IP Cameras

Use the F1 button on any page of a ThinManager wizard to launch Help for that page.


Overview

ThinManager 4.0 provides support for IP cameras. Most IP Cameras that conform to the mjpeg (motion jpeg) are supported. Video from the camera can be viewed as an overlay on top of a non Camera Display Client or as part of a Camera Display Client.

This Tech Note covers all aspects of the camera. There is a Tech Note on Camera Display Servers and Camera Display Clients.

IP Camera Configuration

Before a camera can be added to a Display Client, the camera itself must be configured. The camera configuration wizard can be launched by right clicking on the Cameras branch of the ThinManager tree and selecting the Add Camera option.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cameras</td>
<td>0</td>
</tr>
<tr>
<td>Total Camera Groups</td>
<td>0</td>
</tr>
</tbody>
</table>
The first page of the camera configuration wizard requires that a camera name be entered. Select the make and model of the camera you are configuring and the IP address and Port that has been previously assigned to the camera. The IP address and port are set by using the camera manufacturers configuration software or through the use of the camera’s web browser interface.
On the next page of the camera configuration wizard, the user authentication information can be entered. If your camera requires authentication enter it on this page. If the camera has been configured to allow anonymous connections, leave the information blank. The terminal uses the authentication information when connecting to the camera. Authentication information is setup in the camera by using the camera manufacturers configuration software or through the use of the camera’s web browser interface.
Some cameras support additional configuration options. These options can be configured on this page. If you wish to use the default options then leave the *Include Camera Options* unchecked. The newly created camera will appear in the ThinManager tree as follows.
IP Camera Group Configuration

The camera group configuration wizard can be launched by right clicking on the Cameras branch of the ThinManager tree and selecting the Add Camera Group option.
Enter the Camera Group Name and select **Finish**. The Camera group will be shown in the ThinManager tree as follows.
Camera Group Tree View
IP Camera Administration

Once a camera is configured in ThinManager, the **Connect** tab can be used to connect to the camera and perform camera administration from ThinManager.

Camera log in information may be requested when using the connect tab. The authentication information entered during the camera configuration is not used when using the connect tab.
IP Camera Display Client

The Camera Display Client configuration wizard can be launched by right clicking on the **Camera** branch of the ThinManager tree and selecting the **Add Display Client** option.
Camera Display Client Wizard – Name

Enter the name of the Display Client and any TermSecure permissions on this page.
Display Client Options
Select the options that apply to this Display Client

Client Options

- [ ] Allow Display Client to be tiled
- [ ] Allow Display Client to be moved (MultiMonitor)

Camera Display Client Options

Select if this Display Client can be tiled and if when using MultiMonitor it can be moved to a different screen.
Camera Display Client Overlay Layout

This page determines the layout of the camera overlays. You can define your own custom layout or choose from predefined layouts. The Display Size selection should be set to the resolution of the terminal screen to which the Display Client will be added. The picture on this page represents the overlay layout.
Camera Display Client Layout Selection

Use the layout drop down to select the desired layout.

Overlay Layout
Select the size and location of the IP camera overlays

Choose Camera Layout
- Custom
- 1x1
- 1x2
- 2x1
- 2x2
- 3x2
- 4x2

Display Size
1024x768

Create at least one camera overlay
Once a layout has been selected, it will be represented graphically. Select Next to configure the overlays.
Each overlay will be given a default name. The grey region of the screen representation is the overlay which is currently being configured. If the *All Cameras Available* checkbox is checked, all of the cameras will be available to be selected by the user at the terminal.
Selecting the **Set Initial Camera** button allows the camera the overlay will start on at boot up to be selected.
If the **All Cameras Available** checkbox is unchecked, cameras must be added manually. Use the **Add** button to add cameras to the list. Adding more than one camera allows the user to select from these cameras at the terminal and allows the cycling between the listed cameras.
Clicking the **Overlay Options** button will allow the setting of additional overlay options.

**General Options:**

- **Enable Overlay** – This option allows the overlay to be started in a disabled non-visible state. The TermMon ActiveX Control can be used by an application to enable the overlay.
- **Interactive** – This option allows the user on the terminal to interact with the overlay. If the user clicks in the overlay area, he can perform functions such as switching cameras and making the overlay full screen.

- **Scale** – This option will scale camera frames to be to the size of the overlay window. Aspect ratio will be maintained.

- **Crop** – This option will crop the camera frame if it is larger than the camera overlay. This option when combined with the **Scale** option will always fill the entire overlay area.

- **Show Complete Camera Name** – Using this option allows the entire path of the camera to be displayed. The path includes any groups of which the camera is a member.

- **Border Size** – This setting determines the size of the overlay outside border.

**Title Options:**

- **Title Position** – This is the position of the camera name within the overlay.

- **Title Size** – This is the size of the camera name when displayed within the overlay. Set this to *Don’t Show Title* if you do not want the camera name displayed.

**Cycling Options:**

- **Enable Cycling** – Check this setting to cycle between the cameras assigned to the overlay.

- **Cycle Time** – This is the time in seconds that the overlay will display each camera before switching to the next camera.
Once a Camera Display Client has been configured it will be reflected in the ThinManager tree under *Display Clients-*>Camera.

**Terminal Configuration Wizard**

**Display Client Selection**
Select the Display Clients to use on this terminal

Available Display Clients
- ShadowClient1
- ShadowClient2
- TSClient1
- TSClient2

Selected Display Clients
- CamClient1

Edit Display Clients
Override

< Back  Next >  Finish  Cancel  Help

**Terminal Configuration Display Client Selection**

During the terminal configuration, select the desired Display Clients for the terminal. Multiple Display Clients can be added to the configuration for a MultiSession configuration.
When the terminal is running, the Camera Display Client status will be reflected in the ThinManager terminal tree view. The status of each Camera Overlay and Camera will be displayed. A green lightning bolt on the Display Client icon represents that Display Client is in the foreground. A yellow lightning bolt on the Display Client icon represents that the Display Client is in the background. A green lightning bolt on the overlay icon represents an active overlay. A green lightning bolt on the camera icon represents an active connection to the camera.
Adding a Camera Overlay to a Display Client

During the terminal configuration check the **Include IP Camera Overlays** option to add camera overlays to a Display Client.
Camera Overlays can be configured before completing the Terminal Configuration wizard,

Clicking the **Add Overlay** button will allow the creation of the overlay. Enter the name position and size of the desired overlay.
Camera Overlay Layout

Once an overlay has been added, it will be represented as a white outlined square on the layout page. Selecting the **Next** button will allow the completion of the configuration camera overlays.
Overlay Camera Selection

The camera overlay configuration can be completed as described in the IP Camera Display Server Configuration Wizard section.

Camera Overlays and TermMon ActiveX Control

Camera Overlays can be controlled by an application by using the TermMon ActiveX Control. The Control can be used to perform operations such as switching cameras and changing the overlay size and position. See TermMon ActiveX for details.