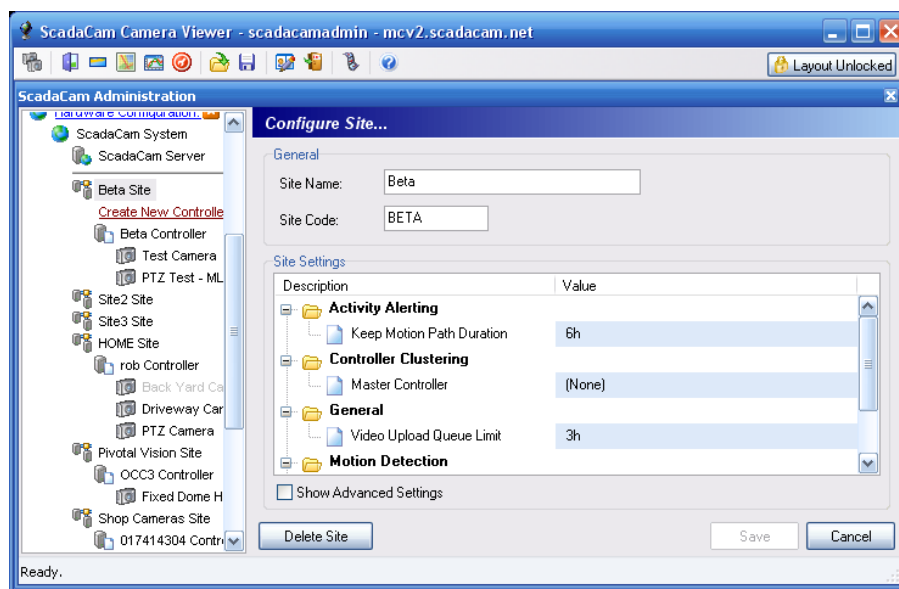


Demo Quick Help Reference Manual



Version 4.4 Software Configuration

Manual Version 5.3

©2003, 2007, 2008, 2009

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Downloading the ScadaCam Multi Camera Viewer (MCV)

1. Click the 1st **Download** button to load the ScadaCam Multi Camera Viewer on your PC
2. You will be asked if you would run the program now, click Yes



3. Click the 2nd **Download** button to load the ScadaCam Video Codec on your PC
4. When the program is loaded and installed on your computer the Login Screen appears:

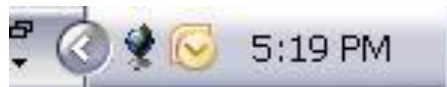


5. mcv.scadacam.net is our demo management server name and will be displayed by default
6. Enter the **User name: demo**.
7. Enter the **Password: demo**. You can also choose to **Connect Automatically** to the last used management server when the application is launched.
Note: Neither **User Names** nor **Passwords** are case sensitive.
8. Click on **Connect**. The gray bar at the bottom of the screen will show the progress of the Login. If there are errors during connection they will be displayed here.
9. An Auto-Update window may appear. If so, select yes and wait for the updates. When complete, re-login and connect.

- a. If you want to launch the ScadaCam Multi Camera Viewer at a later date, you can go to your start menu to launch ScadaCam or Click in the ScadaCam icon on your desktop.



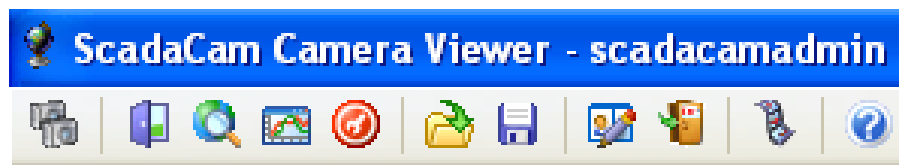
- b. Also note if you minimize the ScadCam MCV, it will be located in your task bar by your clock. Simply click the ScadaCam icon to maximize the viewer.



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The Multi Camera View Screen

Upon initial launch of the MCV, no camera views will be shown. Familiarize yourself with the functions of the Menu Bar shown below by putting the cursor on each icon in turn. The function of each menu item will be displayed. Each of the Menu Bar items are briefly described here; the utility of each item is described in more detail later on.



- **Display Camera Selector** – Used to select the cameras you wish to view and control.
- **Display New Camera Display Window** – Used to add new Camera Display Windows to the MCV screen.
- **Display SkyView Window** – Used to add a new Skyview to the MCV screen.

- **Display Reports Window** – Used to view and modify event reports from the OCCs.
- **Display Administration Window** – Used to configure the entire ScadaCam® System. Most of the functions available on this screen are only available to System Administrators.
- **Load Camera Layout** – Used to select a saved layout for the MCV screen.
- **Save Camera Layout for Current User** – Used to store the current MCV screen layout for later use.
- **Edit profile, preferences and activity notifications for current user** – Used to enter or modify staff information, such as user name, passwords, phone number, schedules, alert notification priorities, and site selection schedules.
- **Log off** – Used to log off the ScadaCam® System prior to turning it over to the next User.
- **Launch Thermal Video Player** – Used to view thermographic imaging if installed.

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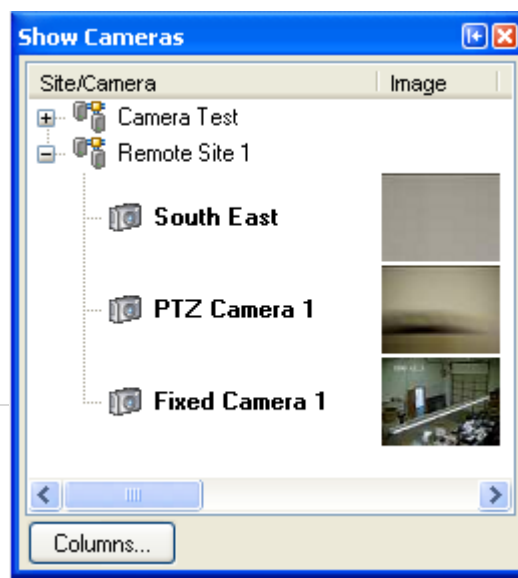
Display Camera Selector



Display camera

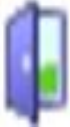
Your first task after logging into the system is to select the cameras you wish to view on your MCV screen.

1. To select your first view, click on the Display Camera icon from the main tool bar to bring up the Show Cameras window.
2. The tree on the left side of the window will show the sites. Clicking on a site will show the cameras available for viewing there.
3. Follow the steps described under **Display New Camera Display Window**, to add display windows to the MCV. The main MCV screen will display up to 24 Camera Display Windows. Each Camera Display



Window provides the viewer full control of each camera.

New Camera Display Window



Display New
Camera Display
Window

To add a camera window to the MCV screen, click on the Camera Display Window icon. This will launch a new window in the center of your screen. There are two types of camera display windows, Held and Portal. Knowing the difference is crucial to successful use of the ScadaCam® software.

The Camera Display Window will automatically appear as a Held window. Held refers to the window, not the camera. The camera will continue to track motion and view the site normally; however, a Held window will always show the same camera's view.

Unlike Held windows, Portal windows automatically change which camera's view is shown. They show any activity that is happening at any site. When an alert is triggered, the Portal window will show the appropriate camera so that the activity can be monitored. That Portal window will show the same camera until a new alert is triggered. If more than one Portal window is open, the new alert will be shown in the Portal window which has been viewing a single camera the longest without a new alert.



To distinguish between Held and Portal windows look for the label in the upper right hand corner of each Camera Display Window. This icon not only identifies the kind of window, but also allows you to change window types. Clicking on the Held icon will change the window to a Portal window. The reverse also holds true.

Click the Camera Display Window icon to add a window. The window can be moved by clicking and dragging the title bar, and resized by clicking and dragging a corner. Place several Held windows and several Portal windows on the MCV. Portal windows are usually much larger than Held windows because they display the important activities at a site. For the same reason, it is useful to set Portal windows to a higher frame rate and quality than Held windows. Setting Held windows to a lower level helps reduce bandwidth to the camera viewer. See **Adjusting Camera Settings** for more information.

A drag and drop technique is used to change which camera any Camera Display Window is viewing. From the Camera Selector, left click and drag the



image to the appropriate window. Simply clicking on the camera image will place that camera into the Portal Window which has been static the longest.

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Display Panorama



The Panorama is the preferred method of providing overall camera navigation and provides the ability for persons that are not familiar with the remote site a perspective as to what they are looking at.

Display Panorama allows you to add a **Panorama Display Window** to the MCV (Multi Camera Viewer). This is done by clicking on the panoramic image that you wish to view.

A panorama is what a camera can see in a 360° view. Panoramas are produced by the camera by taking small images and splicing them together.

Each camera can have several panoramas associated with it. This is because you may only want a panorama looking forward if the camera is against a wall, or you do not need to see the sky or the ground underneath the camera.

Panorama Select is usually used to load an additional panorama on to the MCV.

To use the Panorama Select, click on the Panorama Icon. This will launch the Panorama Selector.



You may have one or more panoramas displayed. Locate the panorama you wish to use and click on it. The panorama will be placed as a window in the MCV. In the upper right corner of the panorama a '+' and '-' will appear, this allows you to zoom the panorama in or out as needed.

Using the Panorama

The panorama is a powerful tool which helps you control your cameras. The panorama both sends information to the system and the system sends the panorama information to display. This includes camera locations, and in the case of FLIR infrared camera usage, temperature information.

The Panorama also allows you to create Block Zones. This process is discussed below.

Navigating the camera using the Panorama Display Window -

The panorama provides many of the same navigation features that the Camera Display Window supplies.



Point and Click – Simply click on the part of the panorama that you would like the camera to center to. The camera will then reposition itself, placing the center of the image at the point where you clicked.



Drag Box –Allows the user to simply drag a red box around the region of interest and the camera will reposition and zoom to where the user has selected.



Zoom – The user can use the scroll button on the mouse to zoom in and out of the panorama. Magnifying glasses are also available at the lower right corner of the panorama window for users without a scroll button.



Zoom Buttons – Panorama windows have small '+' and '-' buttons in the upper right hand corner. These buttons can be used to zoom in and out of the panorama.

Drag Image – Because the panorama can be zoomed in, the image obviously will become larger then the display area. Pressing and holding the right hand mouse button allows you to move the visible region of the image.

Display SkyView

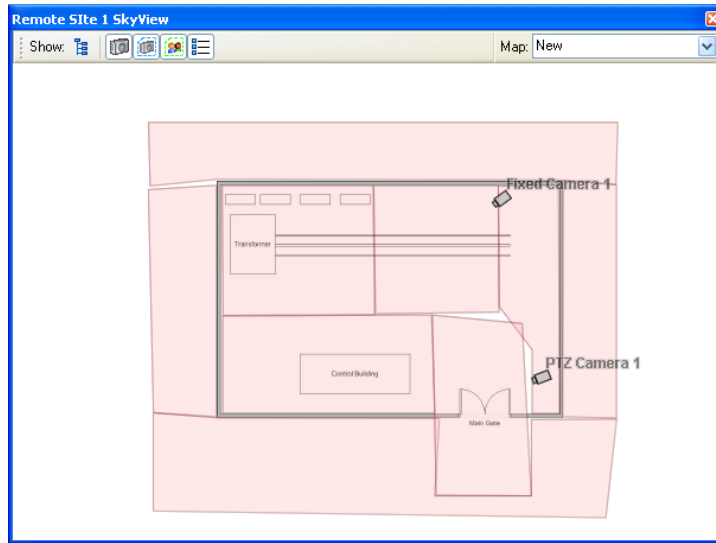
The SkyView button allows you to add a SkyView diagram to the display screen.

The **SkyView** is a representation of the particular ScadaCam® site. Many elements on the diagram are quick linked to different preset camera views. If you move the cursor over any blue shaded area, a tool tip will pop up with text stating the name of the quick link. To display the corresponding quick link in the image window, click that area on the diagram.

The term SkyView might be a bit misleading in that you can load any JPG image as a SkyView diagram. Images such as an overhead view of a site or building can be useful.

Each camera can have several SkyView diagrams associated with it. This is because you may only want a SkyView to represent a portion of the hardware.

To use a SkyView diagram, click on the **Display SkyView Window** icon. This will open a SkyView window.



The drop down menu labeled Map in the upper right hand corner of the SkyView window allows you to select a SkyView image. You may have one or more SkyView diagrams that you are able to display. Locate the SkyView that you would like to view and click on it. This will place a SkyView window onto the MCV.

Note: Only the SkyView images for the currently selected site will appear in the drop down menu. To change which site is selected, use the display camera selector to select the appropriate site and camera. You can also change which site is selected by clicking on the title bar of either a camera display window or a portal window. The site will change to the site associated with that window.

To add, remove or edit a SkyView image, select the **Manage Background Maps** option in the Map drop down menu. The Manage Background Maps window will appear.

SkyView Toolbar



Show/Hide
Cameras

The SkyView Toolbar provides the user with the tools necessary to adjust the SkyView display.



Show/Hide
Map Tree

The **Show/Hide Map Tree** icon opens a menu on the left side of the SkyView window which displays all cameras and motion detection zones for the given site. Clicking on an item with a '+' to the left of it expands the tree so that further options are visible.



Show/Hide
Camera Coverage
Areas

The **Show/Hide Cameras** icon controls whether or not the cameras are visible on the SkyView image. Camera locations and orientations are displayed. Simply click once to turn this feature on and click it again to remove the cameras from your image.

The **Show/Hide Camera Coverage Areas** icon is used to display the visual field of each camera. With this option on, when a camera is selected, its field of vision is highlighted in a light blue color. Clicking this icon simply turns this feature on or off.



Show/Hide
Motion Alert
Zones

When the **Show/Hide Motion Alert Zones** icon is pressed all specified motion detection alert will be displayed in the SkyView Image. These areas are highlighted in a light red color. As with all features in the SkyView toolbar, clicking the icon again turns this feature off.

The **Show/Hide Object Names** icon controls whether or not the names of the cameras are displayed on the SkyView image. When selected, all cameras will be labeled. To remove the labels, simply click the icon again.



Show/Hide
Object Names

SkyView and Motion Detection

When the camera detects motion it maps the path taken by the object onto the SkyView image. This appears as a red line marking where the object moved during a given activity.



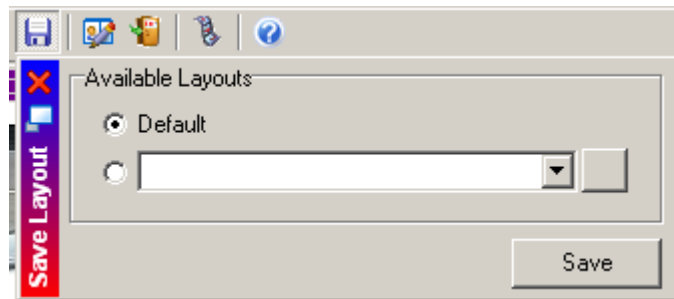
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Save MCV Layout



Save
Layout

The MCV allows you to save and recall named layouts. When you have the MCV layout that you want, click on the **Save Layout** icon on the main toolbar. Save this layout as the **default**. Now the next time you load the MCV this layout will be displayed.



The Save Layout feature saves almost everything about the configuration that you have created. Some properties saved are: all windows coordinates, quality and frame rate settings and the panoramas and images that you have positioned.

The save MCV Layout can be used to quickly save a custom view or settings if you have been repositioning windows. You might want to use this feature if you want to save a layout with very low bandwidths and another with higher bandwidths. A sample default layout is shown on the front cover of this manual.

This configuration layout data is stored on your local drive [C:\Documents and Settings\user name\Application Data\ScadaCam](#) in a DDO format. Your local Windows profile needs to allow you to save to this directory. An error will be presented if your profile is limiting this save file action. Some types of information stored are:

- Layout size, shapes, and positions of the windows
- Pan / Tilt, and zoom settings of each current view
- Current streaming mode setting
- Streaming frame rate
- Streaming quality
- Image quality

Note: One of the configuration features of ScadaCam® is the ability to configure each of your Camera Display Windows to refresh slower and to decrease the quality of the image, both of which lower bandwidth. The configuration on the Portal Display Windows should be set to a higher frame rate with a higher quality. This will dramatically reduce the needed bandwidth all the way from the OCC to the user. Also, the ScadaCam® system, which is totally dynamic, will only transfer the amount of data that the user needs. The rule of thumb is that the smaller and slower the image, the less the bandwidth.

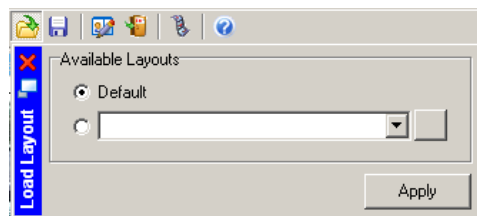
Note: The SMS Internet Information Services (IIS or Apache) web configuration uses **port 80**.

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Load MCV Layout



The MCV also allows you to load and recall named layouts.



The **Load MCV Layout** can be used to quickly refresh a view if you have been repositioning windows. You might also use this to select groups of cameras, especially if you operate multiple MCVs on one computer.

This configuration layout data is stored on your local drive [C:\Documents and Settings\user name\Application Data\ScadaCam](#) in a DDO format.

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Reports

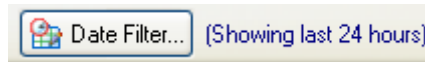


Reports
Icon

ScadaCam® can provide reports in many ways. A new activity is established if there is a period of time in between input triggers, such as a motion detector or visual motion detection. This is a configurable time under system settings but is defaulted to 15 min. This means that if there are no activities for a 15 min stretch the next trigger will start a new activity.

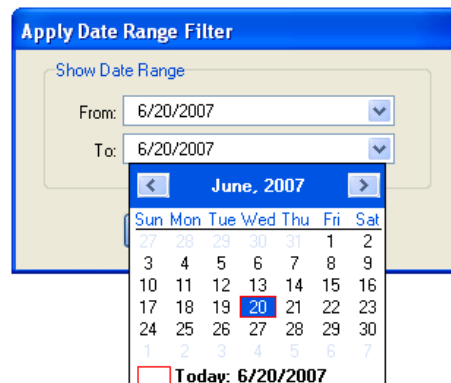
Date Filter

For all report types it is possible to select a date range. This date range allows you to select just the range of reports that you or the client might want to review without transferring extraneous information. This is done by clicking the **Date Filter** icon, shown below.



Clicking this icon will open a new menu. From the menu, select the date range that you would like to view. The currently selected range is displayed to the right of the Date Filter icon. Only reports from this time period will be visible in the standard reports.

Selecting Date or Date Range from the menu will cause a new window to appear. Simply click the arrow to the right of the date and select the appropriate day.



Standard Reports

The standard reports can be selected from the drop-down menu.



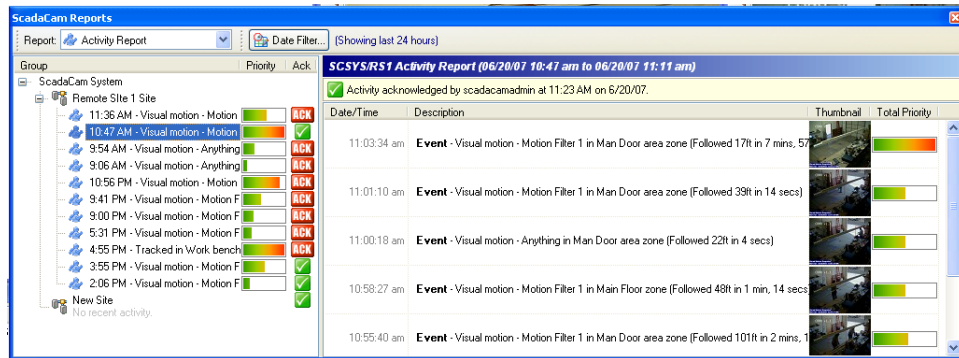
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Activity Report



Activity reports provide a list identifying the details of each activity.

The activity form provides detailed information of what prompted the activity and the detail of what followed as a result.



The **Group** area shows all of the sites that you have installed. When you select a site, the individual activities and the time that they have occurred during the selected time period will be displayed.

Each activity has a bar to the right of it, labeled **Priority**. This will visually display the amount of activity that has occurred. The visual display takes into account the average of the past 100 activities. In other words, if the average alert has been 50 priority points that will be 50% of the bar. By clicking on the activity, the details will be expanded in the right box labeled Activity Detail.



Acknowledge Icon

The **ACK** icon to the right of the priority bar allows a user to acknowledge an activity. Once selected, the icon becomes a green check mark. The time, date and user who acknowledged the activity are displayed above the details area.

The details area on the right displays:

Date / Time - this is when the first instance of an alert triggered this new activity.

Description – This has two parts, first to the left will show whether it is an:

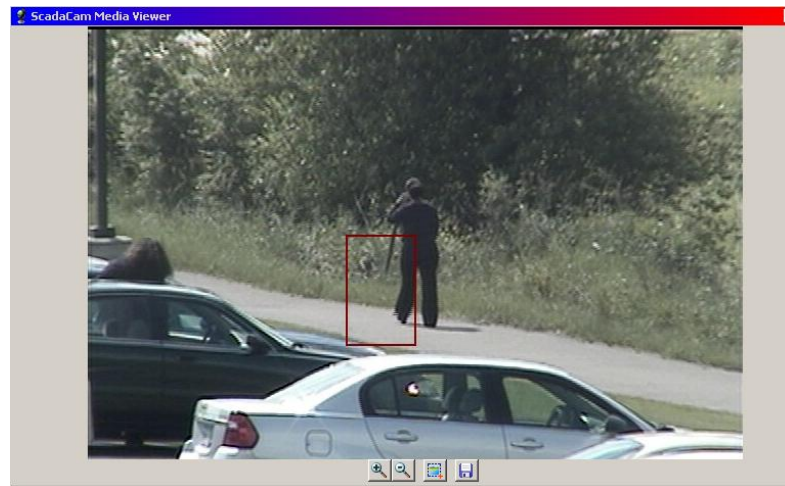
- ◇ **Event** – This is indicating that an activity has occurred and it is reporting that activity. This is usually an input trigger, or a visual motion trigger.
- ◇ **Result** – Based on the activity, this will let you know what has occurred. Typically this represents a video that has been made, or an output that has turned on.
- ◇ **Alert** – Lets you know who has been alerted and when.

The second portion of the description is where the description of the activity is displayed. The Activity's name is represented by the first event's description.

- ◇ **Total Priority** – Shows the priority bar for the activity. This displays how important or urgent a report is.

Under each detail, if you see a “+” to the left you can expand the detail.

Clicking on any of the events shown on the right side will cause a window to appear with a visual image of the event that caused the alert. The specific movement that caused it will be outlined in a box as shown below.



Site Overviews

Site overviews are typically immediately presented to the user via email. These reports provide a way to look back historically at previously gathered site overviews.

The report will display the images gathered in native 640x480 views. To save an image to your local drive, place your cursor over the image and simply right click and select either preview and print or save image. You will then be asked

where to store the image. In some instances the image may not be available. This is most likely due to another user having the camera in a user lock mode. In this case the images were not able to be gathered.

At the bottom of the report you will see who this report was sent to.

Time-Lapse



Timelapses

Time-Lapse videos are accessed through this point. Select the time lapse you would like to see and the available videos will be shown in the details window. Click on the video that you would like to view.

In some cases the Time-Lapse may be aborted. This means that someone had the camera locked over the end of the capture section. Remember, when a camera is locked automated tasks like Time-Lapse are suspended and images are not taken. This is indicated as an aborted Time-Lapse. A Time-Lapse is a video file and the file link includes the type of file, in this case Time-Lapse, its status, aborted or completed, the camera name, the length of the actual file as if it were played in 15 frames / second, and the size of the file. The file size is important if you are retrieving the file off site from the SMS.

West Side Timelapse Report (05/16/06)		
Start Time	End Time	Description
5:00:00 am	5:36:39 am	Timelapse Aborted on VISUAL (00:00:14, 908.5kb)
11:00:00 am	2:34:12 pm	Timelapse Aborted on VISUAL (00:00:21, 1.14mb)
2:35:33 pm	5:00:00 pm	Timelapse Complete on VISUAL (00:00:54, 2.34mb)
5:00:00 pm	5:11:48 pm	Timelapse Aborted on VISUAL (00:00:00, 106.0kb)
5:11:16 pm	11:00:00 pm	Timelapse Complete on VISUAL (00:00:02, 342.5kb)

User Recordings



User Recordings

When a user requests a custom live recording, this is where it can be retrieved. Select the date and the camera that you recorded on and the available recordings will be displayed within the details.

A User Recording is a video file and the file link includes the type of file, in this case Recording, its status, aborted or completed, the camera name, the length of the actual file and the size of the file. The file size is important if you are retrieving the file off site from the SMS.

ScadaCam / RockFord User Video Report (02/22/06)			
Start Time	End Time	Record...	Description
10:30:49 am	10:31:03 am	Craig	Recording Complete on YARD (00:00:18, 1.27mb)

System Status

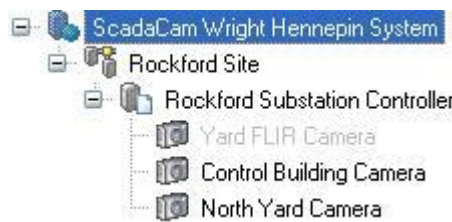


System Status

ScadaCam® is always monitoring its own vitals and informing the system administrator of changes in status.

When selecting this report it is easy to see the current status of each of the systems. By selecting one of the sites under the site selection box, you will have the chance to see the System, Controller or Camera status reports.

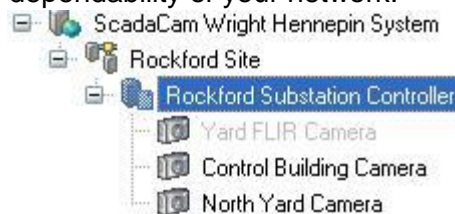
System Status - A report of the current status of the system, primarily of the SMS.



Included is the current status and historical status information. Items like restarting, communications errors, configuration changes are all listed with links to the detailed historical information. The amount of information is limited to the date range that you have selected.

SCSYS System Status Report		
Date/Time	Description	Comme...
6/19/07 2:04:05 pm	Management server stopped	
6/19/07 2:04:24 pm	Management server started	
6/19/07 2:04:32 pm	Management server stopped	
6/19/07 2:05:26 pm	Management server started	

Controller Status - Controller Status reports are mainly helpful in determining the dependability of your network.



The details window provides such information as “**Total Requests**”, indicating the amount of activity the controller is seeing. The “**Active**” information is to

determine the length that it has been active without a service interruption, and the “**Current Version**” displays the current software update.

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ScadaCam / RockFord / Rockford Substation Controller Status Report	
Active: 3178.42 hours	Total requests: 206893
Current version: 3.0.0.28	
Recent health: Good	
Connection status: Good	Last change of status: 05/12/06 01:31 pm

Recent Health – this displays either **Good** or **Error**. Error indicates that the system or controller might have had errors recently. However, just because it says it is having errors doesn’t mean that it is not operating. Errors might be caused by update problems, configuration issues, or operational errors such as a recent loss of power. The same criteria can be applied for **Connection Status**. Connection status is used to indicate whether the system is having issues or the network connecting to the SMS is causing the problem. In both cases you can look at “Last change of status” and tell how long ago the error occurred. By clicking the “Last change of status” link you are able to see a complete history of all system health events that caused an error. Users with System Administrator rights will be emailed any time there is a status change of the system.

Camera Status – The cameras status detects almost any possible error with



a camera. Especially with the ScadaCam® 360° series there is a great deal of data that can be sampled. From the Group box, simply click and highlight the camera of which you would like to check the status.

The detail box will display some configuration information such as:

- **Active** - How long has the camera been operating without a major error that the system could not recover from. Active resets when the camera needs to be rebooted or power is cut.
- **Camera Type** – This is the type of camera including the model number.
- **Video Capture Type** – ScadaCam® can capture video from the camera in several ways. Some samples are Piccolo 2, USB, IP, Firewire, and other capture cards.

- **Total Requests** - This is indicating how many camera moves have been made during the active period.
- **Pan Tilt Type** – The camera is made up of two distinct components, the Pan Tilt and the Camera Head. The Pan Tilt description holds the manufacture and the current firmware version.

ScadaCam / RockFord / YARD Camera Status Report	
Active: 3175.83 hours	Total requests: 171248
Camera Type: Sony 480	Pan/Tilt Type: MiniMax 2.3.2
Video Capture Type: Euresys Picolo2	
Camera Status: Good	Last change of status: 05/14/06 08:49 pm
Pan/Tilt Status: Good	Last change of status: 05/12/06 01:32 pm
Video Status: Good	Last change of status: 05/12/06 01:32 pm
Camera Temperature: 121° F	Temperature History Report
Pan/Tilt Temperature: 77° F	Temperature History Report

Several items are monitored, and gathered into groups such as:

- **Camera Status** – Monitors the communications to and from the camera head. In the event that the camera does not respond correctly an error is produced. It also monitors any error codes that the camera outputs. In the event of any errors the system will try to correct some of the most common problems. If the problem is not corrected over a given time period, the system will power down and reboot in an attempt to regain proper operation.
- **Pan/Tilt Status** – The Pan/Tilt also provides communications checks, position checks, and operational tests on a regular basis. Any error that is detected will change the status.
- **Video Status** – The system tests each frame to insure that the video frame is complete. If there is a frame that is not complete then the system will try to correct the error. If the problem is not corrected over time, the system will power down and reboot in an attempt to regain proper operation.
- **Camera Temperature** – The ScadaCam® 360° series cameras have temperature sensors both in the camera head housing and in the pan tilt housings. Theses temperatures are monitored and action is taken if the temperatures are not able to be maintained. In the case of the Pan Tilt, the motors currents are regulated to either add or reduce heat in the housing. As for the camera the temperature determines whether or not the fan, the heat, or in some cases, cooling is on or off.

In any situation you can click on the **Last Change of Status** link to see the history associated with any changes.

User Status

You can view user access by camera or by the user. This report will provide full information of each time a user logs on and what activity is associated with that user login.



User Status

Select either a user or a camera and you will see the detail for that user or camera in the details viewer.



To the right of each user you will see, if they have logged in within your date selection, the last time that this user has logged in.

User Status Report for Craig				
Date/Time	User	IP Address	Client Type	Description
5/11/06 6:42:20 pm	Craig	69.180.182.138	Viewer	Connect - Authentication Successful
5/11/06 6:42:22 pm	Craig	69.180.182.138	Viewer	Subscribe - YARD
5/11/06 6:42:22 pm	Craig	69.180.182.138	Viewer	Subscribe - CTRLBLDG
5/11/06 6:42:22 pm	Craig	69.180.182.138	Viewer	Subscribe - YARD
5/11/06 6:43:37 pm	Craig	69.180.182.138	Viewer	Disconnect - Hard disconnect
5/11/06 9:25:52 pm	Craig	69.180.182.138	Viewer	Connect - Authentication Successful
5/11/06 9:30:00 pm	Craig	69.180.182.138	Viewer	Disconnect - Hard disconnect

Within the Details Viewer, you will see:

- **Date Time** – indicating the date and time at the SMS time zone. If the box has a '+' in the tree, you are able to click on that and see more detail of the connect.
- **User** - The user name that logged in.
- **IP Address** – This is the computers or router point of the computer that connected to the SMS for access.
- **Client type** – This will display either Viewer, which is the MCV, or WEB, which is the Web page version of the camera viewer, or Auto, which is a user running an automated connect viewer.
- **Description** – This will mainly display the connects and disconnects from the client. To the right of the connection type, you will see if the connection failed and why. You will also see attempts that did not meet the criteria to gain access. This type of information will be viewed under

system. In addition to connect and disconnect, you can see the cameras that were accessed.

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Basic Camera Navigation Methods



Point and Click – Simply click on the part of the image that you would like the camera to center to. The camera will then reposition placing the center of the image at the point where you clicked.



Drag Box – Allows the user to simply drag a red box around the region of interest and the camera will reposition and zoom to where the user has selected. To use the drag box simply put the cursor on an active portal, click and drag it across the area to be viewed. When you release the cursor the area inside the box will enlarge to fill the portal screen.



The Zoom Icon – This allows the user to either click on the icon to zoom out 10% each click, or right click the mouse to zoom in or out to the percentage of zoom desired. In addition, the user can use the scroll button on the mouse to zoom in and out.



Presets – Allows the user to select a predefined preset and have the camera position exactly on that spot.



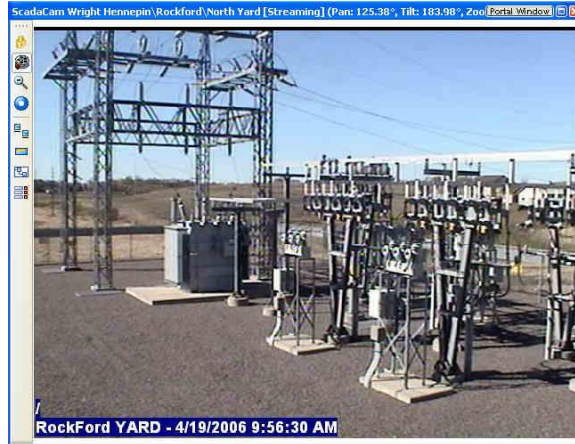
Panorama – Like operating within the live window, you can use the Panorama image to position the camera. You will be able to use the “Point and Click”, or the “Drag Box” methods to navigate the camera.



SkyView Diagram – Allows the user to place Quick Link boxes over a graphical image such as an overhead map. Then, to position the camera to a Quick Link view, simply click on that Quick Link and the camera will reposition to the selected view.

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Camera Display Windows



Current Information Bar

Parking Lot [Streaming: 5.0 FPS] (Pan: 180.00°, Tilt: 180.00°, Zoom: 0%)

The **Current Information Bar** displays the camera orientation and the rate of streaming.

Streaming Frames-per-Second indicates the number of frames-per-second currently being received by the SIV. (ScadaCam® Image Viewer)

Pan indicates the degrees from straight ahead (zero) to which the camera is pointing. This is used to provide left and right reference points.

Tilt indicates the degrees from level (zero) to which the camera is pointing. This is used to provide up and down reference points.

Zoom is the zoom scale listed by percentage and corresponds with the value on the zoom bar.

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User Lock



This allows the user to lock control of the camera. Clicking on the **User Lock** button will stop any other user or automated process from controlling the camera. A Red information bar will show up on the bottom of the viewer indicating that you have control of the camera.

 **You have taken control of the camera** 

All other users currently on that camera will see a blue information bar indicating the name of the user that currently has control of the camera.

 Scadacamadmin has taken control of the camera 

This lock is interruptible by another user if that user clicks on the lock button. This is to insure that if needed you can regain control of a camera. The other users will be notified with a blue bar that you have needed to regain locked control. When the lock is activated, it will also stop all automated processes from controlling the camera. Automated processes might consist of Pans, panoramas, Time Lapse or action from input actions.

Record Video



To record a camera you are currently viewing, click the record icon. A red light flashing in the center of this button and lower right corner of the screen indicates that either you or another user or an automated service is currently recording this camera. Clicking the button again will stop the recording process or it will be automatically stopped after one hour of recording. Once the recording is stopped or has timed out, the video will be available on the Reports Module. See User Recordings for more information.

Note: The recording may not be immediately available on the report page. This is dependent on the speed of the network in transferring the video from the OCC to the SMS.

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Sync Cameras



(FLIR infrared or multiple cameras only)

This allows you to move two or more cameras in Tandem. This is usually used when you have a visual light and a FLIR infrared camera at the same location.

To enable Sync Cameras, click the Sync icon on the two or more camera views you wanted synced. Cameras that are synced will view to projected ground planes not to specific objects. When cameras are synced a position indicator will appear in the linked special grid you are viewing.

Once you have configured **Sync Cameras**, when you navigate with one camera the other will move to the same geospatial location, this will allow you to see and navigate with the visual light camera. The FLIR infrared camera will display the temperature information.

Presets



Presets allow for fast and easy camera navigation. A preset is a set point or view that a camera will automatically return to when the preset is selected. These are useful for quick checks of important locations.

Select, Add, Edit and Delete Presets

Note: Based on a user's rights a user may or may not be able to perform these functions.



Selecting Presets – To view a preset, double click on the preset name that you want to view, the camera will move to that position. A single click on the preset name followed by a click on the arrow icon will send the camera to the preset position as well.



Add New Presets – This is done by moving your camera to the view that you would like to see and clicking the Create New Preset icon. Once you click the icon, the system will pause a little as requested information is retrieved from the camera and you will be asked to supply a name for the preset. Enter a descriptive name that will identify what the camera is looking at.

Note: All instances of presets, such as overviews and pans use the name for selection; select a descriptive name.

Note: It is possible to use the same name twice; use caution when naming presets.



Edit a Preset – allows you to edit the current position of the selected preset or rename the preset.

To edit a preset open the preset window by selecting the icon and select the preset you want to edit. The camera will move to the preset position, you can then move the camera to a new position. When you have selected the desired position, open the presets window, select the update icon. Make the changes in the Update Preset window. Select OK to update.



Deleting Presets – Clicking on the Delete icon allows you to delete the highlighted preset.

To delete a preset, click on the name and press the delete icon.

Note: When a preset is deleted, it will delete that preset from site overview, pans, time lapse, reports, and IOs. Be careful that the preset you are deleting is not a critical part of the configuration.

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Adjust Camera Settings



The Camera settings form provides control of features on each camera.

The screenshot shows the 'Camera Settings' window. It has a blue vertical bar on the left with the text 'Camera Settings'. The window is divided into two main sections: 'Image Settings' and 'Camera Settings'.
Under 'Image Settings':
- 'Brightness:' has a slider from 0 to 100, currently set at 50. Labels 'Darker' and 'Brighter' are at the ends.
- 'Still Image Quality:' has a slider from 'Lowest' to 'Highest', currently set at 90%.
- 'Streaming Quality:' has a slider from 'Lowest' to 'Highest', currently set at 15%.
Under 'Camera Settings':
- 'Streaming Framerate:' has a slider from 'Seconds Per Frame' to 'Frames Per Second', currently set at 5 FPS.
At the bottom of the window, it displays 'Streaming: 2.2 FPS' and 'Network: 11.5 kb/sec, 5369 bytes packet'. There is an 'Apply' button in the bottom right corner.

To adjust camera settings click the Adjust Image Settings icon. Adjust the controls by clicking on the slide bar and dragging it left or right to the desired setting. Click the apply button to view the images with the new settings.

Image Brightness controls the overall brightness of the image. The contrast may be altered from 0 to 100.

Still Image Quality defines the resolution or dpi (dots per inch) of the image provided by the camera. The higher the image quality, the clearer picture received. The quality may be altered from 0 to 100.

Streaming Quality defines the resolution or dpi (dots per inch) of the streaming image provided by the camera. The higher the image quality, the slower the streaming frame rate, thus creating a clearer picture. The quality may be altered from 0 to 100.

Streaming Frames-per-Second indicates the number of frames-per-second currently being received by the Camera Display Window. In order to produce the maximum streaming frame rate, you should lower the streaming quality.

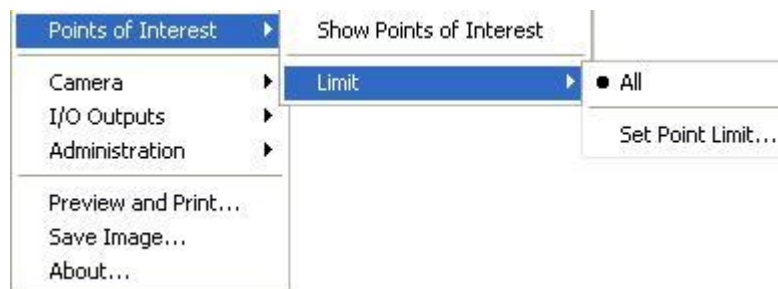
The ability to control the bandwidth of each window independently allows great flexibility in limiting bandwidth on the intranet, over the internet, and in private networks. In the case of slower networks, you might want to reduce the streaming frame rate to seconds per frame in the smaller Camera Display Window. You would then set the Portal Window(s) to frames per second. In this case, any Camera Display Windows not being displayed in the Portal will be using a very small bandwidth, but as soon as a camera is viewed in the Portal Window, it tells the camera to start supplying higher quality images.

Current status is shown on the bottom of the page. This includes actual Streaming, the Network Speed, and each packet size.

To save any of the changes made to this window, click Apply.

Note: The small black triangles found under the Streaming Quality and Streaming Framerate slide bars in the camera settings display indicate the current system configuration. When multiple users are accessing the same camera, the user with the highest settings will determine the current system configuration.

Camera Display Window Right Click Menu



Each Camera Display Window and Portal Window has the ability to control the camera associated with it. This is accomplished through a right click on the image itself.

Camera ▶	Initialize
Devices ▶	Cycle Power
Administration ▶	Infinite Focus
Preview and Print...	Force Night Vision
Save Image...	Back Light
About...	

Camera Settings

Initialize allows the user to fully re-initialize the camera. This will reset all camera settings to default, place the camera in calibration mode and cycle the pan/tilt through a calibration mode.

Cycle Power instructs the camera to power down, power up and reload the default setting.

Infinite Focus will place the camera in an infinite focus condition. While the camera is in this condition, it will not be able to focus on objects closer than thirty feet. This option is useful in low light conditions, when focus cannot automatically be gained or if closer objects interfere with viewing objects that are farther away. All users will be forced to this setting when it is selected.

Note: Remember to turn off the Infinite Focus option when finished.

Force Night Vision places the camera into near infrared mode or night vision.

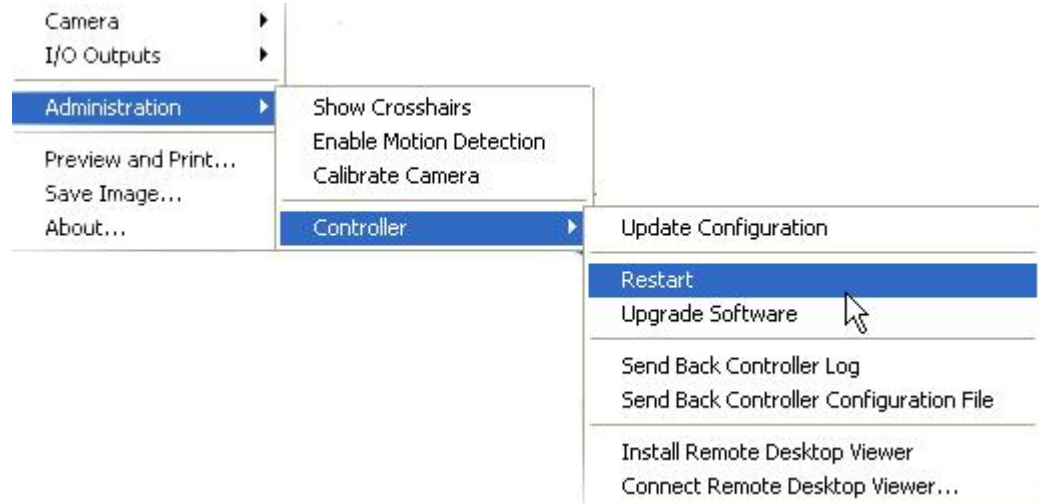
Back Light increases the light to overexpose images that have dark shadows.

I/O Outputs

This is where you can control output devices associated with each camera. The menu displays the current configured output devices and the on or off status of the device. A description of the output devices will be shown when an output is selected.

Administration

Only users with administrator rights can see this option.



Show Crosshairs - This will place crosshairs on your viewer. This feature is mainly used for calibrating the cameras.

Enable Motion – This will turn on motion tracking for this camera, if available. This might be used when you detect something moving and you want to track it automatically.

Calibrate Camera – This will bring you through a process which calibrates the camera's settings. First it will take several images. Then, by clicking on the same point of each image, the camera's settings will be calibrated.

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