key**.
9. Click or tap **Ok** to confirm that the API Key was added.

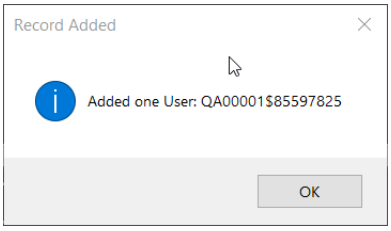


Figure 197: API Key Record Added Confirmation

Editing an API Key

To edit an API Key, complete the following steps:

1. Select an existing API Key.
2. Click or tap **Edit**.

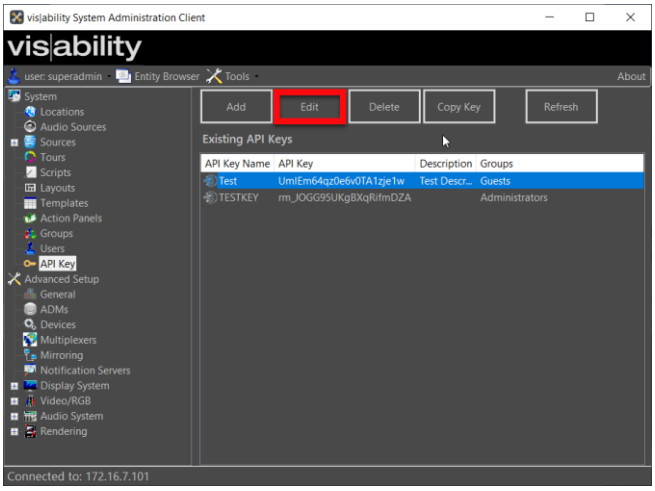


Figure 198: Editing an existing API Key

3. Make any necessary updates.
4. Click or tap **Update Key**.
5. Click or tap **Ok** to confirm the update.

Deleting an API Key

To delete an API Key, complete the following steps:

1. Select an existing API Key.
2. Click or tap **Delete**.
3. Select **Yes** to confirm or **No** to cancel.

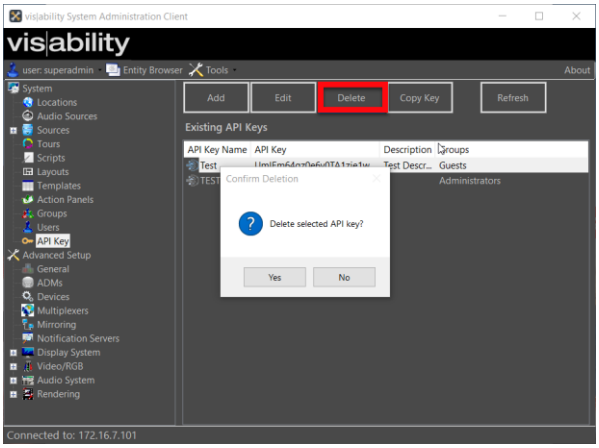


Figure 199: API Key Deletion Confirmation

Copying an API Key

The API Copy Key feature allows users to copy an existing **API Key**. Highlight an existing API Key and click **Copy Key**. The API Key is copied and available for use in other areas of the software.

Refreshing an API Key

The **Refresh** feature refreshes the list of existing API Keys. To Refresh or reload a Group, complete the following steps:

1. In the **Existing API Key** list, click an **API Key** name that is to be refreshed.
2. Click the Refresh button above the list. The selected API Key is reloaded into the System database.

Advanced Setup

All features on the **Advanced Setup** tree, in the **System Administration Client**, should be used only by **Activu** personnel or end-users under the guidance of **Activu** personnel. End-Users typically do *not* have permissions for these advanced functions. Only **superadmin Users** (see **Activu** personnel for further explanation) have access to the **Advanced Setup** tree because if these settings are not done correctly, they can do damage to the system. All other **Users,** when they log into the **System Administration Client**, see only the **System** tree. They do *not* see the **Advanced Setup** tree.

General

The **General** branch of the **Advanced Setup** tree includes multiple branches that allow users to perform multiple tasks. To set the parameters for this, complete the following steps:

1. Log in to the **System Administration Client** as a **superadmin User** (consult **Activu** personnel for further information).
2. Click on the **General** branch on the **Advanced Setup** tree:

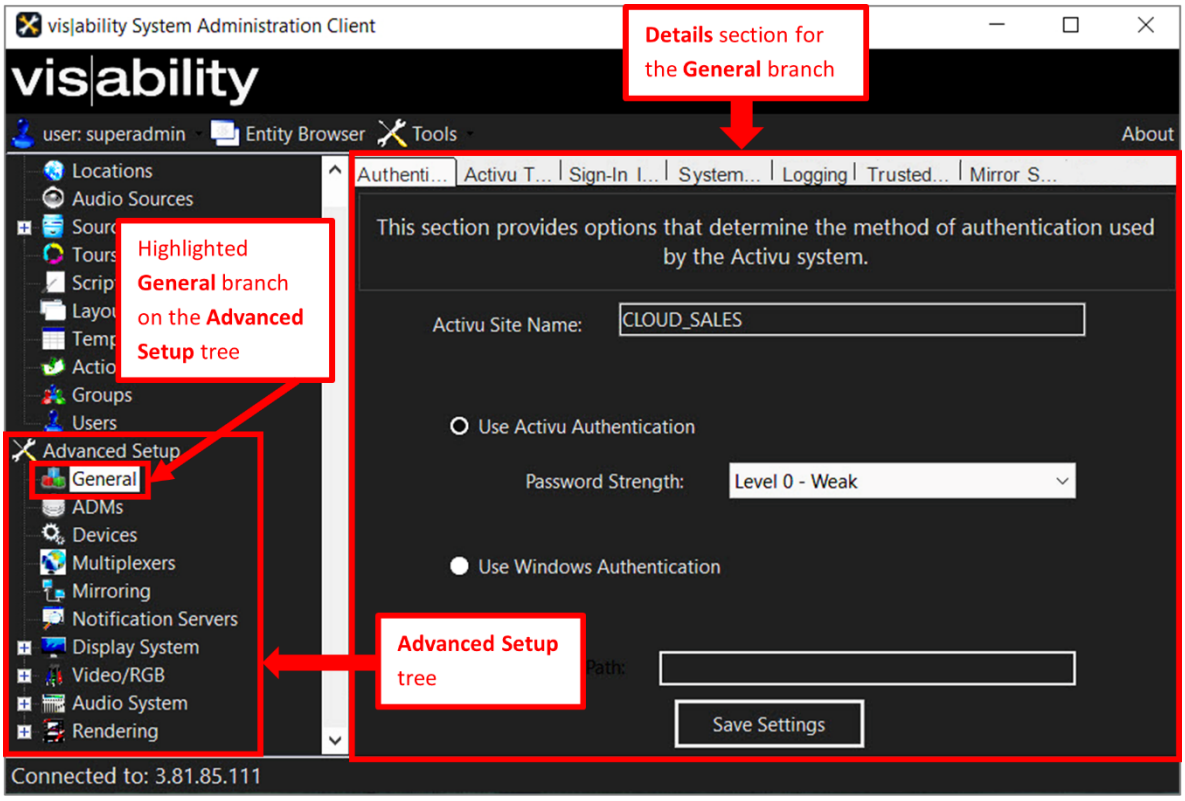


Figure 200: Highlighted **General** branch and **General Details** to the right

3. In the **General Details** section to the right, on the **Authentication** tab, enter the following parameters:
    a. **Activu Site Name**: If the company has more than one **Activu** system, the name of the one that is being set up here can be specified in this field. It is, however, optional.
    b. **Use Activu Authentication:** Click the radio button to the left of the type of authentication to be used by this **Activu** system.
        i. If **Use Activu Authentication** is selected, select the required password strength from the drop-down menu.
        ii. If **Use Windows Authentication** is selected, complete the following steps:
            1. **LDAP Path**: Only in the case of using **Windows Authentication**, the operating systems of the servers that run both the **System Administration Client** software *and* the **System Manager**, must be *logged into* a **User** account within the specific Active Directory to be queried. This **User** account must have enough privileges to execute the query. It must also be a *member* of the domain that is being queried (determined by the LDAP path entered). Example of LDAP Path: **LDAP.company.com.** Enter the LDAP Path.
        iii. Click the **Save Settings** button at the bottom of the **Authentication** tab.

4. **Activu Transfer** tab: As stated at the top of the screen, **Activu** provides a file transfer service for graphic and media files.

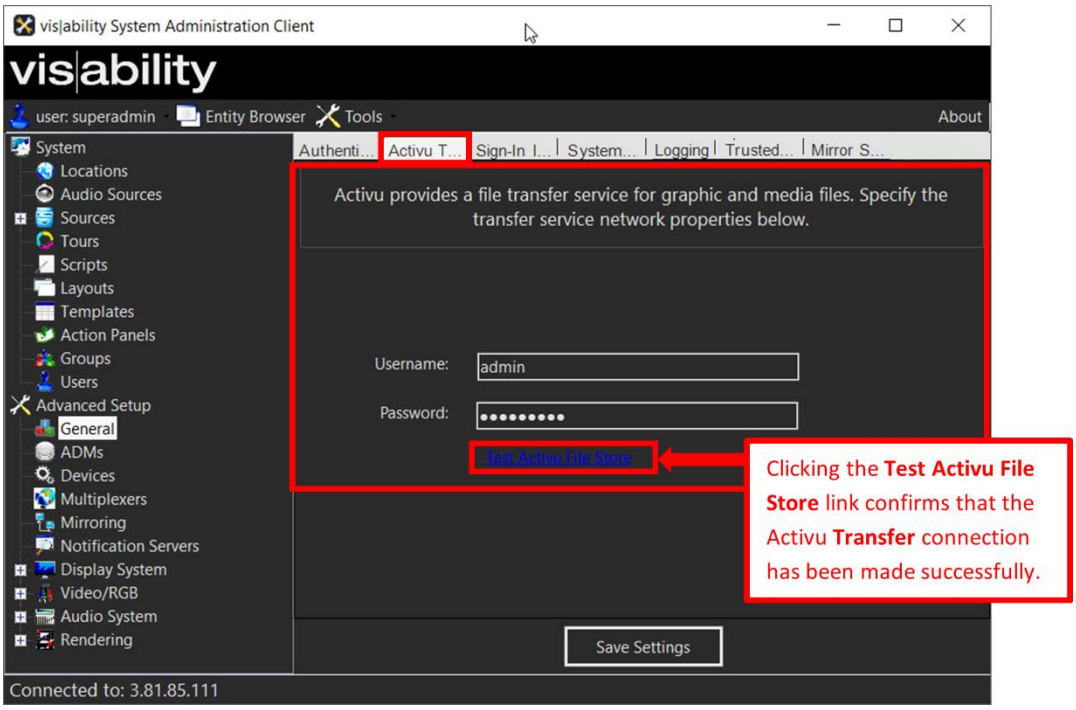


Figure 201: **Activu Transfer** tab

   a. The word **admin** is already entered as the *required* **Username.**
   b. Enter the **Password** used when setting up Nexus in the **Password** field.
   c. If the blue link below, **Test Activu File Store**, is clicked, a dialog appears that confirms the transfer connection has been successfully made (if it has). If it fails, then adding graphics or media files will also fail.

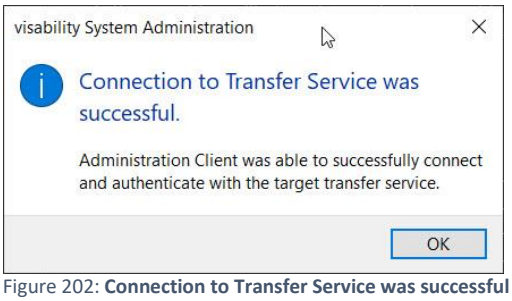


Figure 202: **Connection to Transfer Service was successful** dialog

   d. Click the **OK** button to confirm the connection and return to the **Activu Transfer** tab.
   e. Click the **Save Settings** button at the bottom of the **Activu Transfer** tab.

5. **Sign-In Image** tab: As stated at the top of the screen, **Activu** provides the ability to select a custom **Sign-In** image that is displayed on the **Login** screen when the **User** is logging into **vis|ability™ Desktop Client**. To do this, complete the following steps:

   a. Check the checkbox to the left of the **Use a custom sign-in image** field.

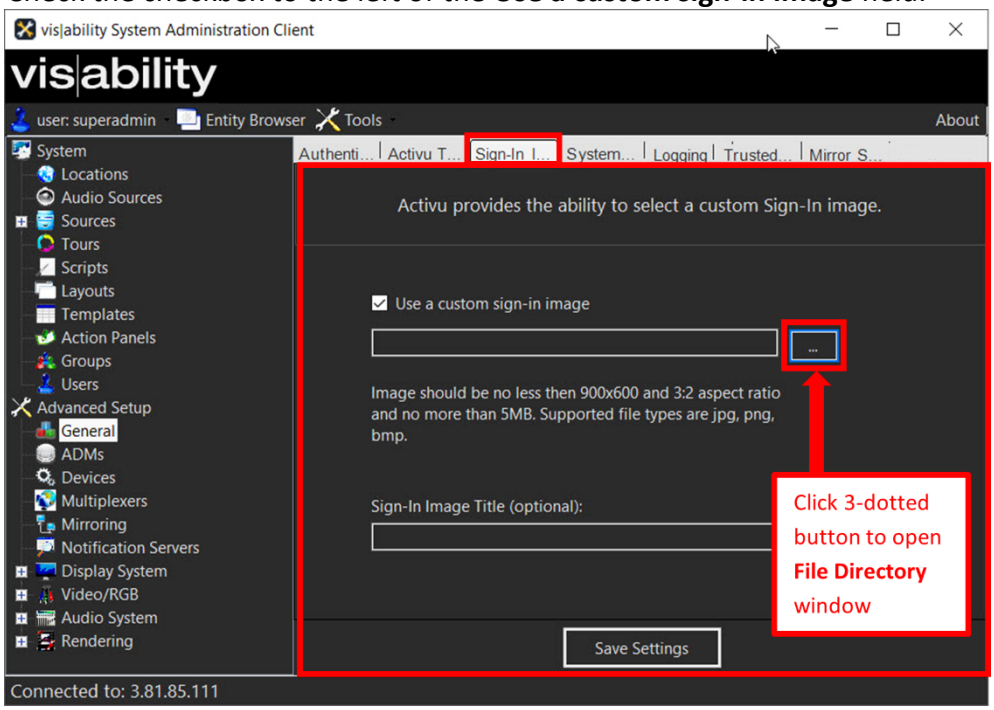


Figure 203: **Sign-In Image** tab

   b. Click the 3-dotted button to open the **File Directory** window.

   c. In the **File Directory** window, locate the folder and file to be used:

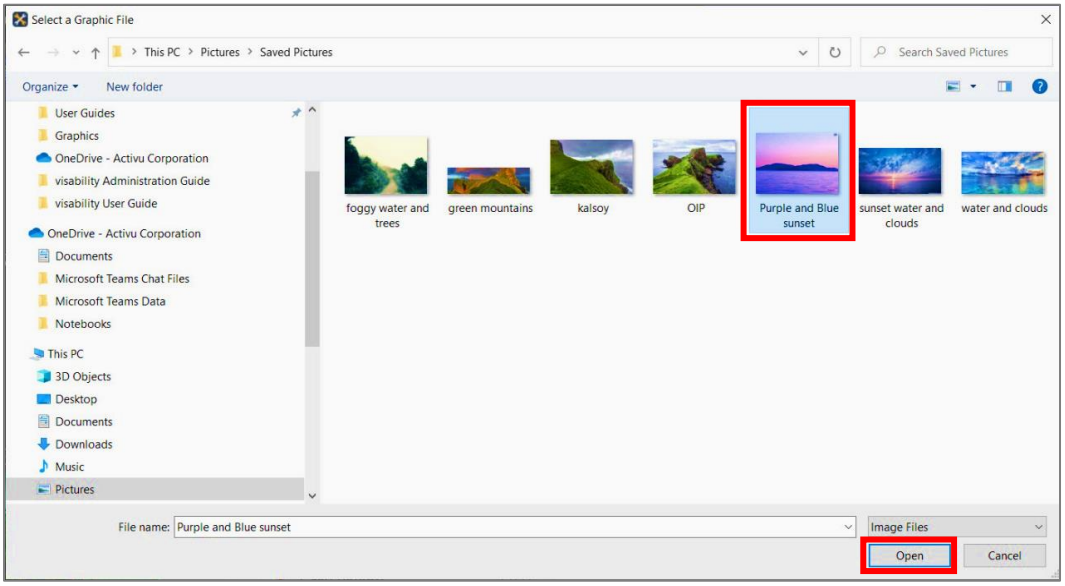


Figure 204: **File Directory** window

d. Double-click the file **OR** click it once to highlight it, then click the **Open** button at the bottom of the File Directory window. The name of the file is now displayed in the **Use a custom sign-in image** field:

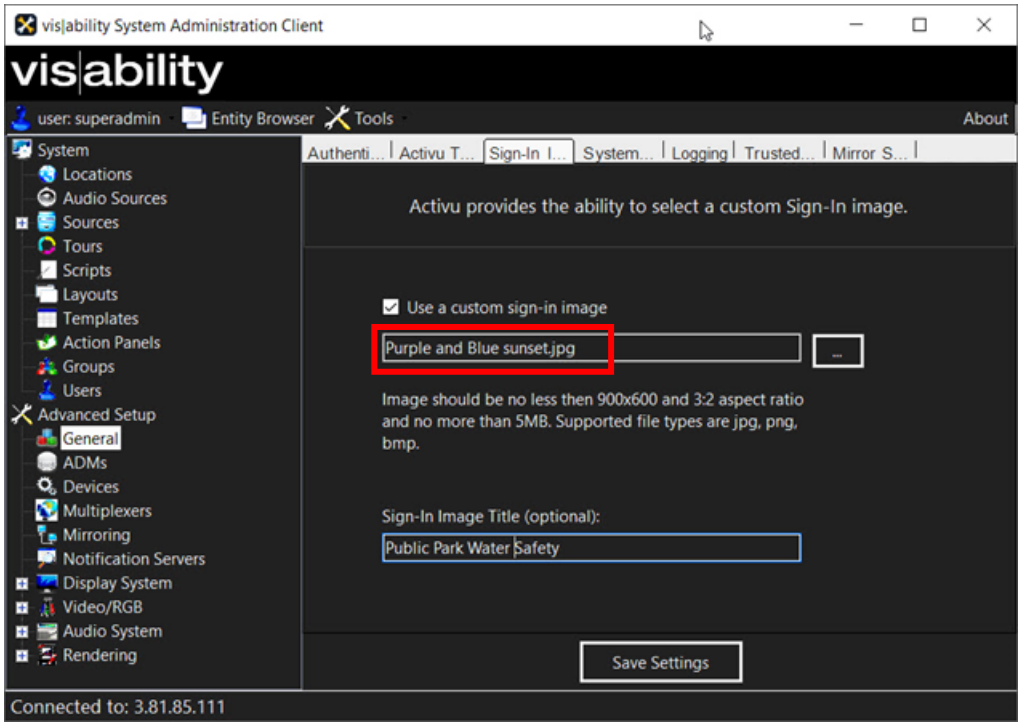


Figure 205: Open **File Directory** to select custom **Login image** and type in **Login Image Title**

The **Sign-In Image Title** field is optional. The **Title** is displayed at the bottom of the **custom sign-in** image on the **Login** screen. An example is shown below:

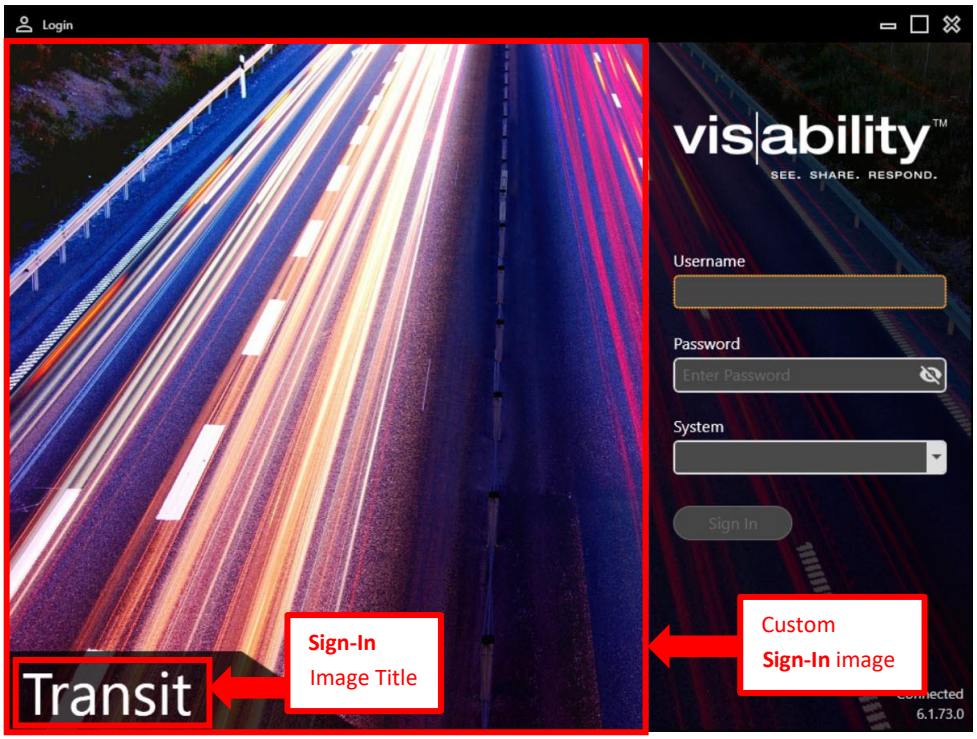


Figure 206: Example: **Transit** as the **Title** over selected image of highway traffic lights on **Login** screen

e. Click the **Save Settings** button at the bottom of the **Sign-In Image** tab screen to execute these new settings.

6. On the **System Features** tab:

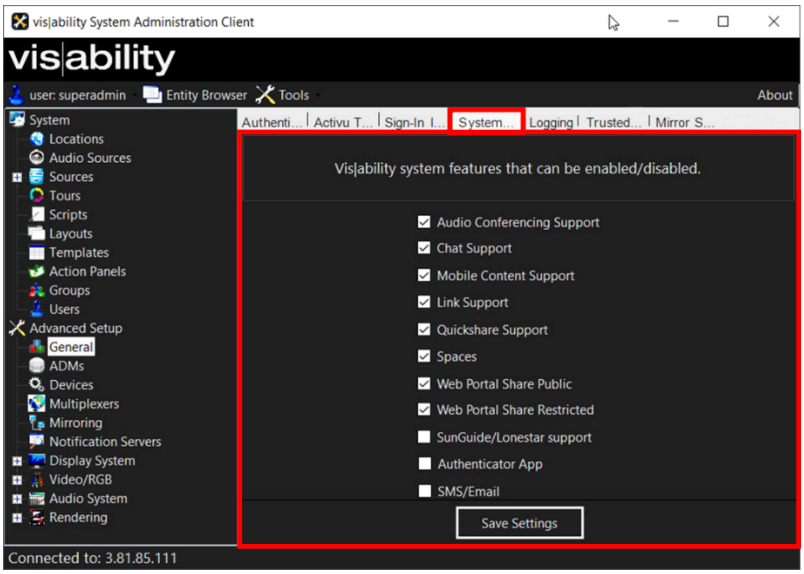


Figure 207: **System Features** tab

a. Place a checkmark next to the **Features** that are to be **Enabled**:
b. Click the **Save Settings** button at the bottom of the screen to execute these new settings.

7. On the **Logging** tab, complete the following steps:

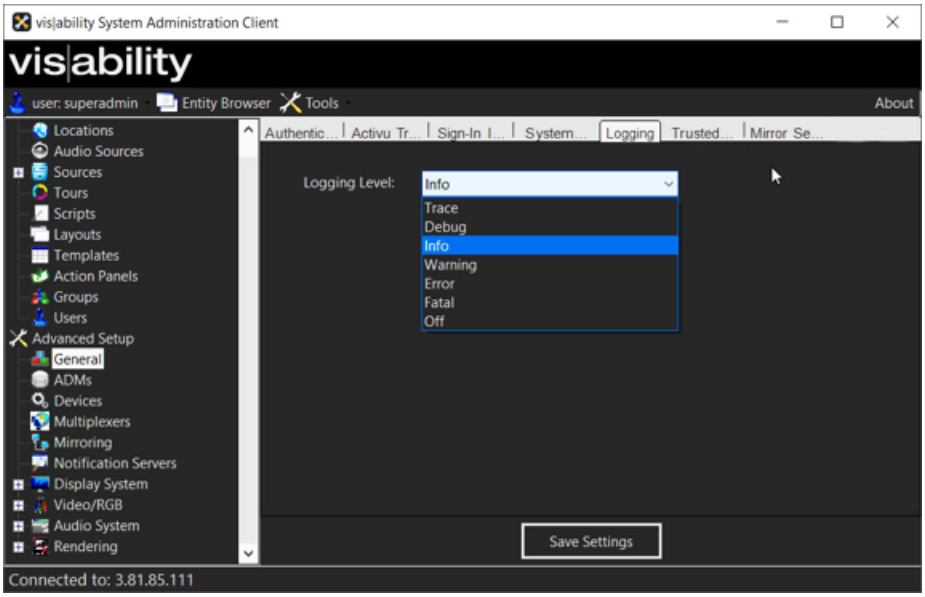


Figure 208: **Logging** tab - **Logging Level** drop-down menu

a. Click the appropriate level of logging on the **Logging Level** drop-down menu. **Info** is the minimal level of logging and will keep the size of the log file from growing too big. Other options can be selected to search for specific types of data if troubleshooting must be done. It is a good idea to reset this level to **Info** again, once the troubleshooting is completed.
b. Click the **Save Settings** button at the bottom of the **Logging** tab screen to execute these new settings.

8. **Trusted Sites** tab: The Trusted Sites specifies the URL for websites whose content is trusted by administrators.
9. **Mirror Server** tab: The **Mirror Server** controls the **Mirror**, a pair of synchronized **Display Nodes** that provide the system with high availability and fault tolerance. In this case, every individual wall is represented by two **Display Nodes**. On the **Mirror Server** tab, enter the following parameters:

a. **Script User**: If there is a **Mirror** event, a script can be executed by a specific **Username**. Select that **Username** from the **Script User** drop-down list. (This **User** is defined on the **Mirroring** branch of the **Advanced Setup** tree.)

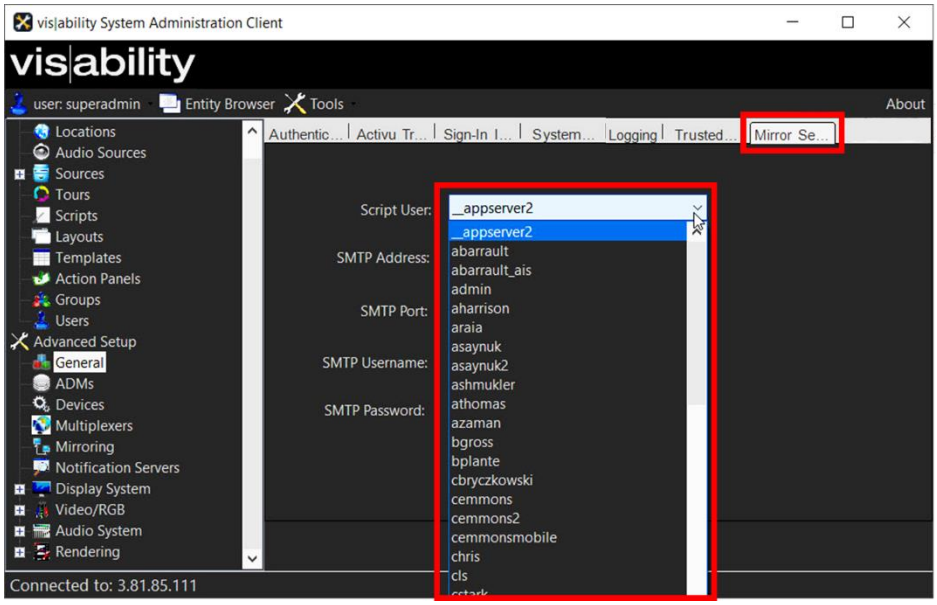


Figure 209: **Mirror Server - Script User** drop-down menu

b. **SMTP Address**: Enter the email address of the **Sender** of notification of the **Mirror** event.
c. **SMTP Port**: Enter the **Port** number of the **Server** for the **Sender** email address.
d. **SSL**: Check the **SSL** checkbox if appropriate.
e. **SMTP Username**: Enter the **Username** of the **Sender** account.
f. **SMTP Password:** Enter the **Password** for the **Sender** account.

ADMs

ADMs (**Activu Device Managers**), or **vis|ability™ Device Managers** (**VDMs**), are the software components that facilitate communication between the **vis|ability™** system and a piece of hardware. The **ADMs** branch on the **Advanced Setup** tree is used to point the system to the correct ADM device (by adding and enabling it). An **ADM** can also be *disabled* on this branch, but there is rarely a reason to do so. The **ADM** for a **vis|ability™** system is usually deployed on or by the **Nexus** server. It can reside elsewhere if it is IP accessible by the **Nexus** server.

To **Add** and **Enable** a **Device Manager**, complete the following steps:

1. Click on the **ADMs** branch on the **Advanced Setup** tree.

2. In the **ADMs Details** section on the right side of the screen, click the **Add** button above the **Existing Device Managers** list...

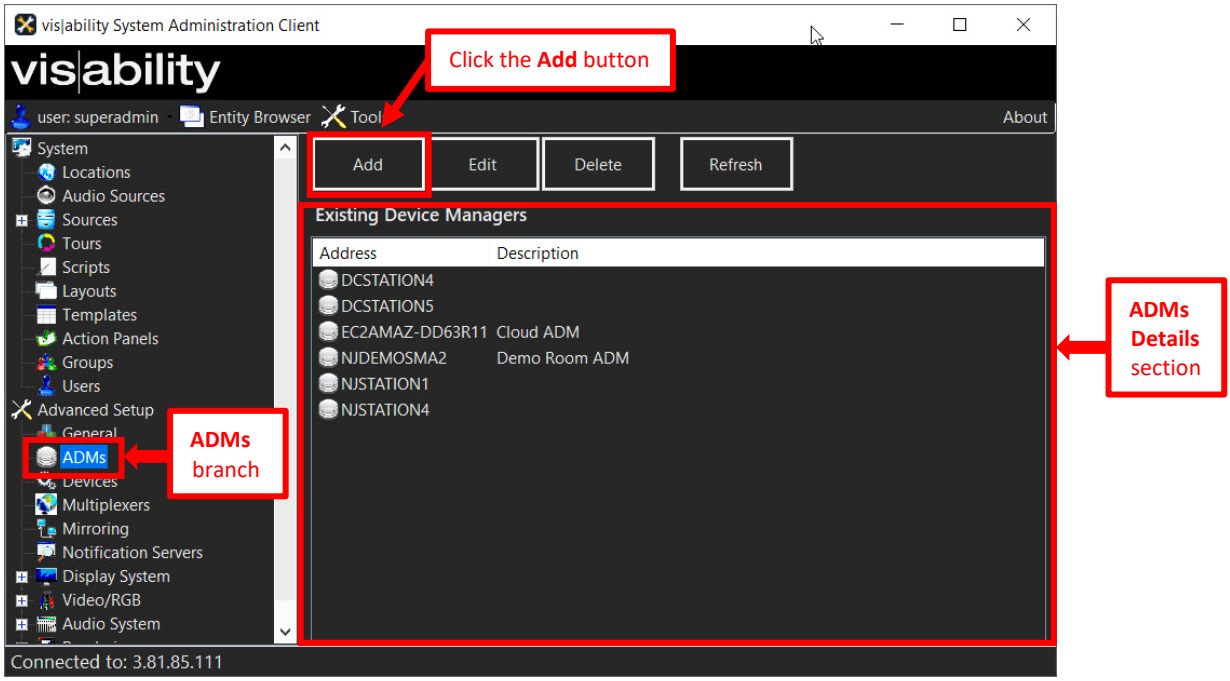


Figure 210: **ADMs** branch and **Details** section

...to display the **Add a Device Manager** window with the **Router Status: Not Attached**.

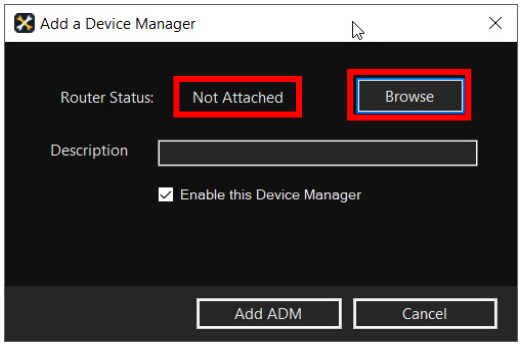


Figure 211: **Add a Device Manager** window

3. Click the **Browse** button to display the **Entity Browser** window:

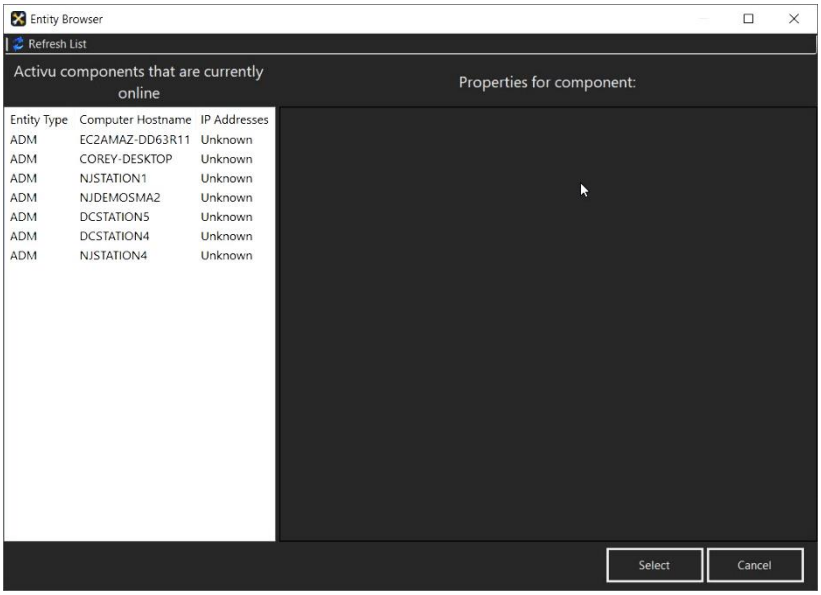


Figure 212: **Entity Browser** window

4. Click on the desired **ADM**. The **Details** for that **ADM** are displayed to the right.

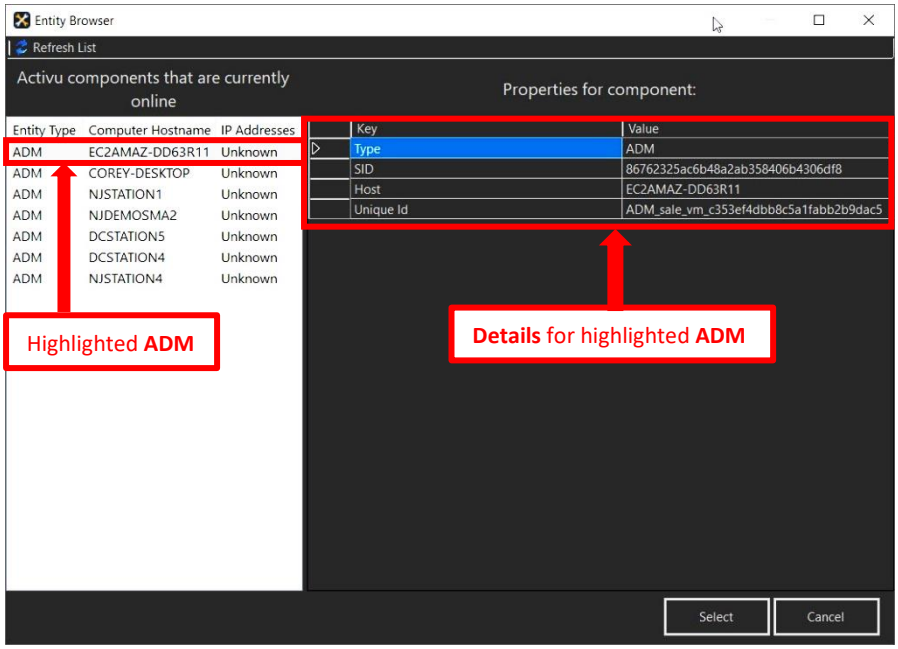


Figure 213: **Entity Browser** window with a highlighted **ADM** on the left and its **Detail** parameters to the right

5. Click in the box next to **Enable this Device Manager** to **Enable** the **ADM**.
6. Click on the **Select** button at the bottom of the screen.
7. The **Add a Device Manager** window appears again with the **Router Status** changed to: **Attached**.
8. The **ADM** is now entered in the **Existing Device Managers** list in the **Details** section for the **ADMs** branch**:**

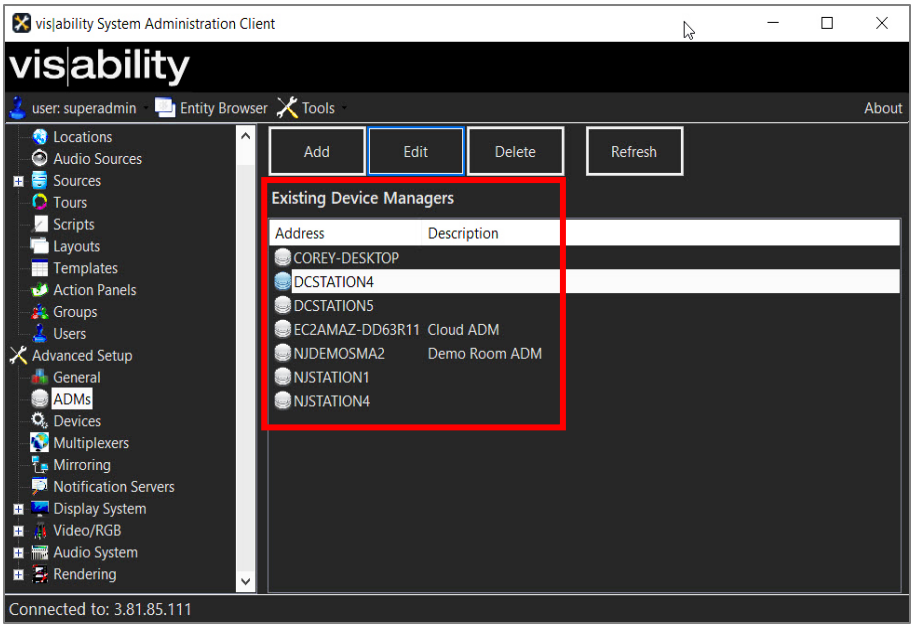


Figure 214: **Added ADM** is now entered in the **Existing Device Managers** list

Editing Existing ADMs

To edit an existing **ADM**, complete the following steps:

1. In the **Details** section of the **ADM** branch, in the **Existing ADMs** list, click on the name of the **ADM** that is to be edited.
2. Click on the **Edit**  button at the top of the **Details** section to open the **Update Device Manager** window shown below with the **Router Status: Attached**:

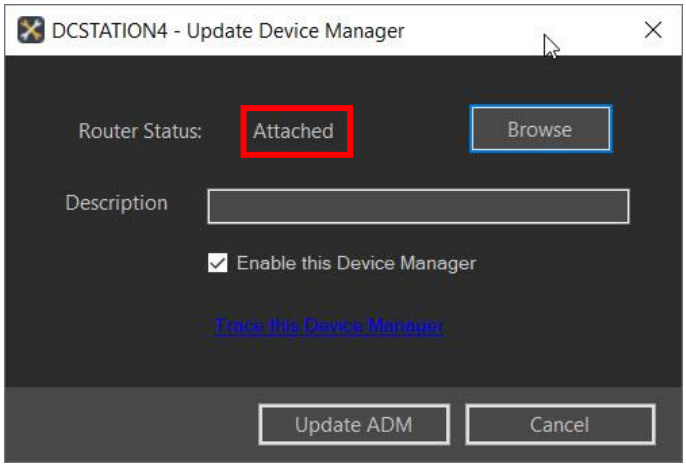


Figure 215: **Update Device Manager** window - **ADM Attached**

3. Repeat the same steps described for **Adding** a new **ADM** and enabling or disabling it, starting from the previous step: Click the Browse button).

Trace This Device Manager Link

A **Trace** is a running log file of all **ADM** activity. It is used as a diagnostic tool. To use this log, complete the following steps:

1. Follow the first two steps of the instructions for Editing Existing ADMs to open the **Update Device Manager** window:

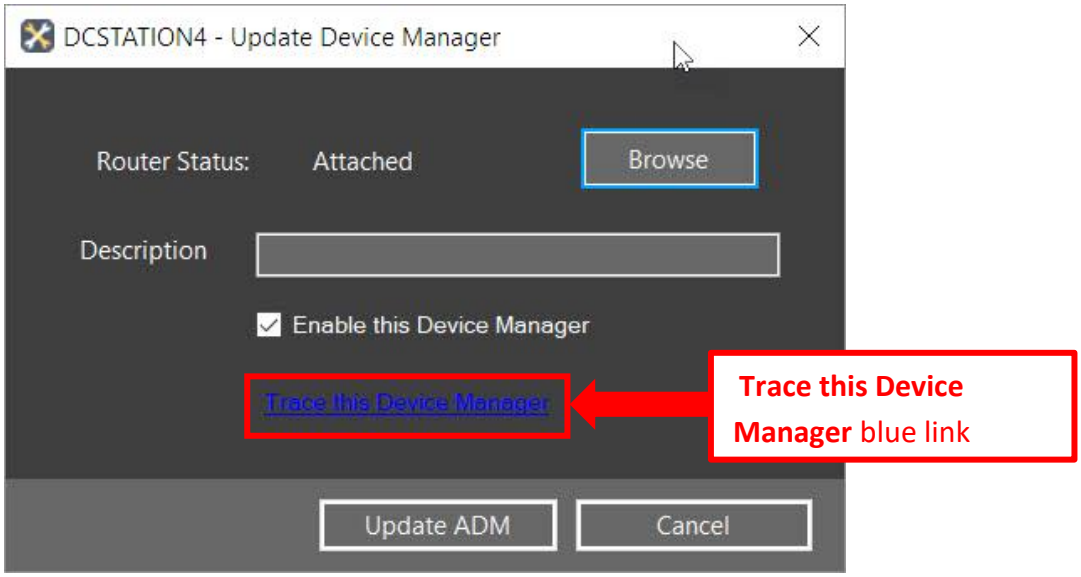


Figure 216: **Trace this Device Manager** blue link on the **Update Device Manager** window

2. Click on the **Trace this Device Manager** blue link to open the **Trace** window for the **ADM** you have selected for **Editing**:

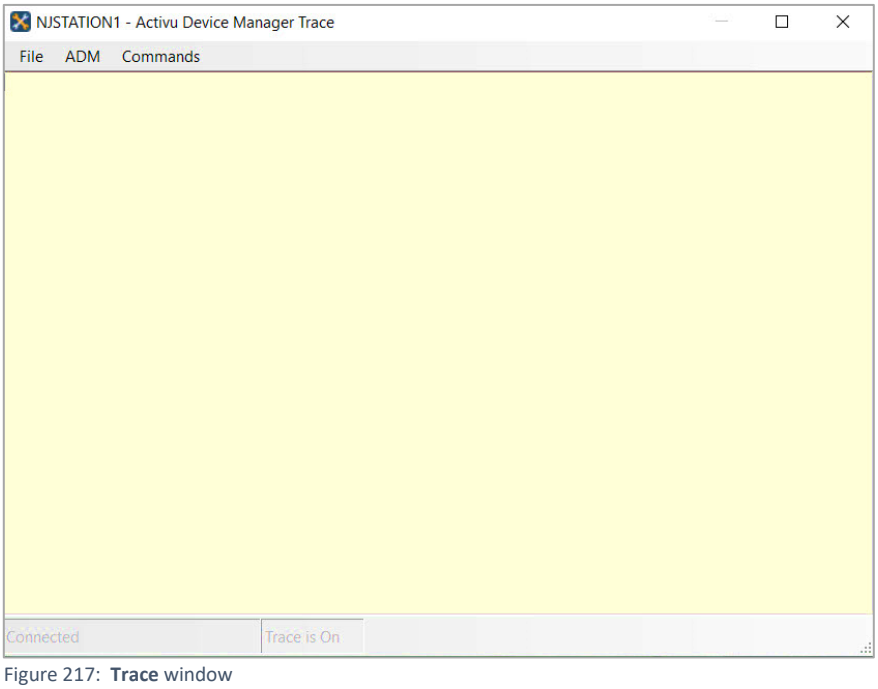


Figure 217: **Trace** window

A file of the **Log** activity can be saved from the **File** menu where the **User** can also **Exit** the **Trace** window:

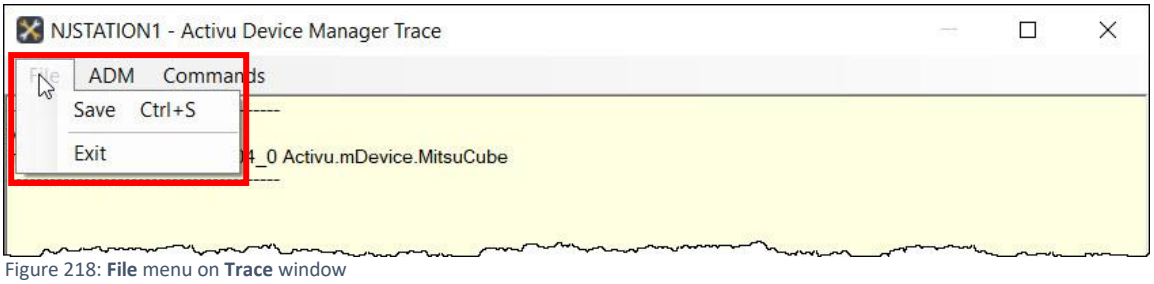


Figure 218: **File** menu on **Trace** window

The **Log** can be cleared on the **ADM** menu:

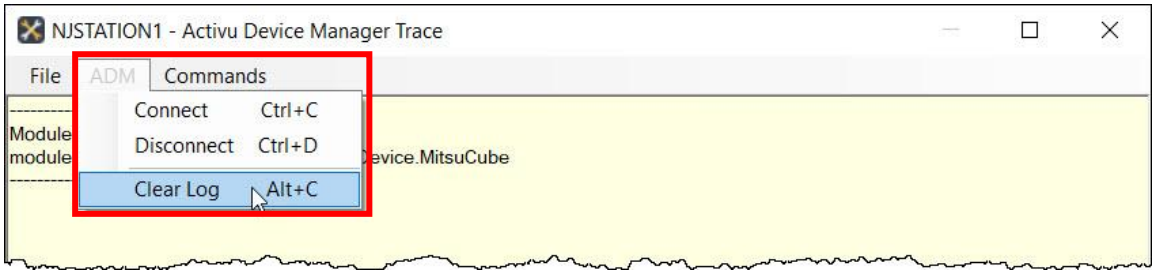


Figure 219: **ADM** menu

The **Get Modules** command on the **Commands** menu displays the **Devices** that have open connections with this selected **ADM**:

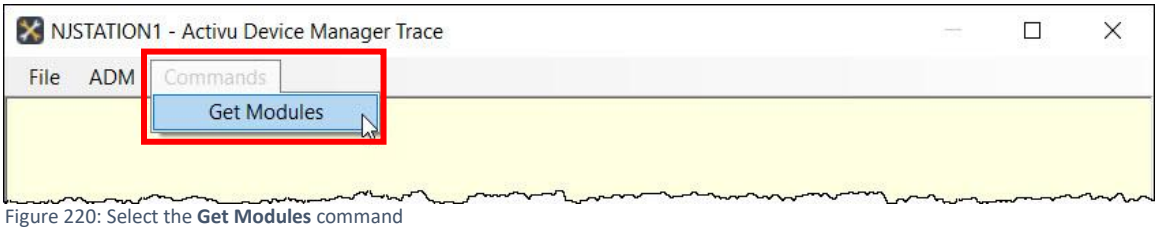


Figure 220: Select the **Get Modules** command

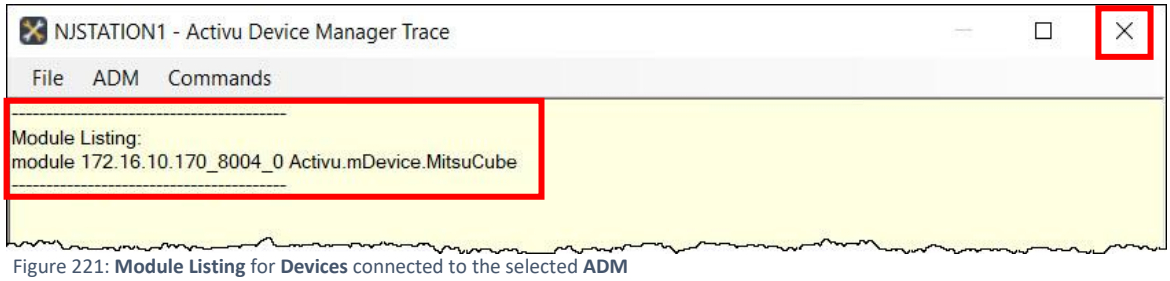


Figure 221: **Module Listing** for **Devices** connected to the selected **ADM**

4. To close the **Trace** window, click the **Exit** command on the **File** menu of the **Trace** window **OR** click the ☒ box at the top right corner of the **Trace window**.

Deleting ADMs

To **Delete** an **ADM**, complete the following steps:

1. Click on the **ADM** name, in the **Existing ADM** list of the **Details** section.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

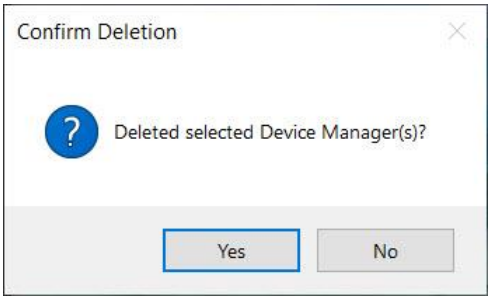


Figure 222: **Confirm Deletion of Device Manager(s)** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Devices

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree is refreshes the entire list of devices. To **Refresh** or reload an **ADM**, complete the following steps:

1. In the **Details** section of the **ADMs** branch, in the **Existing ADM** list, click on the **ADM** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **ADM** has now been reloaded into the **System** database.

Devices

As described in the previous section, **ADMs** are the *software* components that facilitate communication between the **vis|ability™** system and *hardware devices*. These devices must also be setup and added to the system. A **Device** can be any hardware that accepts either a serial or IP connection.

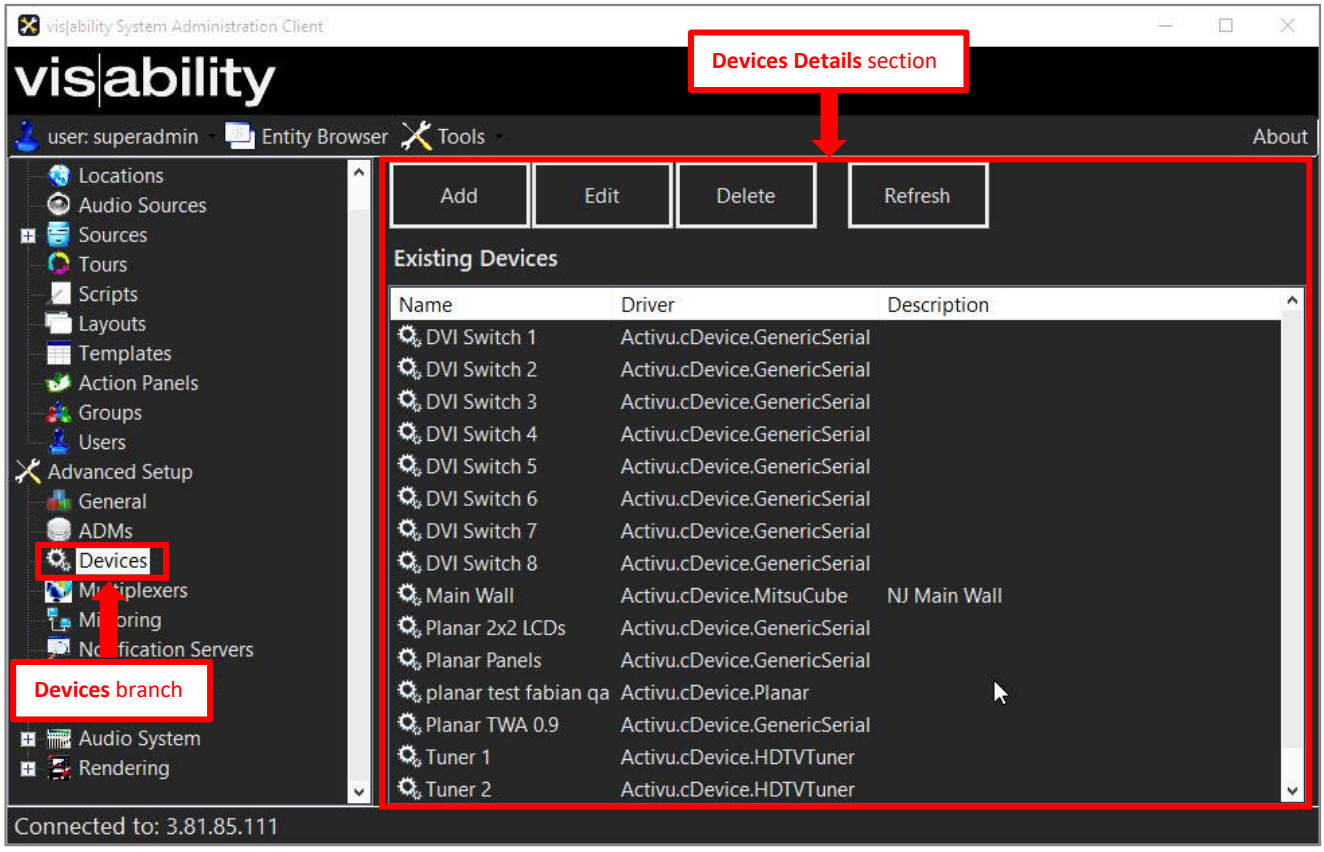


Figure 223: **Devices** branch and **Details** section

To **Add** a device, complete the following steps:

1. Click the **Devices** branch on the **Advanced Setup** tree.
2. At the top of the **Devices Details** section, above the **Existing Devices** list, click the **Add** button:

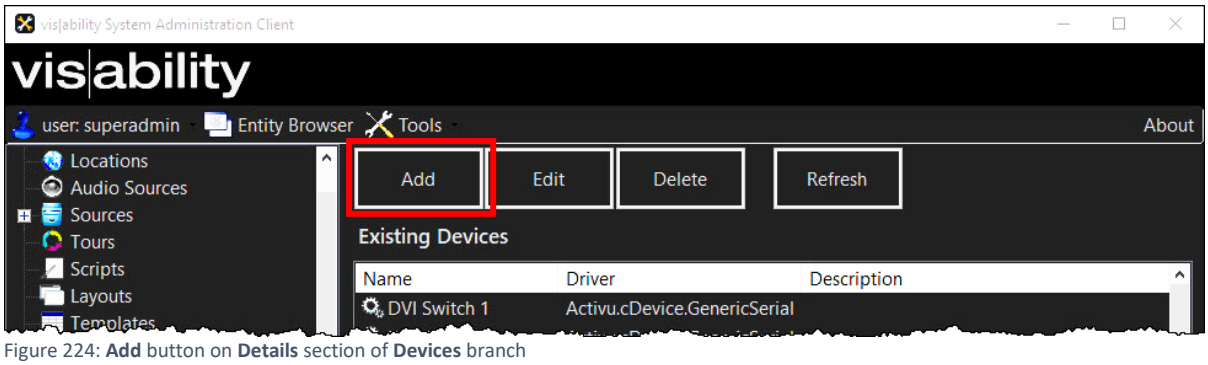


Figure 224: **Add** button on **Details** section of **Devices** branch

....to display the **Add a Device** window:

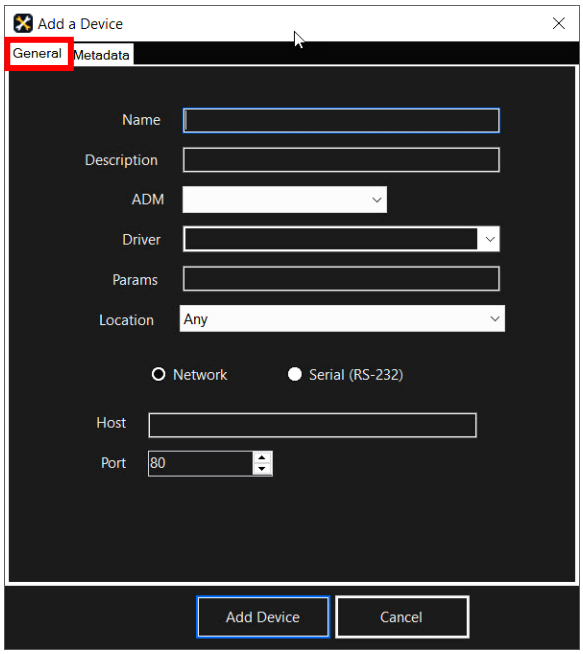


Figure 225: **Add a Device** window

3. On the **General** tab of the **Add a Device** window, enter the following parameters:
    a. **Name**: Enter any name for the **Device** to be added.
    b. **Description**: This field is optional.
    c. **ADM**: Select the **ADM** (Activu Device Manager) that will control this **Device** from the drop-down menu list of previously defined ADMs (as described in the previous section on the **ADMs** branch: To Add and Enable a Device Manager). This is a required field. If an **ADM** is not

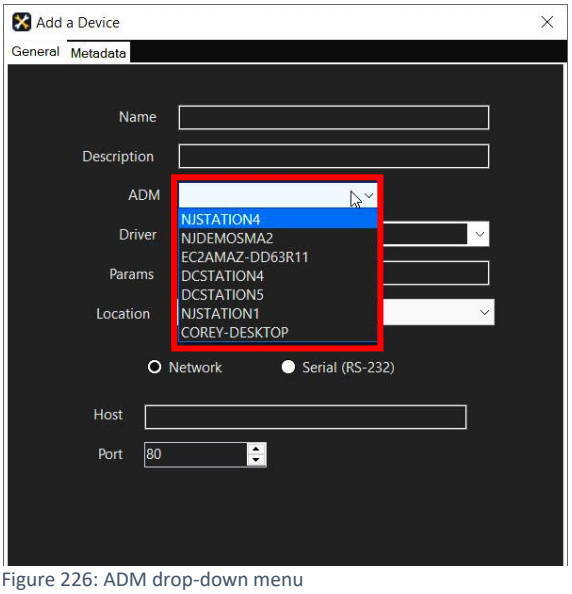


Figure 226: ADM drop-down menu

on this list, it has not yet been defined on the **ADMs** branch. This must be done first, before it can be attached to a **Device** on the **Add a Device** window.

d. **Driver**: Select the appropriate **Driver** from the drop-down list:

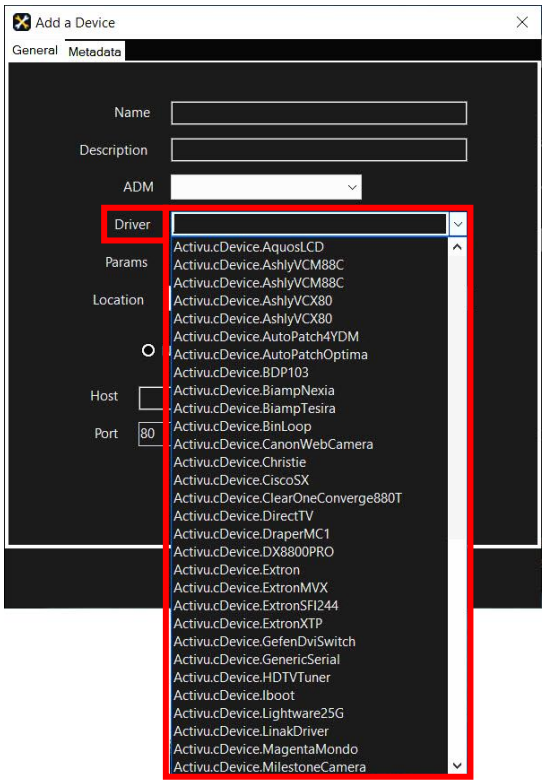


Figure 227: **Driver** drop-down menu

If the **Driver** is generic, the commands sent to the **Device** must be provided by the **Administrator** or **Activu** personnel. If it is necessary to use a specific **Driver** that is not on the list, it can be typed in manually. The server where the installed **ADM** is located, will have a directory of the appropriate drivers.

e. **Params**: Enter any extra parameters that a **Device Driver** will need to function correctly.

f. **Location**: This field is presently not functional. It can be left as is.

g. **Network** or **Serial** connection: Click on the radio button next to **Network** for an IP connection or **Serial** for a hard-wired connection.

i. If **Network** is selected, the following fields are displayed:

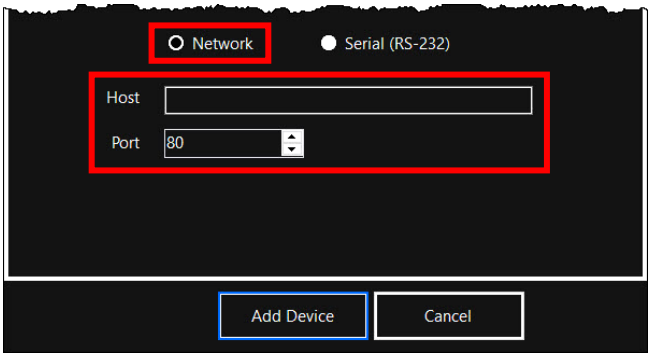


Figure 228: If **Network connection is selected, these fields are displayed**

1. Enter the **IP address** in the **Host** field.
2. Enter the **Port** number in the **Port** field. The number can be typed manually or selected with the **Up** and **Down** arrows.

ii. If **Serial** is selected, then the following fields are displayed:

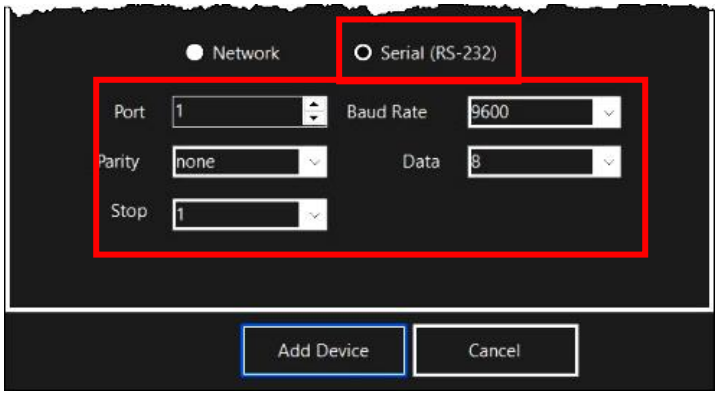


Figure 229: **Serial** connection fields

iii. Enter the parameters as needed, using the arrows:

1. **Port**: Use the **Up** and **Down** arrows or type in the **Port** number manually.
2. **Parity**: Use the **Down** arrow to select the appropriate **Parity**: **none**, **even** or **odd**.
3. **Stop**: Use the **Down** arrow to select the appropriate value.
4. **Baud Rate**: Use the **Down** arrow to select the appropriate rate.
5. **Data**: Use the **Down** arrow to select the appropriate value.

4. The **Metadata** tab is not currently being utilized. It can be left as is.
5. Click the **Add Device** button at the bottom of the **Add a Device** window to execute these new parameters.

Editing Existing Devices

Why **Edit** a **Device**? The **ADM** or IP address might need to be changed or it might also be necessary if a technical refresh is done when importing an existing database. In this case, the **Device** may now have a different comport number that must be changed on the **Update a Device** window.

To edit an existing **Device**, complete the following steps:

1. In the **Details** section of the **Device** branch, in the **Existing Devices** list, click on the name of the **Device** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update Device Manager** window shown below:

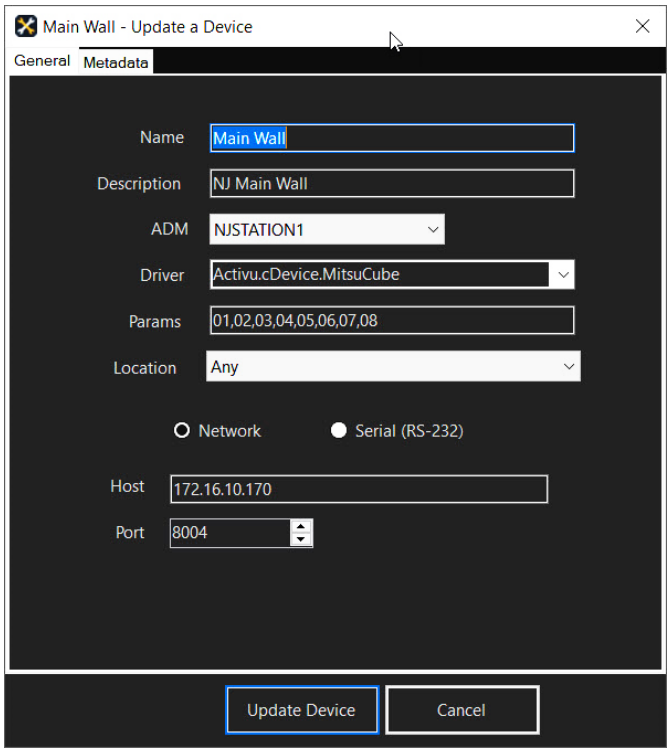


Figure 230: **Update a Device** window

Because this is an existing **Device**, parameters are already filled in. They can be changed by following the same instructions for **Adding** a **Device** (see: To Add a device) on the **General** tab.

3. Once editing the parameters is completed, click the **Update Device** button at the bottom of the screen.

Deleting Devices

To **Delete** a **Device**, complete the following steps:

1. Click on the **Device** name, in the **Existing Devices** list of the **Details** section.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

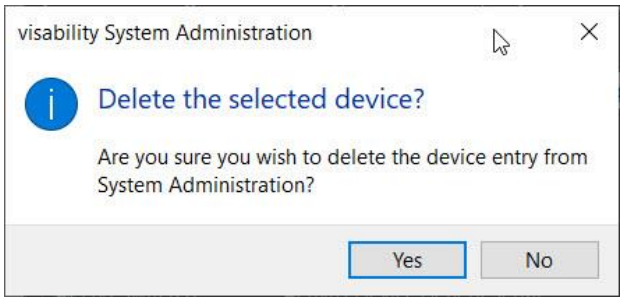


Figure 231: **Confirm Deletion** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Devices

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree refreshes the entire list of devices. To **Refresh** or reload a **Device**, complete the following steps:

1. In the **Details** section of the **Devices** branch, in the **Existing Device** list, click on the **Device** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Device** has now been reloaded into the **System** database.

Multiplexers (MUXrouters)

Multiplexers (**MUXrouters**) are the components that facilitate connection to Network Sources. They can be any PC that is IP accessible to the **Command Router** that is running the **MUXrouter** application service. This is typically on the **System Manager** but does not have to be. If there will be many **Sources** displayed simultaneously, multiple **MUXrouters** can be defined across multiple PCs for the purpose of load balancing. As **Network Sources** are created, they can be split up among the different **MUXrouters**. **Multiplexers** are licensed, so there is a limit to how many can be defined in the system, according to the customer's license agreement. Keep in mind that **Network Sources** are also licensed separately from **multiplexers**, and therefore, must also be limited in number.

Adding Multiplexers

To **Add** a **Multiplexer** to the **vis|ability**™ system, complete the following steps:

1. Click on the **Multiplexer** branch on the **Advanced Setup** tree.

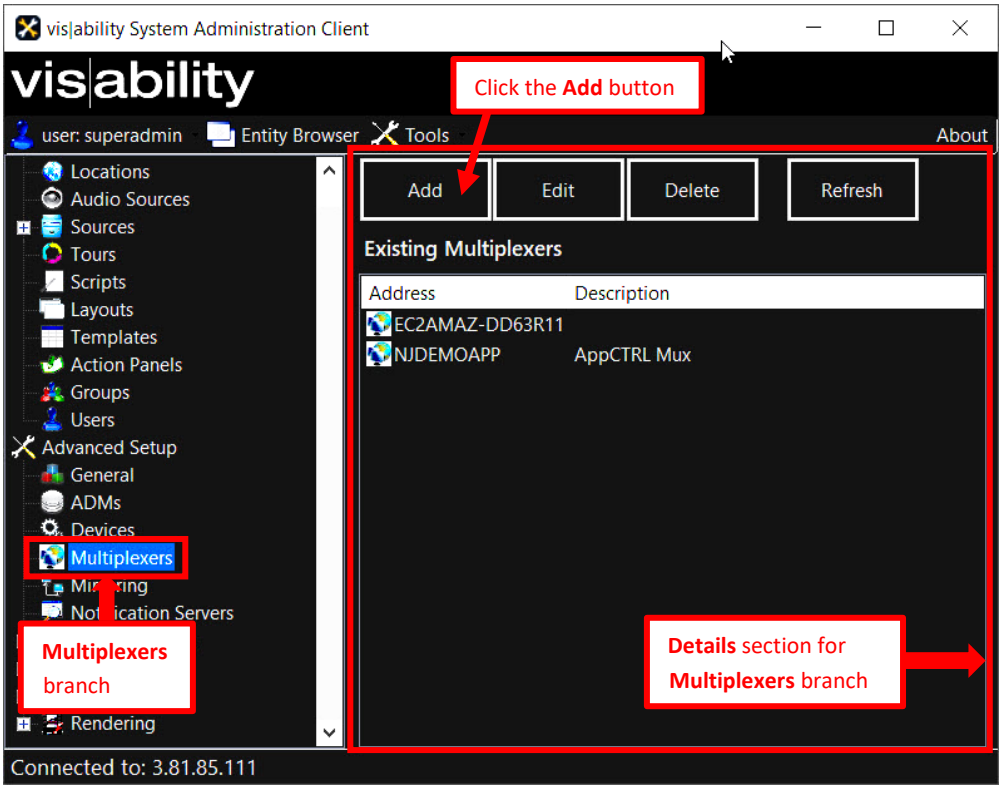


Figure 232: **Multiplexer** branch and **Details section**

2. In the **Multiplexer Details** section to the right, click the **Add** button above the **Existing Multiplexers** list. This displays the **Add a Multiplexer** window:

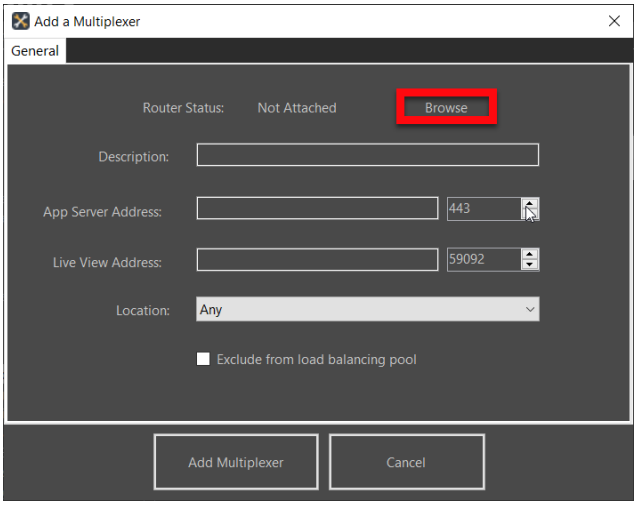


Figure 233: **Add a Multiplexer** window

3. Click the **Browse** button to display the **Entity Browser** window, listing all the available **MUXrouters**:

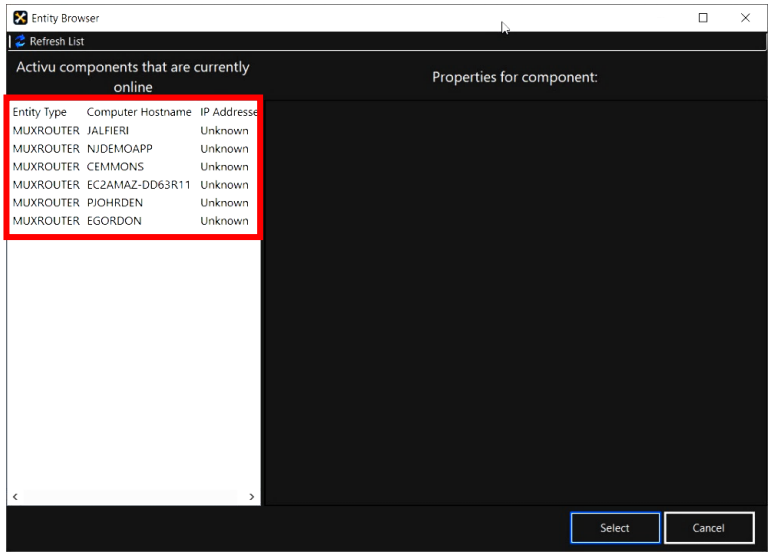


Figure 234: **Entity Browser** window

4. Click the **Multiplexer** to be added (attached), to display the **Details** for that **Multiplexer**:

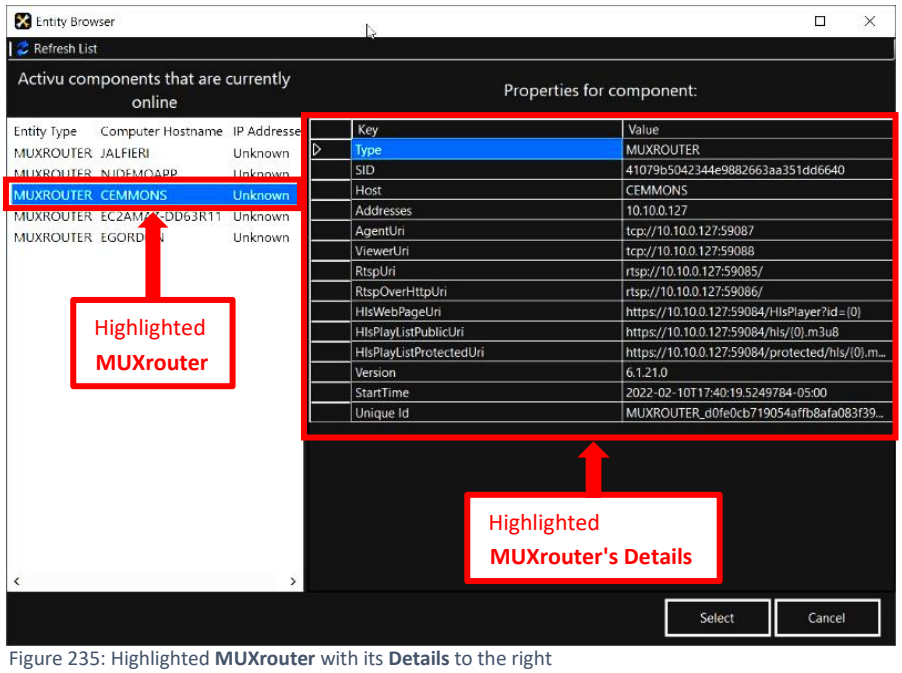


Figure 235: Highlighted **MUXrouter** with its **Details** to the right

The **Details** to the right are for informational purposes only and cannot be changed in this window.

5. Click the **Select** button at the bottom of the screen to **Attach** the highlighted **MUXrouter**.

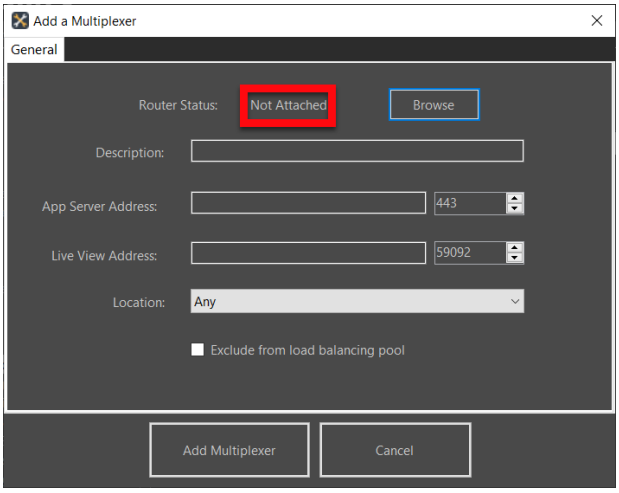


Figure 236: **Multiplexer Router Status** is now **Attached**

6. Enter the following information:
    a. Optionally, enter a description.

b. **App Server Address**: The IP address to the App Server dedicated to a system Web Portal.

c. **Live View Address**: The IP address to the Mux Router dedicated to running Live View.

d. **Location**: This field is not currently being used.

7. Click the **Add Multiplexer** button at the bottom of the window. The **Added Record** dialog appears to confirm the addition:

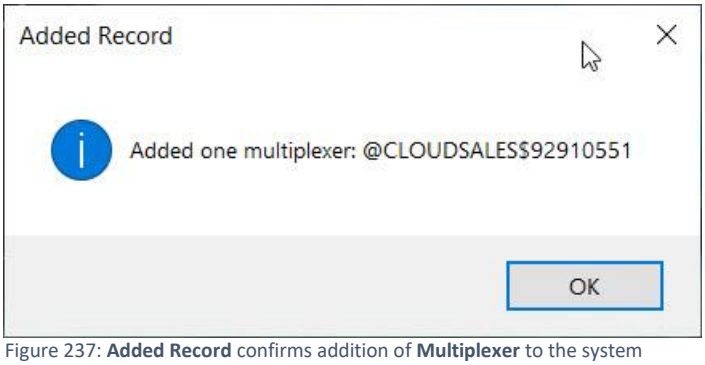


Figure 237: **Added Record** confirms addition of **Multiplexer** to the system

8. Click the **OK** button.
9. The newly attached **MUXrouter** is now added to the **Existing Multiplexers** list on the **Details** section of the **Multiplexers** branch.

Editing Existing Multiplexers

To edit an existing **Multiplexer**, complete the following steps:

1. In the **Details** section of the **Multiplexer** branch, in the **Existing Multiplexer** list, click on the name of the **Multiplexer** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update a Multiplexer** window shown below:

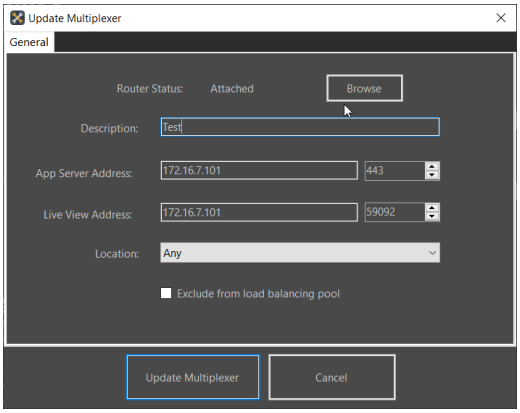


Figure 238: **Update a Device** Window

Because this is an existing **Multiplexer**, parameters are already filled in. They can be changed by following the same instructions for **Adding** a **Multiplexer** (see Click the Browse button).

3. Once editing the parameters is completed, click the **Update Multiplexer** button at the bottom of the screen.

Deleting Multiplexers

To **Delete** a **Multiplexer**, complete the following steps:

1. Click on the **Multiplexer** name, in the **Existing Multiplexer** list of the **Details** section.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

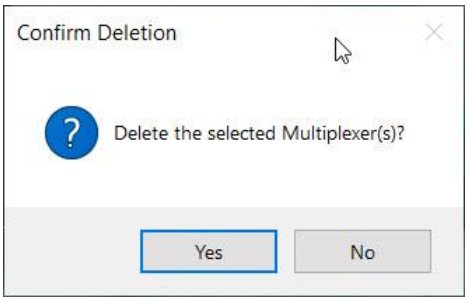


Figure 239: **Confirm Deletion** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Devices

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree refreshes the entire list of devices.

To **Refresh** or reload a **Multiplexer**, complete the following steps:

1. In the **Details** section of the **Multiplexer** branch, in the **Existing Multiplexer** list, click on the **Multiplexer** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Multiplexer** has now been reloaded into the **System** database.

Mirroring

A **Mirror** is a pair of **Display Nodes** that are working together and replicating each other's content and actions. For the sake of redundancy, to protect the system from losing any operational time if one of the **Display Nodes** fails, the system can be set up with two **Display Nodes** feeding one set of **Displays** on different inputs. If one **Display Node** goes down, the input can be switched to the other **Display Node** without any break in the function of the system. Keep in mind that because the usage of **Display Node is licensed and therefore limited, mirroring is also limited**.

Adding Mirrors

To **Add** a **Mirror**, complete the following steps:

1. Click on the **Mirroring** branch on the **Advanced Setup** tree.
2. Click the **Add** button at the top of the **Details** section, above the **Existing Mirrors** list...

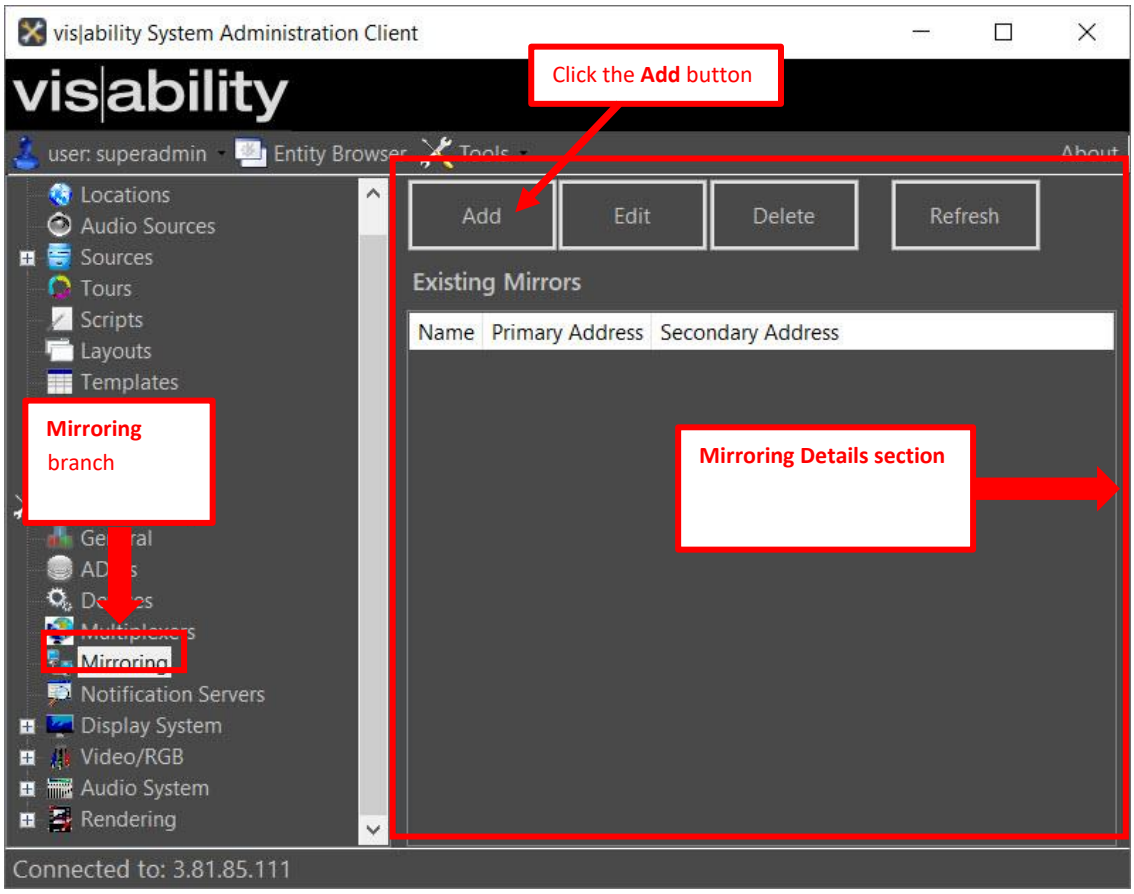


Figure 240: **Mirroring** branch and **Details** section

...to display the **Add a Mirror** window:

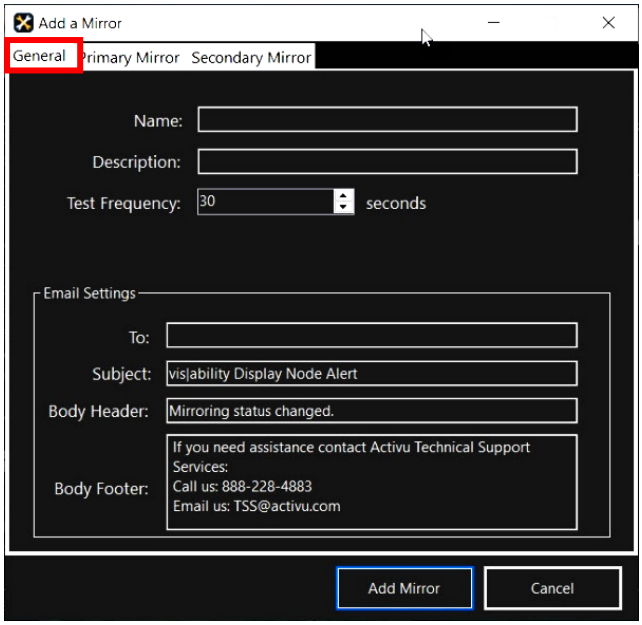


Figure 241: **Add a Mirror** window

3. Enter the following parameters on the **General** tab:
    a. **Name**: Enter any name for the **Mirror**.
    b. **Description**: This field is optional.
    c. **Test Frequency**: If one of the pair of **Display Nodes** fails, the system will become aware of it at the next test interval. Enter the frequency of that interval in the **Test Frequency** field.
    d. **Email Settings**: Leave as is or enter new email information for the recipient of email notifications that report any status changes to one of the **Display Nodes**. This new information can be entered in the **To**, **Subject**, **Body Header** and **Body Footer** fields.
    e. Click the **Add Mirror** button at the bottom of the **General** tab screen.
4. On the **Primary Mirror** tab, enter:

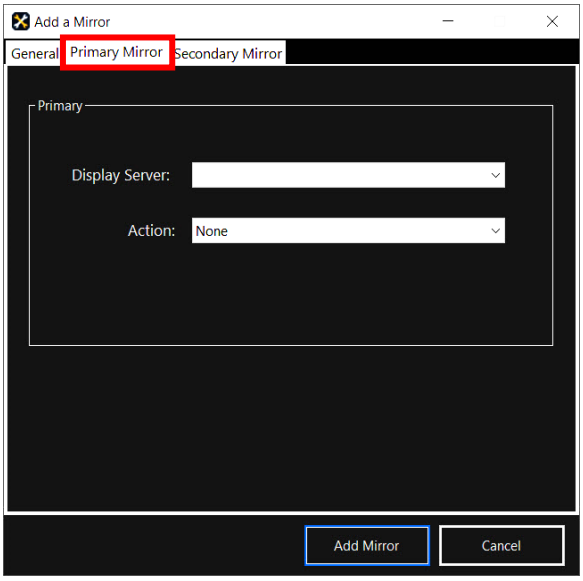


Figure 242: **Primary Mirror** tab

a. **Display Server**: Select the **Display Server** from the **Display Server** drop-down menu:

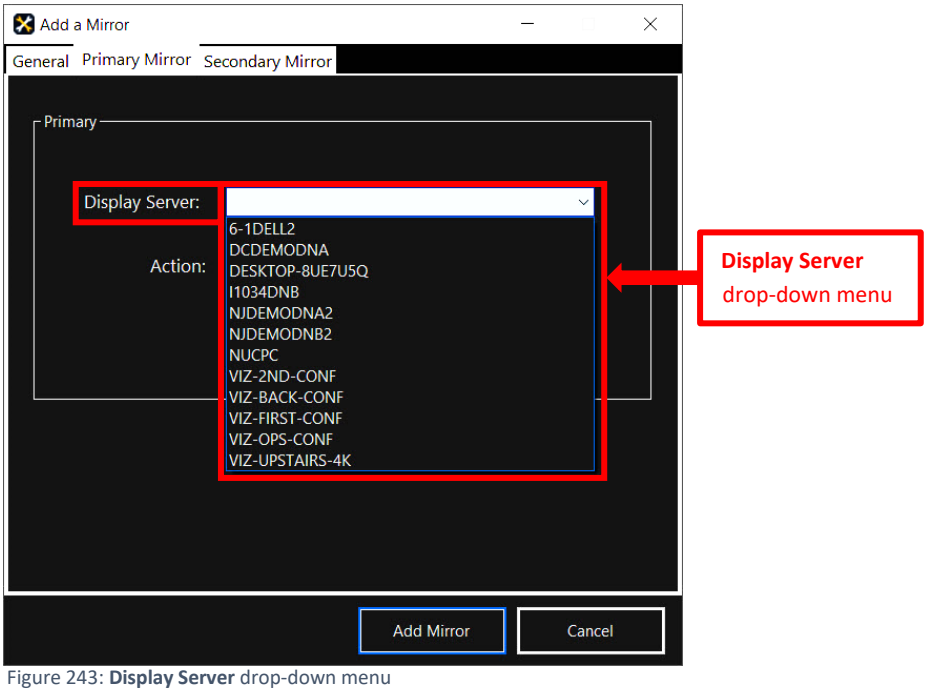


Figure 243: **Display Server** drop-down menu

b. From the **Action** drop-down menu, select the **Script** to be executed if the **Primary Display Node** fails:

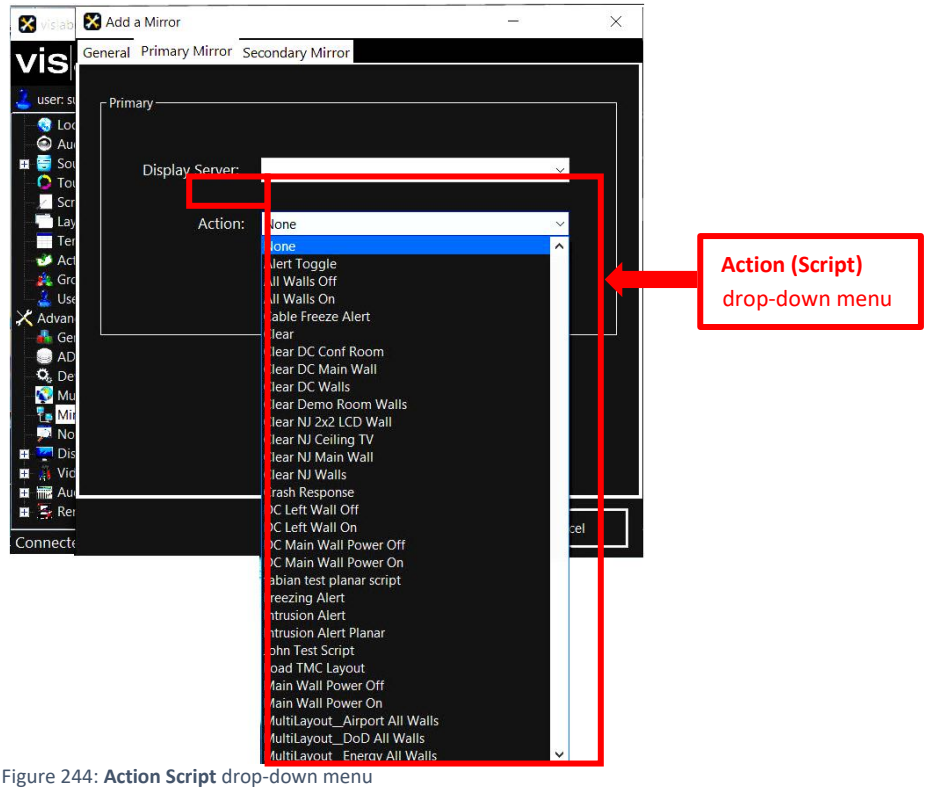


Figure 244: **Action Script** drop-down menu

5. On the **Secondary Mirror** tab: Repeat the same steps as was done for the **Primary Mirror**, entering the **Display Server** and **Action Script** for the **Secondary Display Node**.

> **Tip:** The **Primary** and **Secondary Mirrors** can be defined with the **Script** unselected until a later time when the **Script** to be used has been defined and added to the system. Once this is done, the **Script** will appear in this **Action** drop-down list on the **Add a Mirror** window and can be selected.

Editing Existing Mirrors

To edit an existing **Mirror**, complete the following steps:

1. In the **Details** section of the **Mirroring** branch, in the **Existing Mirrors** list, click on the name of the **Mirror** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update a Mirror** window shown below:

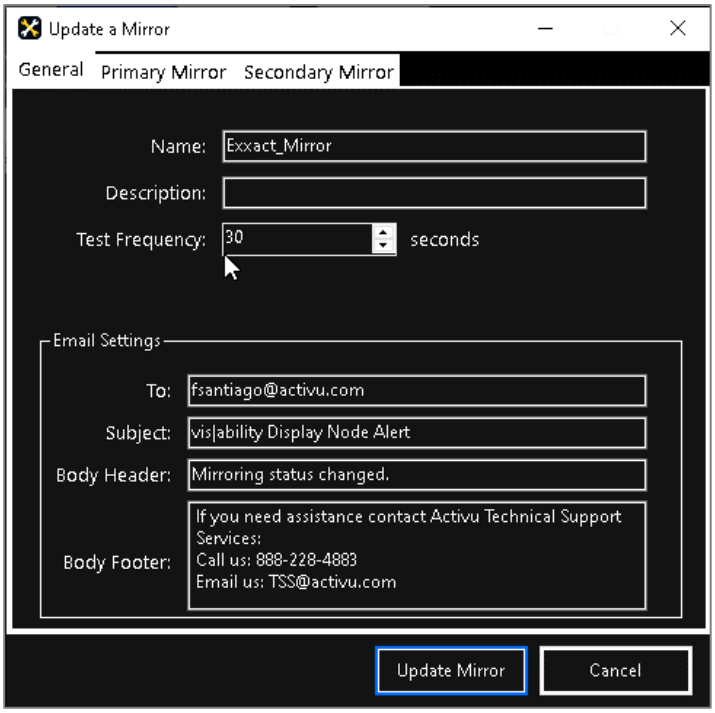


Figure 245: **Update a Mirror** window

3. Because this is an existing **Mirror**, parameters are already filled in. They can be changed by following the same instructions for **Adding** a **Mirror** (see: Enter the following parameters).
4. Once editing of the parameters is completed, click the **Update Mirror** button at the bottom of the screen.

Deleting Mirrors

To **Delete** a **Mirror**, complete the following steps:

1. Click on the **Mirror** name, in the **Existing Mirror** list of the **Details** section.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

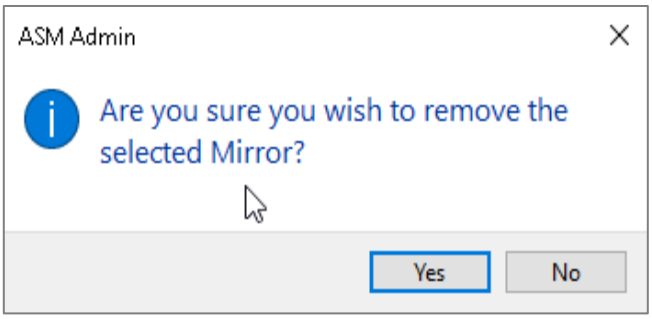


Figure 246: **Confirm Mirror Deletion** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Mirrors

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree refreshes the entire list of existing mirrors.

To **Refresh** or reload a **Mirror**, complete the following steps:

1. In the **Details** section of the **Mirroring** branch, in the **Existing Mirror** list, click on the **Mirror** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Mirror** has now been reloaded into the **System** database.

Notification Servers

A **Notification Server** is a software component that controls email notifications sent to end users or through the **Web Portal**. They also control sending SMS text messages and application push **Notifications**. Different types of automatic notifications to **Users** can be set on the **Preferences** tab of the **Users** branch on the **System** tree (see the Preferences tab). **Activu vis|ability™ Link** also utilizes the **Notification Server** to send **Notifications**. **Notifications** of all types are set up to be sent through the Amazon AWS Service, but email **Notifications** can also be sent through a company's own defined email server.

Adding a Notification Server

To add a new **Notification Server**, complete the following steps:

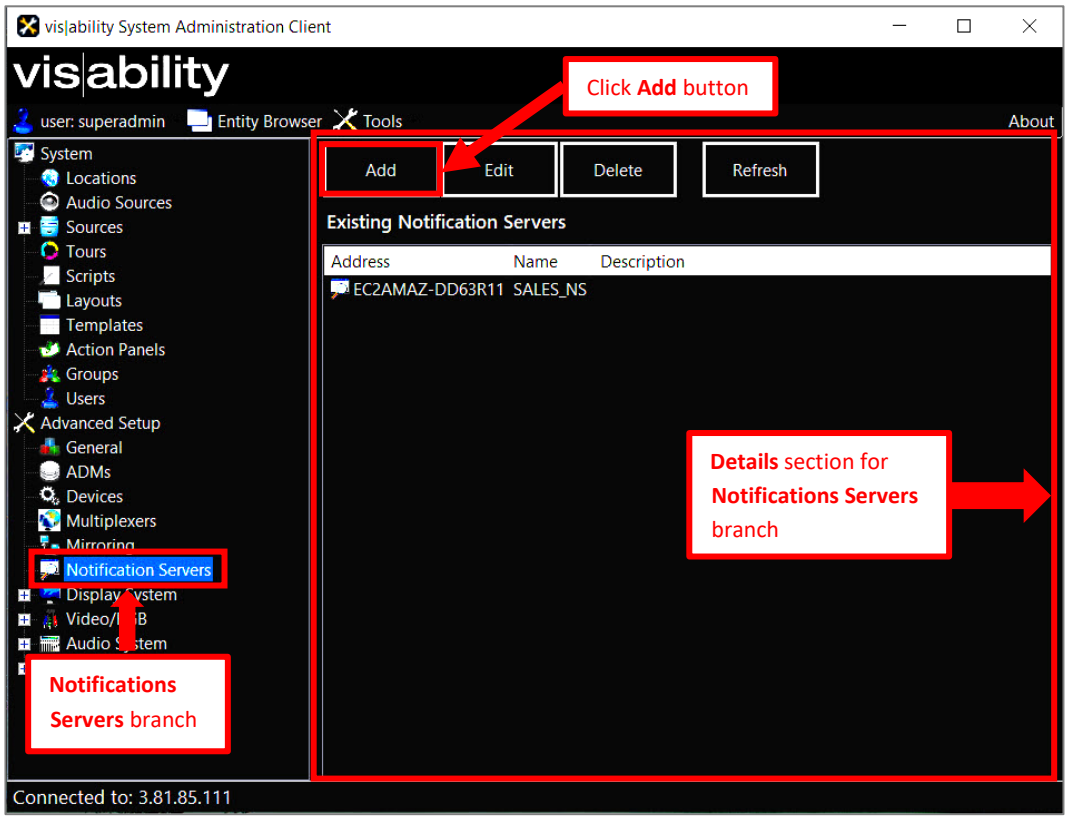


Figure 247: **Notification Servers** branch and **Details** section

1. Click on the **Add** button at the top of the **Details** section to the right, above the **Existing Notifications Servers** list. This displays the **Add a Notification Server** window:

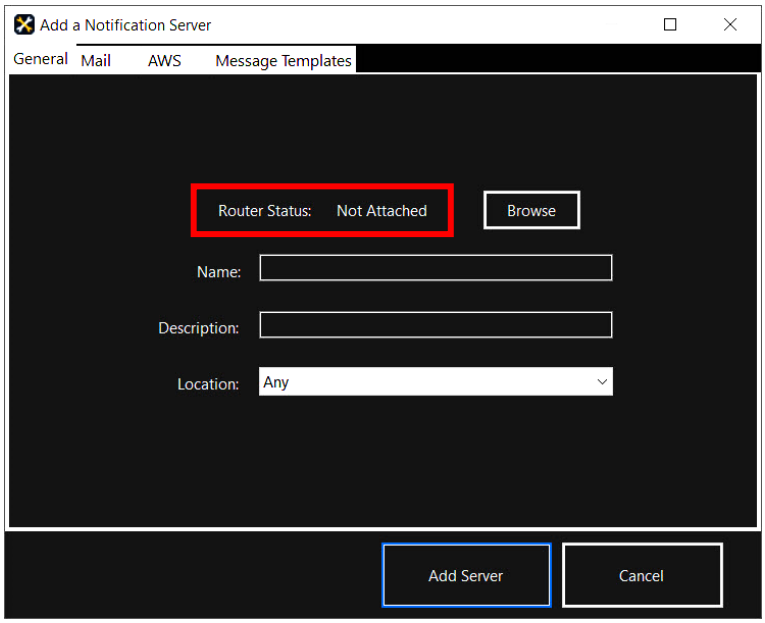


Figure 248: **Add a Notification Server** window

2. **General** tab: The **General** tab on the **Add a Notification** window initially has the **Router Status** of **Not Attached**.
    a. Click the **Browse** button to display the **Entity Browser** window:

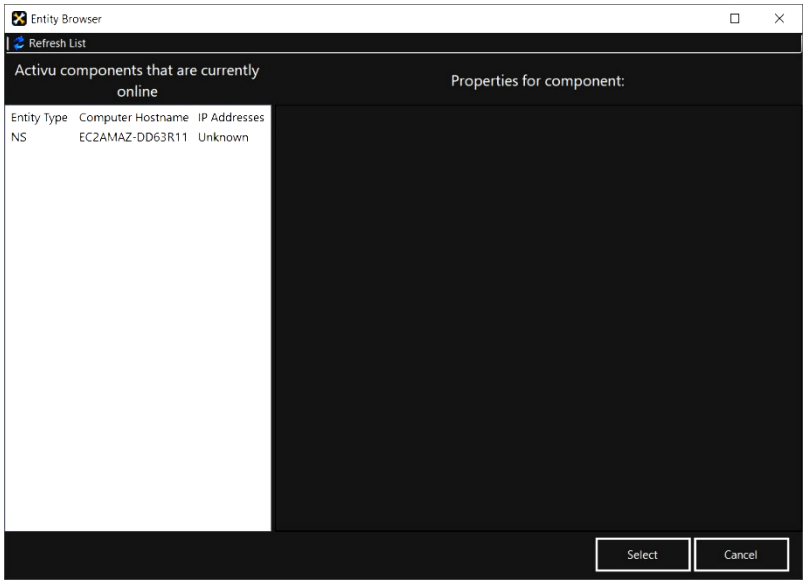


Figure 249: **Entity Browser** window

The **Entity Browser** lists all the available **Notification Servers**.

b. Click on the **Notification Server** that must be **Attached**. Its **Details** appear to the right:

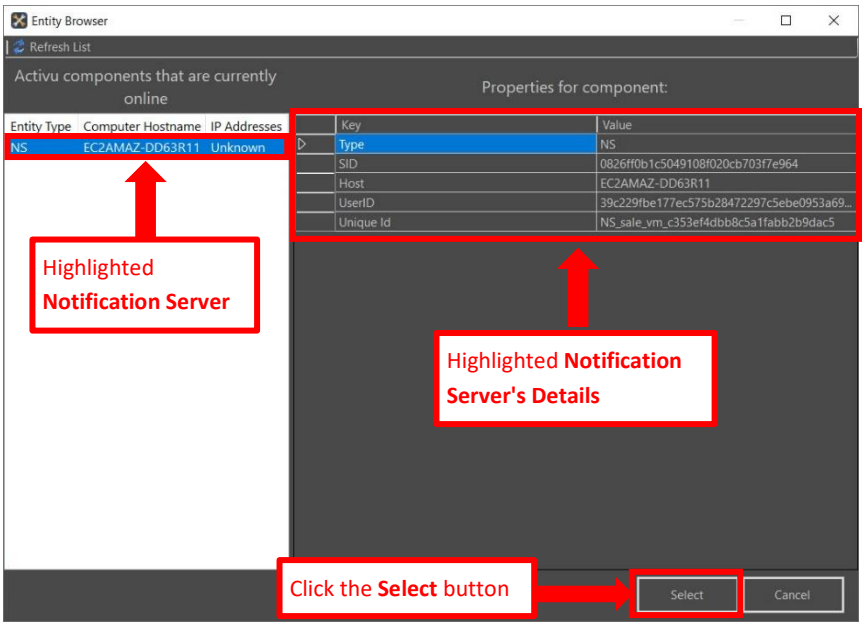


Figure 250: **Entity Browser** window - **Notification Server** highlighted with **Details** to the right

c. Click the **Select** button. The system returns to the **Add a Notification Server** window with the **Router Status** of **Attached**.

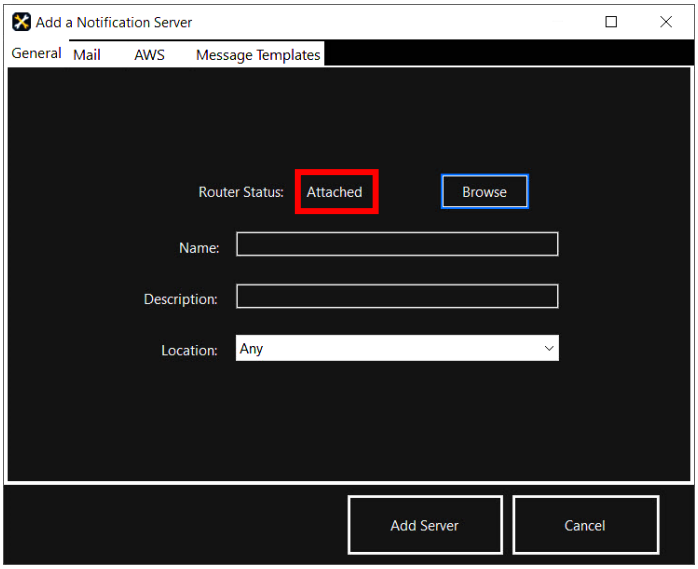


Figure 251: **Add a Notification Server** window - **Attached**

d. Enter the following parameters on the **Add a Notification Server** window:
   i. **Name**: Enter any name for this **Notification Server**.
   ii. **Description**: This field is optional.
   iii. **Location**: This field is not currently being utilized.

3. **Mail tab**: Email **Notifications** can be sent through a company's own email server, even though **Activu** flows all **Notifications** through **AWS**. If desired, enter email information on this tab.

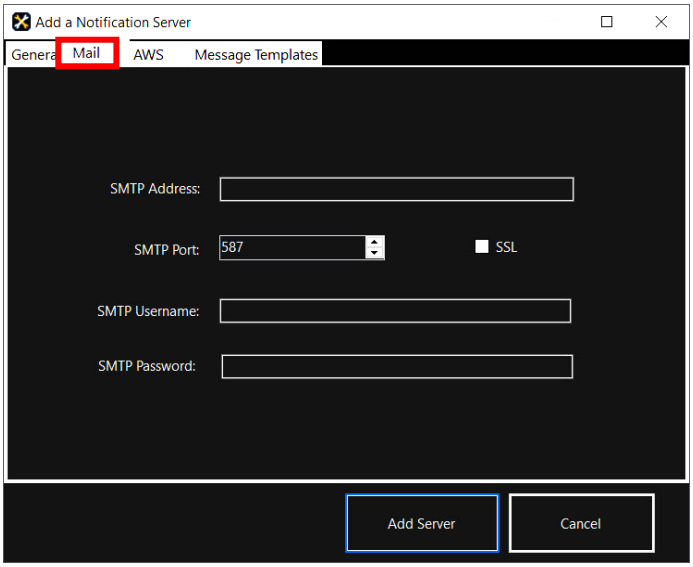


Figure 252: **Add Notification Server** window - **Mail** tab

4. **AWS tab**: This is the preferred method of sending **Notifications**. The **Activu System Integrator** will know the **AWS** credentials that should be entered in these fields: **Access Key**, **Secret Access Key**, **Region**, and **Mail Sender**.

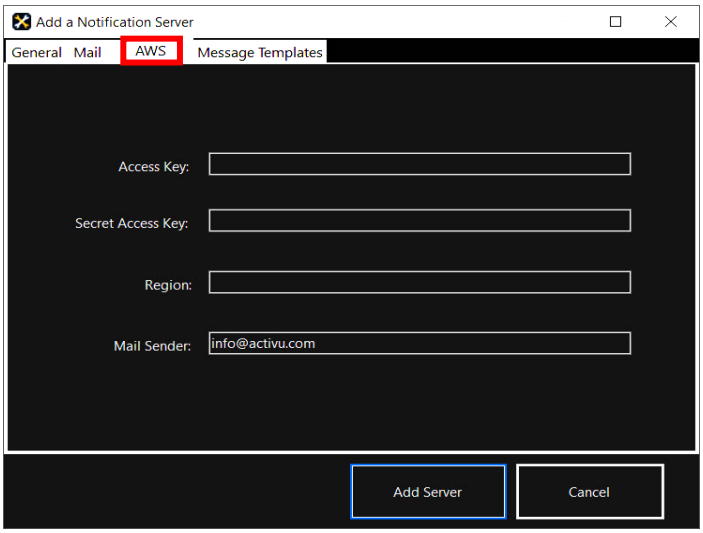


Figure 253: **Add Notification Server** window - **AWS** tab

5. **Message Templates** tab: This tab is used to select different automated **Notification Templates**.

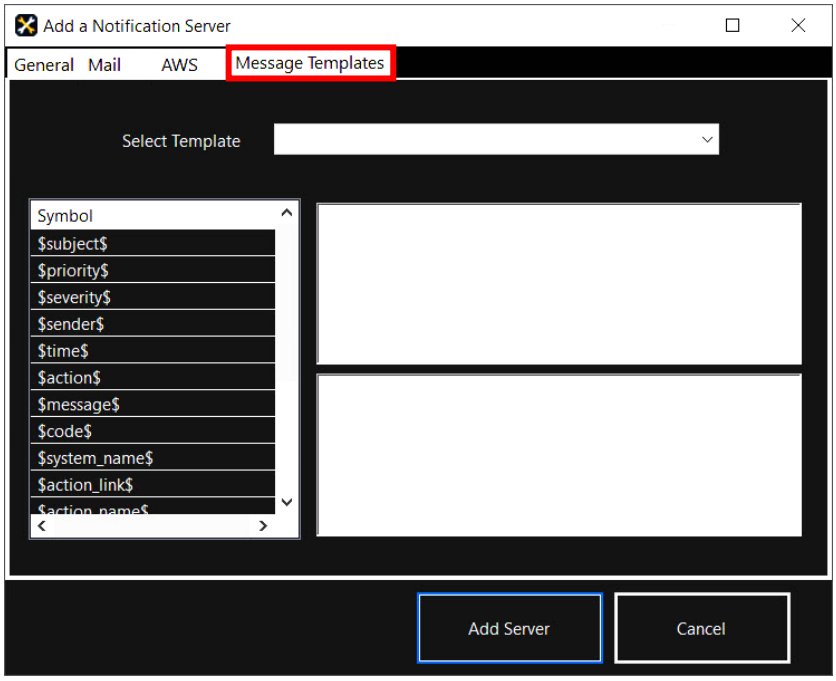


Figure 254: **Add Notification Server** window - **Message Templates** tab

Select a **Template** from the **Select Template** drop-down menu.

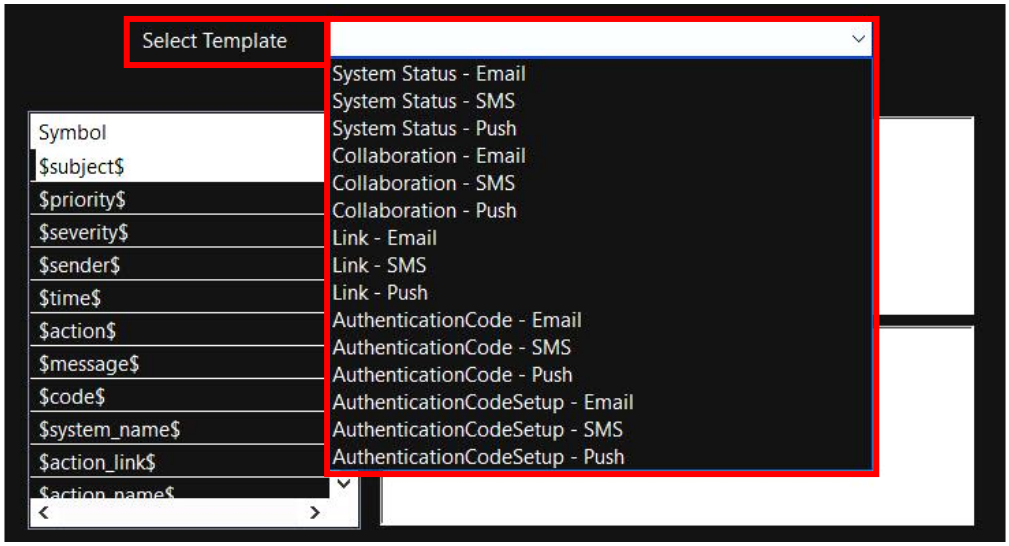


Figure 255: **Select Template** drop-down menu

The **Template Message** appears in the two boxes below:

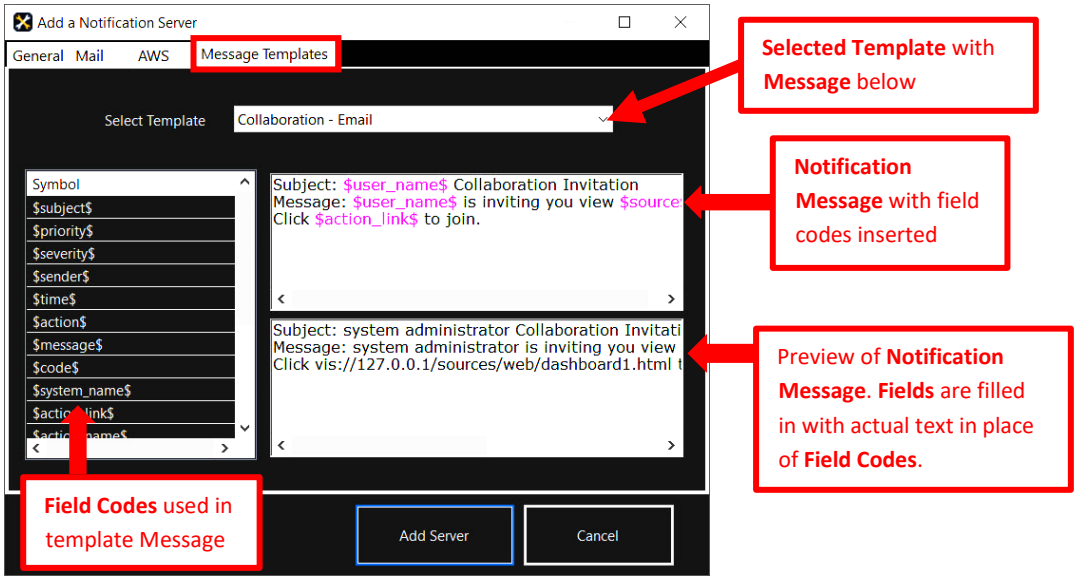


Figure 256: **Message Templates** tab - **Notification** message preview

In the box on top, the **Message** for the selected **Template** is displayed with **Field Codes** inserted. In the box on the bottom, the same **Message** is previewed with the actual text in place of the **Field Codes**.

Editing Existing Notification Servers

To edit an existing **Notification Server**, complete the following steps:

1. In the **Details** section of the **Notification Servers** branch, in the **Existing Notification Servers** list, click on the name of the **Notification Server** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update a Notification Server** window shown below:

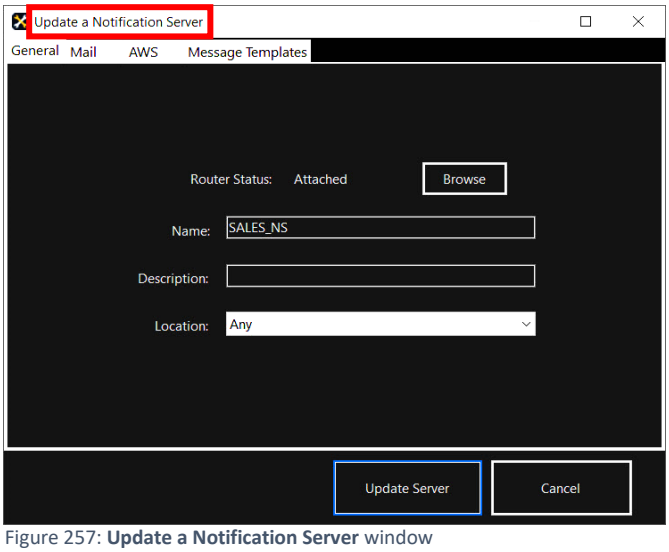


Figure 257: **Update a Notification Server** window

3. Because this is an existing **Notification Server**, parameters are already filled in. They can be changed by following the same instructions for **Adding** a **Notification Server** (see Click the Browse button).
4. Once editing of the parameters is completed, click the **Update Server** button at the bottom of the screen.

Deleting Notification Servers

To **Delete** a **Notification Server**, complete the following steps:

1. Click on the **Notification Server** name, in the **Existing Notification Server** list of the **Details** section.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

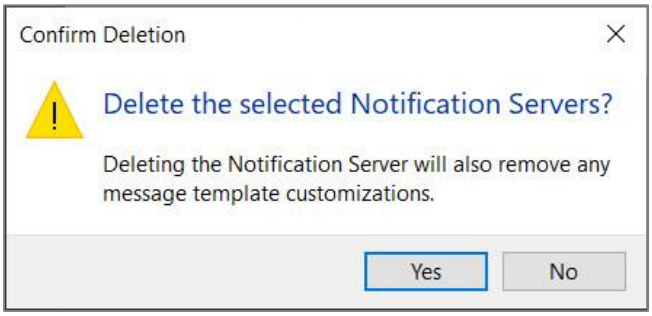


Figure 258: **Confirm Deletion of Notification Server** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Notification Servers

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree refreshes existing Notification Servers.

To **Refresh** or reload a **Notification Server**, complete the following steps:

1. In the **Details** section of the **Notification Server** branch, in the **Existing Notification Server** list, click on the **Notification Server** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Notification Server** has now been reloaded into the **System** database.

Display System

The **Display System** branch has no role in and of itself. It is simply the category heading for the **Display** subbranches. It has 2 sub-branches that have very important functions. They are **Display Servers** and **Desktop Areas**.

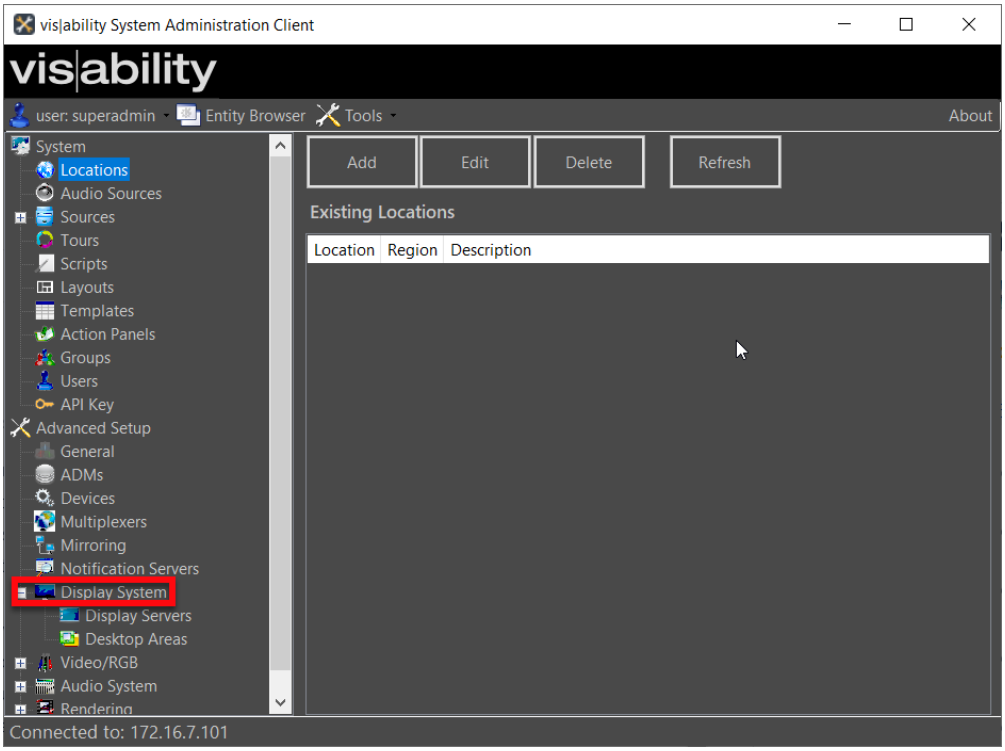


Figure 259: Click **Display Systems** branch to display two Display sub-branches

The **Display System** branch has no role in and of itself. It is simply the category heading for the **Display** sub-branches. It has 2 sub-branches that have very important functions. They are **Display Servers** and **Desktop Areas**.

Display Servers

Display Servers (or Display Nodes) are the hardware that **vis|ability**™ uses to control **Display Walls**. A single **Display Server** can be configured to drive multiple **Display Walls**. Multiple **Display Servers** can also be configured in a **vis|ability**™ installation.

Adding Display Servers

To **Add** a **Display Server**, complete the following steps:

1. Click on the **Display Servers** sub-branch under the **Display System** branch on the **Advanced Setup** tree (see **Error! Reference source not found.**).

2. Click on the **Add** button at the top of the **Display Servers Details** section to the right, above the **Existing Display Servers** list.

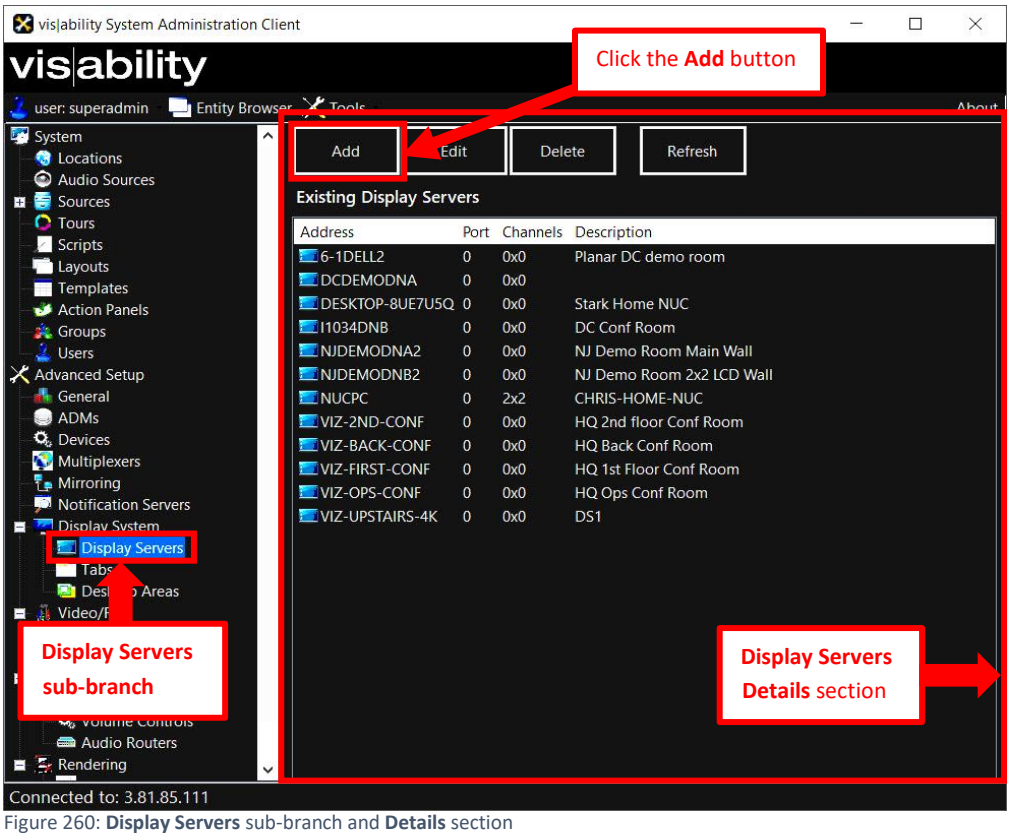


Figure 260: **Display Servers** sub-branch and **Details** section

3. On the **General** tab of the **Add a Display Server** window, the **Router Status** is **Not Attached**:
   a. Click the **Browse** button...

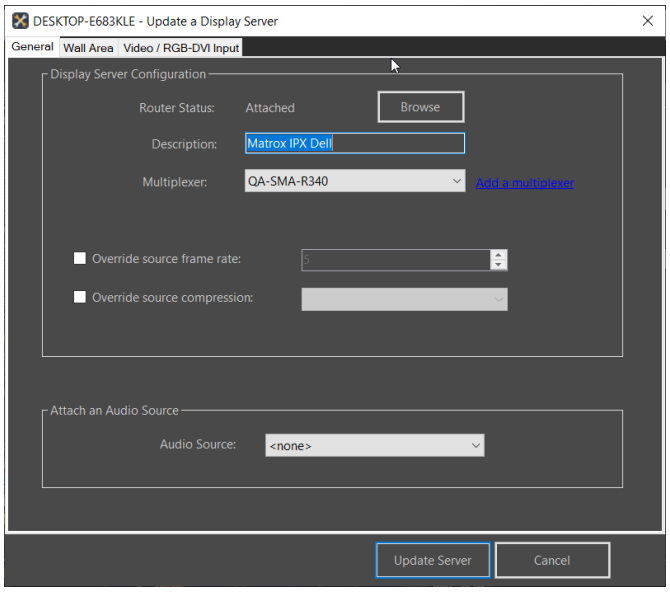


Figure 261: **Add a Display Server** window – **General** tab

...to display the **Entity Browser** window:

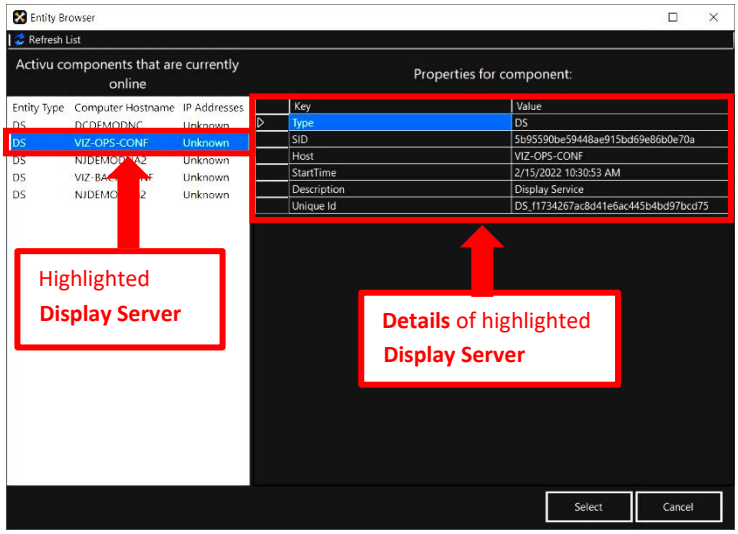


Figure 262: **Entity Browser**: **Display Servers** listed on left - **Details** of selected **Display Server** on right

b. Click on a **Display Server** in the list to the left. The **Details** for the selected **Display Server** are displayed to the right.
c. Click the **Select** button at the bottom of the window. The system returns to the **Add a Display** window with the **Router Status** of **Attached**.

4. On the **Wall Area** tab:

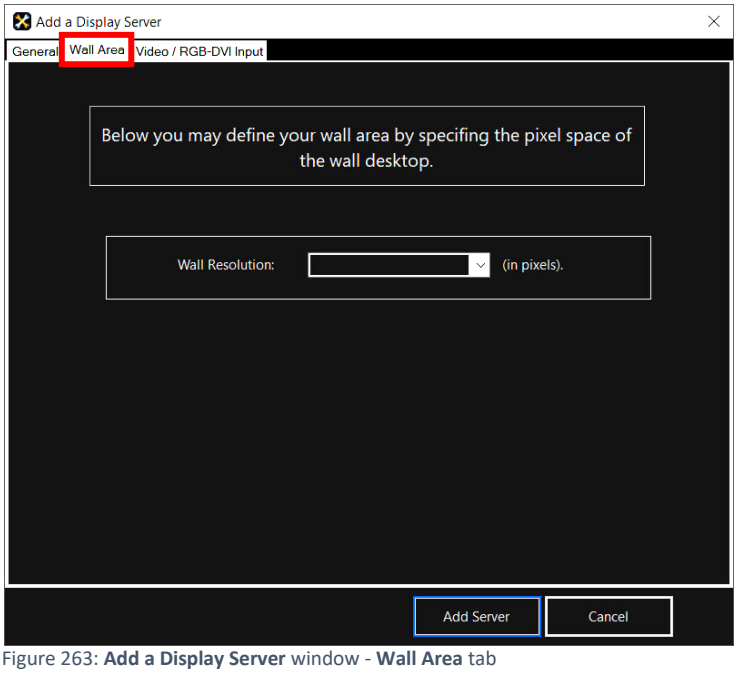


Figure 263: **Add a Display Server** window - **Wall Area** tab

a. Select the **Wall Resolution** from the drop-down menu.

b. Click the **Add Server** button at the bottom of the window.

5. On the **RGB-DVI Input** tab:

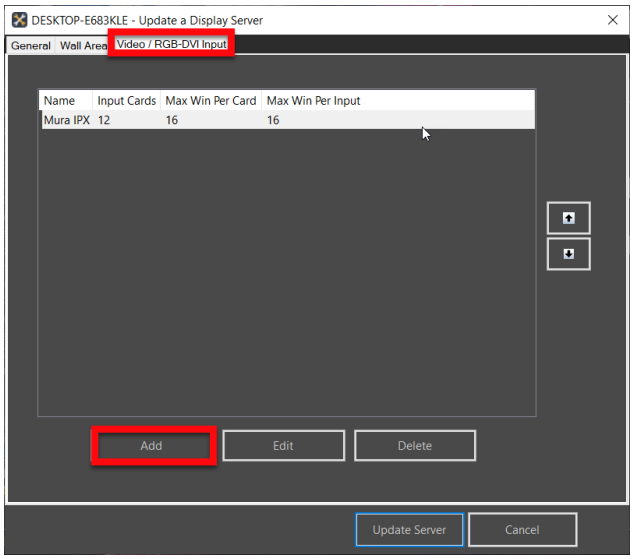


Figure 264: **Video/RGB-DVI Input** tab

6. Click or tap the **Add** button. The Input Card Properties window displays.

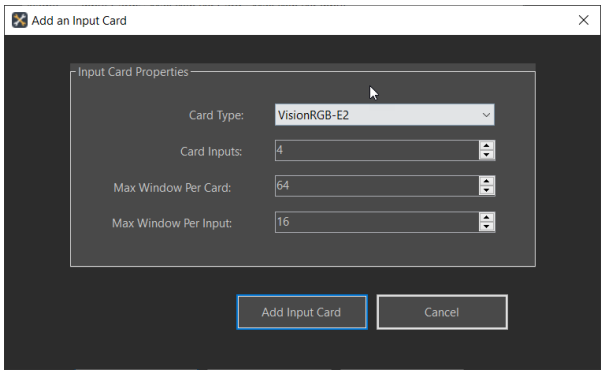


Figure 265: **Input Card Properties** Window

7. Select a **Card Type** from the drop-down box.
8. Select the number of **Card Inputs** by using the **Up** and **Down** arrows or typing the number of manually.
9. Select the **Max Window Per Card** number by using the **Up** and **Down** arrows or typing the number manually.
10. Select the **Max Window Per Input** number by using the **Up** and **Down** arrows or typing the number manually.

To edit a **Video / RGB-DVI Input**, complete the steps below:

1. Highlight an existing entry and click/tap **Edit**.
2. Make any necessary changes to the **Input Card Properties**.
3. Click or tap **Add Input Card**.

To delete a Video / RGB-DVI Input, highlight an existing entry and click/tap **Delete**.

Editing Display Servers

To edit an existing **Display Server**, complete the following steps:

1. In the **Details** section of the **Display Servers** branch, in the **Existing Display Servers** list, click on the name of the **Display Server** that is to be edited.
2. Click the **Edit** 

button at the top of the **Details** section to open the **Update a Display Server** window shown below:

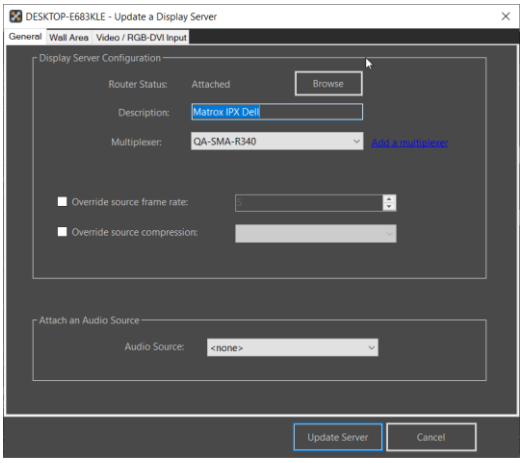


Figure 266: **Update a Display Server** window

3. Because this is an existing **Display Server**, parameters are already filled in. They can be changed by following the same instructions for **Adding** a **Display Server** (see General tab of the Add a Display Server window).
4. Once editing of the parameters is completed, click the **Update Server** button at the bottom of the screen.

Deleting Display Servers

To **Delete** a **Notification Server**, complete the following steps:

1. Click on the **Display Server** name, in the **Existing Display Server** list of the **Details** section.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

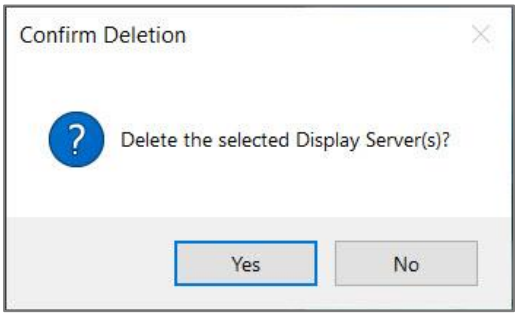


Figure 267: **Confirm Deletion of Display Server** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Display Servers

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree refreshes the entire list of Display servers.

To **Refresh** or reload a **Display Server**, complete the following steps:

1. In the **Details** section of the **Display Server** branch, in the **Existing Display Server** list, click on the **Display Server** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Display Server** has now been reloaded into the **System** database.

Desktop Areas

The **Desktop Areas** sub-branch is used to define the pixel space for **Display Wall** areas that **vis|ability**™ is expected to control. **Desktop Areas** are licensed and therefore limited, according to a company's licensing agreement. Without defined **Desktop Areas**, the **Display Servers** and **Tabs** cannot be utilized. A **Desktop Area** is shown below as it appears in **Desktop Client** on the **Display Control** window:

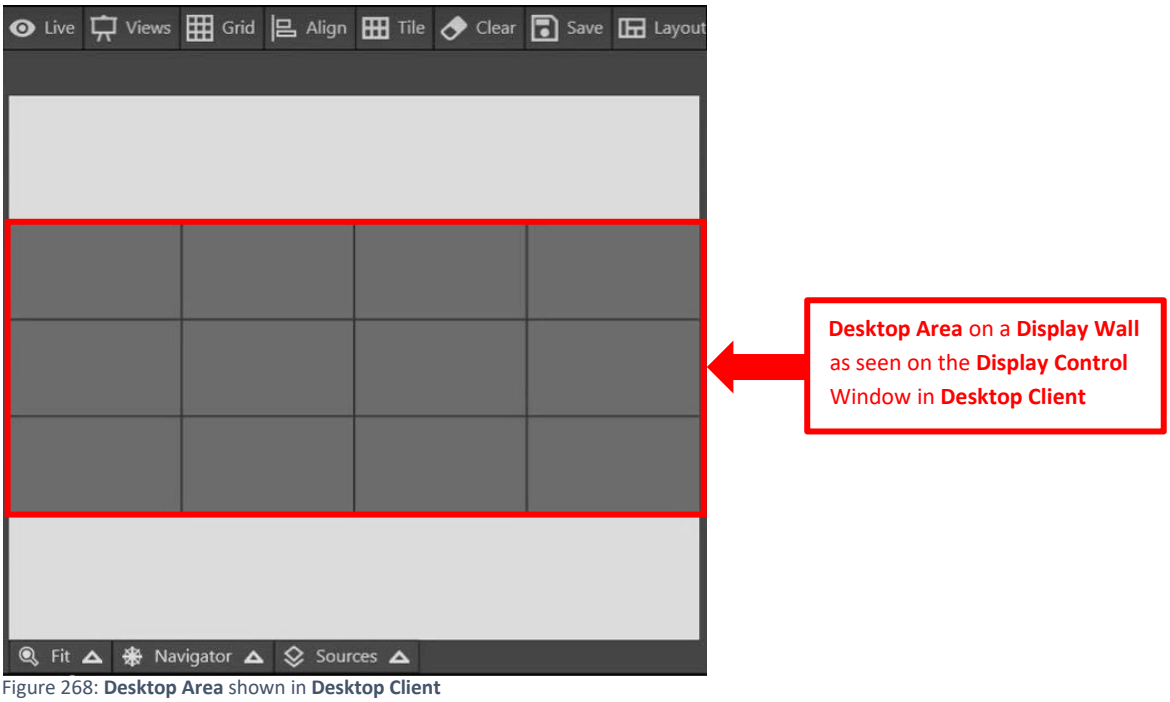


Figure 268: **Desktop Area** shown in **Desktop Client**

Views are *virtual* **Desktops** within the **Desktop Area**. They are shown below as they appear in **Desktop Client** on the **Display Control** window:

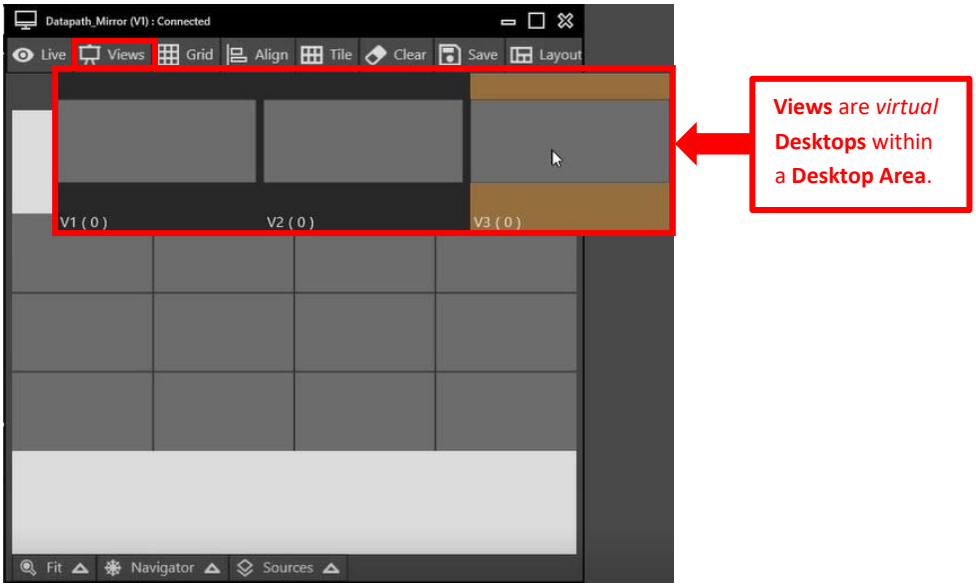


Figure 269: **Views** are *virtual* **Desktops** within a **Desktop Area**

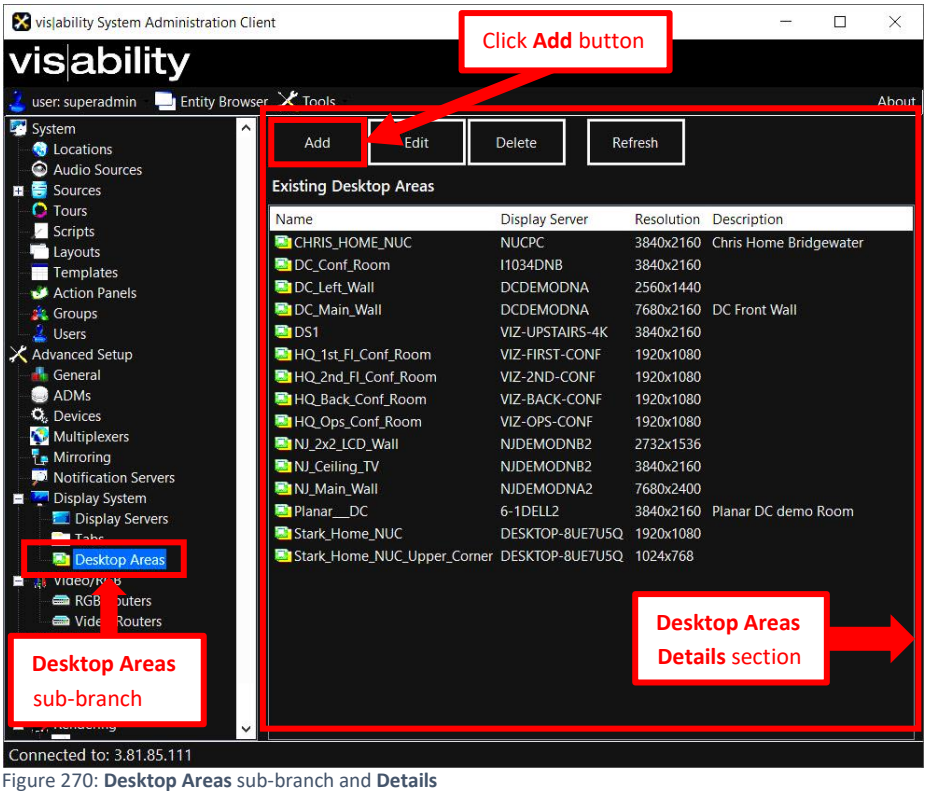


Figure 270: **Desktop Areas** sub-branch and **Details**

Adding Desktop Areas

To **Add** a **Desktop Area**, complete the following steps:

1. Click on the **Desktop Areas** sub-branch under the **Display System** branch on the **Advanced Setup** tree (see **Error! Reference source not found.**).
2. Click the **Add** button in the **Details** section to the right, above the **Existing Desktop Areas** list, to display the **Add a Desktop Area** window:

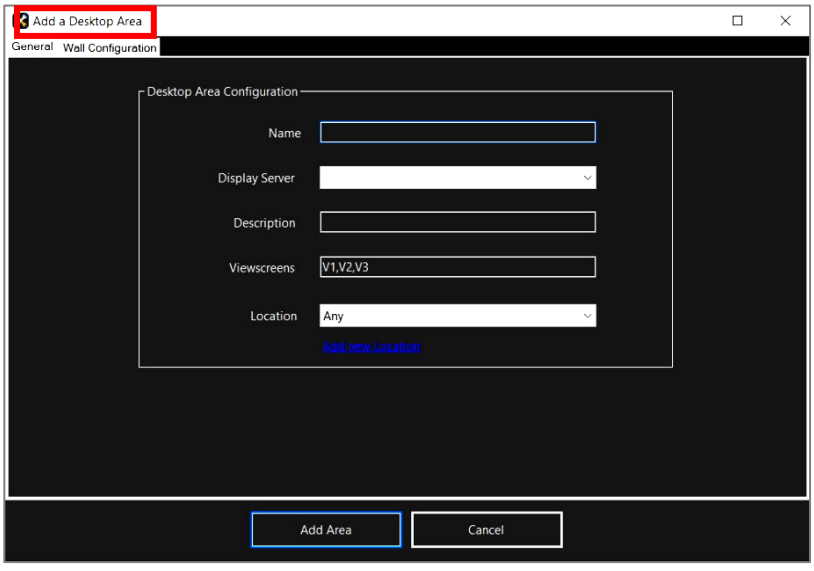


Figure 271: **Add a Desktop Area** window

3. On the **General** tab, enter the following parameters:
    a. **Name**: Enter any name for the **Desktop Are**a.
    b. **Display Server**: Select the **Display Server** that will be controlling this Display.
    c. **Description**: This field is optional.
    d. **Viewscreens**: Enter the numbers of the virtual **Viewscreens** for this **Desktop Area**. Example: **V1**, **V2**, **V3**
    e. **Location**: This field is not being utilized at this time.
4. On the **Wall Configuration** tab, enter the following parameters:

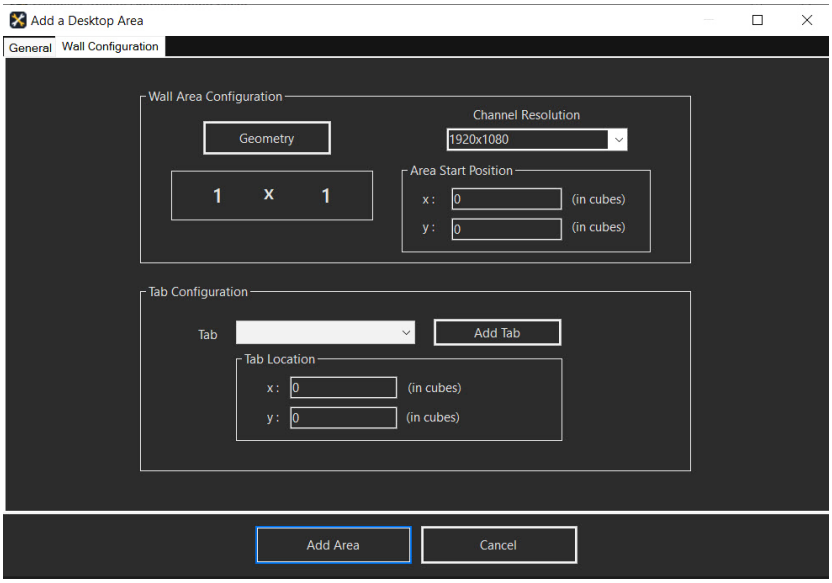


Figure 272: Add a desktop Area- wall configuration **tab**

    a. **Wall Area Configuration**:
        i. **Geometry**: Click in the **Geometry** box and drag the mouse to create a **Grid** with the appropriate number of columns and rows that will appear on the **Desktop Area** for the **Display Wall**. In this case, the **Grid** is 4 columns wide and 4 rows tall.

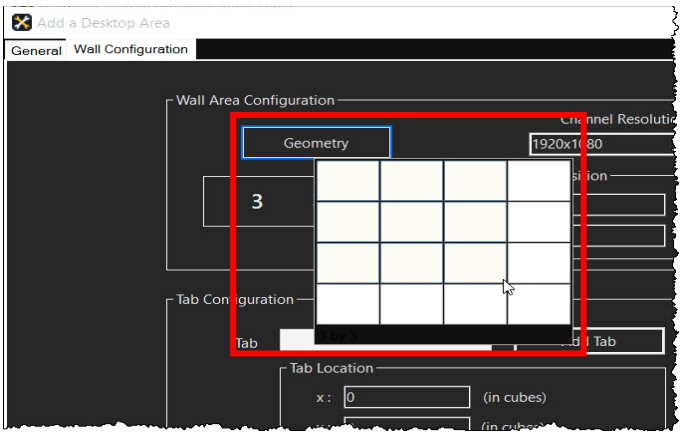


Figure 273: **Add a Desktop Area window - Geometry** selection grid

ii. **Channel Resolution**: This is the **Resolution** for *each* square on the **Grid**, not the entire **Grid**. In this example, **1920x1082** is selected as the **Resolution** for each square.

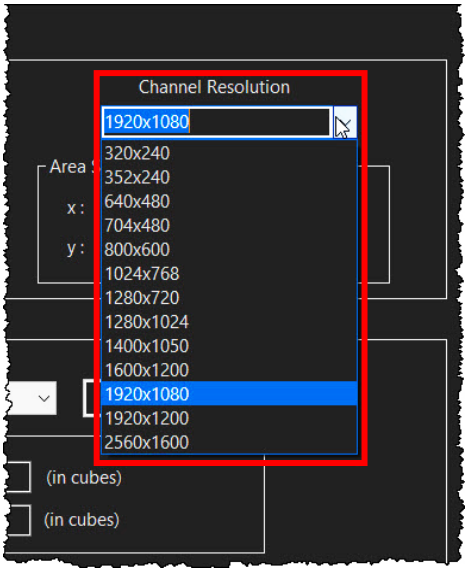


Figure 274:**Wall Configuration** tab - **Channel Resolution** drop-down menu

iii. **Area Start Position**: If the **Desktop Area** is to be broken up into more than one wall, the **Start Position** for the first **Wall** entered in the **x** field should be **0**, representing the far-left edge of the **Grid**. The **Start Position** for the second **Wall** should be equal to the **Resolution** of one square in the **Grid** (in this case, **1920**) multiplied by the number of columns in the width the first **Wall**, in **this case, 4, (**i.e., **1920x4=7680**). Enter **7680** in the **x** field, representing the point at which the second **Wall** begins.

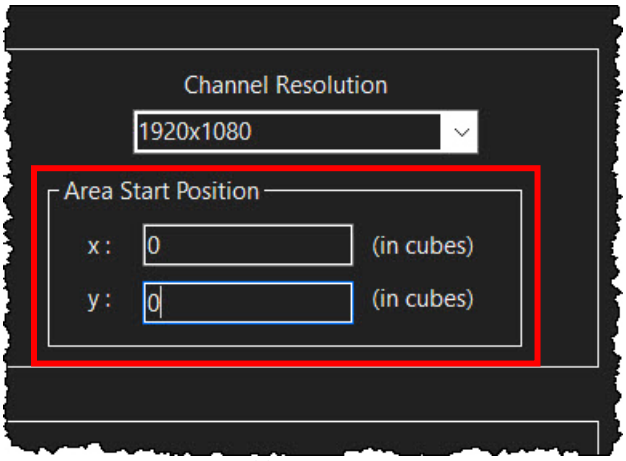


Figure 275: **Area Start Position**

b. **Tab Configuration**:

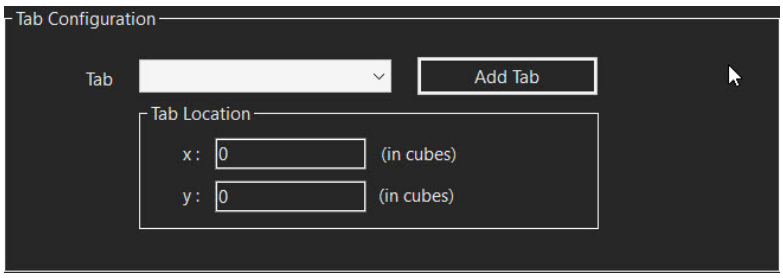


Figure 276: **Wall Configuration** tab - **Tab Configuration** section

i. **Tab** drop-down menu: An *existing* **Tab** (that was already created under theError! Reference source not found. sub-branch) can be associated with this **Desktop Area** by selecting it from the **Tab** drop-down list:

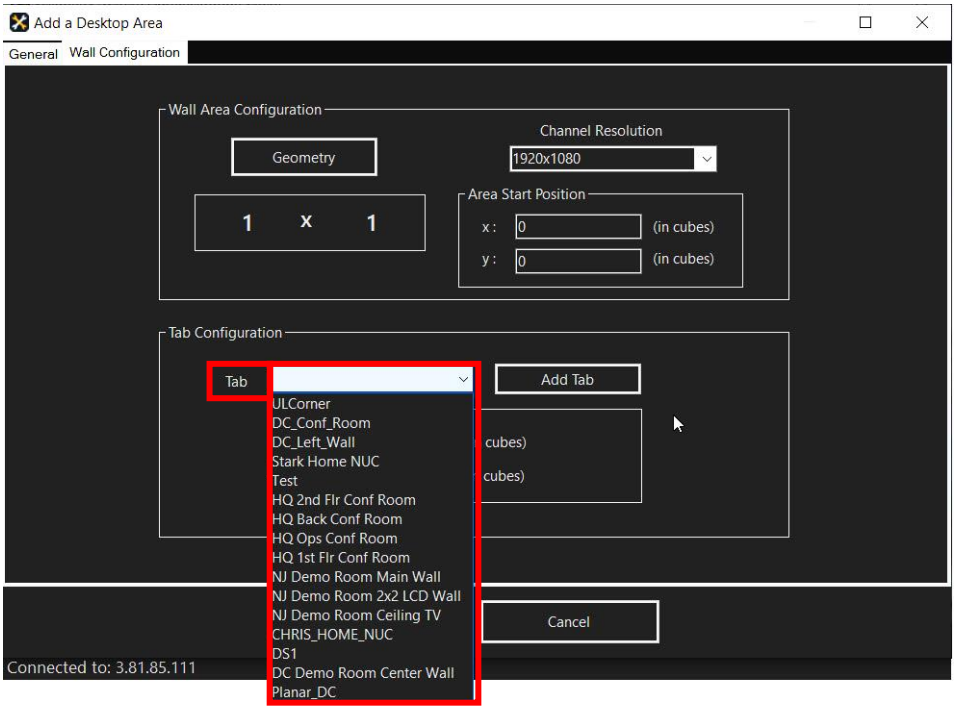


Figure 277: **Tab drop-down menu**

ii. **Add Tab**: This button can be used to **Add** a *new* **Tab** and associate it with this **Desktop Area**.

iii. **Tab Location**: This field is not being utilized at this time and can be left as is.

c. Click the **Add Area** button at the bottom of the **Add a Desktop Area** window.

Editing Desktop Areas

To edit an existing **Desktop Area**, complete the following steps:

1. In the **Details** section of the **Desktop Areas** sub-branch, in the **Existing Desktop Areas** list, click on the name of the **Desktop Area** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update a Desktop Area** window shown below:

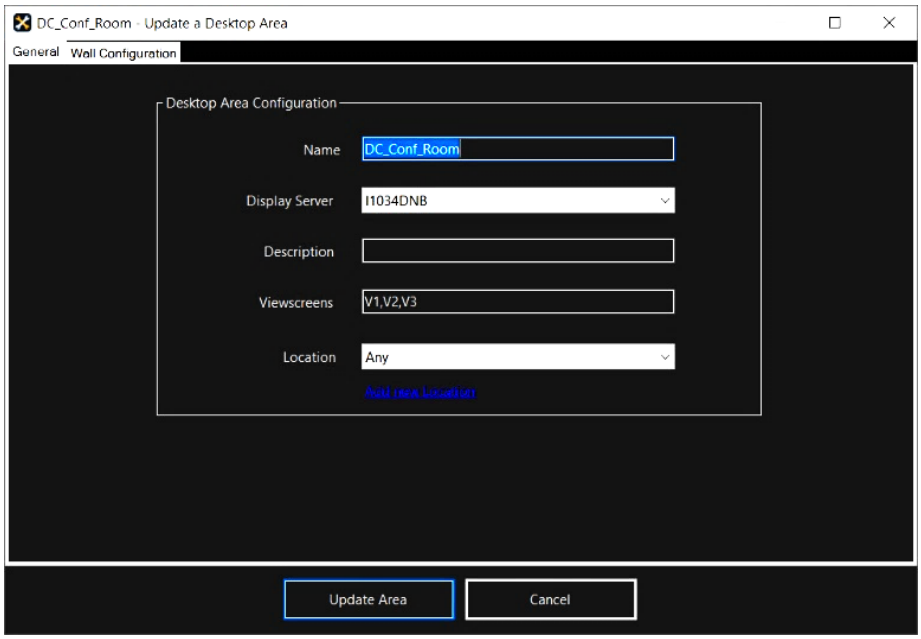


Figure 278: **Update a Tab** window

3. Because this is an existing **Desktop Area**, some parameters are already filled in. They can be changed by following the same instructions for **Adding** a **Desktop Area** (see Adding Desktop Areas).
4. Once editing of the parameters is completed, click the **Update Area** button at the bottom of the screen.

Deleting Desktop Areas

To **Delete** a **Desktop Area**, complete the following steps:

1. Click on the **Desktop Area** name, in the **Existing Desktop Areas** list of the **Details** section.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

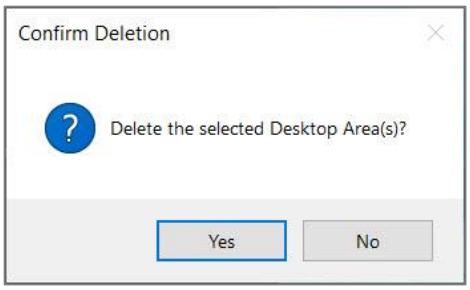


Figure 279: **Confirm Deletion of Desktop Area** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Desktop Areas

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree is used to confirm that the data for a specific component in the system has been loaded into the **System** database, by reloading it again.

To **Refresh** or reload a **Desktop Area**, complete the following steps:

1. In the **Details** section of the **Desktop Area** sub-branch, in the **Existing Desktop Area** list, click on the **Desktop Area** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Desktop Area** has now been reloaded into the **System** database.

Video/RGB

The **Video/RGB** branch has no role in and of itself. It is simply the category heading for its two **Router** (**Matrix Switch**) sub-branches. The sub-branches are **RGB Routers** and **Video Routers**. A **Router** is a hardware device with a set number of **Input** and **Output** connections that must be defined and added to the system on the **RGB** or **Video** sub-branches. **Routers** allow one source to be **Output** to many destinations simultaneously. The two different types of **Routers**, **Video** and **RGB**, are essentially the same, except that they provide support for two different generations of hardware. **RGB** supports the current digital interface standards. **Video** supports the analog, legacy interface standards.

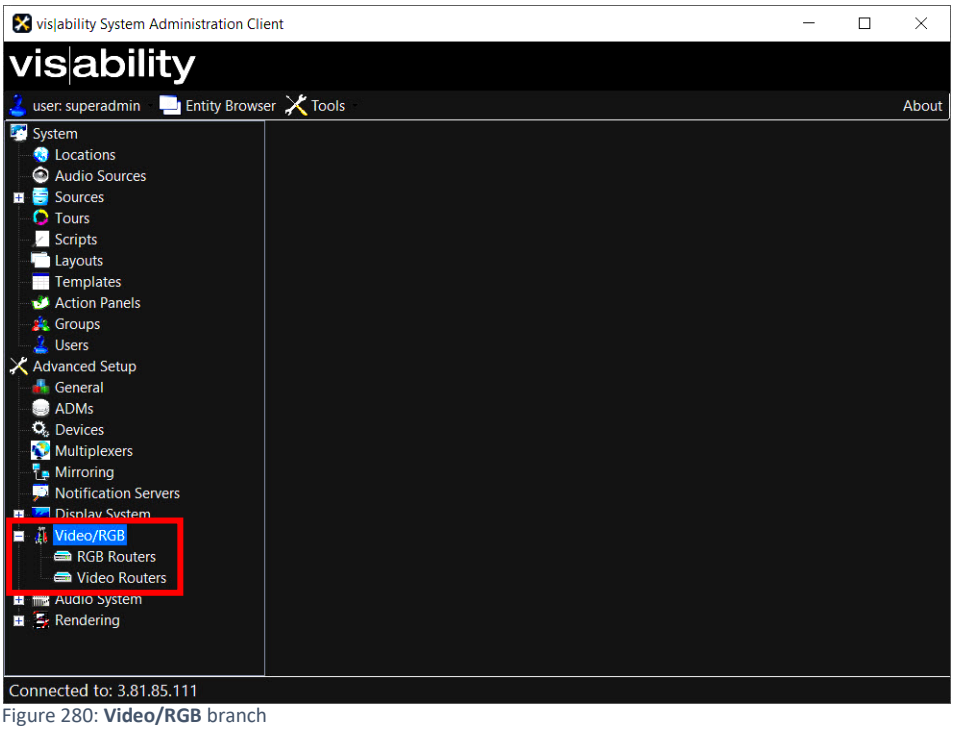


Figure 280: **Video/RGB** branch

Click on the **Video/RGB** branch to see these two **Router** sub-branches:

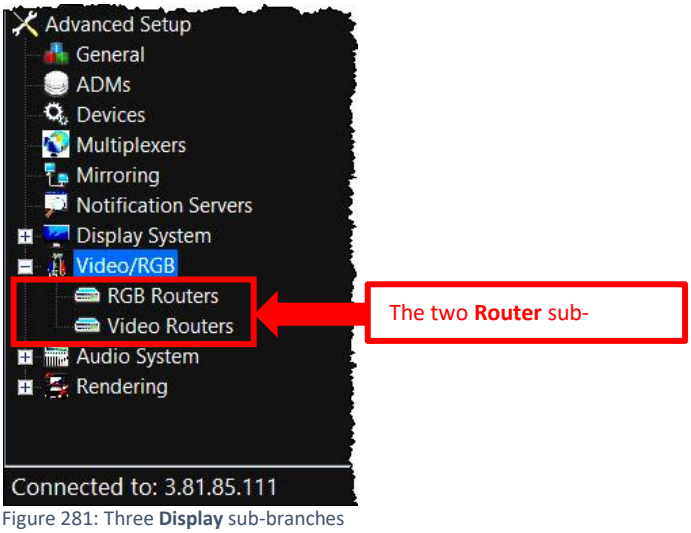


Figure 281: Three **Display** sub-branches

RGB Routers

The **RGB Router** is the later generation of **Routers** being used by the **vis|ability™** system.

Adding RGB Routers

To **Add** an **RGB Router**, complete the following steps:

1. Click on the **RGB Router** sub-branch under the **Video/RGB** branch on the **Advanced Setup** tree.

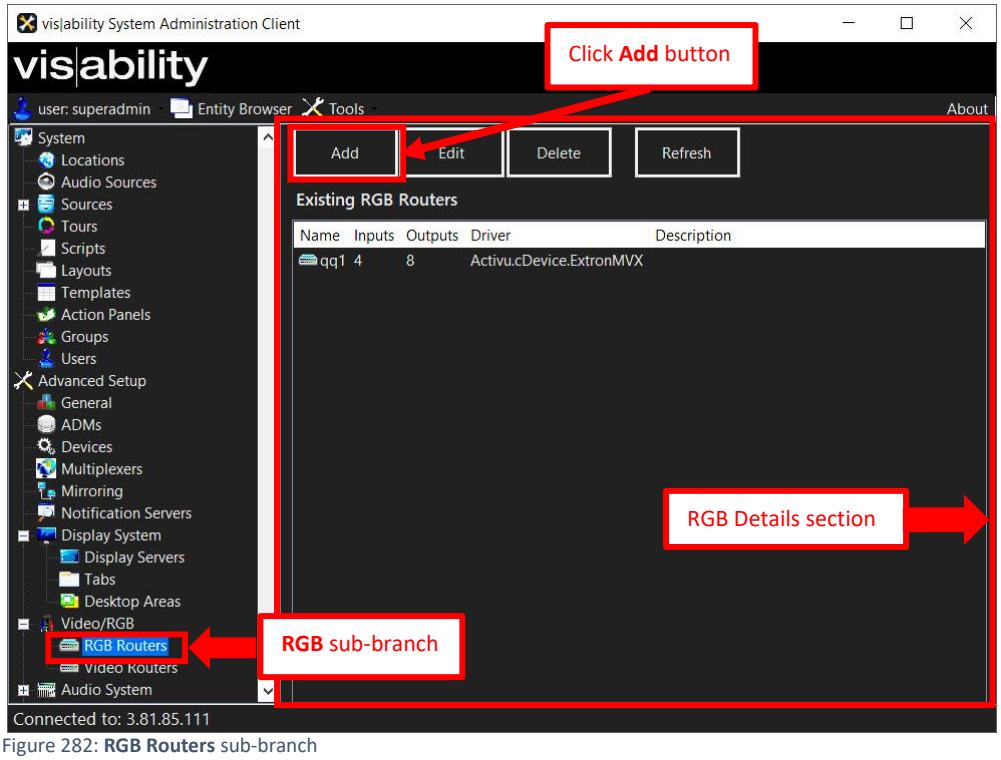


Figure 282: **RGB Routers** sub-branch

2. Click the **Add** button on the **Details** section to the right, above the **Existing RGB Routers** list. This displays the **Add an RGB Router** window.

3. On the **General** tab, enter the following parameters:

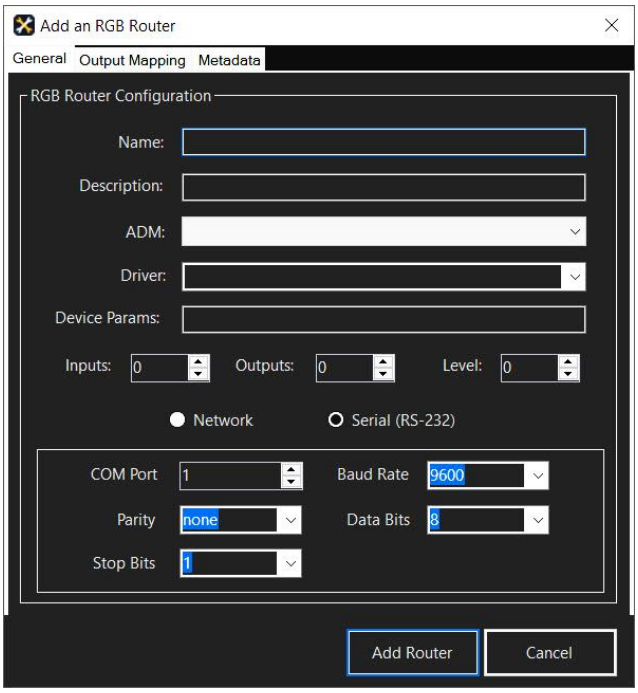


Figure 283: **Add an RGB Router** window

a. **Name**: Enter any name for the **RGB Router**.

b. **Description**: This field is optional.

c. **ADM**: Select an **ADM** (Activu Device Manager) from the drop-down list.

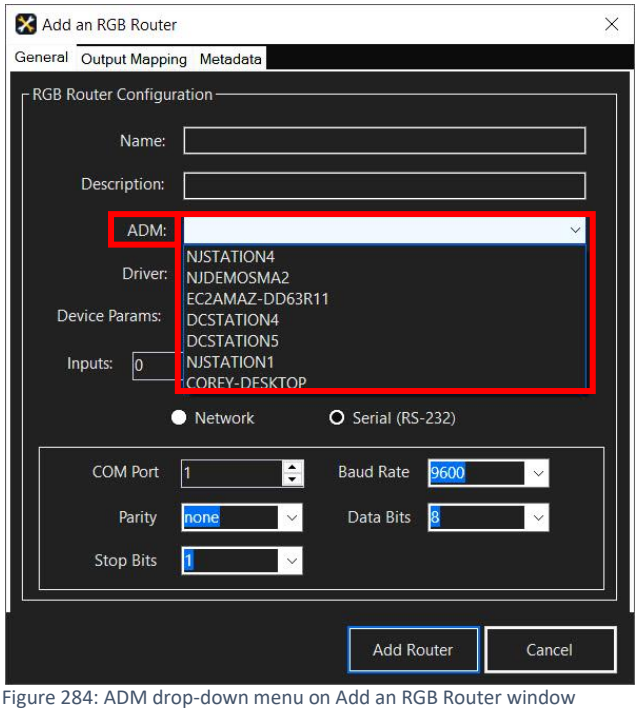


Figure 284: ADM drop-down menu on Add an RGB Router window

d. **Driver**: Select a **Device Driver** from the list on the drop-down menu.
e. **Device Params**: In most cases, this field is optional.
f. **Inputs** and **Outputs**: Using the **Up** and **Down** arrows, enter the number of **Inputs** and **Outputs** on the **Router**.

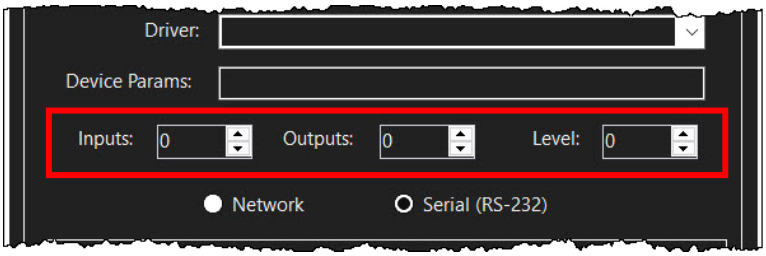


Figure 285: **Inputs**, **Outputs** and **Levels on General tab**

g. **Levels**: Using the **Up** and **Down** arrows, enter how many different types of signals this **Router** handles. Examples: **Audio** (1) and **Video** (1); **Stereo Audio** (2) and **Video** (1)**,** etc.
h. **Network** or **Serial**: Click the radio button next to the type of connection used by this **Router.**
    i. If **Network** is selected, these fields appear below:

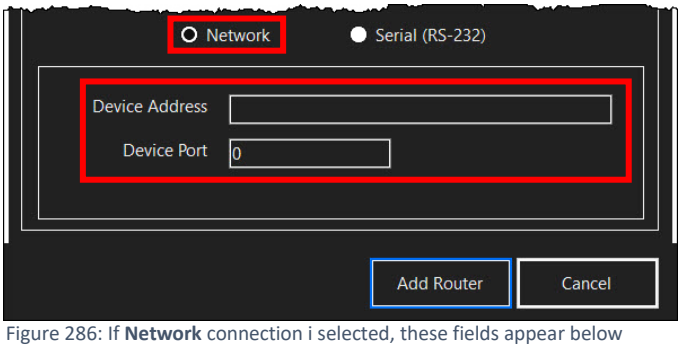


Figure 286: If **Network** connection i selected, these fields appear below

Enter the **Device Address** and **Device Port** number.

OR

If **Serial** is selected, these fields appear below:

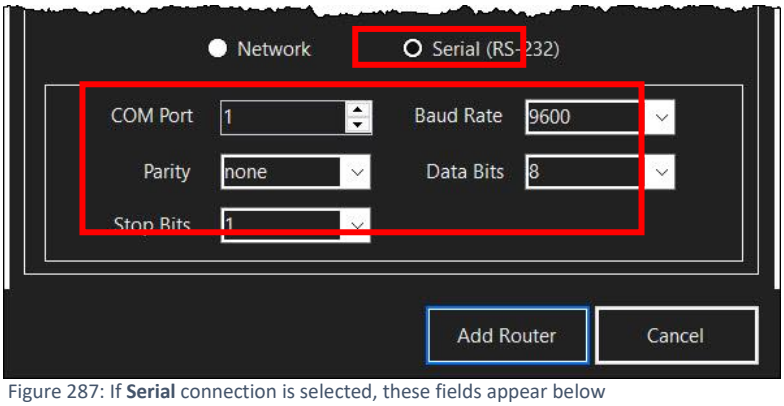


Figure 287: If **Serial** connection is selected, these fields appear below

Enter the following parameters for a standard **RS-232 Serial Com** interface:

1. **Port**: Using the **Up** and **Down** arrows, enter the **COM Port** number for this **Router**.
2. **Parity**: Click the **Down** arrow to display the 3 options on this drop-down menu. They are **None**, **Even** or **Odd**. Select the appropriate one.
3. **Stop Bits**: Click the **Down** arrow to display the two options. They are **1** or **2**. Select the appropriate one.
4. **Baud Rate**: Click the **Down** arrow to display a list of options. Select the appropriate one.
5. **Data Bits**: Click the **Down** arrow to display the two options. They are **7** or **8**. Select the appropriate one.

i. Click the **Add Router** button at the bottom of the window to execute the parameters entered on the **General** tab.

4. **Output Mapping** tab: An **Output** is a connection that sends a source signal to a specific destination (a **Display**). Numbered **Outputs** appear in a list on the left side of the **Output Mapping** tab window, if they have been specified in the **Outputs** field on the **General** tab. If they do not appear here, go back to the **General** tab and specify the number of **Outputs** in the **Outputs** field. They will now appear in the list on the left as numbered **Outputs**, as shown below:

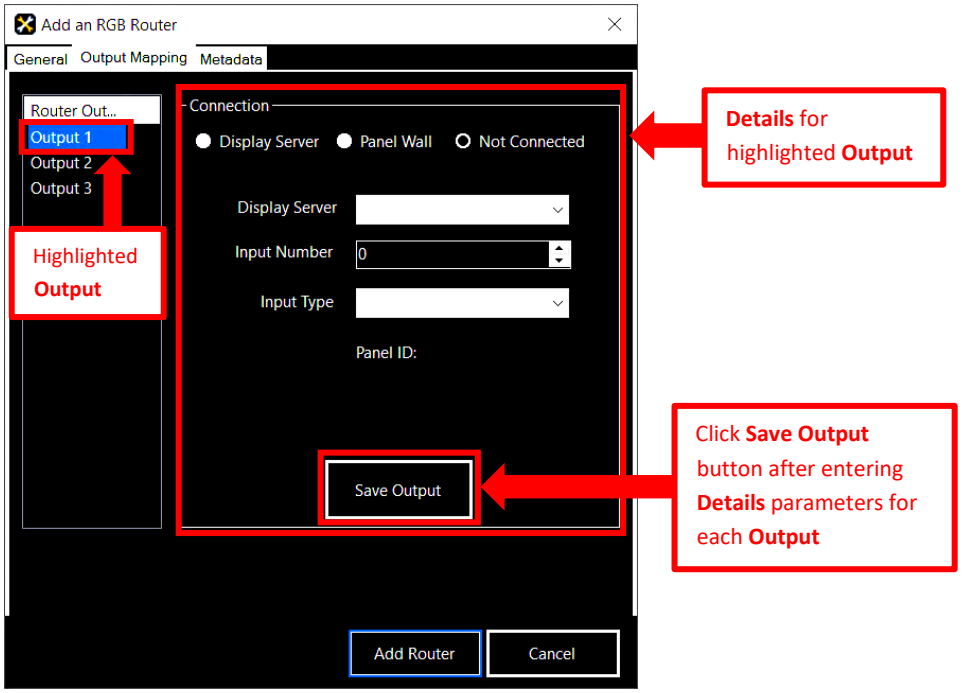


Figure 288: An **Output** highlighted with **Details** to the right - on **Output Mapping** tab

a. Click on one of the **Outputs** on the left to enter its parameters on the right.
b. In the **Connection** section, the only options that can be selected are **Display Server** and **Not Connected** (**Panel Wall** is no longer used).
c. If **Display Server** is selected above, the specific **Display Server** must be selected from the **Display Server** drop-down menu.

d. In the **Input Number** field, enter the **Input Number** the **Router** is attached to.
e. For the **Input Type**, enter the type of **Input** card being used. In general, the only options that are selected are **RGB Matrox** or **RGB-X**. The other options are only for supporting legacy customers.
f. Click the **Save Output** button. When this button is clicked, an asterisk appears next to that **Output** in the list on the left, indicating that it has been set up. It does not, however, take effect in the system until the **Add Router** button is clicked.

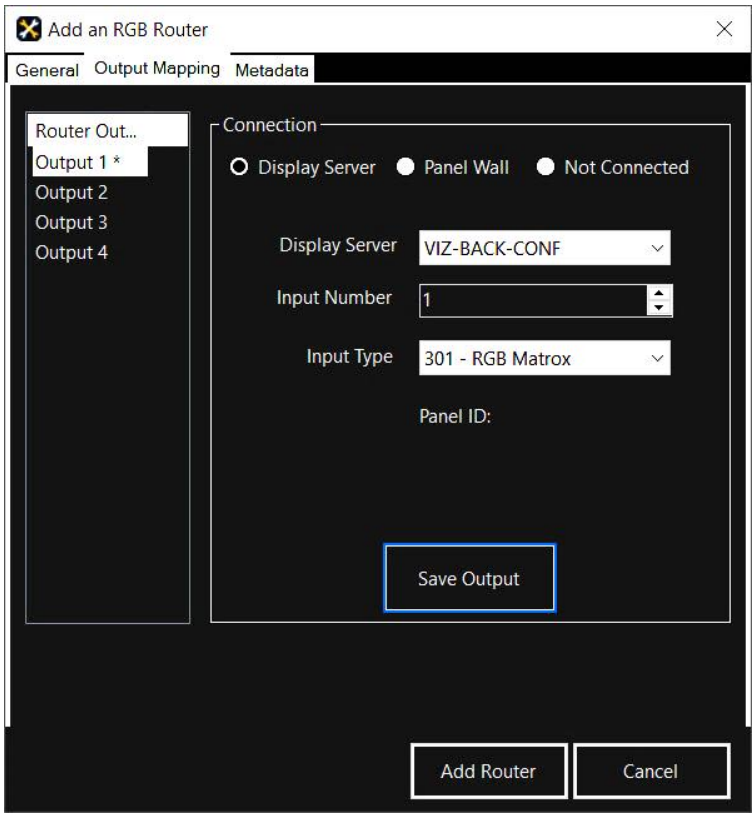


Figure 289: **Output** with asterisk after parameters selected and **Save Output** button clicked

g. Repeat the same process for additional **Outputs**.
h. Once all parameters for all **Outputs** have been completed, click the **Add Router** button at the bottom of the window. A dialog appears confirming that an **RGB Router** has been added to the system:

Figure 290: RGB Router Confirmation Pop-up Box

Back on the **Details** section of the **RGB** sub-branch, the **Router**(s) now appear(s) in the **Existing RGB Routers** list:

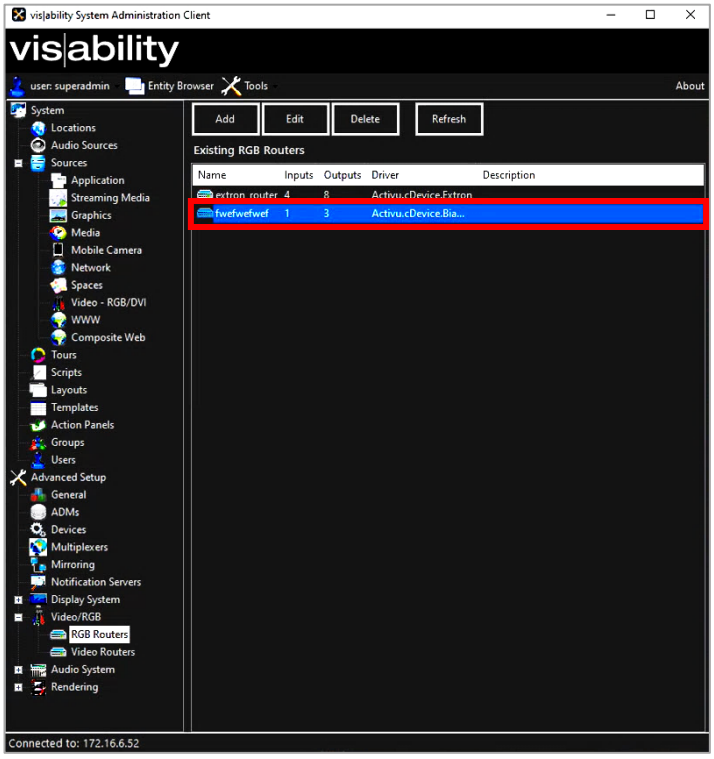


Figure 291: **RGB Routers** added to the **Existing RGB Router** list in **Details** section

5. **Metadata** tab: This tab is not currently being used.

Editing RGB Routers

To edit an existing **RGB Router**, complete the following steps:

1. In the **Details** section of the **RGB Routers** sub-branch, in the **Existing RGB Router** list, click on the name of the **RGB Router** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update an RGB Router** window shown below:

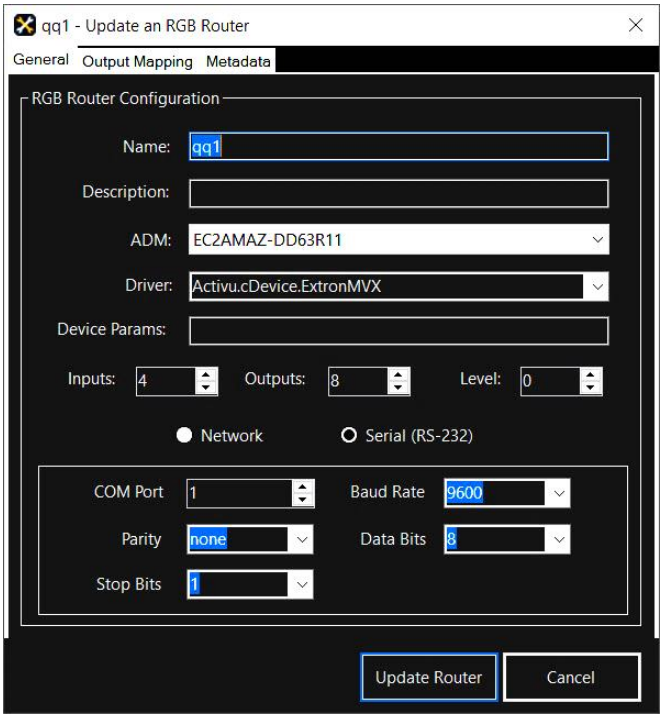


Figure 292: **Update an RGB Router** window

3. Because this is an existing **RGB Router**, some parameters are already filled in. They can be changed by following the same instructions for **Adding** an **RGB Router** (see On the General tab).
4. Once editing of the parameters is completed, click the **Update Router** button at the bottom of the screen.

Deleting RGB Routers

To **Delete** an **RGB Router**, complete the following steps:

1. Click on the **RGB Router** name, in the **Existing RGB Routers** list in the **Details** section to the right.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

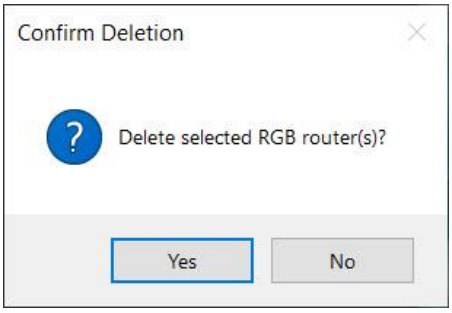


Figure 293: **Confirm Deletion of Selected RGB Routers** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing RGB Routers

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree is used to confirm that the data for a specific component in the system has been loaded into the **System** database, by reloading it again.

To **Refresh** or reload a **RGB Router**, complete the following steps:

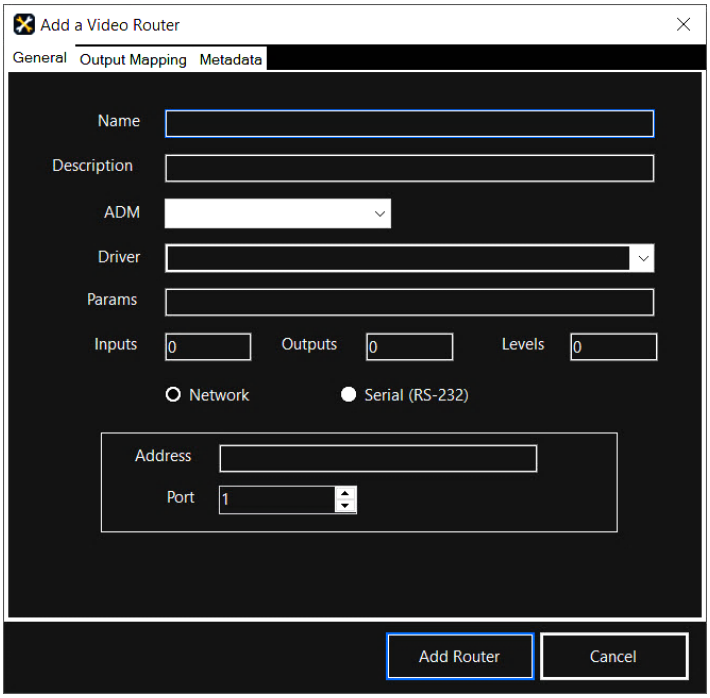
1. In the **Details** section of the **RGB Router** sub-branch, in the **Existing RGB Router** list, click on the **RGB Router** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **RGB Router** has now been reloaded into the **System** database.

Video Routers

The **Video Router** is the earlier hardware generation of the **RGB Router**. Other than that, it serves the same purpose. For the most part, it is not being used much anymore. **RGB** is the more common **Router** being used at present.

Adding Video Routers

The interface for **Video Routers** on the **System Administration Client** is almost identical to that of the **RGB Router**. Follow the same instructions for **Adding** an **RGB Router** (see RGB Routers
The **RGB Router** is the later generation of **Routers** being used by the **vis|ability**™ system.



Adding RGB Routers), with one exception. The **Video Router** sub-branch must first be clicked instead of the **RGB Router** sub-branch.

Figure 294: **Add a Video Router** window

Editing Video Routers

To edit an existing **Video Router**, complete the following steps:

1. In the **Details** section of the **Video Routers** sub-branch, in the **Existing Video Routers** list, click on the name of the **RGB Router** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update a Video Router** window.
3. Because this is an existing **Video Router**, some parameters are already filled in. They can be changed by following the same instructions for **Adding** an **RGB Router** (see On the General tab).

4. Once editing of the parameters is completed, click the **Update Router** button at the bottom of the screen.

Deleting Video Routers

To **Delete** a **Video Router**, complete the following steps:

1. Click on the **Video Router** name, in the **Existing Video Routers** list in the **Details** section to the right.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog.
3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Video Routers

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree is used to confirm that the data for a specific component in the system has been loaded into the **System** database, by reloading it again.

To **Refresh** or reload a **Video Router**, complete the following steps:

1. In the **Details** section of the **Video Routers** sub-branch, in the **Existing Video Router** list, click on the **Video Router** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Video Router** has now been reloaded into the **System** database.

Audio System

The **Audio System** branch has no role in and of itself. It is simply the category heading for its three sub-branches. The sub-branches are **Audio Zones**, **Volume Controls**, and **Audio Routers**.

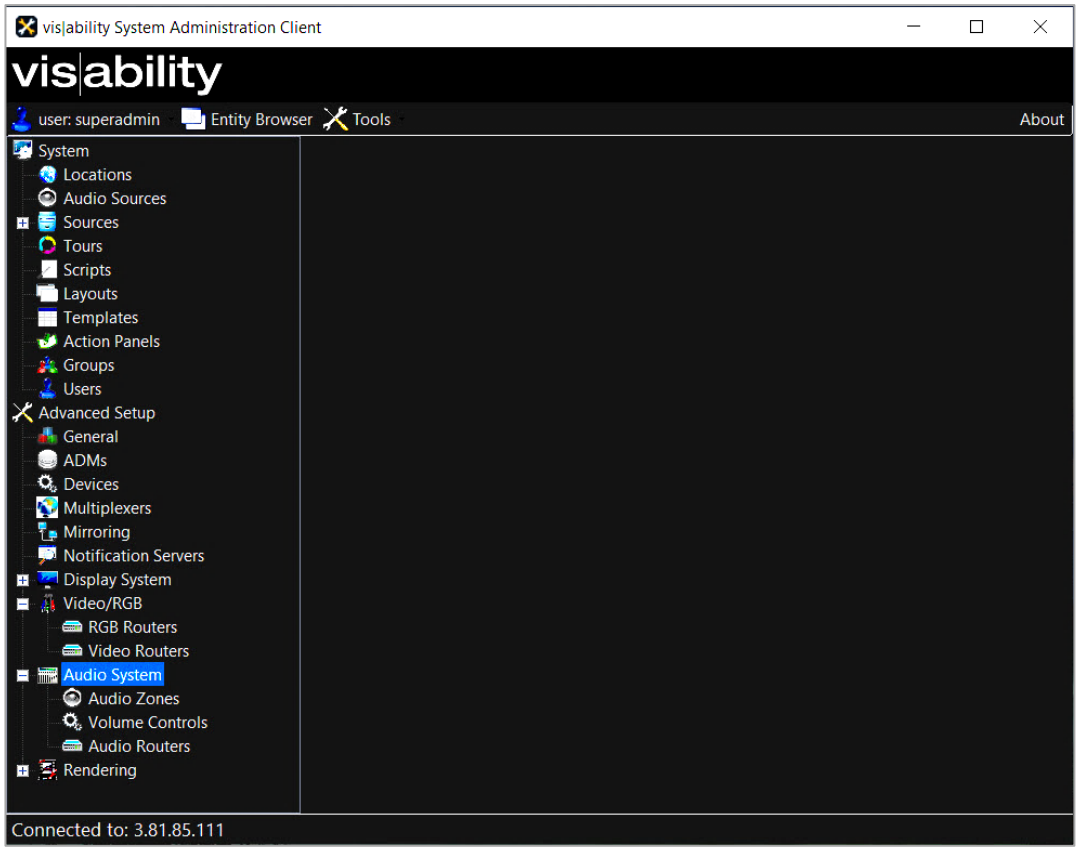


Figure 295: **Audio System** branch with 3 sub-branches

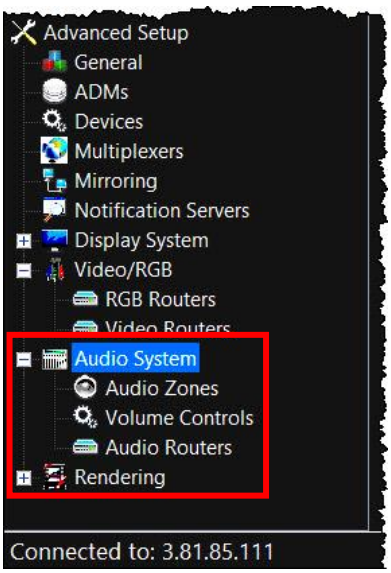


Figure 296: The 3 **Audio System** sub-branches

Audio Zones

An **Audio Zone** is a collection of physical speakers.

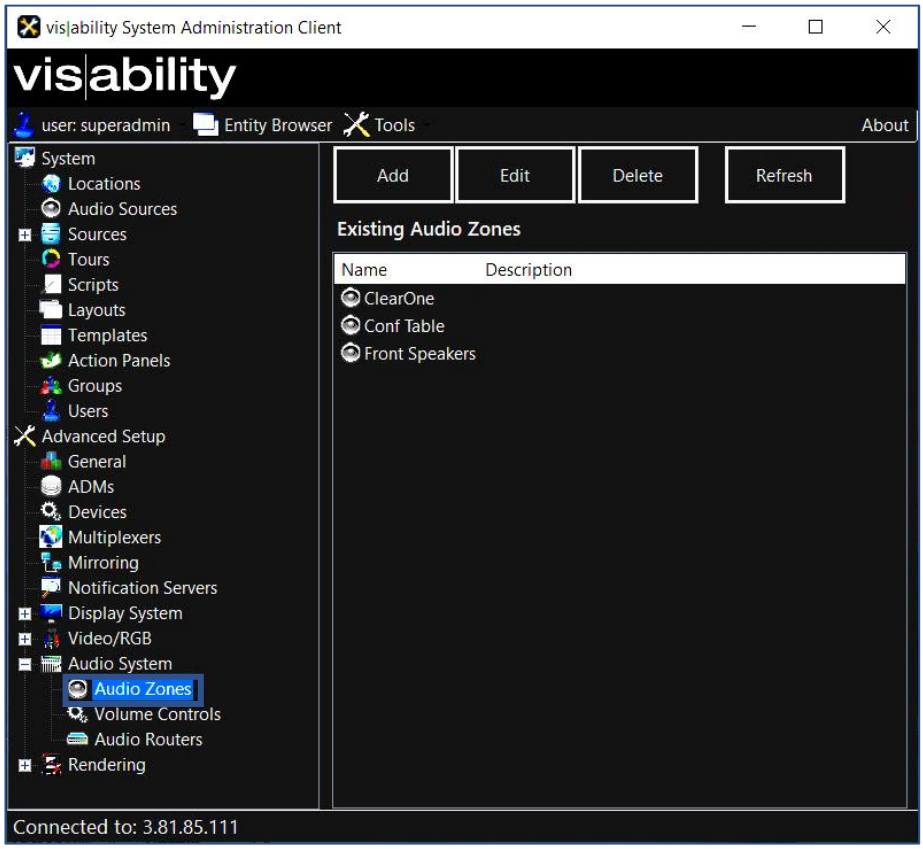


Figure 297: **Audio Zone**s sub-branch and **Details**

Adding Audio Zones

To **Add** an **Audio Zone**, complete the following steps:

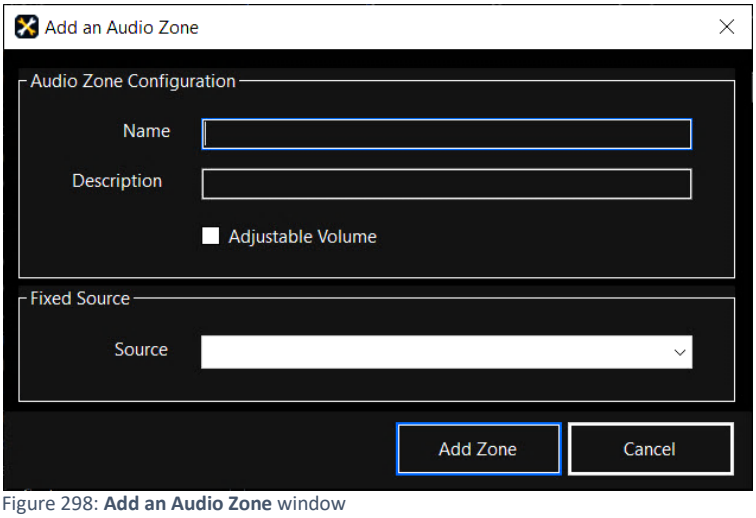


Figure 298: **Add an Audio Zone** window

1. Click the **Audio Zones** sub-branch under the **Audio System** branch, on the **Advanced Setup** tree.
2. Click the **Add** button on the **Details** section for **Audio Zones** to display the **Add an Audio Zone** window:

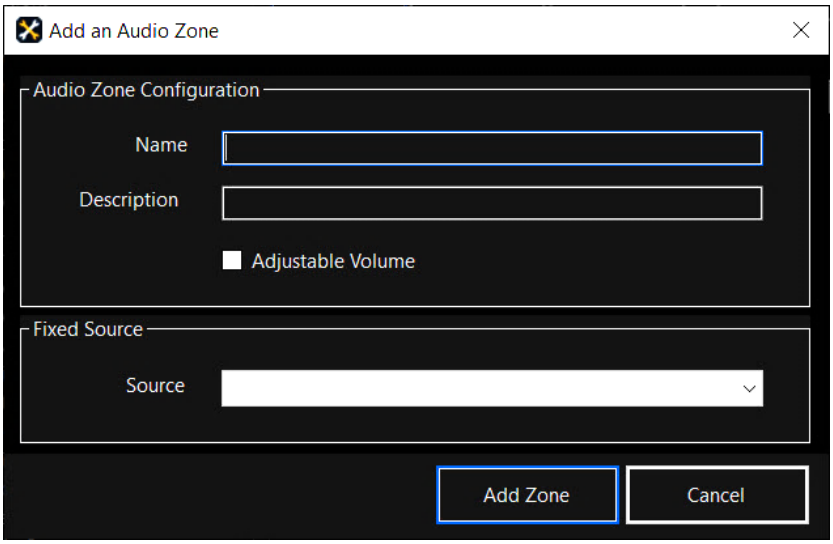


Figure 299: **Add an Audio Zone** window

3. **Name**: Enter any desired name for the **Audio Zone**.
4. **Description**: This field is optional.
5. **Adjustable Volume**: Check this box for an adjustable volume. If this box is not checked this **Audio Zone** will not work.
6. **Source**: This field is used to map an **Audio Source** to a collection of speakers. Select an **Audio Source** from the **Source** drop-down menu.
7. Click the **Add Zone** button at the bottom of the window.

Editing Audio Zones

To edit an existing **Audio Zone**, complete the following steps:

1. In the **Details** section of the **Audio Zones** sub-branch, in the **Existing Audio Zones** list, click on the name of the **Audio Zone** that is to be edited.
2. Click on the **Edit**  button at the top of the **Details** section to open the **Update an Audio Zone** window.
3. Because this is an existing **Audio Zone**, some parameters are already filled in. They can be changed by following the same instructions for **Adding** an **Audio Zone** (see Name).
4. Once editing of the parameters is completed, click the **Update Zone** button at the bottom of the screen.

Deleting Audio Zones

To **Delete** an **Audio Zone**, complete the following steps:

1. Click on the **Audio Zone** name, in the **Existing Audio Zone** list in the **Details** section to the right.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

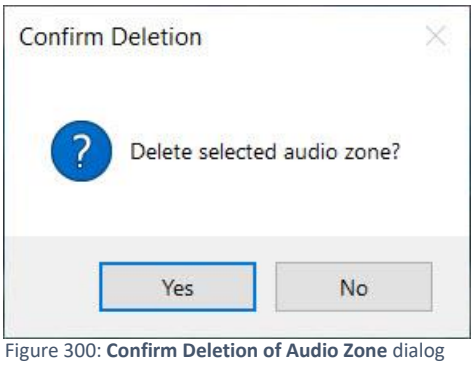


Figure 300: **Confirm Deletion of Audio Zone** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Audio Zones

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree is used to confirm that the data for a specific component in the system has been loaded into the **System** database, by reloading it again.

To **Refresh** or reload an **Audio Zone**, complete the following steps:

1. In the **Details** section of the **Audio Zones** sub-branch, in the **Existing Audio Zones** list, click on the **Audio Zone** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Audio Zone** has now been reloaded into the **System** database.

Volume Controls

Volume Controls simply control the volume for **Audio Zones** (sets of speakers). They are often the same **Devices** as the **Audio Zones** but are different aspects of the **Device** that must be set up. There must be 2 channels assigned to a **Volume Control** per **Audio Zone**. They are always assigned in evenly numbered, stereo pairs. Odd numbers can be entered but they do not adhere to the **Activu** structure or logic and will not work properly. If there are 2 **Audio Zones,** then there must be 4 **Channels**.

Adding a Volume Control

To **Add** a **Volume Control**, complete the following steps:

1. Click on the **Volume Controls** sub-branch under the **Audio System** branch on the **Advanced Setup** tree.
2. Click the **Add** button above the **Existing Volume Controls** list in the **Details** section. This displays the **Add a Volume Control** window:

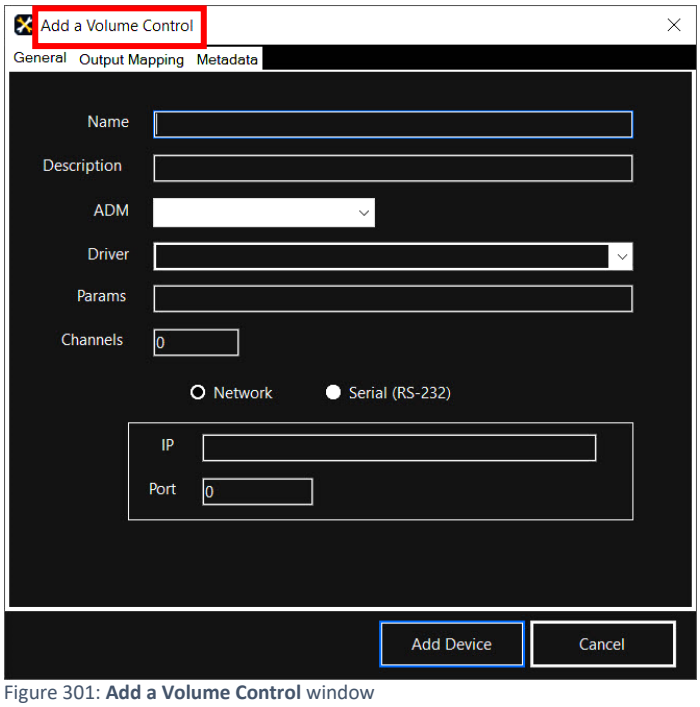


Figure 301: **Add a Volume Control** window

3. On the **General** tab of the **Add a Volume Control** window, enter these parameters:
    a. **Name**: Type any name that is desired.
    b. **Description**: This field is optional and can be left as is.
    c. **ADM**: Select the **ADM** from the drop-down list that will be controlling this **Device**.
    d. **Driver**: Select the appropriate **Driver** from the **Driver** drop-down menu:

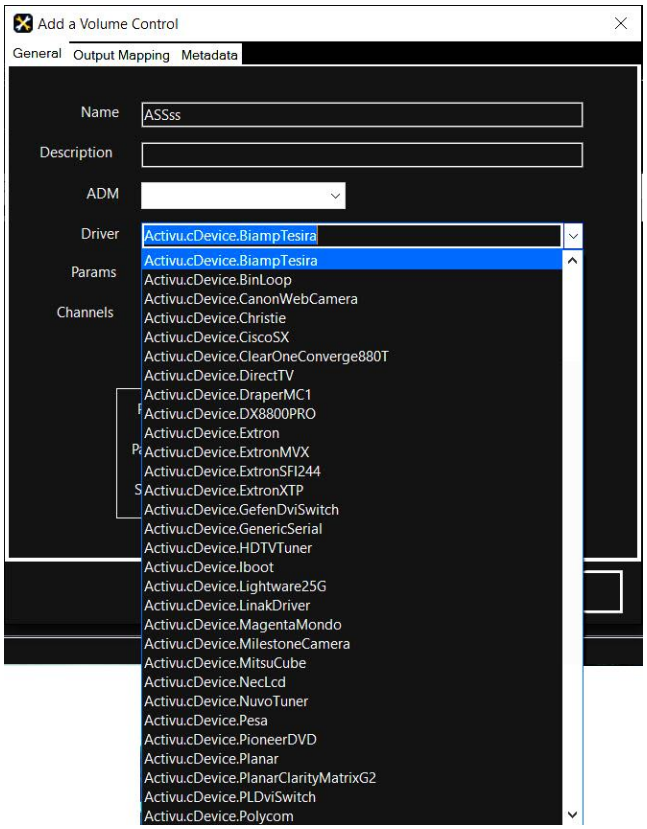


Figure 302: **Driver** drop-down menu - **Activu.cDevice.BiampTesira** highlighted

e. **Params**: Enter any necessary parameters. There are a few **Devices** that require this field to be filled out. The **Biamp Tesira** is one. If it is selected from the **Driver** drop-down menu, its parameters must be entered in this field.

f. **Channels**: There must be 2 channels assigned per **Audio Zone**. They are always assigned in even pairs. If there will be 2 **Audio Zones,** then there must be 4 **Channels**. Enter the appropriate value in this field.

g. **Network** or **Serial** connection:

If **Network** connection is selected, these fields appear below to be filled out:

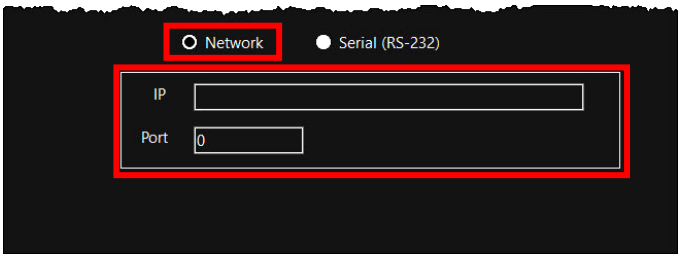


Figure 303: If **Network** connection i selected, these fields appear below

Enter the **IP Address** and **Port** number.

OR

If **Serial** connection is selected, these fields appear below to be filled out:

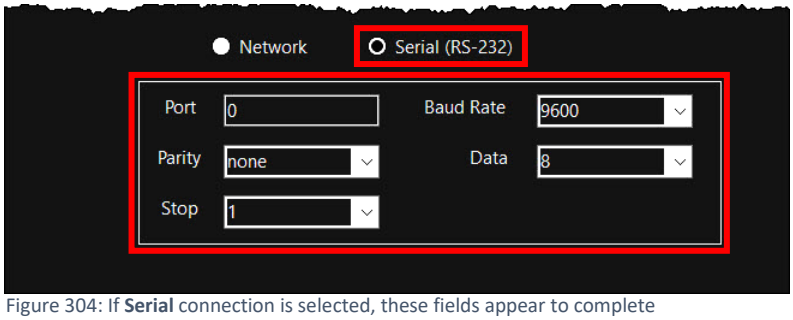


Figure 304: If **Serial** connection is selected, these fields appear to complete

Enter the following parameters for a standard **RS-232 Serial Com** interface:

1. **Port**: Using the **Up** and **Down** arrows, enter the **Port** number for this **Router**.
2. **Parity**: Click the **Down** arrow to display the 3 options on this drop-down menu. They are **None**, **Even** or **Odd**. Select the appropriate one.
3. **Stop Bits**: Click the **Down** arrow to display the two options. They are **1** or **2**. Select the appropriate one.
4. **Baud Rate**: Click the **Down** arrow to display a list of options. Select the appropriate one.
5. **Data Bits**: Click the **Down** arrow to display the two options. They are **7** or **8**. Select the appropriate one.

h. Click the **Add Device** button at the bottom of the window.

4. **Output Mapping** tab: The number of channels specified on the **General** tab now appear in a list on the left side of the **Output Mapping** tab, with each one numbered:

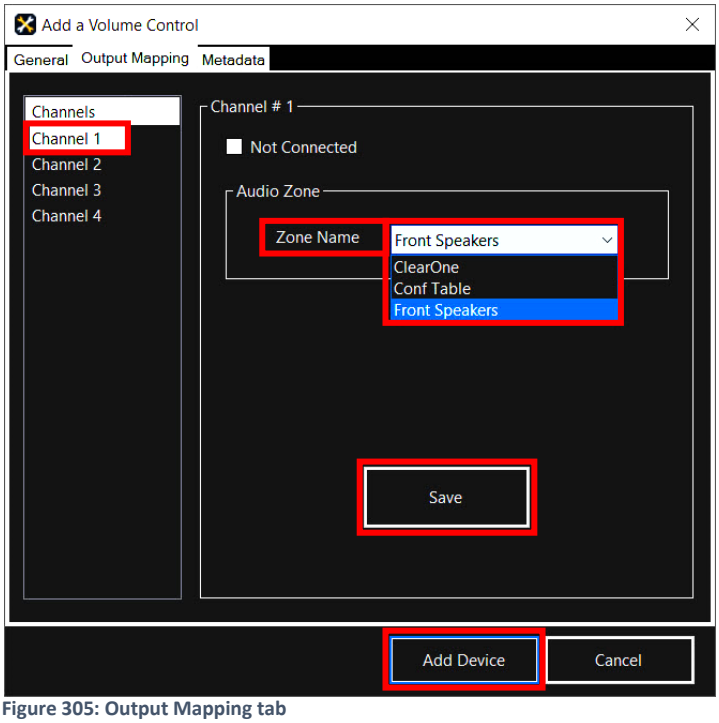


Figure 305: Output Mapping tab

To map each of these **Channels** to an **Audio Zone**, complete the following steps:

a. Highlight one of the **Channels** in the list to the left.

b. Be sure the checkbox next to **Not Connected** is blank.

c. Under the **Audio Zone** box, from the **Zone Name** drop-down menu, use the **Down** arrow to select one of the **Audio Zones** in the list.

d. Click the **Save** button below.

e. Repeat the same process for each **Channel**.

f. Because **Volume Controls** should be set up in pairs, the system automatically selects the same **Zone Name** for the next **Channel**. If the next **Channel** is the start of a new pair, this can be changed.

g. Click the **Save** button (in the center). An asterisk appears after each click of the **Save** button.

h. When all **Channels** have been attached to an **Audio Zone**, click the **Add Device** button at the bottom of the window to implement the entire set up of all **Channels**.

Important: Do not click the **Add Device** button at the bottom of the window until each **Channel** has been assigned an **Audio Zone** and the **Save** button has been clicked after each one that needs to be set up on the **Output Mapping** tab.

5. **Metadata** tab: This tab is not being used at this time.

Editing Volume Controls

To edit an existing **Audio Zone**, complete the following steps:

1. In the **Details** section of the **Volume Controls** sub-branch, in the **Existing Volume Controls** list, click on the name of the **Volume Control** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update a Volume Control** window.
3. Because this is an existing **Volume Control**, some parameters are already filled in. They can be changed by following the same instructions for **Adding** a **Volume Control** (see).
4. Once editing of the parameters is completed, click the **Update Device** button at the bottom of the screen.

Deleting Volume Controls

To **Delete** a **Volume Control**, complete the following steps:

1. Click on the **Volume Control** name, in the **Existing Volume Controls** list in the **Details** section to the right.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

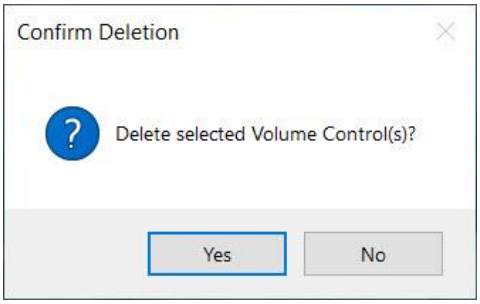


Figure 306: **Confirm Deletion of Volume Control(s)** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Volume Controls

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree is used to confirm that the data for a specific component in the system has been loaded into the **System** database, by reloading it again.

To **Refresh** or reload a **Volume Control**, complete the following steps:

1. In the **Details** section of the **Volume Controls** sub-branch, in the **Existing Volume Controls** list, click on the **Volume Control** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Volume Control** has now been reloaded into the **System** database.

Audio Routers

Audio Routers are hardware devices with **Inputs** and **Outputs** that feed the **Volume Controls** that have been set up in the system. They are stereo pairs, in and of themselves, so they do *not* need to be set up two at time, as with **Volume Controls**.

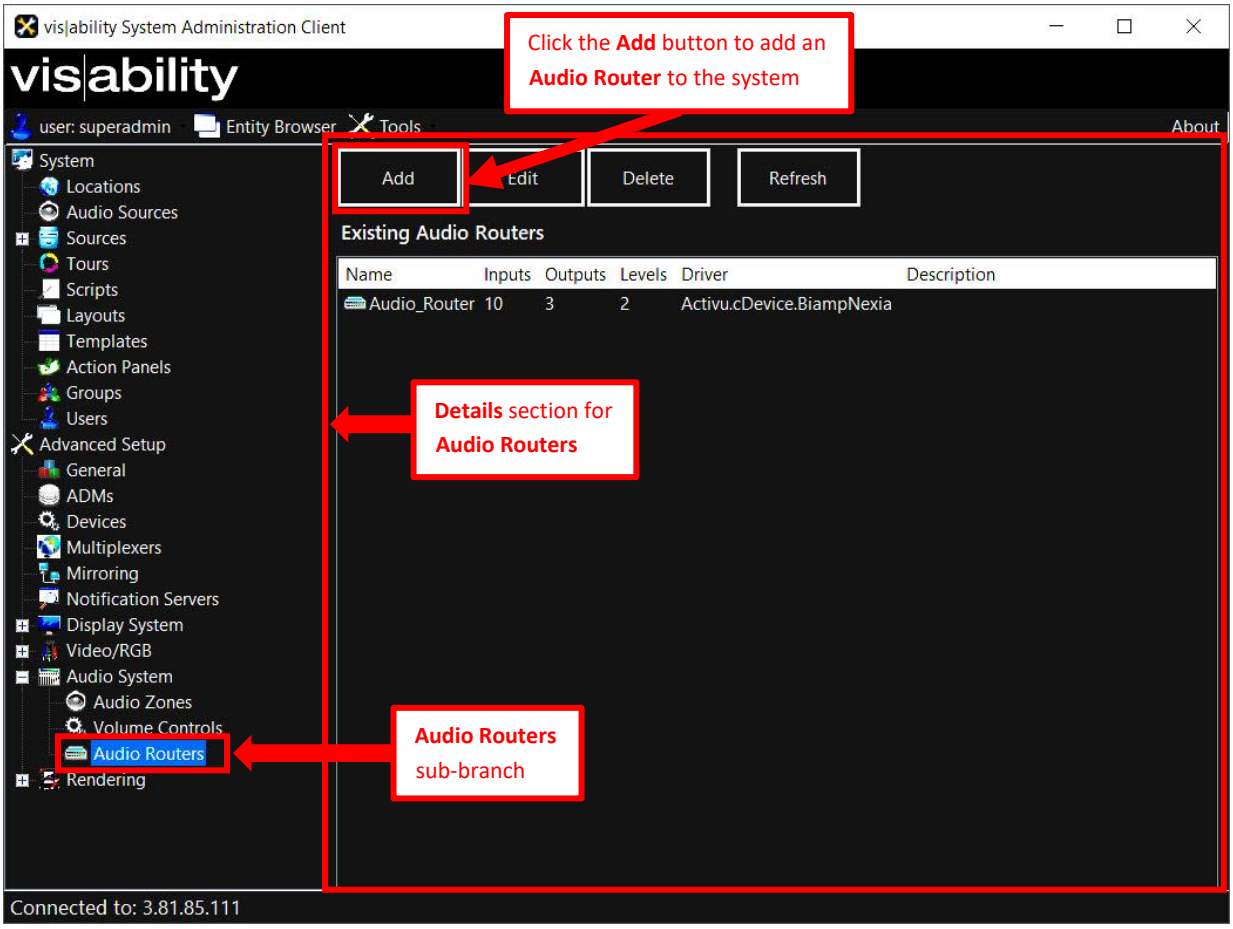


Figure 307: **Audio Routers** sub-branch and **Details** section

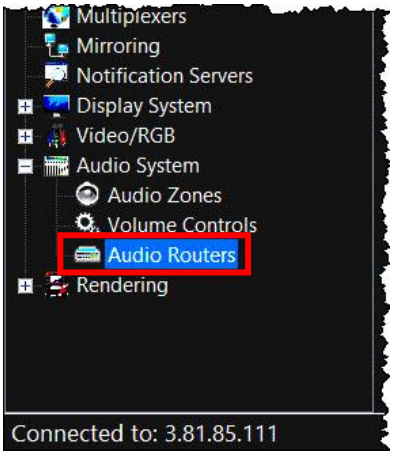


Figure 308: **Audio Routers** sub-branch

Adding Audio Routers

To **Add** an **Audio Router**, complete the following steps:

1. Click on the **Audio Routers** sub-branch on the **Advanced Setup** tree.
2. Click the **Add** button at the top of the **Details** section, above the **Existing Audio Routers** heading. This displays the **Add an Audio Router** window:

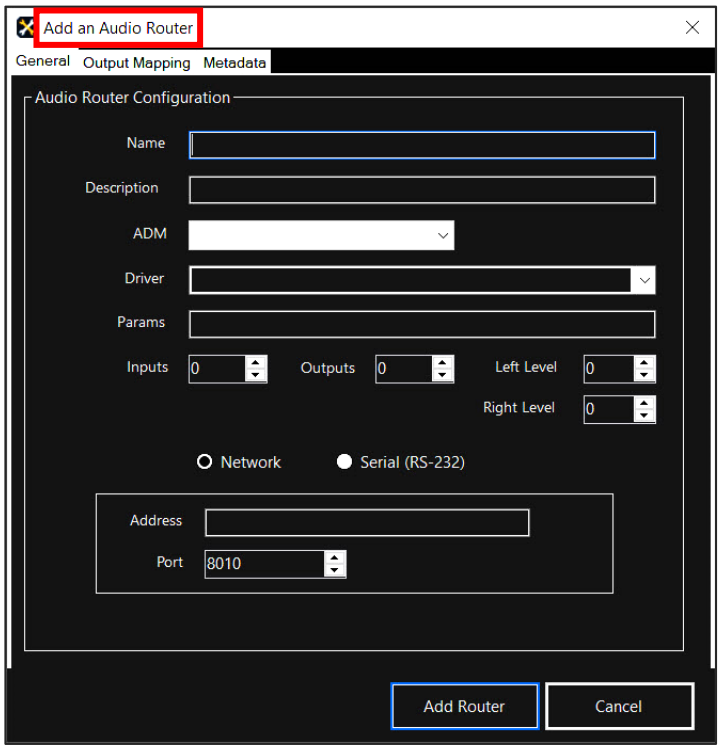


Figure 309: **Add an Audio Router** window

3. On the **General** tab of the **Add an Audio Router** window, enter these parameters:
    a. **Name**: Type any name that is desired.
    b. **Description**: This field is optional and can be left as is.
    c. **ADM**: Select the **ADM** from the drop-down list that will be controlling this **Device**.
    d. **Driver**: Select the appropriate **Driver** from the **Driver** drop-down menu:

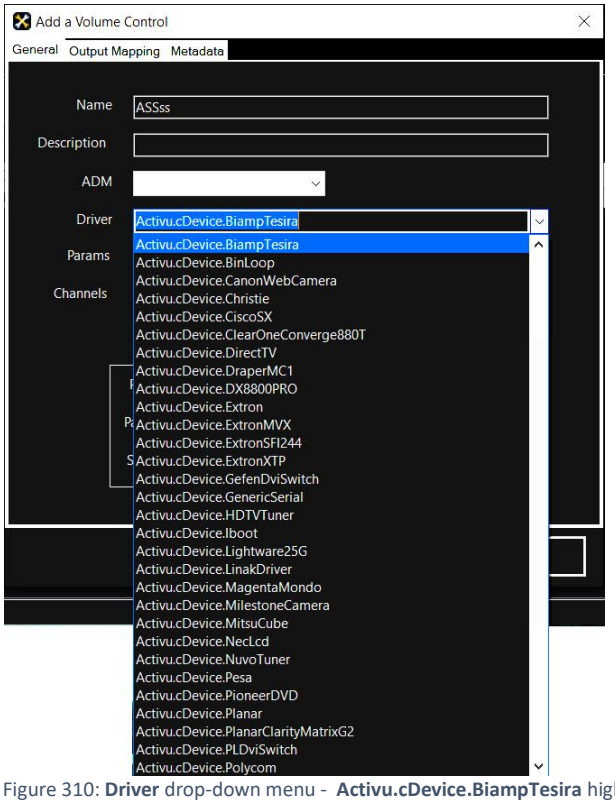


Figure 310: **Driver** drop-down menu - **Activu.cDevice.BiampTesira** highlighted

If a required field is bypassed without an entry, the system will prompt the **User** to enter information, by displaying an exclamation point inside a red circle next to the field with the missing information (see figure below):

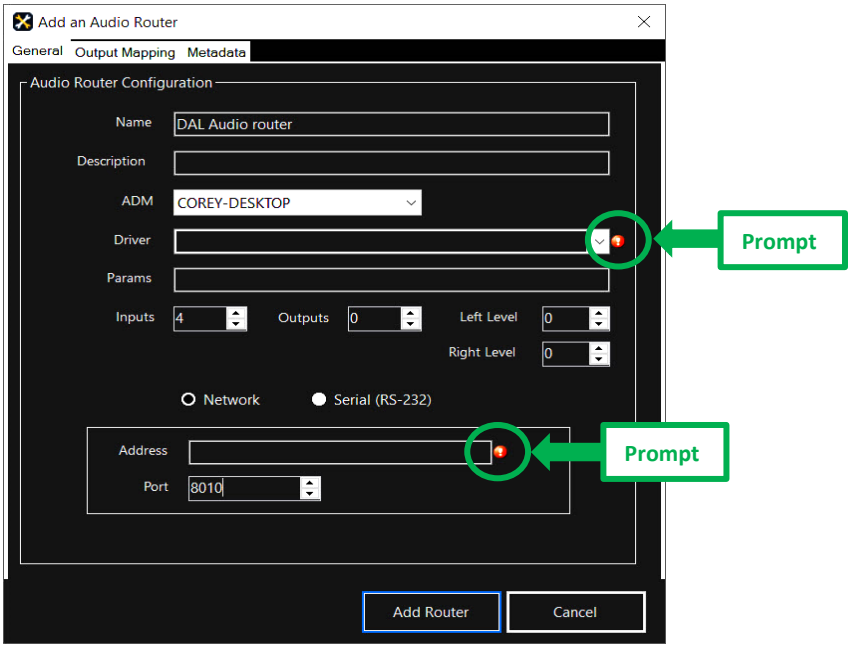


Figure 311: **Prompts** to enter missing information

A dialog box with a message may also be displayed as a prompt to enter missing information in a field, such as the one below that appears when no **Driver** is selected (See **Step 3d).**

Figure 312: "You must specify a driver" dialog

e. **Params**: Enter any necessary parameters. There are a few **Devices** that require this field to be filled out. The **Biamp Tesira** is one. If it is selected from the **Driver** drop-down menu, its parameters must be entered in this field.

f. **Inputs**: Enter the appropriate number of **Inputs** in this field.

g. **Outputs**: Enter the appropriate number of **Outputs** in this field. Keep in mind that each **Output** is already a stereo pair.

h. **Left Level**: Enter the number of **Input** channels that each **Output** is being fed to on the left.

i. **Right Level**: Enter the number of **Input** channels that each **Output** is being fed to on the right.

j. **Network** or **Serial** connection:

If **Network** connection is selected, these fields appear below to be filled out:

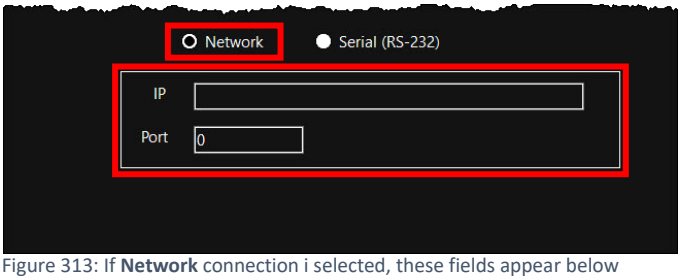


Figure 313: If **Network** connection i selected, these fields appear below

Enter the **IP Address** and **Port** number.

OR

If **Serial** connection is selected, these fields appear below to be filled out:

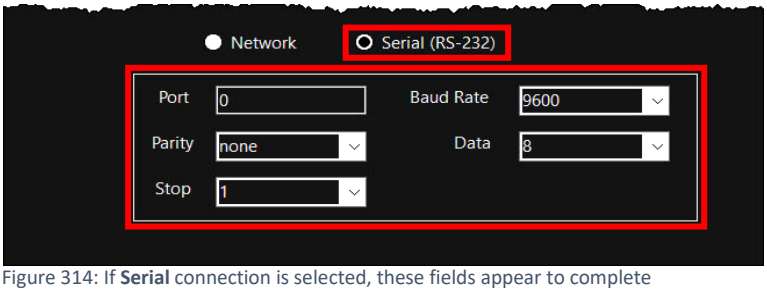


Figure 314: If **Serial** connection is selected, these fields appear to complete

Enter the following parameters for a standard **RS-232 Serial Com** interface:

1. **Port**: Using the **Up** and **Down** arrows, enter the **Port** number for this **Router**.
2. **Parity**: Click the **Down** arrow to display the 3 options on this drop-down menu. They are **None**, **Even** or **Odd**. Select the appropriate one.
3. **Stop Bits**: Click the **Down** arrow to display the two options. They are **1** or **2**. Select the appropriate one.
4. **Baud Rate**: Click the **Down** arrow to display a list of options. Select the appropriate one.
5. **Data Bits**: Click the **Down** arrow to display the two options. They are **7** or **8**. Select the appropriate one.

k. Click the **Add Device** button at the bottom of the window.

4. **Output Mapping** tab: The number of **Outputs** specified on the **General** tab now appear in a list on the left side of the **Output Mapping** tab, with each one numbered. Each **Output** will be set up to go through 2 **Channels** from **the** same **Device.** To map each of these **Outputs** to a **Volume Control** and an **Audio Zone**, complete the following steps:
   a. Highlight one of the **Outputs** in the list to the left. Keep in mind that *each* **Output** is already a stereo pair.
   b. Be sure the checkbox next to the **Not Connected** red link is blank.
   c. Click the **Volume Control** radio button.
   d. From the **Device Left** and **Device Right** drop-down menus, use the **Down** arrows to select the device. The two **Devices** selected, must always be the same for that **Output**.
   e. Using the **Up** and **Down** arrows, select the **Input** value for both the **Left** and **Right Input**. These are usually done in value order. Example: The first **Output** would be mapped to **Inputs** numbered **1** and **2**. The second **Output** would be numbered **3** and **4**, the third **Output** numbered **5** and **6**, and so on.
   f. Click the **Audio Zone** radio button.
   g. From the **Zone Left** and **Zone Right** drop-down menus, use the **Down** arrows to select **Audio Zones** for each **Output**.

h. Click the **Save** button below.

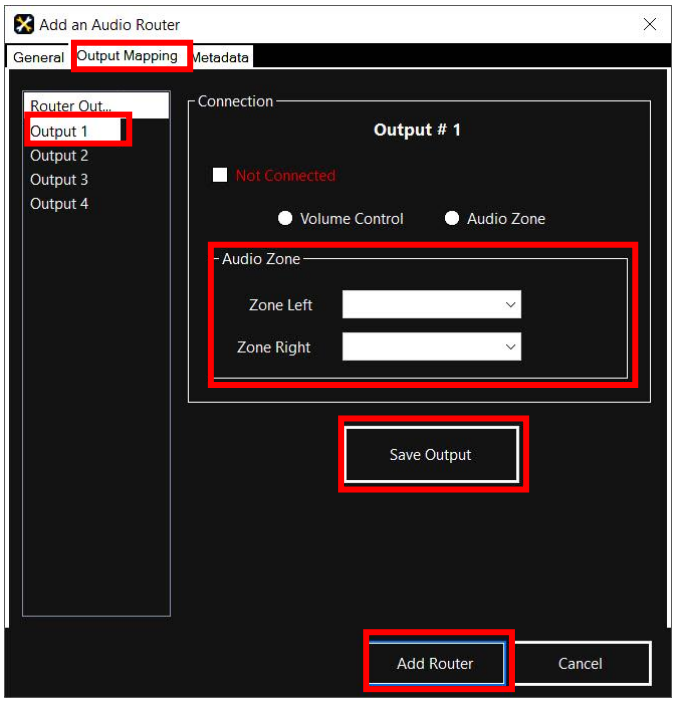


Figure 315: Output Mapping tab - attach **Audio Zones** to each **Output**

i. Repeat the same process for each **Output**.

j. As soon as the next **Output** is highlighted and the checkmark removed from the box next to the **Not Connected** red link, the system automatically selects the same **Zone Name**. This can be changed, if necessary.

k. Click the **Save** button (in the center) after each time that an **Output** is attached to an **Audio Zone**. An asterisk appears after each click of the **Save** button.

l. When all **Outputs** have been attached to an **Audio Zone**, click the **Add Device** button at the bottom of the window to implement the entire set up of all of the **Outputs**.

> **Important:** Do not click the **Add Device** button at the bottom of the window until each **Output** has been assigned an **Audio Zone** and the **Save** button has been clicked after *each* **Output** has been set up.

5. **Metadata** tab: This tab is not being used at this time.

Editing Audio Routers

To edit an existing **Audio Router**, complete the following steps:

1. In the **Details** section of the **Audio Routers** sub-branch, in the **Existing Audio Routers** list, click on the name of the **Audio Router** that is to be edited.
2. Click on the **Edit** Edit button at the top of the **Details** section to open the **Update an Audio Router** window.

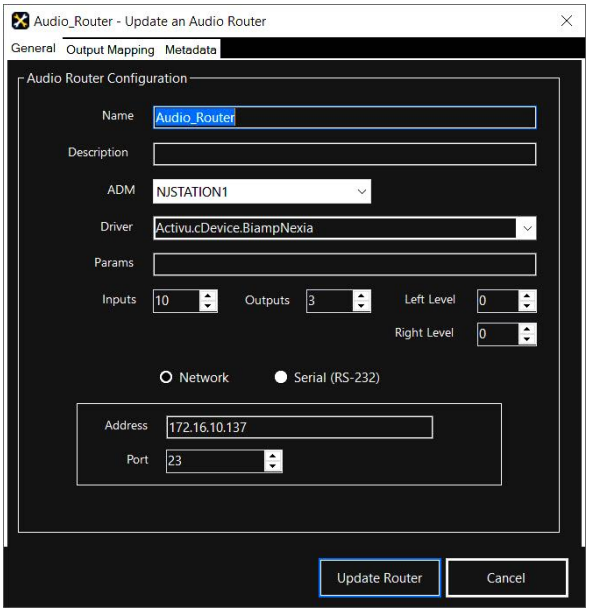


Figure 316: **Update an Audio Router** window

3. Because this is an existing **Audio Router**, some parameters are already filled in. They can be changed by following the same instructions for **Adding** an **Audio Router** (see Add an Audio Router window).

4. Once editing of the parameters is completed, click the **Update Router** button at the bottom of the screen.

Deleting Audio Routers

To **Delete** an **Audio Router**, complete the following steps:

1. Click on the **Audio Router** name, in the **Existing Audio Routers** list in the **Details** section to the right.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

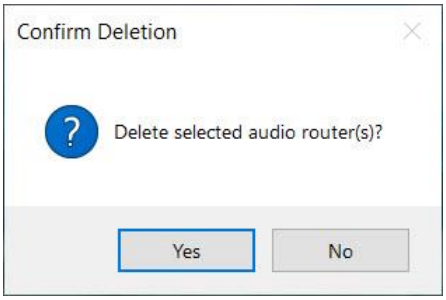


Figure 317: **Confirm Deletion of Volume Control(s)** dialog

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing Audio Routers

The **Refresh** button on the **Details** section of every branch of the **Advanced Setup** tree is used to confirm that the data for a specific component in the system has been loaded into the **System** database, by reloading it again.

To **Refresh** or reload an **Audio Router**, complete the following steps:

1. In the **Details** section of the **Audio Routers** sub-branch, in the **Existing Audio Routers** list, click on the **Audio Router** name that is to be refreshed.
2. Click the **Refresh** button above the list. The selected **Audio Router** has now been reloaded into the **System** database.

Rendering

The **Rendering** branch is where servers are defined that render content for the system. There are two types: **Decoders Servers** and **App Servers**. Both are processed on their own sub-branch under the **Rendering** branch.

The **Decoder Server** is a stand-alone machine receiving IP video streams that it renders into viewer applications displayed on **Walls** via a direct physical connection with a **Display Node**. This connection occurs either through **Datapath** or **Matrox Input** cards. Use of the **Matrox Input** card is workable at present but is mostly for future use. The **Datapath** card, however, is commonly used now. The **Decoder Server** must be running a "desktop class" operating system, such as **Windows 10 Pro**, that has the necessary multimedia support not always present in a "server class" OS. It must also have a high-end GPU, like an **AMD** or **Nvidia** card that can provide accelerated hardware performance. **Decoder Server** hardware *and* the defining of them are limited by the customer's licensing agreement.

The **App Server** is like the **Decoder Server**, with a few exceptions. There is no *physical* connection and there is no IP video rendered. **App Servers** render the content of collaboration **Spaces** in **Desktop Client** for **Display**, through the utilization of **Activu's Capture Client**. The rendering of *applications* will also be possible at some point in the future.

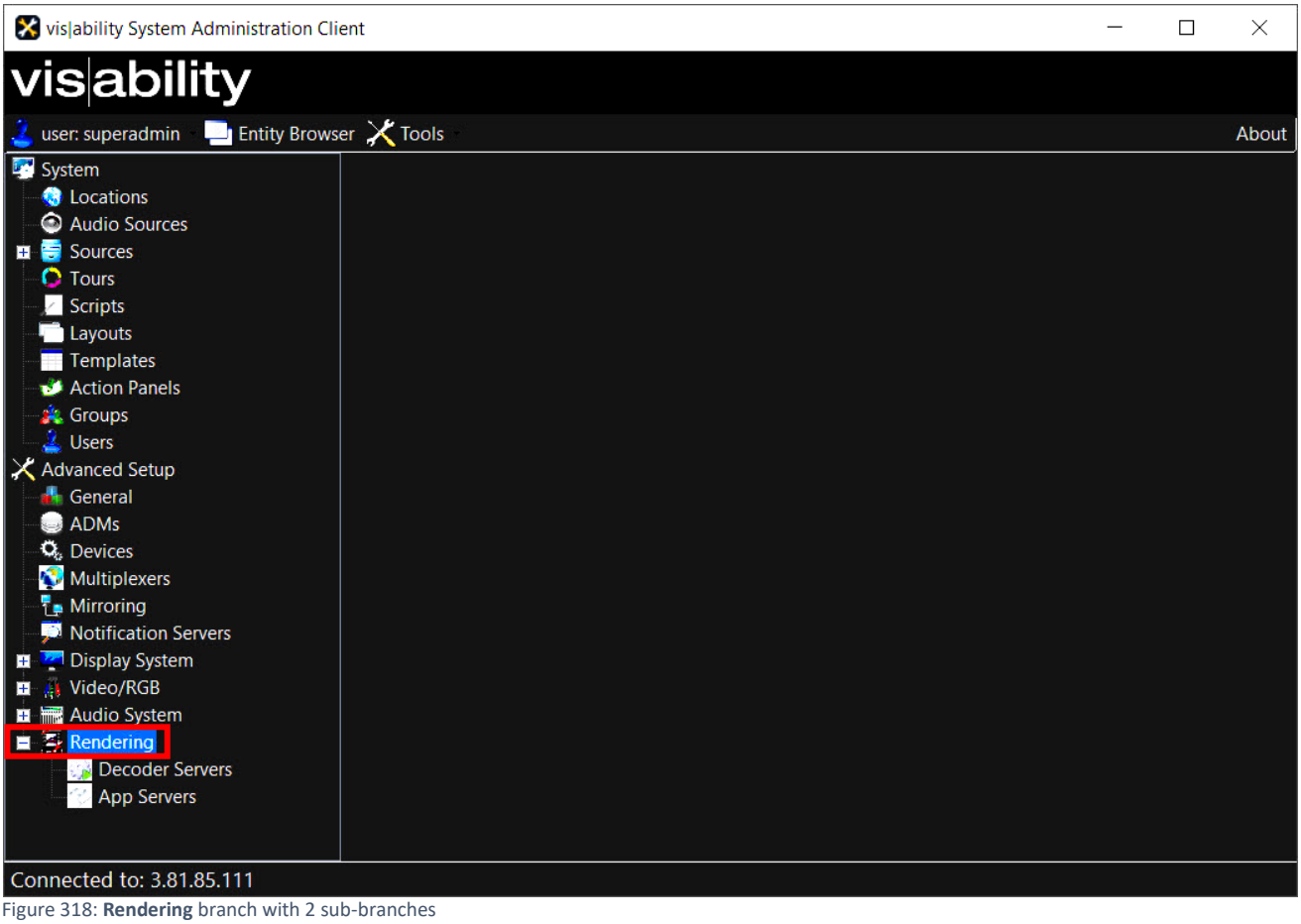


Figure 318: **Rendering** branch with 2 sub-branches

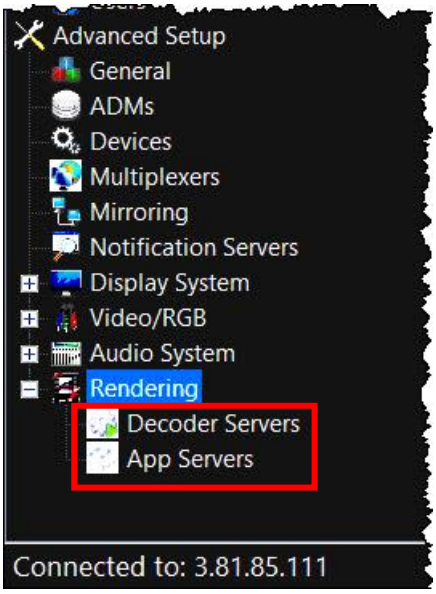


Figure 319: **Rendering** sub-branches: **Decoder Servers** and **App Servers**

Adding Decoder Servers

To **Add** a **Decoder Server**, complete the following steps:

1. Click on the **Decoder Server** sub-branch.

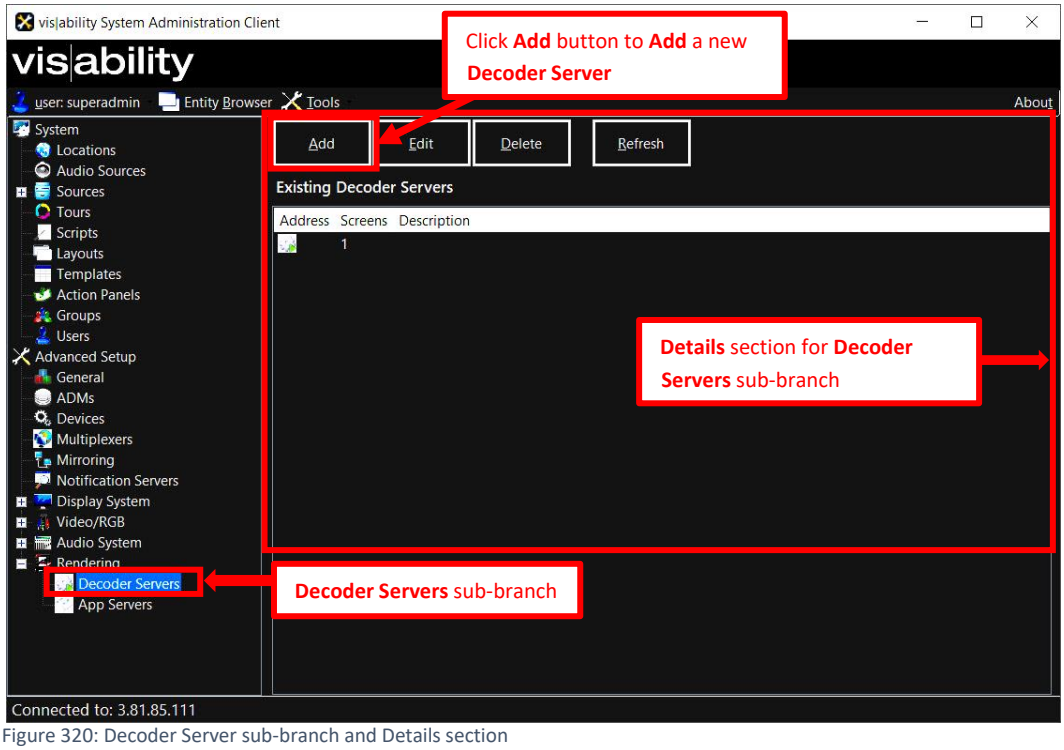


Figure 320: Decoder Server sub-branch and Details section

2. Click on the **Add** button on the **Details** section to the right, above the **Existing Decoder Servers** heading, to display the **Add a Decoder Server** window:

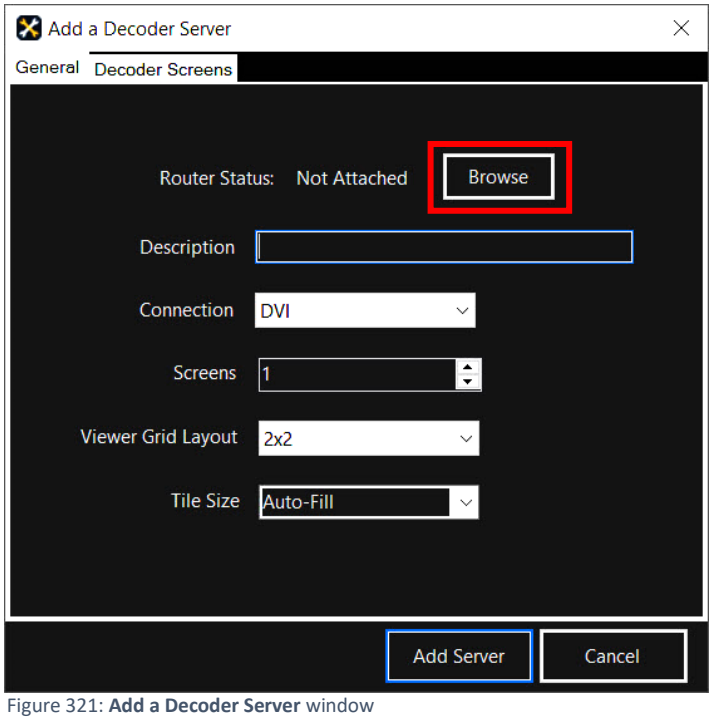


Figure 321: **Add a Decoder Server** window

3. On the **General** tab, click the **Browse** button, as shown above, to select a **Server** from the **Entity Browser** window:

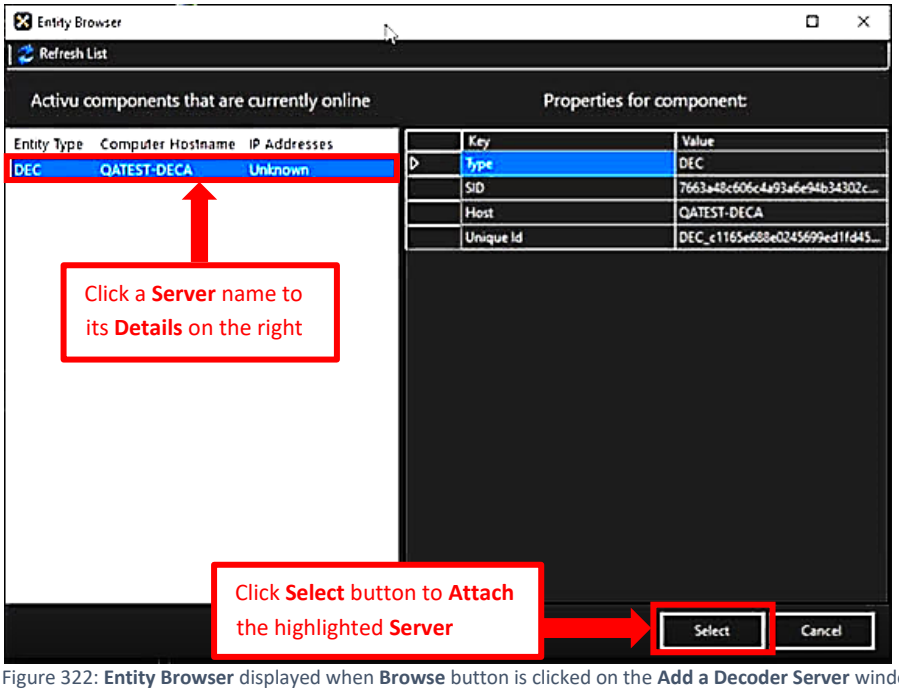


Figure 322: **Entity Browser** displayed when **Browse** button is clicked on the **Add a Decoder Server** window

4. Highlight the appropriate **Server** in the list on the left, to display the **Details** for that **Server** on the right.
5. Click the **Select** button at the bottom of the window. This attaches the selected **Server** to the system and changes the **Router Status** on the **Add a Decoder Server** window from **Not Attached** to **Attached**.

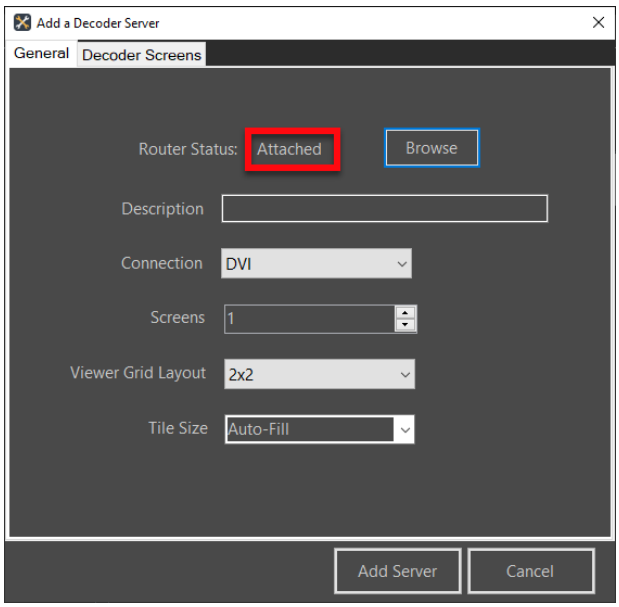


Figure 323: Add a Decoder Server – Attached Status

6. On the **General** tab, enter the following parameters:
    a. **Description**: This field is optional and can be left as is.
    b. **Connection**: Select **DVI** or **VGA** on the drop-down menu.
    c. **Screens**: Using the **Up** and **Down** arrows, or typing it in manually, enter the appropriate number of screens. The number of screens represents the number of desktop displays that the **Decoder Server** is driving. The maximum is **16** because that is the maximum that **Datapath** cards support.
    d. **Viewer Grid Layout**: Using the **Down** arrow, select the correct number of columns and rows. **2 x 2** is the default and recommended, in most cases. The maximum is **4 x 4** (=16).
    e. **Tile Size**: Using the **Down** arrow, select **Auto-Fill** or the appropriate **Tile Size** for *each* box in the **Grid**. For the best resolution, it is recommended that this field be left on **Auto-Fill** and the size be determined by the **Viewer Grid Layout**.
7. Click the **Add Server** button at the bottom of the window. If the **Decoder Server** has been added successfully, the "**Record Added Successfully**" dialog is displayed:

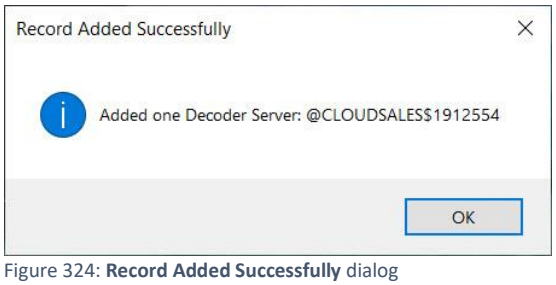


Figure 324: **Record Added Successfully** dialog

If it has *not* been added successfully, an error message appears:

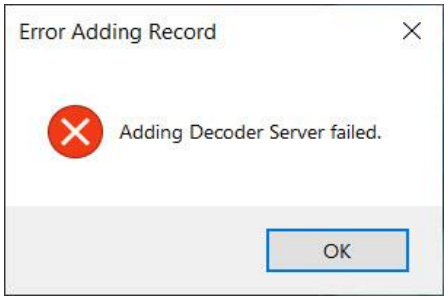


Figure 325: **Error** message

In this case, check to be sure all parameters have been entered correctly, then click the **Add Server** button again.

Adding Screens to Decoder Servers

On the **Add a Decoder Server** window, the **Decoder Screens** tab is used to **Add**, **Edit** or **Delete** screens. The number of screens that are listed to the left on the **Decoder Screens** tab, are determined by the number entered in the **Screens** field on the **General** tab. If the value of **4** has been entered, then **4 Screens** will be listed here:

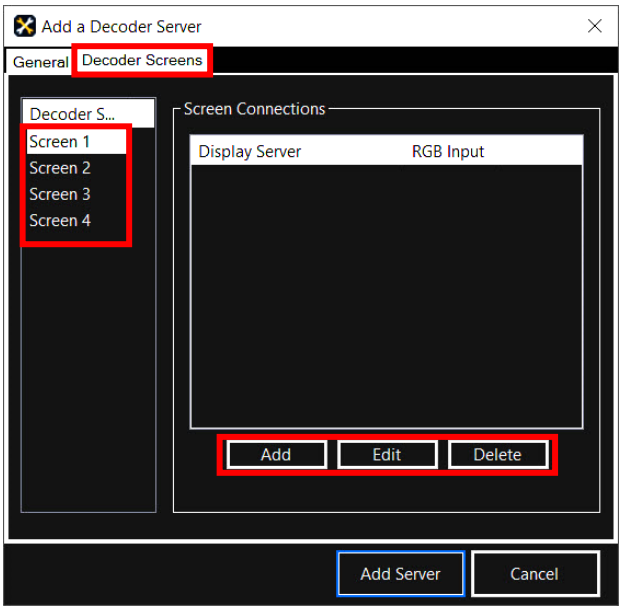


Figure 326: **Screen** highlighted to access the **Add**, **Edit** and **Delete** buttons

To **Add** a **screen** on the **Decoder Screens** tab, complete the following steps:

1. Click on one of the **Screens** in the list to the left to highlight it. The **Add**, **Edit**, and **Delete** buttons are now highlighted and accessible.
2. To **Add** a screen, complete the following steps:
    a. Select a **Screen** from the drop-down list.
    b. Click the **Add** button.

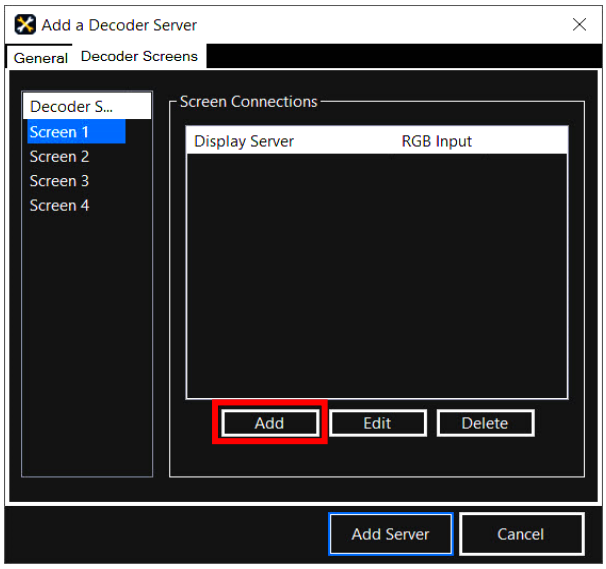


Figure 327: **Screen** added and listed in **Screen Connections** list

...to display the **Add a Decoder Screen** dialog:

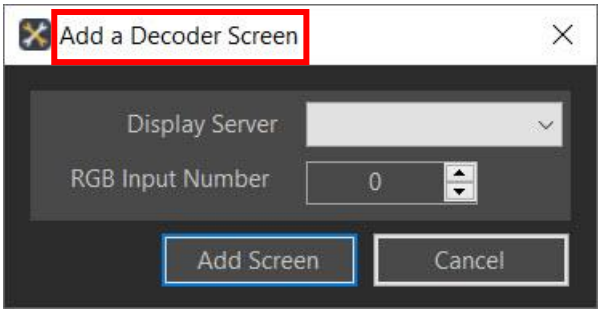


Figure 328: **Add a Decoder Screen**

c. Select a **Display Node** from the **Display Server** drop-down list:

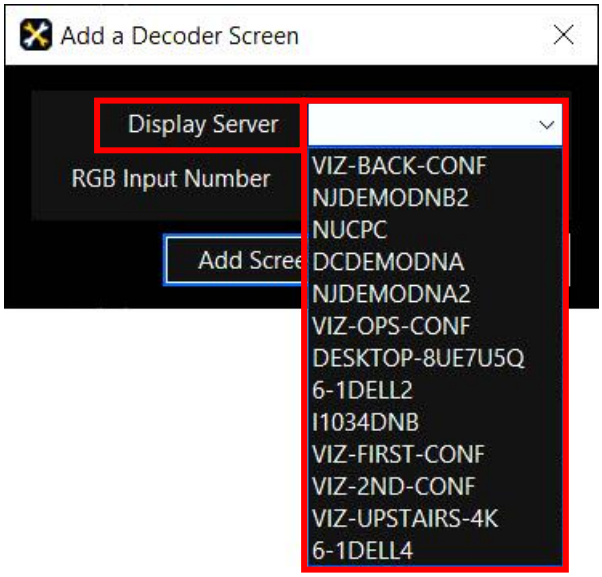


Figure 329: **Display Server** drop-down menu

d. Using the **Up** and **Down** arrows or typing the value manually, enter the **RGB Input Number** for the selected **Display Node**.

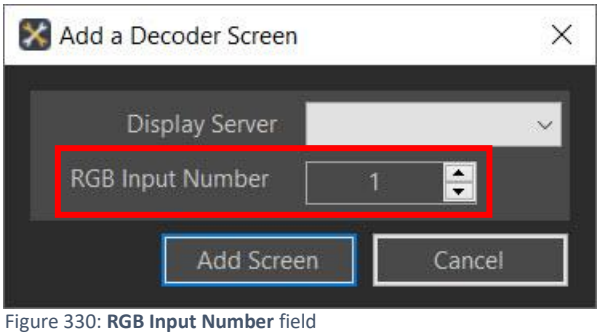


Figure 330: **RGB Input Number** field

e. Click the **Add Screen** button.

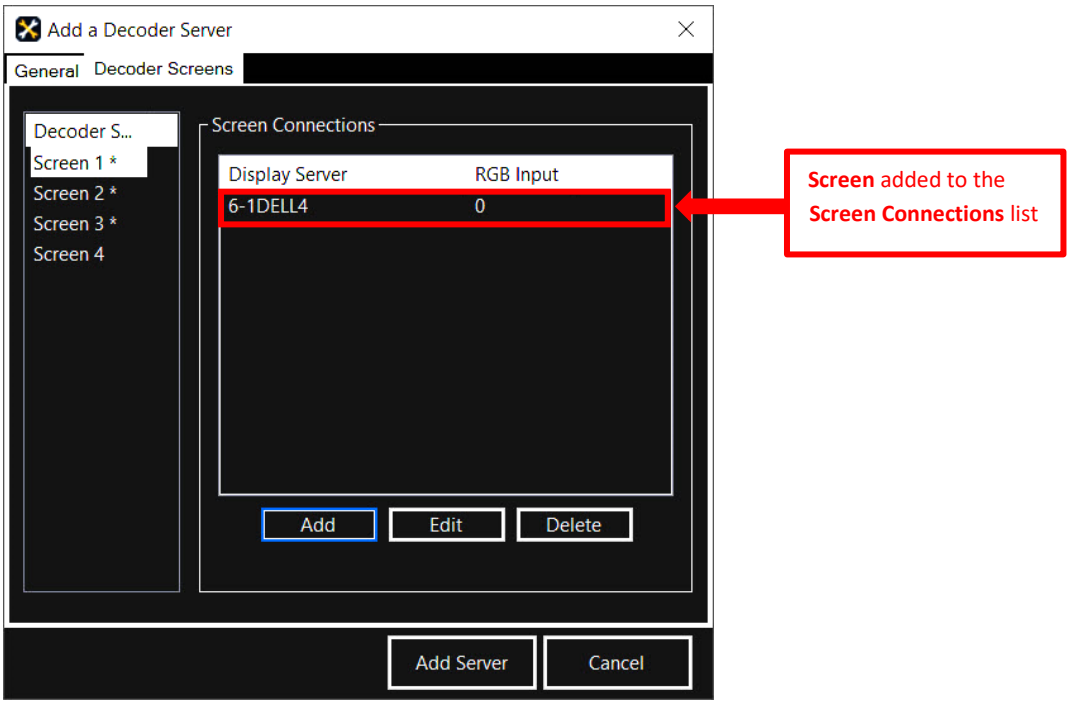


Figure 331: Screen added to the **screen connections list**

The **Screen** is now added to the **Screen Connections** list, as shown above.

Editing Decoder Server Screens

Editing a **Screen** on the **Decoder Screen** tab is done in the same way that is described above for **Adding a Screen**, except that the **Edit** button must be clicked instead of the **Add** button to display the **Update a Decoder Screen** dialog:

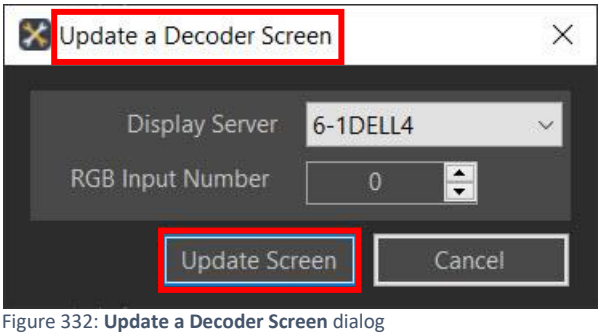


Figure 332: **Update a Decoder Screen** dialog

The updated changes will be made to the selected **Screen** once the **Update Screen** button is clicked.

Deleting Screens from Decoder Servers

To **Delete** a **Screen**, simply highlight the **Screen** in the list on the left (of the **Decoder Screens** tab), then click the **Delete** button. The **Screen** should now be removed from the **Screen Connections** list.

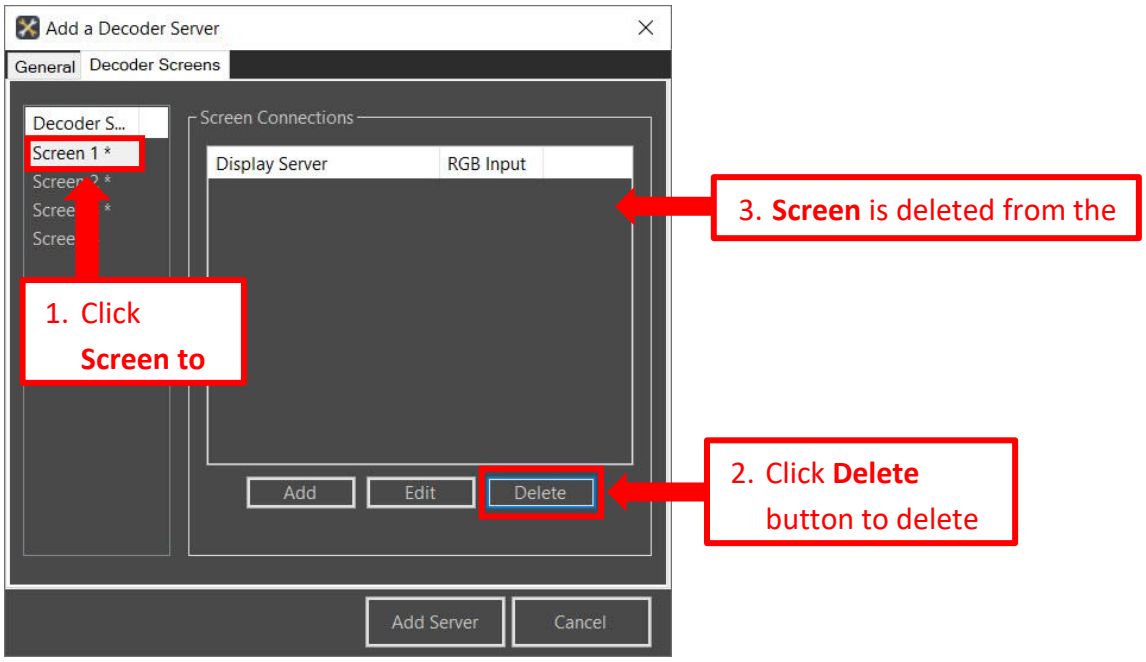


Figure 333: Add a Decoder Server - Delete

Adding App Servers

To **Add** an **App Server**, complete the following steps:

1. Click the **App Server** branch from the **Rendering** system tree.
2. Click the **Add** button.
3. Click **Browse**. The **Entity Browser** displays.
4. Click a component to choose and click **Select**.
5. Enter a **Friendly Name**. There can be no spaces in the **Friendly Name** field. The underscore can be used instead.

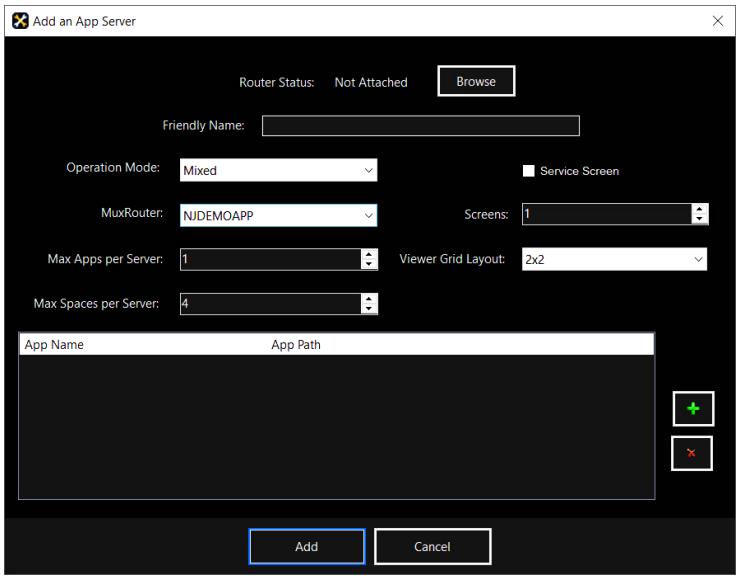


Figure 334: Adding an App Server

6. Select or enter additional information.
7. Click the **Add** button. The new **App Server** is created.

Editing App Servers

To edit an App Server, complete the following steps:

1. In the **Details** section of the **App Servers** sub-branch, in the **Existing App Servers** list, click the name of the **App Server** that is to be edited.
2. Click the **Edit** Edit button at the top of the **Details** section to open the **Update an App Server** window.
3. Because this is an existing **App Server**, some parameters are already filled in. They can be changed by following the same instructions for **Adding an App Server**.
4. Once editing of the parameters is completed, click the **Update** button at the bottom of the screen.

Deleting App Servers

To **Delete** an **App Server**, complete the following steps:

1. Click on the **Audio Router** name, in the **Existing Audio Routers** list in the **Details** section to the right.
2. Click the **Delete** button at the top of the screen to display the **Confirm Deletion** dialog:

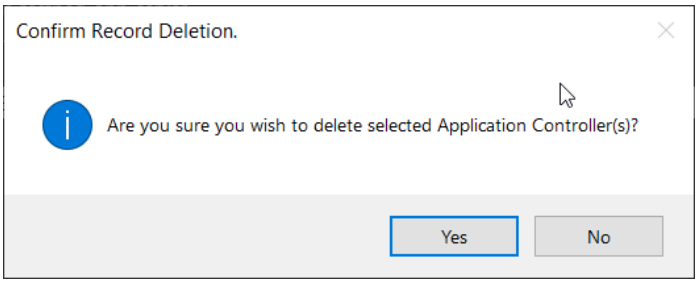


Figure 335: App Server Delete Confirmation Window

3. Click **Yes** to complete the **Deletion** and **No** to cancel it.

Refreshing App Servers

There is a **Refresh** button on the **Details** section of every branch on the **System** tree. It is used to confirm that the data for a specific **Source** (or other component in the system) has been loaded into the **System** database, by reloading it again. To **Refresh** or reload an **App Server**, complete the following steps:

1. In the **Details** section of the **Rendering** branch, click on an **App Server** name that is to be refreshed (to highlight it), in the **Existing Sources** list.
2. Click the **Refresh** button above the list. The highlighted **App Server** has now been reloaded into the **System** database.

Web Admin Client

The **Web vis|ability Admin Client** provides a dynamic web interface for monitoring the state of a **vis|ability** deployment, with direct access to system elements, logs, and configuration information. Convenient system observability and management ensures the **vis|ability** platform is continuously available and running optimally.

Users can monitor the state of all machines and vis|ability software components in a single location.

Logging into the Web vis|ability Admin Client

To log into the **Web vis|ability Admin Client**:

1. Ensure the Nexus is fulling installed on your system. This installation is
2. Open a browser and navigate to the Nexus URL with port 59081.
3. Enter your Nexus credentials.

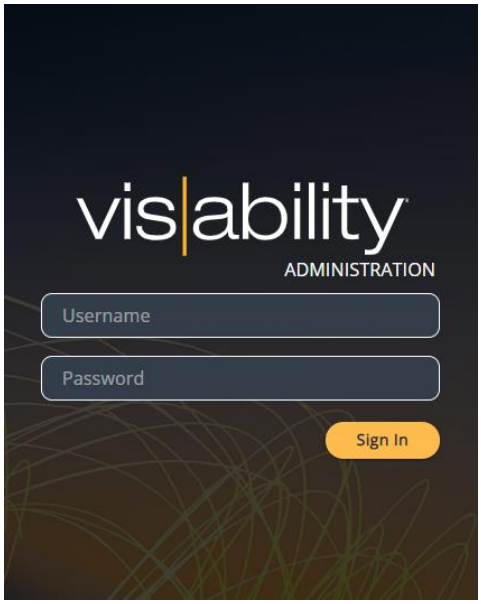


Figure 336: Administrator Log in Screen

The System Monitoring Machine page displays. It lists all the machines that are currently or previously connected to the Nexus. In addition, each active (outlined in green) or inactive (outlined in grey) component and service running on the machine is included along with the uptime.

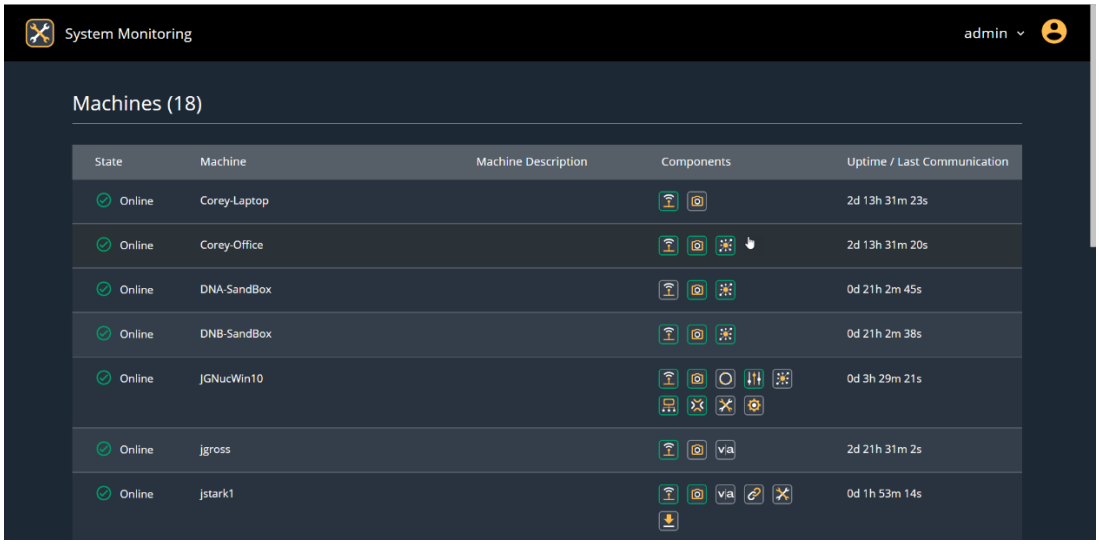


Figure 337: System Monitoring Window

Viewing Additional Machine Details

Each machine includes features that allow users to view additional details. To access machine data, click a machine name to select. The **Components**, **Detailed Diagnostics**, and **Log** display.

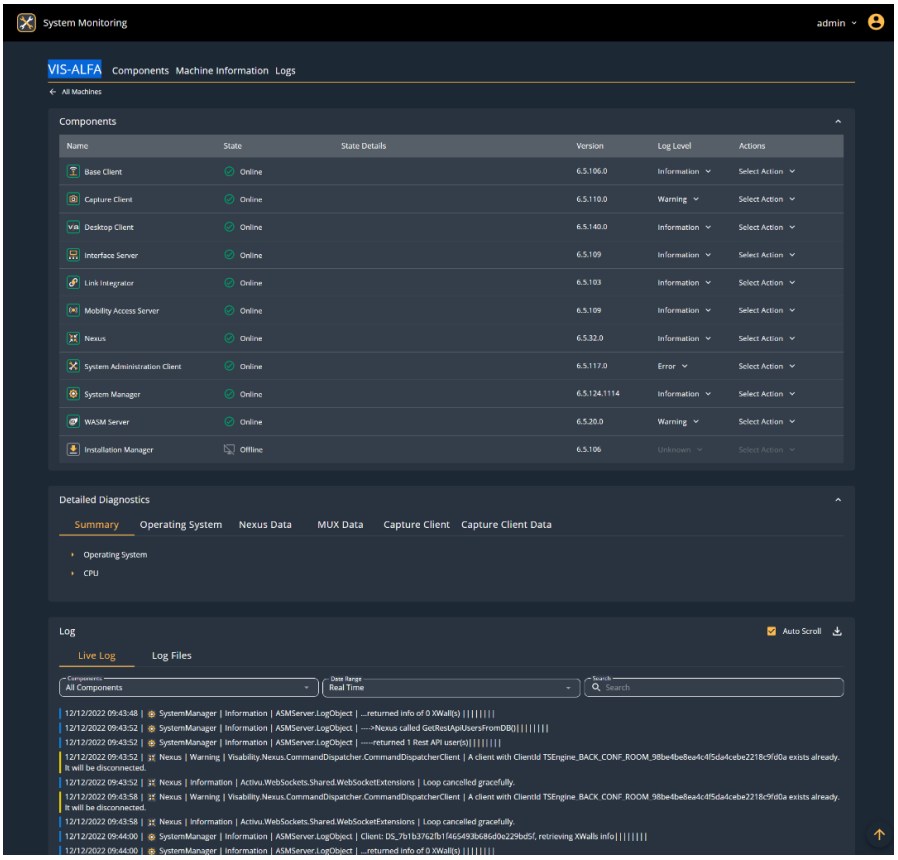


Figure 338: Machine Details Screen

Each section of the page is displayed at the top. Optionally, choose a section name to filter.

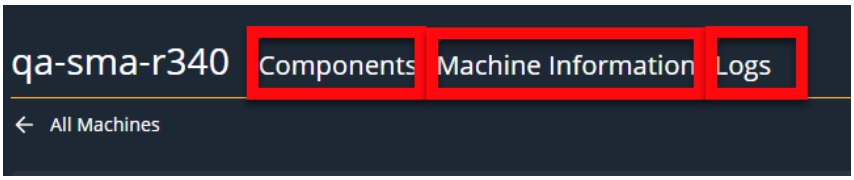


Figure 339: Filtering the page by Section

Viewing Component Details

Machine Components allow users to view the following features:

- **Name** – The Component name
- **State** – Icons indicating the current state of a component (**Online** and **Offline**)
- **State Details** – Displays whether a component is **Online** or **Offline**
- **Version** – The component version number
- **Log Level** – Sets the level at which logs are reporting.
- **Action** – Controls certain functionality such as stopping or restarting a service

Changing Log Levels

The Log Levels feature allows users to change the levels used to create logs on a machine. This helps pinpoint and troubleshoot issues within a selected system. To change a Log Level, complete the following steps:

1. Choose an **Online** component.
2. Select a **Log Level** from the drop-down box and make note of the time of selection.

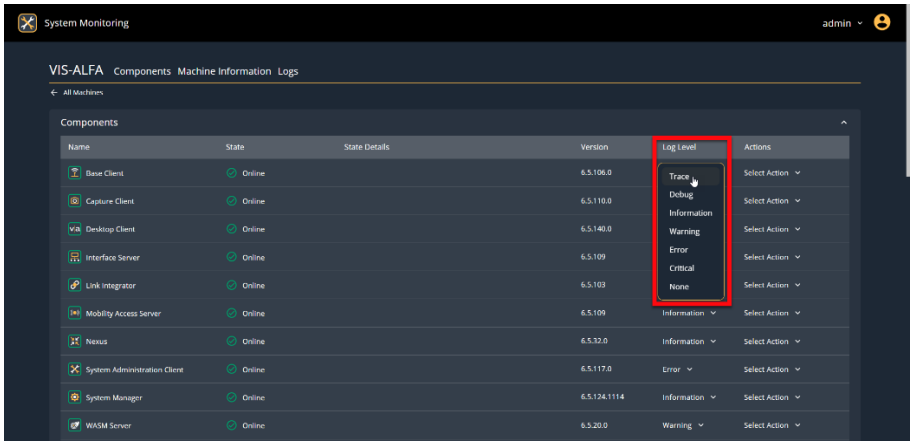


Figure 340: Selecting a **Log Level**

4. Scroll down to the **Log** section of the screen.
5. Ensure **Live Log** tab is selected.
6. Locate the previously noted time in the log and verify that the correct **Log Level** displays.

The Live Log feature allows users to view the code associated with a log entry. Double-click a record to view the code and optionally click **Copy** to use the data in other applications.

Viewing System Diagnostics

System Diagnostics allows users to see real time information about the running state, specifications, and services on a client's machine. This data is used to diagnose issues with system performance and stability.

This feature includes the following:

Note: Nexus Data, MUX Data, Capture Client and Capture Client Data details are accessible only if the connected machine is configured to display the information:

Summary

Displays a summary of machine property information such as the Operating System and, CPU and RAM.

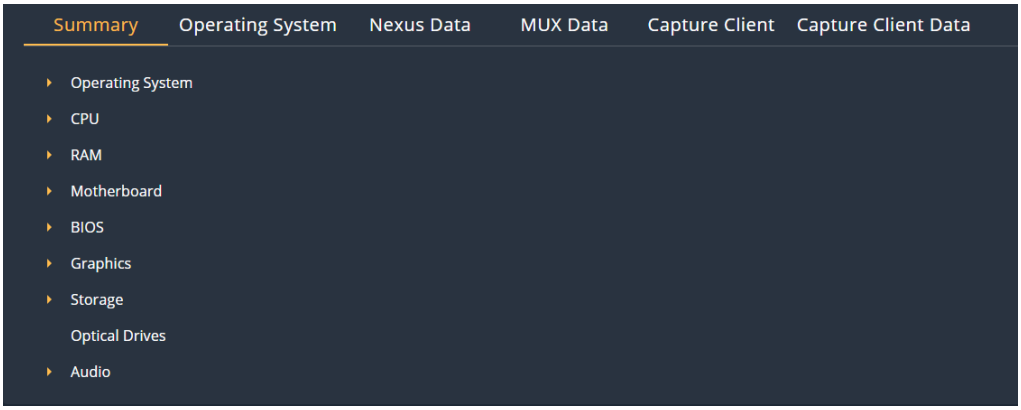


Figure 341: System Diagnostics Summary

To view system details, click the arrow to expand.

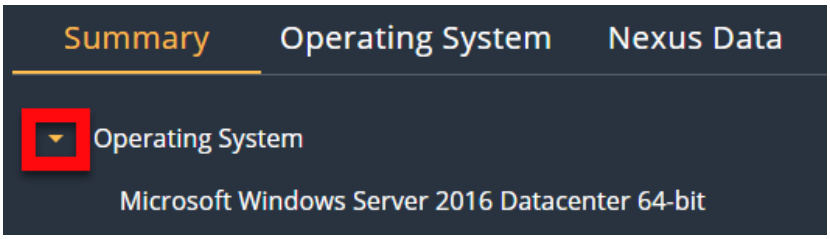


Figure 342: Expanded Summary List

Operating System

Includes detailed information regarding the current Operating System, Network adaptors with IP Addresses and all client machine services.

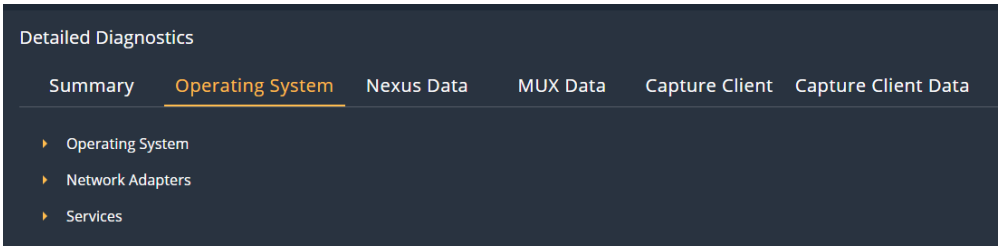


Figure 343: System Diagnostics Operating System Tab

To view system details, click the arrow to expand.

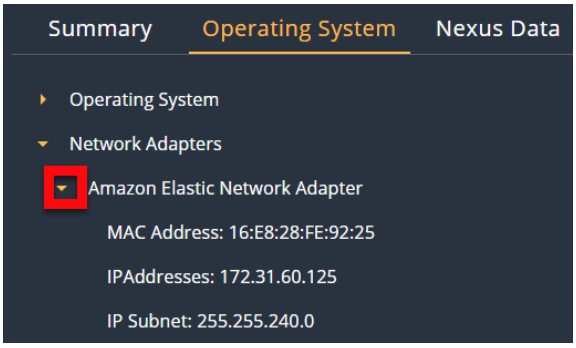


Figure 344: Expanded Network Adapters List

Nexus Data

The Nexus Data feature gives users the tools to diagnose and troubleshoot machine issues.

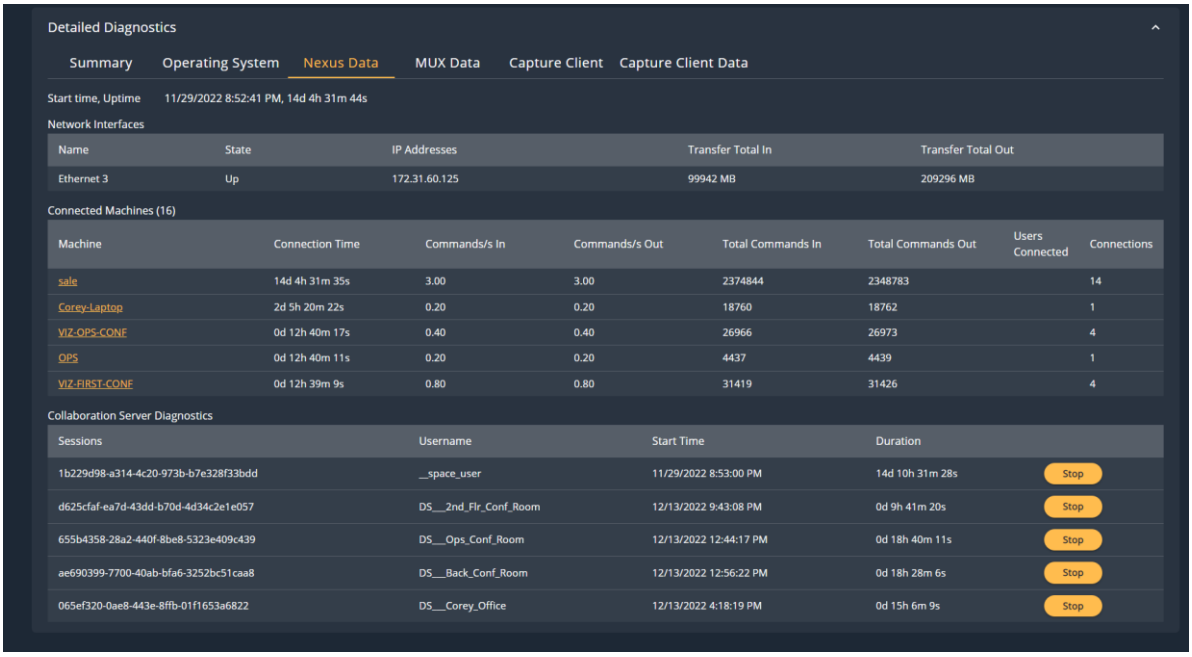


Figure 345: Nexus Data

- **Start tune, Uptime** – The machine **Start** and **Uptime** that includes the date and time.
- **Network Interfaces** – Displays the following Network information:
  - Name
  - State
  - IP Addresses
  - Transfer Total In
  - Transfer Total Out
- **Connected Machines** – Lists all machines connected to the Nexus. To view additional details, click the **Machine** name hyperlink.

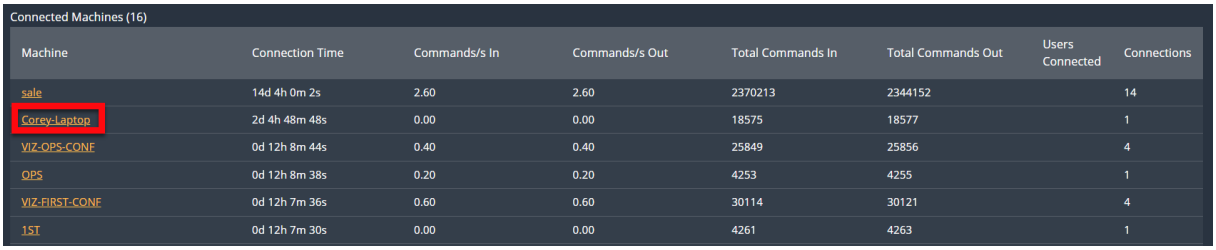


Figure 346: Selecting a **Connected Machine** Name

The System Monitoring details for the connected machine display.

- **Collaboration Server Diagnostics** – Every user and system logged into the Collaboration Server. This feature includes the ability to stop and restart sessions to troubleshoot issues.

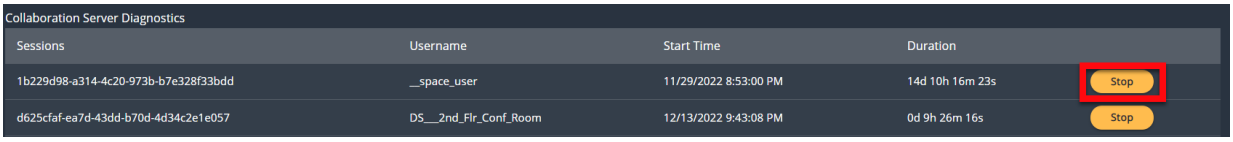


Figure 347: Collaboration Server Diagnostics **Stop** Button

MUX Data

Displays any connections made through a MUX Router. Information includes the following:

- Source Machine
- Source Name
- Area Definition
- Compression
- Frame Rate
- Destination Machines

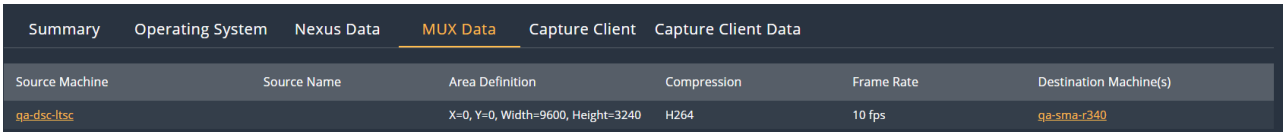


Figure 348: MUX Router Connection Data

Capture Client

The Capture Client transmits desktop content anywhere on the network. This content can then be viewed in real-time.

To view Capture Client content, complete the steps below:

1. Select the **Capture Client** tab.
2. Select a **MUX Router** from the drop-down box.
3. Select a **Compression Type** from the drop-down box.

A controllable share from the Capture Client displays.

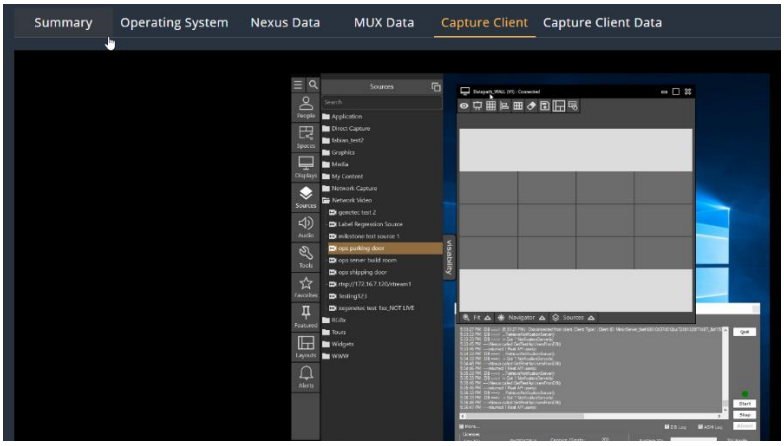


Figure 349: Shared Capture Client Content

Capture Client Data

Allows users to view real time information about the performance and network utilization of capture client. This is used to determine the next steps to cure or optimize a performance issue in the field.

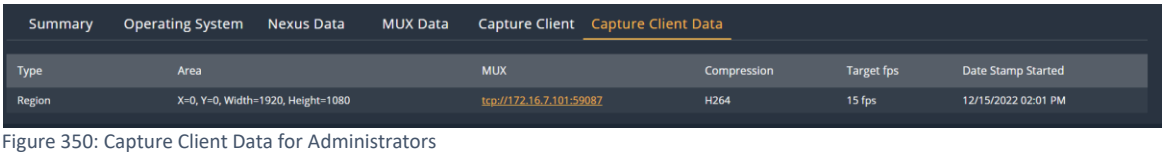


Figure 350: Capture Client Data for Administrators

The settings for the running Capture Client display, including the MUX router. Click the MUX hyperlink to view machine details.

Working with the Live Log

The Live Log feature reports logs from every component that is logging on a machine. Each log contains a timestamp and important information that allows users to choose specific components, date ranges and use the search feature. In addition, users can download log files.

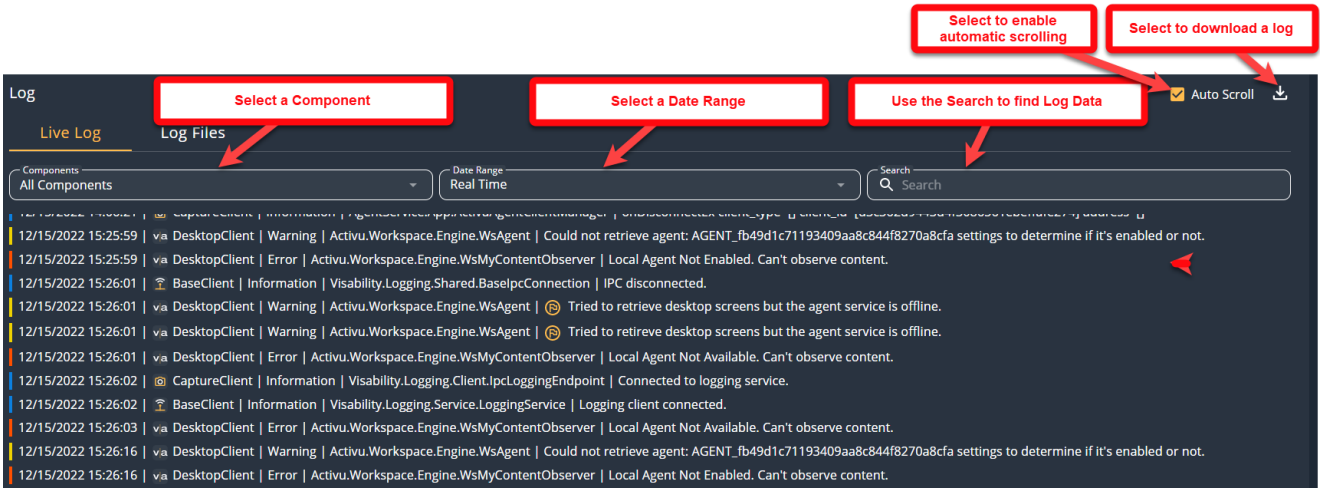


Figure 351: Live Log Data

Selecting a Component

To select a component, complete the following steps:

1. Ensure that the **Live Log** tab is the default selection.
2. Click the **All Components** drop-down box and press **Enter**.

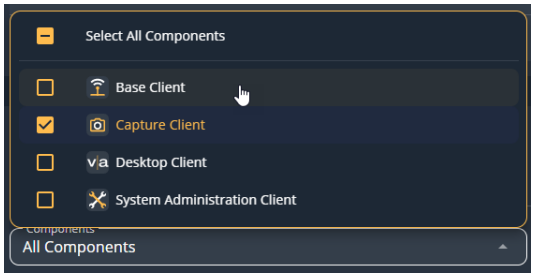


Figure 352: Log Component Selection

The Live Log is filtered based on the selection.

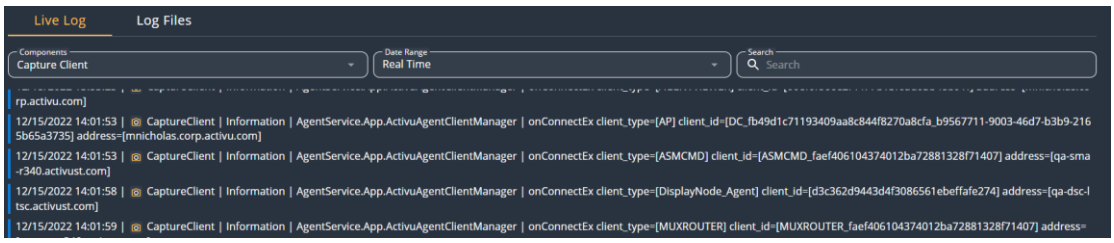


Figure 353: Live Log Filtered by the Selected Component

Selecting a Date Range

To select a Date Range, complete the following steps:

1. Click the **Date Range** drop-down box.
2. Select **Custom**.

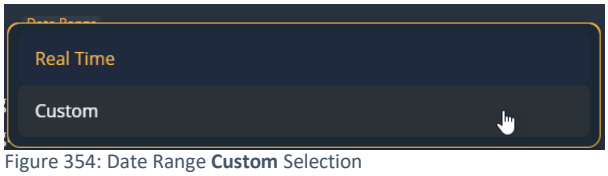


Figure 354: Date Range **Custom** Selection

3. Select the following information:
    - **Start Date** and **Time** (if applicable)
    - **End Date** and **Time** (If applicable)
4. Click **Apply**.

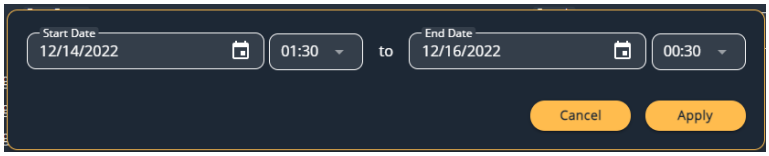


Figure 355: **Log Date** and **Time** Selection

The Live Log is filtered based on the **Date Range**.

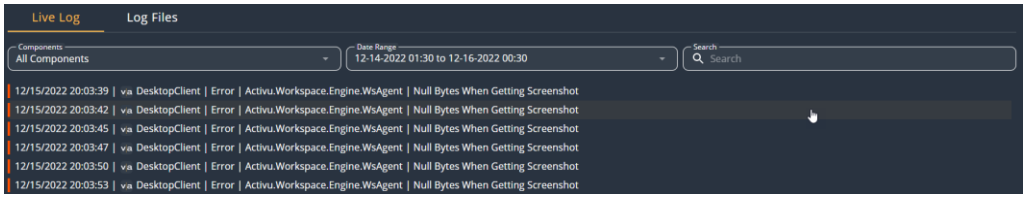


Figure 356: Live Log Filtered by the Selected **Date Range**

Using the Search Feature

To search for information in the **Live Log**, enter keywords into the **Search** field and press **Enter**. The Live Log is filtered according to the information used in the search.

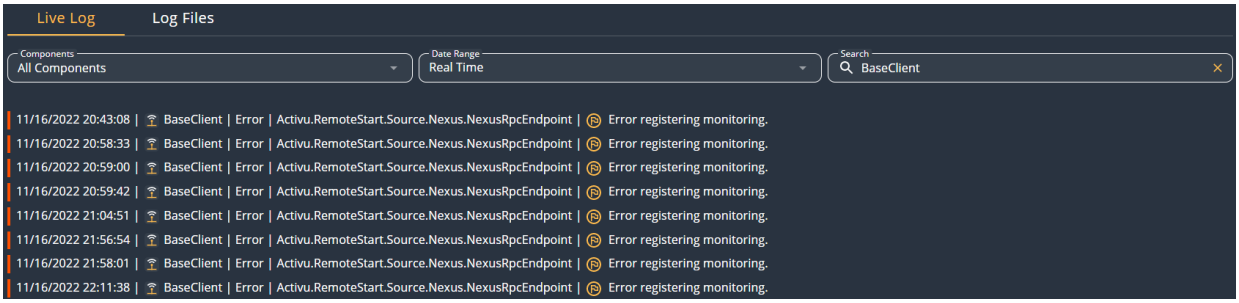


Figure 357: Live Log Filtered by Search

Using Auto Scroll

The Auto Scroll feature returns users to the bottom of the log where new logs are generated. When Auto Scroll is unchecked, users can freely scroll up the log file.

Downloading Log Files

The Download feature allows Administrators to export specific log information based on component, date range, or search criteria. These files can be used for the review and analysis.

To Download a file, complete the steps below:

1. Ensure that the **Live Log** tab is the default selection.
2. Select a **Component**, **Date Range** or enter **Search** criteria. The Live Log is filtered based on your selections.
3. Click the **Download** Icon.

Figure 358: Selecting the Download Feature

A confirmation pop-up window appears. It includes a checkbox stating that all logs from the **Program Data** location are included in the log file. Optionally, uncheck if you do not wish to include this information.

4. Click **OK** to confirm the download.

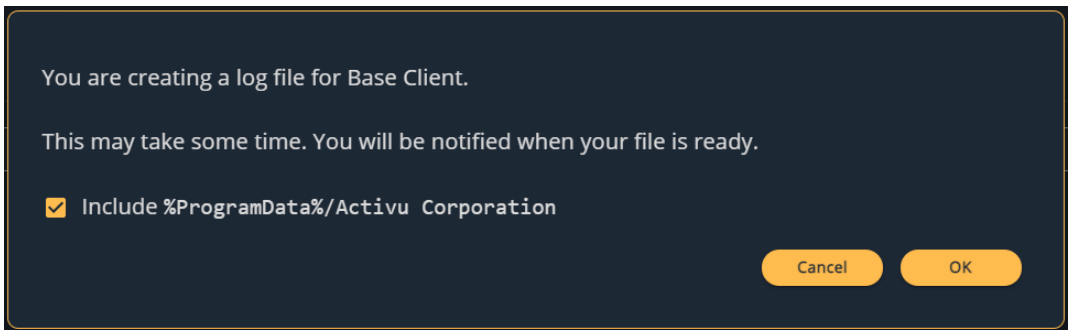


Figure 359: Download Confirmation Pop-up Window

5. A notification displays when the Log file is ready. Click **Download**.

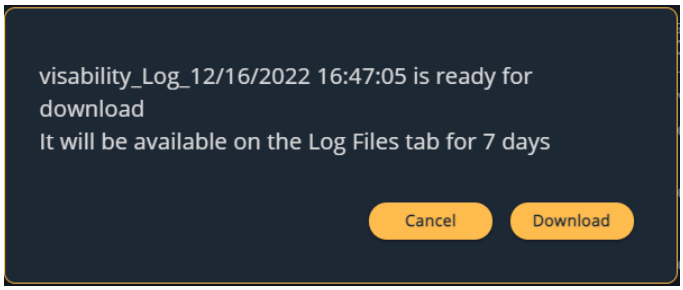


Figure 360: File Download Pop-up Notification

The .zip file is created and available in the **Log Files** tab for seven days.

Log Files

Allows Administrators to download logs from every component that's logging on a machine. To download a Log file, complete the following steps:

1. Select the **Log Files** tab.
2. Choose a file and click the **Download** icon.

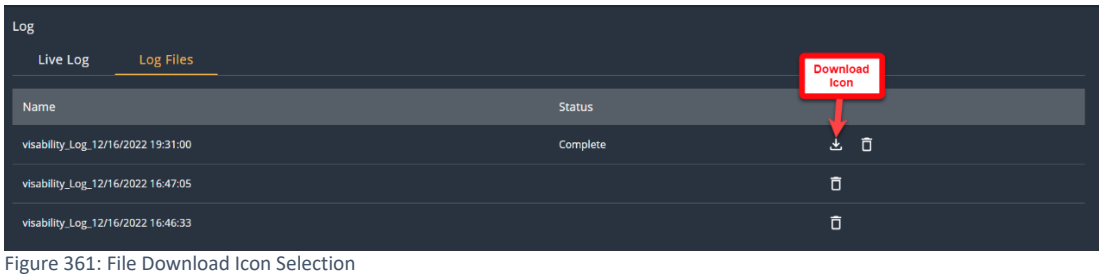


Figure 361: File Download Icon Selection

A .zip file is downloaded to the local machine. Optionally, click the **Delete** Icon to remove the file after download.

Web Portal

The **Web Portal** captures a Space and displays it through a URL to provide browser access.The Web Portal service and an App server must run to enable the Web Portal. To get started with configuring the Web Portal, complete the following steps:

1. Define a Multiplexer (see Multiplexers (MUXrouters) to learn more).
2. Enable an App Server (see Adding App Servers to learn more).
3. Update the Multiplexer with the **App Server IP Address** defined in Step 2.
4. Click the **General** branch in the **Advanced Setup** tree.
5. Click the **System Features** tab.
6. Ensure the **Web Portal Share Public** and **Web Portal Share Restricted** checkboxes are checked.

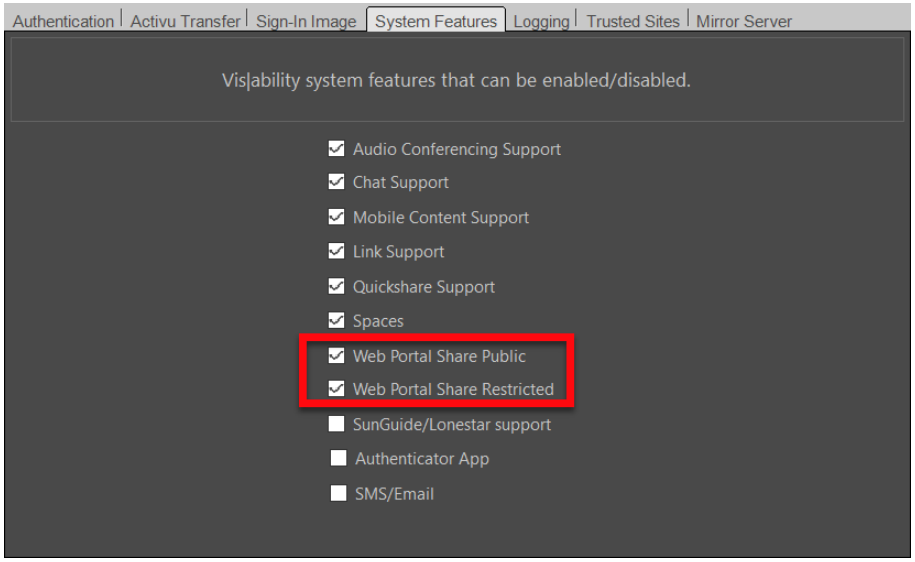


Figure 362: System Features Web Portal Permission

7. Click the **Groups** branch in the **System** tree.
8. Select a **Group**.
9. Click the **Rights** tab.
10. Ensure the **Web Portal Share Public** and **Web Portal Share Restricted** checkboxes are checked.
11. Log into the **vis|ability Desktop Client** as one of the users in the previously selected Group.
12. Refer to the **Activu vis|ability Desktop Client User's Guide** to access the Web Portal.

System Maintenance and Troubleshooting

To maintain systems and troubleshoot, contact the Activu Support team for access to the Support Portal.

Tools

The System Administration Tools menu allows users to configure system settings.

Import Source Name Table

Allows users to import sources. **Note**: This feature isn't used in The Administration Client

Resetting Audio Settings

This feature restarts **Audio Settings**. This helps users troubleshoot any issues.

Mirroring Client

This feature allows users to switch to an active **Display Node** to prevent loss of content on a Display Wall.

Capture Client Preview

Displays a list of every PC in vis|ability that includes an installed **Capture Client**. It shows a preview of screens, open applications and Capture Client information.

Entity Browser

Displays any Activu component pointed at the command router. Log into the Vac and click the **Entity Browser**. Information on specific components displays.

Definition of Terms

Term	Definition of Term
AB_CLIENT	The base client registers all installed and operating components on a computer that is part of the **vis|ability** system, including user desktops. It provides a mechanism to monitor the computer, update software, and report errors.
Action Panel	An Action Panel is a simple, custom button panel interface created in the Action Panel editor. Action Panels execute scripts that can automate and simplify common operations.
ADM	The Device Manager interfaces with **vis|ability** supported hardware devices to integrate their operation into the platform.
AGENTSERVICE	This is now called the Capture Client service and is used to capture desktop content for use in the **vis|ability** platform.
Analog equipment (Activu)	Analog equipment includes all the necessary non-network components that support **vis|ability** platform functions. These can include analog sources, display walls, LCD panels, routing components, audio components, and ancillary equipment. The Activu Device Manager (ADM), via serial interface (RS-232) or network interface (Internet Protocol) controls these devices.
Application	An Application Source represents a process running on the Display Node which can be controlled via Activu. Examples of a process include Radar, SCADA, or Microsoft Office applications.
ASM	ASM is the **vis|ability** System Manager, or just System Manager. This set of components provide database, authentication, and communication elements of the **vis|ability** platform.
ASMADMIN	This is now known as the **vis|ability** System administration client, used to setup and define a **vis|ability** system.
Authentication (Windows)	Windows authentication is otherwise known as Active Directory.
Audio Conference	Direct, real time audio communications between two or more **vis|ability™ Desktop Client Users**, utilizing the network and microphone connected to the **Desktop Client User's** computer. This feature is disabled in **vis|ability** version 6.5.1.
Audio Router	An audio router is an analog device controlled via Device Manager and routes audio to Audio Zones.

Audio Source	An audio source is a source of audio information that is controlled and routed through an Audio Router.
Audio Subsystem	The Audio Subsystem consists of Audio Sources, Audio Router, and amplified Audio outputs that play into Zones defined within the **vis|ability** platform.
Authentication Type	There are two options for authentication that can be used in a **vis|ability™** platform. The default, Activu authentication, uses the **vis|ability** platform to store usernames and passwords. The second option is Windows authentication, which uses Active Directory security groups and Users to determine authentication in the **vis|ability** platform. This option synchronizes permissions between Activu and the Active Directory and is the recommended authentication type.
Authentication (vis|ability™)	**Vis|ability** can offer a built-in database of users and user level data, where LDAP integration is not needed.
Baseband	Baseband refers to typical analog and digital video signaling, such as VGA, DVI, HDMI, and DisplayPort. Baseband signals are output to connected displays and are captured by specialized hardware in Display Nodes.
Capture Client	Capture Client is a component of the **vis|ability** platform used to capture, encode and transmit computer desktop content. It is paired with a MUXrouter and viewer (Desktop, Display Node, Space) to complete the subsystem.
Capture Client User Mode	This mode is not supported in **vis|ability** 6.5.1.
Chat	Text-only communications between two or more **vis|ability™ Users**, found in **Spaces**, **Quick Share**, and directly via the **Desktop Client Hub.**
Collaborate	Communication between two or more **vis|ability™ Users**, using the built-in capabilities of the **Desktop Client**: **Chat**, **Share**, **Spaces**, **Displays**.
Collaboration Services	Collaboration services are implemented in the Nexus component of the v6.5 **vis|ability** platform. Collaboration services provide the ability to share desktop content to other users and display walls, and for users to chat with one another.
Decoder Server	The Decoder Server is an optional co-processor associated with a Display Node. It is designed to offload decoding IP video so that the Display Node processing and GPU capacity can be used for other purposes. One or more Decoder Servers can be connected to a Display Node to support high density IP camera decoding.

Desktop Client	The **vis|ability** Desktop Client is a Windows application used as the primary interface to interact with **vis|ability** platform.
Device	Any physical device connected to, and potentially controlled by, the **vis**|**ability**™ platform.
Device Manager	The Device Manager is a **vis|ability** component that supports connection to, and control of, external hardware devices, through network or serial communications.
Display	A computer and monitor(s), running **vis**|**ability**™ **Display Node** software, and controlled via the **vis**|**ability**™ platform.
Display Node	The **vis**|**ability**™ Display Node hardware drives Display Walls. A Display Wall is constructed of a matrix of display devices, such as Cubes, LCD panels, Direct View LED displays, front projectors and screens, etc. A single Display Node can be configured to drive multiple display walls if needed. Multiple Display Nodes could be configured within a **vis|ability** installation. Display Nodes typically are configured with standard COTS hardware, such as a Dell workstation and AMD professional graphics cards. In certain circumstances, specialized cards that capture baseband video, or provide IP decode offload can be optionally configured, as needed. Activu installation convention would label these devices as DSA, DSB, etc.
Entity Browser	The entity browser provides a real time view of all connected elements of the **vis|ability** system, providing specific information about the type of service and software installed on that computer, as well as their internal unique identifiers. Each computer may have multiple entity signatures and therefore would be listed more than once.
Filter	To eliminate data records from a list of database items that match specified criteria; to show only content that contains the remaining data after it has been filtered.
FQDN	Stands for Fully Qualified Domain Name which includes the machine name and its domain, used by DNS to lookup the machine's IP address.
Graphics	Lists and stores images such as GIF, PNG, and JPG's.
Group	A group is a logical collection of users and the permissions afforded to them through association with that group.
Hub	The Hub is the graphical interface to the **vis|ability** Desktop Client, providing access to all elements of the **vis|ability** platform.

LDAP authentication	LDAP (Lightweight Directory Access Protocol) authentication uses an open standard to provide secure storage of users and passwords, as well as group rights and membership.
Import	Import means to consume externally held data into the **vis|ability** platform, typically to help with the creation and management of Source definitions
Interface Server	The Interface Server is a component of the **vis|ability** platform that implements and exposes programmatic interfaces to the platform, allowing 3rd party developers to interact with the platform.
IP Capture Device	The IP Capture Device serves as an additional means of capturing baseband video from a non-Activu- supported operating system or Source devices. The IP Capture Device is a standalone device that captures baseband sources and makes that source available on the network as an IP stream.
ITMS	Information Technology Management Services.
Label	A label is textual **Annotation** placed over **Source** content for the purpose of identifying the **Source** content that is being referred to.
Layout	A **Layout** is the S**aved** state of **Sources**, the placement and z-order, on a **Display**. Used for quick recall of **Source** content on a **Display**. **Layouts** are **Display**-specific.
LDAP	Lightweight Directory Access Protocol.
Load, Loading	To enable an element on the **vis|ability™** platform, such as a **Layout**, **Template** or **Space**.
Location	Location in the **vis|ability** platform is used to determine the physical, logical, and network relationship of elements of the platform to one another.
Logging Level	The Logging Level, one of Trace, Debug, Information, Warning, Error, Critical, and None determine what kind of events are logged by the specific component. Trace and Debug are reserved for software development purposes, as the number of logs is extremely high, but very granular. Information provides all error levels and includes informational data as determined by the Activu development team Warning logs all events, even those that might not have an impact on system performance.

	Error logs events that influence some element of system performance, but the component can continue to run. Critical level only logs errors that stop the component from completing its tasks. None turns off logging for the component. Default logging level is Warning.
Lonestar	Lonestar is a third party ATMS system used in Texas.
Media	Media describe Source content that typically includes audio and video imagery.
Mimic (Display Mimic)	The M**imic** is a representation of a physical entity for control purposes. On the **vis|ability™** system, the **Display Mimic** allows **Desktop Client** U**sers** to see, understand, and control content present on a **Display**.
Mirror Server	The Mirror Server is an optional **vis|ability** component that implements the ability for the system to mirror two displays for redundancy purposes.
Mirroring Client	The Mirroring Client provides the ability to configure the Mirroring Server.
MUXrouter	MUXrouter is a component of the **vis|ability** platform that connects Capture Client Sources (also known as Network Capture Sources) with viewers on Desktops, Spaces, and Displays. MUXrouter takes a single stream from the Source and distributes it to one or more viewers – ensuring network and CPU burden on the Source computer is minimized.
People	Users of the **vis|ability** platform.
Platform Software	Generally, all the software components that comprise the **vis|ability** platform.
Poll	To read the state of some element (such as the running applications on a computer desktop) on a repeating, regular time interval.
Process List	Comma-separated string of process names that the application launches. Use this field if your application launches multiple windows. If each window opened by the application is assigned a unique process name by the Windows Operating System, then you must enter those process names exactly in the Process List field. For example, enter [iexplore] if launching multiple windows of Internet Explorer.

Resource (vis|ability™ platform)	**Network Sources**, **Graphics** files, **Media** files, **Sources**, **Display Walls**, Spaces, Templates, Layouts, Scripts, and Action Panels.
RGB/DVI System Router	An RGB/DVI System Router is an optional system device used for routing, with high quality, baseband video as an RGB, DVI, HDMI, or DisplayPort signal. Integrated control of a router to seamlessly integrate routing and display of these signals is part of the **vis|ability** platform.
Script	Code executed inside the **vis|ability** platform to accomplish some platform related task, such as loading a layout when an Action Panel button is pressed.
Script Editor	The UI component used to create and manage Scripts.
Share	Presenting content that is important to others using the **Desktop Client** and the **vis|ability™** platform. **Share** can include local desktop content or A**pplications**, **Spaces**, or local **Source** viewers via a **Display**. **Sharing** can occur directly between users, or via a proxy such as a **Space** or a **Display**.
Source	Any **vis|ability™** platform-defined content that is made available via the **Desktop Client Source** tree.
Source Type	One of multiple types of Sources that are supported in the **vis|ability** platform: a. Widget b. Network Source c. Web Source d. Application Source e. RGB Source f. Media Source g. Image Source h. Streaming Media Source
Space	A specialized 4K virtual video wall that can organize and display Sources, be shared to multiple users, and can be shared to a Web Portal.
Start Delay (Managing Source Types)	Artificial delay used to ensure the system captures the start of an application Source.
Streaming	Content that is updated live via a continuous network stream of information, between a **Source** and **Viewer**.
Streaming Media	IP cameras and encoders.

SunGuide	ATMS software platform developed by SWRi for the State of Florida department of transportation.
System Administration Client	Windows Client application used for the administration of a **vis|ability** platform deployment.
System Administration Interface	Same as System Administration Client.
System Manager Server	Computer server that runs the System Manager software, including the system database, Nexus communication and collaboration manager.
Template	A T**emplate** is a predefined set of numbered positions, in a **Tiled** arrangement that can be used with the D**esktop Client** to constrain **Sources** when placed on a **Display**.
Toolbar	A set of menu buttons or titles placed at the top/bottom of a window, used to control related elements inside that window.
Tour	A sequence of Sources played in a single window, each source displaying for a prescribed dwell time.
Trusted Site	Specifies the URL for websites whose content is trusted by administrators.
Video RGB/DVI	Defines and lists baseband captured video sources such as VCR, DVD, Cable, and Digital tuners, and computer outputs that cannot be captured via software.
Video Wall	A video wall is a large format, 2-dimensional array of physical D**isplays**, arranged and controlled such that content (**Sources**) can be placed anywhere on the **Video Wall**.
Viewer	Software used to view a **Source** on a **Display**, **Desktop**, or **Space**.
Viewscreen	A **Viewscreen** is a logical content-set that contains **Sources** already prepared for display on a **Display**. A currently “active” **Viewscreen** is visible on a **Display**. “Inactive” **Viewscreens** contain content but are only visible when made “active”. Only one V**iewscreen** can be active on a **Display** at a time. **Viewscreens** are not **Shared** among **Displays**.
Volume Controller	Controls the volume of a specific Audio Zone.

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