March Networks

Searchlight for Retail 4.12

User Guide

MARCH® networks

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Chapter 1

Welcome to Searchlight for Retail

March Networks Searchlight™ for Retail combines exceptional, reliable video management with intelligent software applications to help retailers curtail losses from theft, oversee operations, improve in-store service and ultimately increase profits.

Searchlight for Retail simplifies the process of finding suspicious transactions, as well as compliance and performance issues, by integrating high-quality surveillance video with point-of-sale (POS) transaction data. This allows you to identify and investigate suspicious transactions and stop theft immediately, rather than in weeks or months. It proactively alerts business owners to instances of potential fraud, and reduces the investigation time from hours to minutes. Ideally, investigators invests 15 minutes per day reviewing the previous day's activity, and it is required to dig deeper only when losses are found.

Searchlight's Business Analytics feature works in concert with the Brickstream 3D sensors, allowing users to generate custom reports based on the People Counting, Queue Length, and Dwell Time analytics, created by comparing the data from the video analysis with the transaction data.

Notes:

- This user guide refers to version 4.12 of the Searchlight application and to version 2.12 of the Command Enterprise software.
- The **Business Analytics** feature requires specific licenses. If the licenses are not added to Command Enterprise, the **Business Analytics** reports contain no data. Third-party analytics cameras also requires specific channel licenses.
- Before adding a Brickstream 3D sensor or a MegaPX Analytics Dome camera to a site for the **Business Analytics** feature, ensure the analytic required for the report (**People Counting**, **Queue Length**, or **Dwell Time**) is properly configured on the device.

Before You Begin

Searchlight is an application that runs on a Command Enterprise Server. Before you begin, you must properly install, license and configure the Command Enterprise software on a server. For more information about using Command Enterprise, see the *Command Enterprise User Guide*, available for download from the March Networks official website and Partner Portal.

Components of the Command Solution

The following table describes the main components of the Command solution.

Component	Description
Command Enterprise Software (CES)	Command Enterprise Software (CES) is the center of the Command Solution. The CES stores the surveillance system's configuration in a relational database, either on the management server computer itself or on the customer's existing SQL Server on the network. The Enterprise Software also handles global user authentication, user rights, and hosts the web services for Command's web-client. The Enterprise Software can run on most commercial-off-the-shelf (COTS) servers from top server manufacturers or it can run in a VMware® Virtual Machine. Command Enterprise can support up to 128,000 camera mixed over various recorders, and mix matched with Hybrid NVR's and R5 DVRs. The maximum number of recorders/recording servers in a single system is 10,000.
Command Recording Software (CRS)	Command Recording Software (CRS) is the primary archive engine for the Command solutions. The recording server software is the primary archiving component of the Command Enterprise solution. The recording server software is designed to run separately from the Enterprise Software. It can be installed directly on any COTS servers or can be purchased from March Networks running on Dell® Platforms. Another option for the recording server software is to run it on a VMware virtual machine (VM). Up to 128 cameras per recording server. Two types of recording server include: • Primary Recording Server is the primary archiving component of the CRS architecture • Redundant Recording Server redundant/failover archiving component of the CRS architecture

Component	Description
Command Lite Software	Command Lite is a limited, free version of Command Recording Software. It can be installed either on standard servers or compatible PCs with Windows 7® or higher. Command Lite allows you to: • Add up to six IP cameras • Configure continuous and programmed recording • Retain the video archive for up to 7 days • Configure user accounts and permissions • Configure and manage storage
Command Client Software	Command Client is the primary client user interface for Command. Command Client is a standalone application that offers an intuitive user interface that allows administrators and users alike to manage their Command video surveillance network. **Note:** Edge devices a still use the browser-based interface (Command Client 1.11) downloaded directly from the device.
Command Config	Command Config is a client user interface for configuration and management. Command Config is a standalone application that can be downloaded directly from Command Recording Servers.
March Networks Hybrid Network Video Recorder (NVR)	• 8000 Series Recorders • 9000 Series Full-IP NVRs • 6700 Series Hybrid NVR • RideSafe GT, MT, and RT Recorders Devices that capture, retain, and stream audio, video, and text data from connected peripherals. Analog cameras are connected to hybrid NVRs or encoders using BNC connection.
Searchlight application	An application running on a Command Enterprise Software that integrates video with point-of-sale (POS - retail version), ATM, and teller workstations (banking version) transaction data to create reports and charts, and identify and investigate suspicious transactions and stop theft.

Component	Description
Command Transportation	An application running on a Command Enterprise Software that integrates video from mobile recorders with GPS coordinates. The application allows the user to create detailed incident reports and perform searches based on the metadata recorded with the video.

Other Available Publications

Additional publications about the Command and Searchlight solutions (including Searchlight User Guides in English and Español) are available for download from the March Networks official website and the Partner Portal.

Important Note About Transactional Data

The Searchlight User assumes sole responsibility for the security and integrity of its data, including but not limited to transaction data and reports. March Networks requires that no more than the first six (6) and last four (4) digits of debit, credit card or financial account numbers be used for transaction reporting and that transaction reporting does not include Personal Information. Searchlight User acknowledges that the Searchlight software is not intended for processing of Personal Information. Searchlight User is responsible for ensuring the backup of all data, files and information. March Networks shall have no liability or responsibility for any lost, altered data, files or information.

“Personal Information” means an individual's first name and last name or first initial and last name in combination with any 1 or more of the following data elements that relate to such individual:

a Social Security number;

b Driver's license number or government-issued identification card number; or

c Financial account number, or credit or debit card number, with or without any required security code, access code, personal identification number or password, that would permit access to a resident's financial account;

Provided, however, that “Personal information” shall not include information that is lawfully obtained from publicly available information, or from federal, state/provincial or local government records lawfully made available to the general public.

What's Next

In the Command Enterprise environment, you can perform the following Searchlight for Retail functions:

- "Installing Searchlight" on page 11
- "Accessing Searchlight" on page 33
- "Configuring Searchlight" on page 36
- "Creating and Editing Sites and POS Terminals" on page 50
- "Customizing Transaction Reports" on page 64
- "Customizing Transaction Summaries" on page 84
- "Customizing Business Analytics Reports" on page 98
- "Creating Business Rules" on page 125
- "Customizing Business Rules Reports" on page 131
- "Using Operations Audit" on page 141
- "Customizing Security Audit Reports" on page 155
- "Managing Cases" on page 166

Chapter 2

Installing Searchlight

This chapter describes how to install, license, and start the Searchlight for Retail application.

Important Notes:

- If the Command Enterprise Server uses an external database, you must manually add a database named *Apps* to allow Searchlight to use the external database. It is strongly recommended that you contact your March Networks Sales Engineer to ensure that the external database meets the requirement for your specific installation.
- The internal Command Enterprise SQL database has a size limit of 10GB.
- When transaction data reach the 90% of the database capacity, an alert is added to the **Health** panel. It is strongly recommended to lower the **Transaction Retention** value on the **Settings** page to free up disk space for the database, as described in "Configuring the Searchlight Settings" on page 41. If the alert appears again, please contact the March Networks Technical Support.

CES1-B	CES	Unit	Database Size	Database size is at 91 %, please contact Tech support or documentation for assistance.

- It is possible to update only from version 4.1 to a higher version.
- Importing duplicate transactions using the Command Media Archiver component will result in displaying duplicate transactions in transaction reports.
- The Searchlight application only process transaction data. Video and alarm data are processed by the Command Enterprise Server where Searchlight is installed.

This chapter contains the following sections:

- "System Requirements" on page 12
- "Installing Searchlight" on page 15
- "Configuring the Command Enterprise Server Memory Heap Size" on page 16
- "Installing and Configuring the Command Media Archiver" on page 17
- "Installing the Searchlight for Retail Application" on page 25
- "Adding Searchlight Transaction Licenses" on page 29

System Requirements

Select your system requirements:

- "Command Enterprise Software System Requirements" on page 12
- "Command Client Software System Requirements" on page 13
- "Command Client Software System Requirements" on page 13

Command Enterprise Software System Requirements

Command Enterprise Software application requires a dedicated server or Virtual Machine. The following table outlines the specifications recommenced for the Operating System and CES application without Searchlight. Please contact your March Networks Sales Engineer for specific project sizing with Searchlight.

<table>
<tr><th></th><th>SMALL
Less than 10 CRS or recorders</th><th>MID
10 to 100 CRS or recorders</th><th>LARGE
101 to 3500 CRS or recorders</th><th>EXTRA LARGE
3501 to 10,000 CRS or recorders</th></tr>
<tr><td>Operating System</td><td colspan="3">Windows Server 2008 R2 SP1, 2012, 2012 R2,2016, or 2019.</td><td rowspan="6">For installations of 3501 to 10,000 CRS or recorders, please contact March Networks Sales Engineering or Technical Support for specific system requirements.</td></tr>
<tr><td>Processor (CPU)</td><td>Quad Core Intel Xeon</td><td>Quad Core Intel Xeon</td><td>Eight Core Intel Xeon</td></tr>
<tr><td>HDD Space</td><td>50 GB</td><td>50 GB</td><td>80 GB</td></tr>
<tr><td>Infrastructure</td><td colspan="3">If you are integrating LDAP with the Command Enterprise Software, a Microsoft Active Directory Server or Google G Suite Server is required (provided with Windows Server). If your system is managing more than 250 CRSs/recorders, we recommend that you use a Microsoft SQL Server 2008, 2012, or 2014 as the external database, instead of the pre-configured Microsoft SQL Server Express 2012 included with Command Enterprise.</td></tr>
<tr><td>Network interface</td><td>Gigabit Ethernet</td><td>2x Gigabit Ethernet</td><td>2x Gigabit Ethernet</td></tr>
<tr><td>Memory</td><td>6 GB</td><td>8 GB 1333 MHz</td><td>16 GB 1333 MHz</td></tr>
</table>

Command Client Software System Requirements

The following table outlines the requirements for Command Client.

	COMMAND CLIENT Minimum Specs	COMMAND CLIENT Optimal Performance
Task	Minimum video access, one or two simultaneous stream playback and export.	Dedicated Command Client workstation with up to 4 monitors for simultaneous live streams, playback and export. Max number of simultaneous streams depends on total FPS and bit rate of all viewed cameras.
Operating system (OS)	Windows 8, Windows 8.1, and Windows 10	Windows 10 64-bit with Microsoft .NET Framework 4.5.2 installed
Processor (CPU)	Intel i3 or equivalent (minimum)	Intel i7 with 8 Cores
HDD space (clients)	200 MB	200 MB
Network interface	Gigabit Ethernet	Gigabit Ethernet
Memory	4 GB (minimum)	8 GB
Video Card	Intel HD 4000 video card (minimum) or an equivalent video card compatible with Microsoft DirectX 11 and Direct3D	1 GB Dedicated video card for every monitor. Microsoft DirectX 11 and Direct3D

Notes:

- March Networks recommends that installations with a high number of megapixel cameras and live viewing enable multi-streaming (high and low resolution streams) for all cameras. This helps to limit CPU overhead for live monitoring on Command Client, Site Manager, and Decode Station VX workstations.
- A 64-bit Operating System is required for smooth reverse playback in Command Client and Player.
- For Windows 8.1 users, it is required to download and install the following updates from the Microsoft website. The updates must also be applied in the following order:
  1- KB2919442
  2- KB2919355
  For more information about the updates, please click the following links:
  https://support.microsoft.com/en-us/kb/2919442
  https://support.microsoft.com/en-us/kb/2919355

- March Networks does not support Command Client in Virtual Desktop Infrastructure (VDI). VDI is not ideal for CCTV clients because its architecture shares a pool of resources between multiple simultaneous clients. This means that client performance is dependent on available hardware resources, backend software and configuration, number of concurrent sessions, number of simultaneous streams viewed, and their profiles.
- If .NET Framework 4.5.2, Microsoft Visual C++ 2015 Redistributable, and the UCRT library are not installed on the Client computer, the Command Client and the Command Player EXE installers automatically trigger the installation of the component (an internet connection is required). The MSI installers only install the Command software. You must ensure that the .NET Framework 4.5.2, Microsoft Visual C++ 2015 Redistributable, and the UCRT library are on the computer already. For the .NET system requirements, consult the official Microsoft website.

Command Media Archiver System Requirements

The following table outlines requirements based on typical installations with less than 250 recorders.

For systems that manage more than 250 recorders, please contact March Networks Technical Support.

Command Media Archiver	
Operating system	Windows Server 2008 R2, 2012, 2012 R2, 2016, or 2019
Processor (CPU)	Quad Core Intel Xeon
HDD space for OS and Applications	100 GB (minimum)
Archiver Storage Volume	1TB (minimum)
Network interface	2 x Gigabit Ethernet
Network Bandwidth	50 Mbps (minimum) for each network interface
Memory	8 GB

Installing Searchlight

Use your Searchlight Software CD or your Searchlight installation package to install the Searchlight for Banking application on a Command Enterprise Software. To properly install, license, and start Searchlight for Banking, you are required to use the following steps:

1 Configure the Command Enterprise memory heap size: see “Configuring the Command Enterprise Server Memory Heap Size” on page 16.

2 Install and configure the Command Media Archiver component on the server running Command Enterprise: see “Installing and Configuring the Command Media Archiver” on page 17.

3 Access Command Enterprise from a client PC to install and start the Searchlight for Banking application: see “Installing the Searchlight for Retail Application” on page 25.

4 Access Command Enterprise from a client PC to add the Searchlight for Banking licenses: see “Installing the Searchlight for Retail Application” on page 25.

Installing Searchlight

Use your Searchlight Software CD or your Searchlight installation package to install the Searchlight for Retail application on a Command Enterprise server. To properly install, license, and start Searchlight for Retail, you are required to use the following steps:

5 Configure the Command Enterprise memory heap size: see “Configuring the Command Enterprise Server Memory Heap Size” on page 16.

6 Install and configure the Command Media Archiver component on the server running Command Enterprise: see “Installing and Configuring the Command Media Archiver” on page 17.

7 Access Command Enterprise from a client PC to install and start the Searchlight for Retail application: see “Installing the Searchlight for Retail Application” on page 25.

8 Access Command Enterprise from a client PC to add the Searchlight for Retail licenses: see “Installing the Searchlight for Retail Application” on page 25.

Configuring the Command Enterprise Server Memory Heap Size

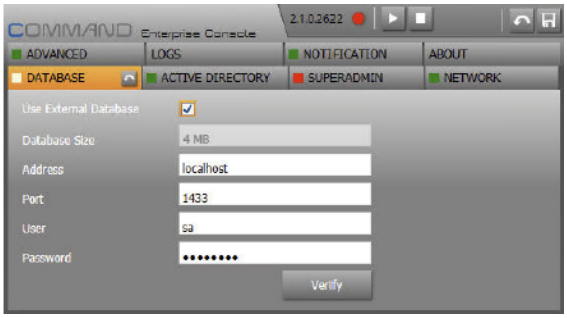
To avoid performance issues, it is strongly recommended that you configure the memory heap size, the amount of the server's memory that is allocated for the Command Enterprise software. To configure the heap size, you must access the Command Enterprise's management console on the server. The following table illustrates the recommended heap size according to the numbers of recorders/servers registered on Command Enterprise.

Small (less than 10 recorders)	Medium (from 10 to 100 recorders)	High (from 100 to 2500 recorders)
Heap Size: 2GB	Heap Size: 2GB	Heap Size: 4GB

To configure the Command Enterprise memory heap size

1 Start the Enterprise Console from the Start Menu (the default path is Start -> Programs -> March Networks -> Command Enterprise -> CES Configuration) or from the shortcut icon on the desktop (if the shortcut was created).

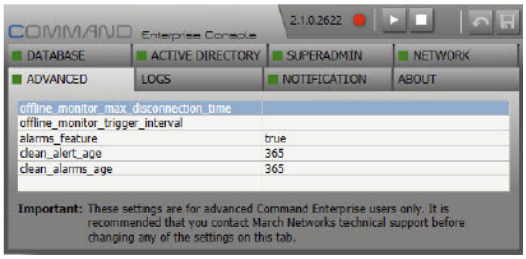
The Enterprise Console appears.



2 Click the **Stop** button to stop Command Enterprise.

The status button turns red.

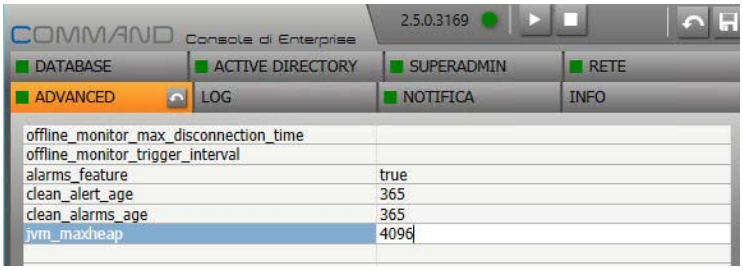
3 Click the **Advanced** tab.



4 Double-click the first empty cell on the left and enter the following text string.

jvm_maxheap

5 Double click on the empty cell on the right and enter the value (in Megabytes) for the memory heap size.



6 Click **Save** to save and apply the settings you have configured for Command Enterprise.

7 Click the **Start** button to start Command Enterprise.

Installing and Configuring the Command Media Archiver

The Command Media Archiver is a required component that allows Command Enterprise to process transaction data and save snapshots from the cameras associated to the sites created in the Searchlight application. It also can store archived video and snapshots for the Command Enterprise case management functionality, allowing users to share case files. You can either install the Archiver on the same server as Command Enterprise, or on a separate server.

Important Notes:

- It is not possible to configure retention policies on the Command Media Archiver and retention policies in use on the recorders or servers are not applied to the Archiver.
- You can install two or more Archivers in the system, but Searchlight uses only the first installed Archiver to store the snapshots associated to transaction data. Also, it is not required to assign recorders to the Archiver to store snapshots.
- If you are using the Archiver also for the case management functionality, before you begin the installation process for the Command Media Archiver, you must calculate the amount of storage space your system will require for the Archiver, as described in the *Command Enterprise and Client User Guide*, available for download from the corporate website and the Partner Portal.

Select your configuration:

- “Installing the Command Media Archiver” on page 18
- “Adding the Command Media Archiver to Command” on page 20
- “Backing up and Restoring the Command Media Archiver” on page 22
- “Upgrading the Command Media Archiver” on page 24

Installing the Command Media Archiver

The following procedure describes how to install the Command Media Archiver software, which collects and stores data for the Command Enterprise case management functionality, allowing users to share case files.

To install the Command Media Archiver

1 Insert your Searchlight Software CD into the server's CD-ROM drive or double-click the **Autorun.exe** file in the installation package.

2 On the main page, click **Software**.

3 On the **Software** page, click **Command Media Archiver**.

The **Command Media Archiver** Setup wizard appears, with the License agreement for you to read.

4 Select the check box to agree to the license terms and conditions.

You must select this check box to continue.

5 Click **Install**.

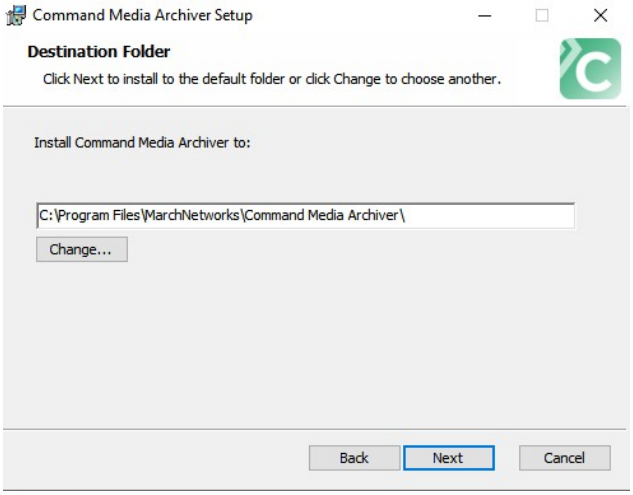
The **Setup Progress** page appears, with a progress bar, and initiates the appearance of the **Welcome** page. Note that the Welcome page appears on top of the Setup Progress page.

6 Click **Next**.

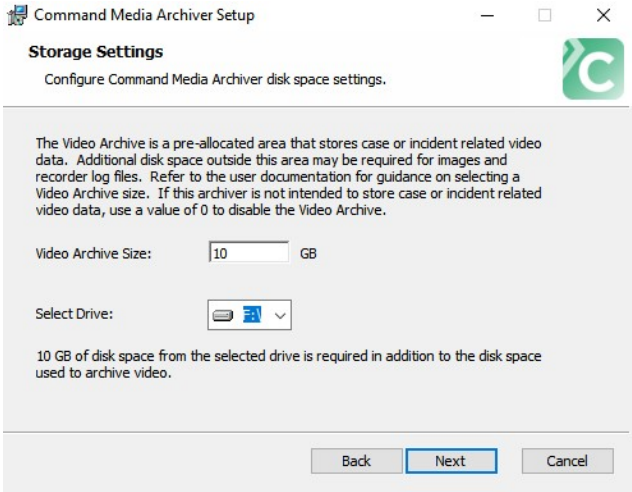
The **Destination Folder** page appears.

7 In the **Destination Folder** page, you can click **Next** to accept the default installation path.

(Optional) If you want to select a different installation path, click **Change**. A new page opens, titled **Change Destination Folder**. Browse to select the new installation folder and click **OK**.



8 The **Storage Settings** page appears.



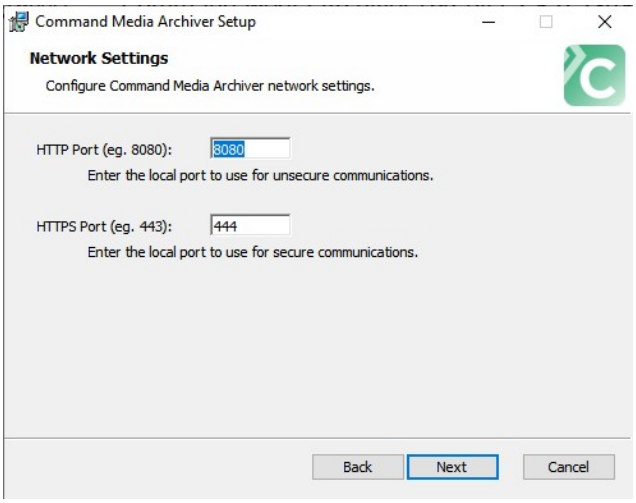
9 In the **Video Archive Size** field, enter the amount of space you want to allocate for media storage.

Note: If this archiver is intended to store **only** snapshots related to transaction data and **not** intended to store case video data, use a value of *"0"* to disable the Video Archive. Case Management requires the video archive for sharing cases.

10 Choose a drive from the **Select Drive** drop-down list.

11 Click **Next**.

The **Network Settings** page appears.



12 Enter a port number in the **HTTP Port** box.

The Media Archiver uses this port for non-secure communications.

13 Enter a port number in the **HTTPS Port** box.

The Media Archiver uses this port for secure communications.

Note: The installation process opens exceptions for the HTTP and HTTPS ports in the Windows Firewall, if it is running. If you are using a different firewall, you must configure the port access yourself.

14 Click **Next**.

The **Ready to Install** page appears.

15 Click **Install**.

The **Installing** page appears.

When the installation is complete, the **Completed** page appears.

16 Click **Finish**.

The previous Setup Progress page shows **Setup Successful**.

17 Click **Close** to exit the Setup wizard.

Adding the Command Media Archiver to Command

After installing the Command Media Archiver application on the computer, you must register the Archiver to Command Enterprise.

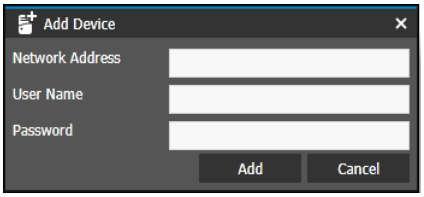
Note: You can install two or more Archivers in the system, but Searchlight uses only the first installed Archiver to store the snapshots associated to transaction data. Also, it is not required to assign recorders to the Archiver to store snapshots. You must assign recorders to the Archivers for case management only.

To add the Command Media Archiver to Command Enterprise

1 In the **System** tree, navigate to a folder element.

2 On the Navigation toolbar, click the **Add Resource** button and click **Device**.

The **Add Device** dialog box appears.



Tip: You can also right-click a folder and click **Add > Device**.

3 In the **Network Address** box, enter a valid IP address or server name.

For the **Command Media Archiver,** you also require a port, in the format <IP address>:<port>. The default port for the Media Archiver is 444.

4 In the **User Name** and **Password** box, enter the default credentials: user name **admin**, no password.

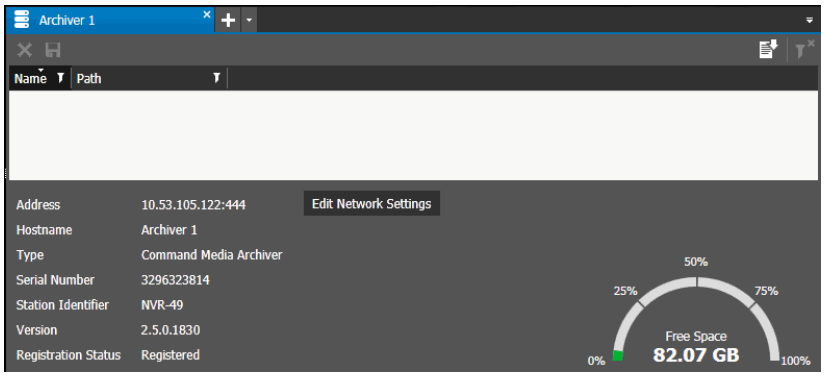
Note: Once the Archiver is registered, it is secured and the admin account is no longer available.

5 Click **Add** to register the device.

The device is added to the **System** tree and indicates a status of **Registration in Progress**.

When the registration is successful, a device tab with the host name of the Media Archiver opens in the workspace. You can view information about the archiver in this tab.

If you only have one archiver, you do not need to assign recorders to it - they are automatically associated with the only archiver present.



Backing up and Restoring the Command Media Archiver

March Networks recommends that you back up your Command Media Archiver at regular intervals. Always back up your Command Media Archiver before you uninstall or upgrade your Command Enterprise Software.

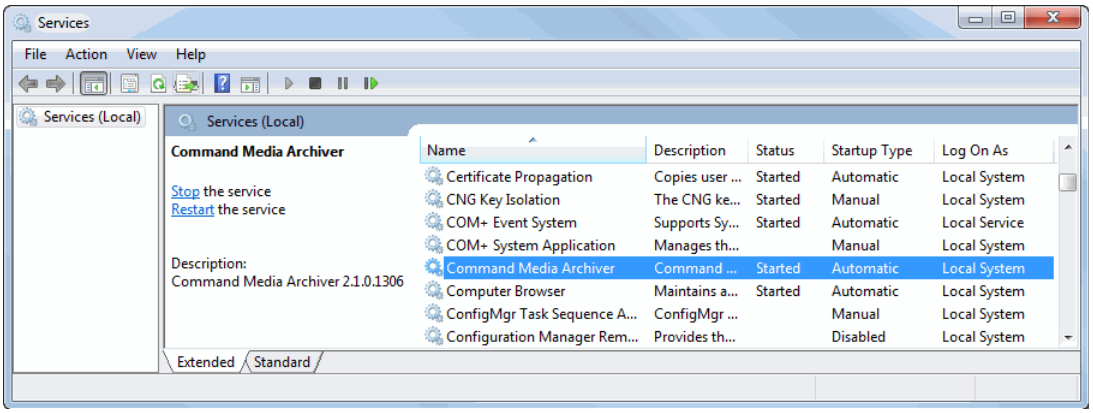
Important: Backing up your files is a precautionary measure to safeguard your information. Backup files are only required when you want to restore the Command Media Archiver. The following procedure describes how to back up the files in your Media Archiver. March Networks recommends that you perform this procedure at regular intervals to safeguard your information.

To back up the Command Media Archiver

1 In the Windows Control Panel, go to **System and Security -> Administrative Tools -> Services**.

Note: You can alternatively type “services” in the Search field of the Windows Start menu.

The **Services** window appears.



2 Stop the **Command Media Archiver** service.

3 Back up the files in the following location:

`<Install Drive>\Command Media Archive\`

where <*Install Drive*> is the drive where the Command Media Archiver was installed (see "The Command Media Archiver is a required component that allows Command Enterprise to process transaction data and save snapshots from the cameras associated to the sites created in the Searchlight application. It also can store archived video and snapshots for the Command Enterprise case management functionality, allowing users to share case files. You can either install the Archiver on the same server as Command Enterprise, or on a separate server." on page 17).

Your backup must include the **config.json** and **state.json** files and all subfolders. The logs folder is not required.

4 Ensure that you back up the files in the folder locations that are designated for transaction, media, and/or image storage.

You can open the config.json file in a text editor to view the configured paths.

Note: For the media storage, you must add a STORAGE folder to the location in the config.json file.

- For transactions, back up all the files in the “transaction” path in the config.json. For example:

  `<Storage Drive>\Command Media Archive\Transactions\Ready`

- For media, back up all the files in the “archiver” path in the config.json, adding a “STORAGE” subfolder after the path. For example:

  `<Storage Drive>\Command Media Archive\STORAGE`

- For images, back up all the files in the “images” path in the config.json. For example:

  `<Storage Drive>\Command Media Archive\Images`

where ***<Storage Drive>*** is the location selected for the Video Archive during Archiver installation.

5 Restart the **Command Media Archiver** service.

Restoring the Command Media Archiver

The following procedure describes how to restore the Command Media Archiver on a new system.

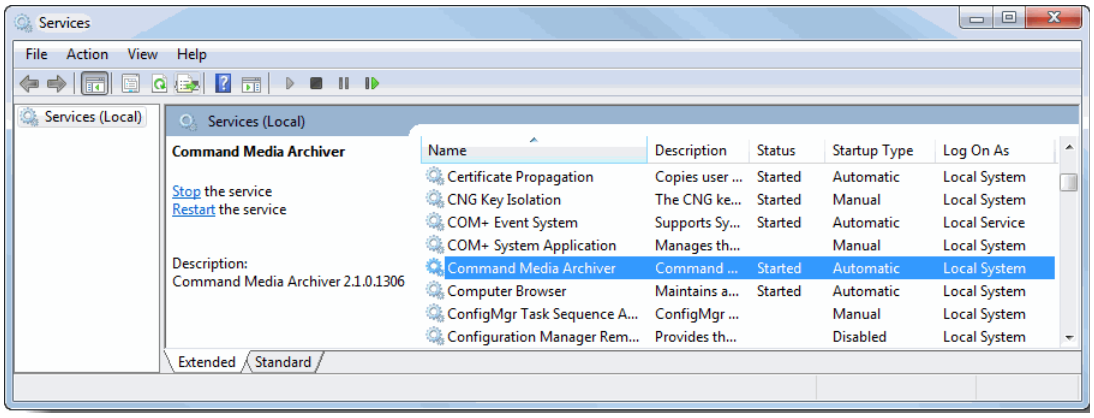
To restore the Command Media Archiver

1 Install a new version of the Command Media Archiver. See "The Command Media Archiver is a required component that allows Command Enterprise to process transaction data and save snapshots from the cameras associated to the sites created in the Searchlight application. It also can store archived video and snapshots for the Command Enterprise case management functionality, allowing users to share case files. You can either install the Archiver on the same server as Command Enterprise, or on a separate server." on page 17.

2 In the Windows Control Panel, go to **System and Security -> Administrative Tools -> Services**.

Note: You can alternatively type “services” in the Search field of the Windows Start menu.

The **Services** window appears.



3 Stop the **Command Media Archiver** service.

Important: Ensure that the previous instance of the Command Media Archiver is stopped and that the old program is uninstalled or disabled.

4 Find the install path for the new version of the Command Media Archiver that you installed in step 1 of this restore procedure, for example:

   `<New Install Drive>\Command Media Archive\`

5 Replace the files in the new install path of the new version of Command Media Archiver with the backup files that you saved in step 3 of the backup procedure.

   See “Backing up and Restoring the Command Media Archiver” on page 22.

6 Replace the new files in the transaction, media and/or image paths with the backup files you saved in step 4 of the backup procedure.

7 If necessary, edit the **config.json** file (found in **`<New Install Drive>\Command Media Archive`**) so that the transaction, media and/or image paths lead to the locations configured for the new version of the Command Media Archiver.

8 Restart the **Command Media Archiver** service.

   The Command Enterprise updates the Media Archiver entry with the latest IP address and hostname.

Upgrading the Command Media Archiver

You can upgrade your Archiver if a new version is available to you.

To upgrade the Command Media Archiver

1 Open the new upgrade version of the **CommandMediaArchiver_<version number>.exe** file.

   The **Command Media Archiver** Setup wizard appears, with the License agreement for you to read.

2 Select the check box to agree to the license terms and conditions.

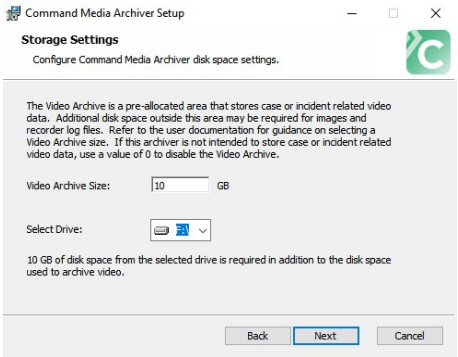
   You must select this check box to continue.

3 Click **Install**.

   The **Setup Progress** page appears, with a progress bar, and initiates the appearance of the **Welcome** page. Note that the Welcome page appears on top of the Setup Progress page.

4 Click **Next**.

   The **Modify Video Archive Size** page appears.



5 If you want to modify the size of the file storage archive, enter the new number (in GB) for the size of the archive in the **Video Archive Size** box.

Important: You can increase the size of the archive or maintain it at the same size, but you **cannot** reduce the size. If the size of the archive is already set to 0 GB because the archiver is intended to store only snapshots related to transaction data, leave it at a value of 0 to disable the archive.

6 Click **Next** to show the **Ready to install** page.

7 Click **Install** to show the **Installing** page.

When the upgrade is complete, the **Completed** page appears.

8 Click **Finish**.

The previous **Setup Progress** page shows **Setup Successful**.

9 Click **Close** to exit the Setup wizard.

Installing the Searchlight for Retail Application

You can now install the Searchlight for Retail application directly from Command Client.

Note: Only user profiles with access to global rights and the **Additional Component Management** user right can access the **Additional Component Management** panel.

To install the Searchlight for Retail application

1 Insert your Searchlight Software CD into the server's CD-ROM drive or double-click the **Autorun.exe** file in the installation package.

2 On the main page, click **Software**.

3 On the **Software** page, click **Searchlight**.

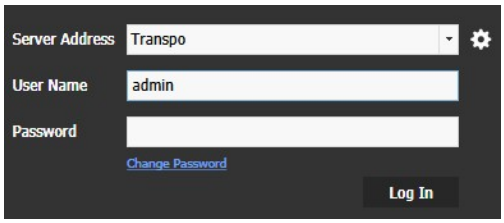
The folder where the Searchlight for Retail installer is stored opens.

4 Copy the zip archive in a location of your choice on the client PC.

Important: Do not extract the archive content. Command Client installs the application directly from the archive.

5 Launch the Command Client application.

The **Client Login** page appears.



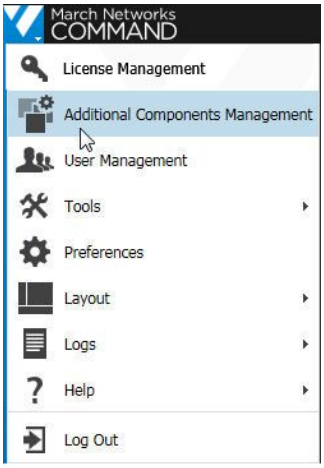
6 In the **Server Address** field enter the host name or IP address of your Command Enterprise followed by ":" and the communication port, if different from the default one (443 for HTTPS and 80 for HTTP).

7 Enter the credentials for a user account based on the **Administrator** profile, and then click **Log In**.

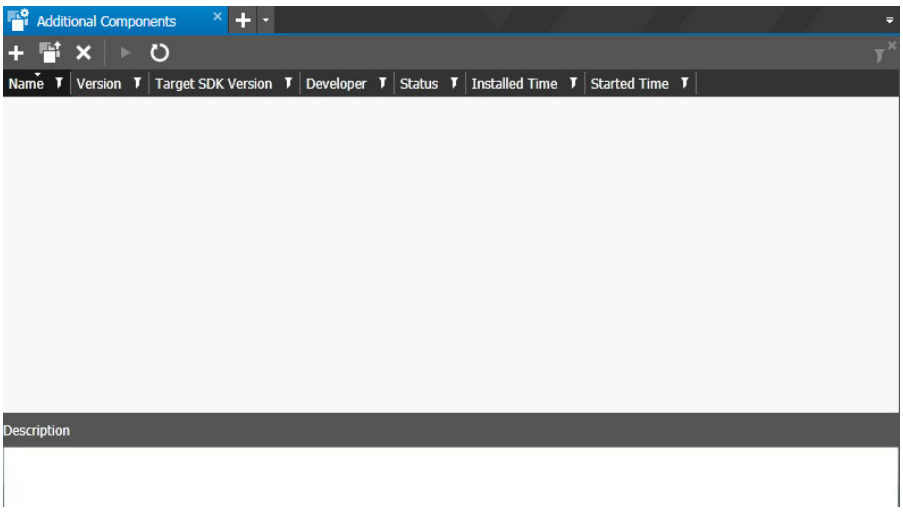
The Command Client interface appears.

8 Click the button at the upper-left of Command to display the main menu.

9 From the main menu, select **Additional Component Management**.



The **Additional Components** tab opens.

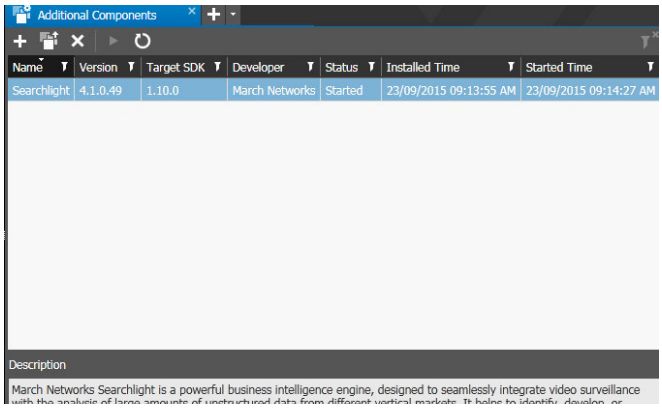


10 To install the Searchlight for Retail application, click the **Load Application** button.

11 Locate and select the Searchlight for Retail zip archive and click **Open**.

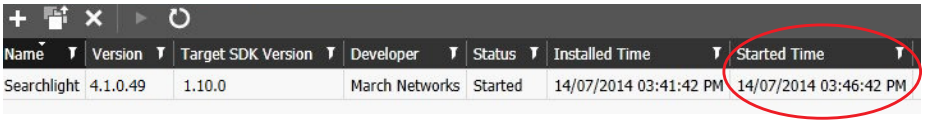
The **Uploading Application** dialog box appears, indicating the installation status.

Note: If the application failed to install, an error message appears, indicating the reason for the failure.



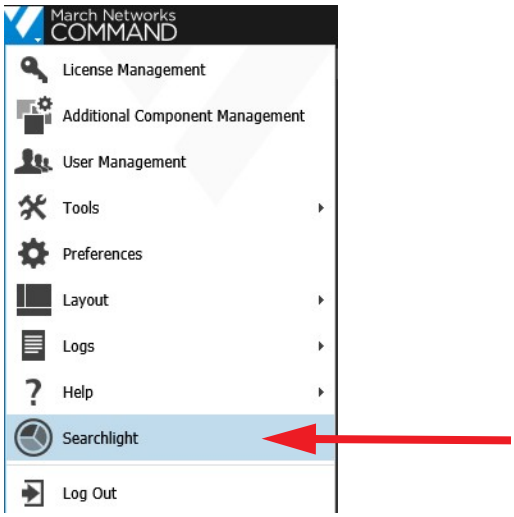
12 To start the Searchlight for Retail application, select it in the **Additional Components** tab and click the **Run Application** button.

After a few moments, the Searchlight for Retail application starts and the application details are updated with the starting date and time.



Note: If Command Enterprise does not automatically log you out, you must manually log out by accessing the main menu and selecting **Log Out**.

13 Log on to the Command Enterprise Server. The Searchlight option is added to the main menu.



Notes:

- To restart the Searchlight application, select it in the **Additional Components** tab and click the **Restart Application** button. When you restart the application, the users with the Searchlight application rights are automatically logged out of Command Enterprise.

- To uninstall the Searchlight application, select it in the **Additional Components** tab and click the **Remove Application** button. The application asks for a confirmation and if you want to delete the data downloaded from the sites together with the application.

  Note: After you uninstall the Searchlight application, all of the Searchlight-related user audit entries are deleted from the Command Enterprise database.

Upgrading Searchlight

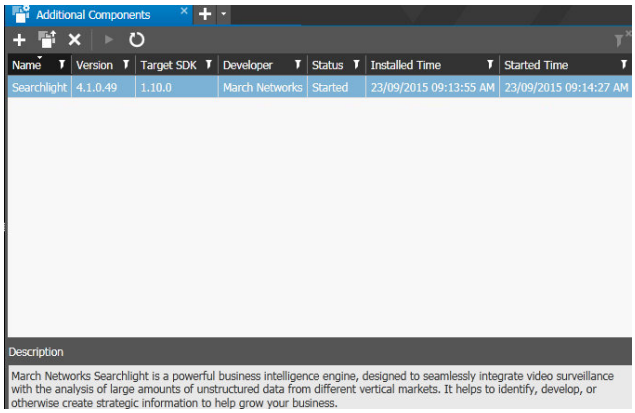
You can upgrade the Searchlight application from a previous version to the latest version.

Important Notes:

- Searchlight 4.12 is not compatible with versions 4.0 and 4.0.1 of the software. It is not possible to retain configurations and data from those versions. However, it is possible to retain Searchlight licenses.
- After a Command Enterprise software upgrade, if the Searchlight application is no longer compatible with the CES, the application is automatically stopped and the *Upgrade Required* notification appears in the **Additional Components** tab. You must upgrade and manually start the application to access Searchlight.
- When upgrading Searchlight from versions lower than 4.5, the **Location** setting for analytics data exports (see "Creating Scheduled Exports for Business Analytics Data" on page 107) are reverted to the default value (no location configured). To restore the feature, you must assign a valid location to each scheduled export.

To upgrade Searchlight

1 Open the **Additional Components** tab. The current Searchlight release is displayed in the list.

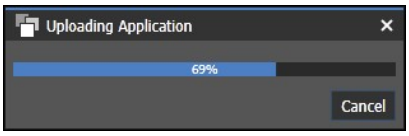


2 Click the **Upgrade Application** button.

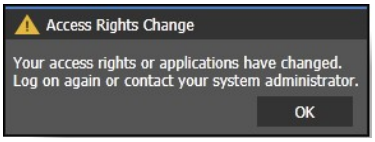
  A browser window opens, where you can locate the Searchlight upgrade file.

3 Select the upgrade version of the application file and click **Open**.

The **Uploading Application** dialog appears. This dialog displays the progress of the upgrade.



When the application finishes uploading, the **Access Rights Change** dialog appears to indicate that there has been a change in an application.



4 Click **OK**.

Command Enterprise automatically logs you out.

5 Enter your user name and password to log in and open the **Additional Components tab** again.

The **Version** column displays the new Searchlight release.

Adding Searchlight Transaction Licenses

Before installing the Searchlight for Retail application, you must access Command Client using a client-PC and add the Searchlight licenses to the Command Enterprise Server.

Note: Only user profiles with access to global rights and the **License Management** user right can access the **License Management** panel.

There are three types of Searchlight licenses:

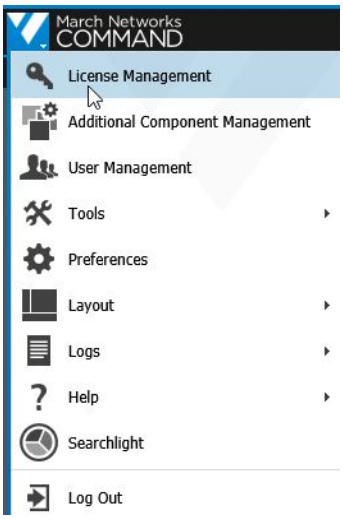
- **Searchlight Transaction** licenses allow you to transactions in the **Transaction Reports**, **Transactions Summary** and **Business Rules** pages. Each site uses one **Transaction** license.
- **Searchlight Analytics** licenses allow you to enable the **Business Analytics** feature. Each site uses one **Analytics** license. For more information, see “To add Searchlight Analytics licenses” on page 99.
- **Searchlight** channel licenses for third-party cameras with video analytics. For more information, see “Adding Licenses for the Business Analytics Feature” on page 99.

To add Searchlight Transaction licenses

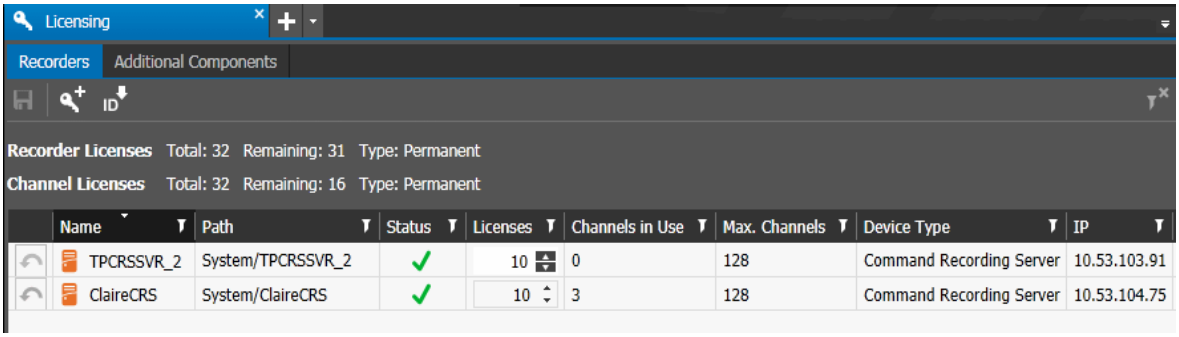
1 Access the Command Enterprise Server using a user account based on the **Administrator** profile.

2 Click the button at the upper-left of Command to display the main menu.

3 From the main menu, select **License Management**.

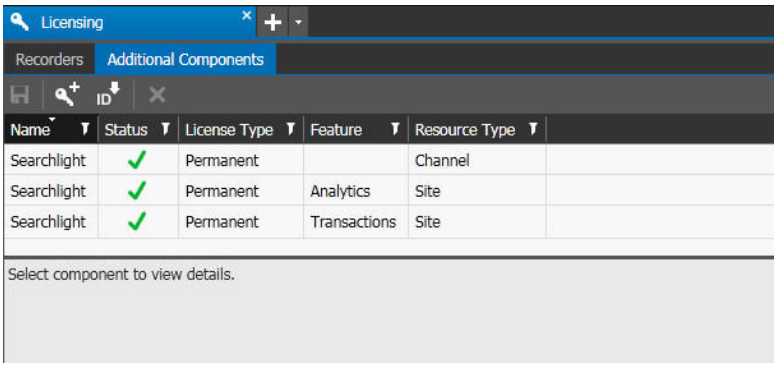


The **Licensing** tab opens.



4 Click the **Additional Components** subtab.

The **Additional Components** subtab opens.



5 On the **Additional Components** toolbar, click the **Download Server ID** button.

You are prompted to save a text file (id.txt) to a local folder on your computer.

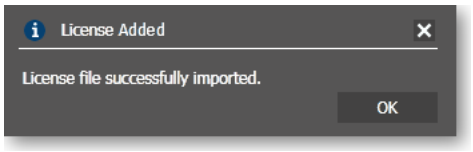
6 Contact March Networks Customer Operations to complete the transaction to purchase the required number of Searchlight licenses.

Note: March Networks will send you an e-mail, with simple instructions that detail how to generate your license key file.

7 To import/enable the **Searchlight Transaction** license, click the **Add License** button.

8 Locate and select the *app_licenses_transactions.xml* file and click **Open**.

The **License Added** dialog box appears, indicating the licenses are applied to Command. Click **OK**.



Note: If the license failed to import, an error message appears, indicating the reason for the failure.

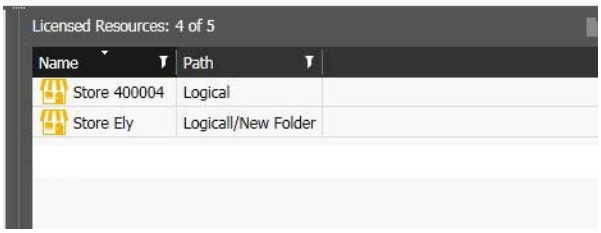
9 Access the Searchlight application and create the required sites. For more information, see “Accessing Searchlight” on page 33 and “Creating Sites” on page 51.

10 In the **Licensing -> Additional Components** sub-tab, click the **Transaction** license in the list.

Name	Status	License Type	Feature	Resource Type
Searchlight	✓	Permanent	Third Party A	Channel
Searchlight	✓	Permanent	Analytics	Site
Searchlight	✓	Permanent	Transactions	Site

11 Drag the sites from the **Logical** tree to the **Licensed Resources** panel.

Tip: To remove a site license, select the site in the **Licensed Resources** panel and click the **Remove License** button.

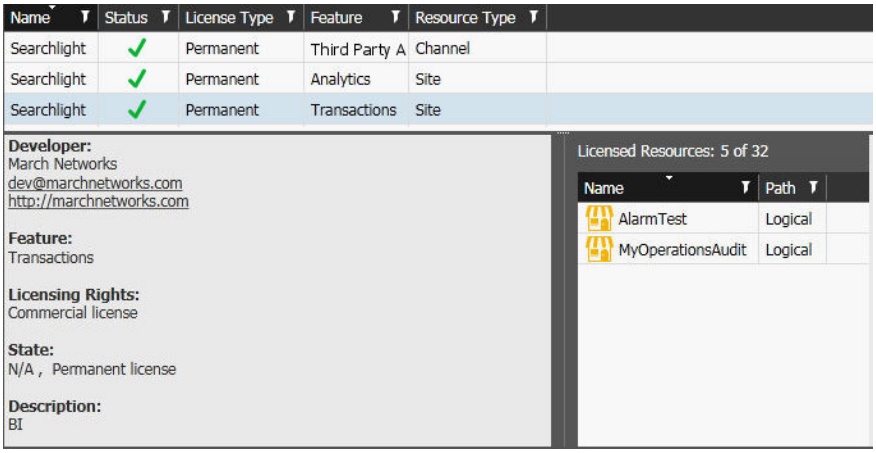


Licensed Resources: 4 of 5

Name	Path
Store 400004	Logical
Store Ely	Logicall/New Folder

12 Click the **Save** button to save and apply the changes.

The licensing status bar refreshes with the license details.



Chapter 3

Accessing Searchlight

You can access the Searchlight application from the Command Enterprise main menu.

Notes:

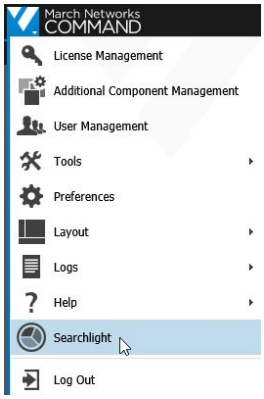
- Only users with the Searchlight user right enabled of the Command Enterprise *Superadmin* user can access the Searchlight application. For more information, see "Assigning Sets of User Rights" on page 37.
- If you connected to a CES running Searchlight for Banking, close and re-open Command Client before accessing the CES running Searchlight for Retail

To access Searchlight

1 Launch the Command Client application and log on to the Command Enterprise Server.

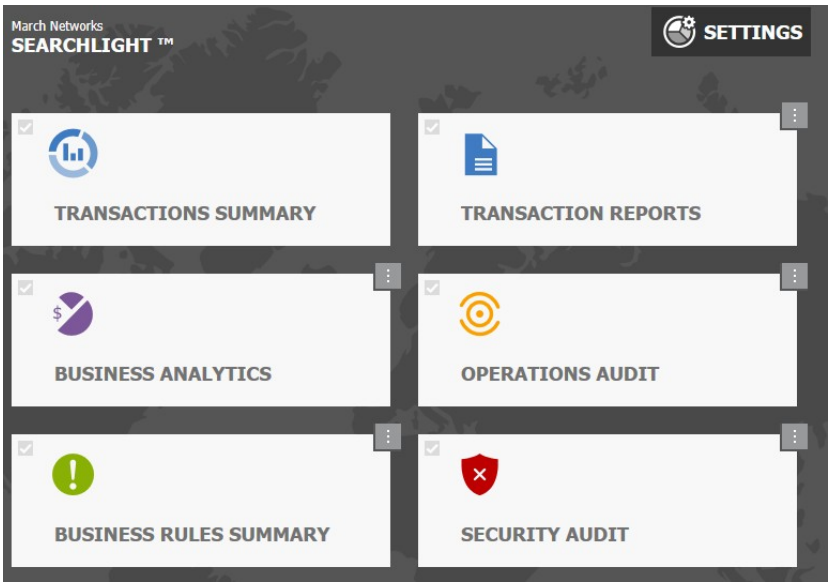
2 Click the button at the upper-left of Command to display the main menu.

3 From the main menu, select **Searchlight**.



4 The Searchlight home page appears.

Note: The different tiles appear on the home page according to the user rights assigned. For more information, see “Assigning Sets of User Rights” on page 37.



5 Click a tile to access the corresponding Searchlight page.

The main features are described in the following table.

Page	Description
Transaction Summary	This page allows you to compare different reports in the dashboard, and to generate charts from the data.
Transaction Reports	This page allows you to create and customize reports by filtering and sorting the available data and the relevant video received by the configured sites and POS terminals.
Business Analytics	This page allows you to generate custom reports based on the **People Counting**, **Queue Length**, and **Dwell Time** analytics. **Note:** The **Business Analytics** feature requires a specific license and works with Brickstream 3D sensors.
Operations Audit	This page allows you to view grids of snapshots periodically saved by the cameras associated to a site.
Business Rules Summary	This page allows you to view reports based on custom events, the business rules, created to proactively warn the investigators of potential frauds (for example, unauthorized cash withdrawal).
Security Audit	This page allows you to manage the alarms associated to the different sites.

Notes:

- To set one of the features as the default page, select the check box in the upper left corner of the corresponding tile. The next time you log on to Command Enterprise and access Searchlight, the application opens with the selected page.

- At the first login of a user, the KPI Badges (the gray square over each tile) are not configured. To configure the KPI Badges, see the specific section at the end of each chapter.
- To return to the home page from one of the pages, click the **Home** button on the side toolbar.
- To move to a different page, click the corresponding button on the vertical navigation bar.

Chapter 4

Configuring Searchlight

The **Searchlight Settings** tab allows you to create a video buffer for every transaction, configure when the application downloads snapshots for the **Operations Audit** feature, and creating email distribution lists for the **Business Rules** and the **Operations Audit** features.

Note: The **Searchlight Settings** tab also allows you to create business rules (see "Creating Business Rules" on page 125), configure general settings for the **Business Analytics** feature (see "Configuring the General Settings" on page 102), configure report labels for the **Business Analytics** feature (see "Managing Report Labels" on page 104), create scheduled exports for **Business Analytics** data (see"Creating Scheduled Exports for Business Analytics Data" on page 107), configure labels for the **Operations Audit** feature (see "Managing Operations Audit Labels" on page 142), create **Operations Audit** email notices (see, and rename the column headers for transaction reports (see "Renaming Column Headers" on page 73).

This chapter contains the following sections:

- "Assigning Sets of User Rights" on page 37
- "Viewing and Saving User Activity Audit Logs" on page 40
- "Configuring the Searchlight Settings" on page 41

Assigning Sets of User Rights

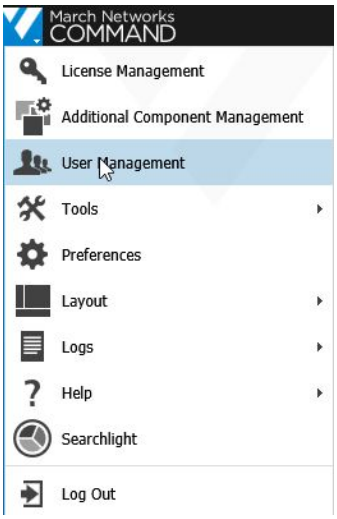
You can assign sets of user rights to Searchlight users according to the features they can access and use. The user rights must be assigned by a Command administrator to user profiles on Command Enterprise.

Note: This section describes the sets of user rights specific to the Searchlight app. All the remaining user rights (including live and archived video, PTZ control, and access to the **System** and **Logical** trees) are managed by the Command Enterprise server. For more information about user management in Command Enterprise, see the latest *Command Enterprise User Guide*, available for download from the March Networks official website and the Partner Portal.

To assign a set of user rights

1 Click the button at the upper-left of Command to display the main menu.

2 From the main menu, select **User Management**.

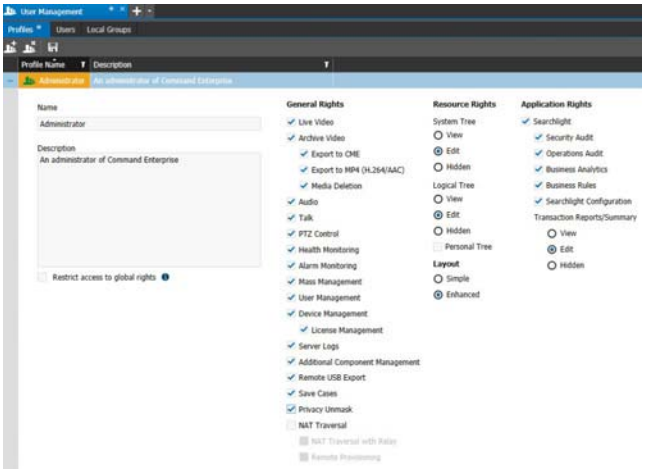


The **User Management** tab opens with the **Users** sub-tab open by default.

3 Click the **Profiles** sub-tab.

4 Click the **Expand** + button to the left of a selected **Profile Name.**

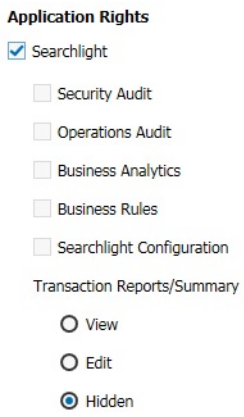
5 The selected **Profile Name** page appears.



6 In the **Application Rights** section, select the **Searchlight** check box.

7 On the **Profiles** sub-tab toolbar, click the **Save** button.

The check boxes corresponding to the user rights and the **Reports** options are now available.



8 Select the check boxes corresponding to the user rights you want to assign.

Note: The number of tiles in the Searchlight home page changes according to the user rights assigned.

The user rights are described in the following table.

User Right	Description
Security Audit	This option allows the user to access the **Security Audit** page.
Operations Audit	This option allows the user to access the **Operations Audit** page.
Business Analytics	This option allows the user to access the **Business Analytics** page.

User Right	Description
Business Rules	This option allows the user to access the **Business Rules** page.
Searchlight Configuration	This page allows you to access the **Searchlight Settings** tab and configure general settings, create business rules, set automatic email notifications, set Operations Audit schedules, and rename the column header for transaction reports.

9 In the **Transaction Reports/Summary** section, assign user rights for the transaction reports:

- **View**: The user can see the reports in the **Transaction Reports** and **Transaction Summary** pages, but the user cannot edit or filter the reports.
- **Edit**: The user can see, edit, and filter the reports in the **Transaction Reports** and **Transaction Summary** pages.
- **Hidden**: The user cannot see the reports in the **Transaction Reports** and **Transaction Summary** pages.

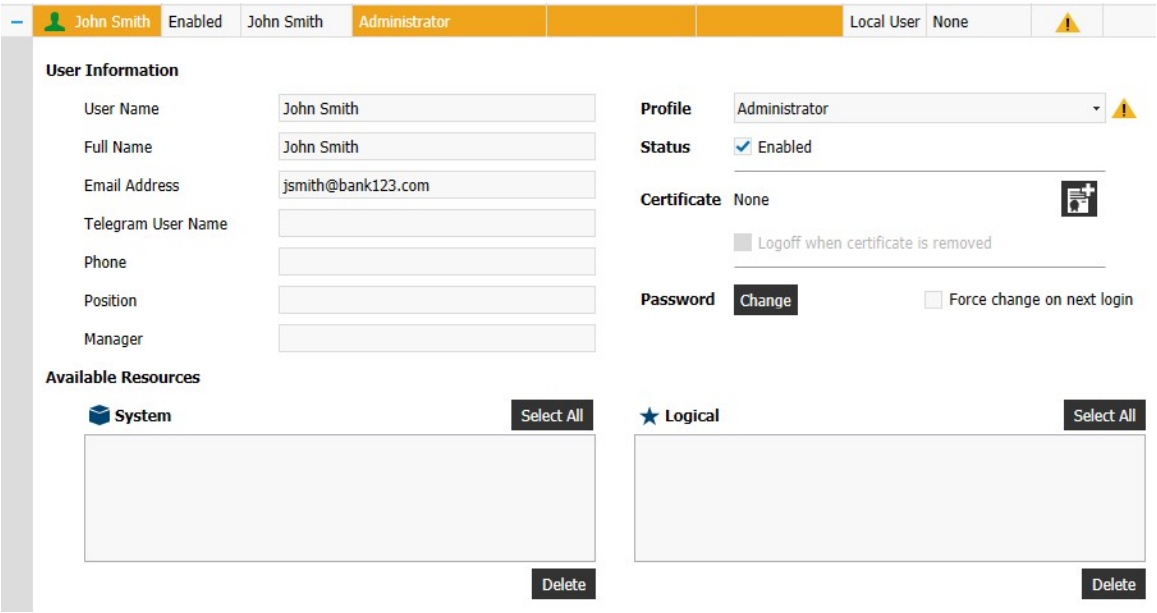
10 On the **Profiles** sub-tab toolbar, click the **Save** button.

The **Profiles** sub-tab refreshes to show the changes. All users affected by the changes to that profile are automatically logged out of the system.

11 Click the **Users** sub-tab.

12 Click the **Expand** button to the left of a selected Searchlight user.

The **User Information** page appears.



13 Select the **Profile** you have configured with Searchlight user rights from the list.

14 To define the user resources, including sites, POS terminals, and cameras, click a folder that you want the user to have access to in the **Navigation** panel, then drag and drop that folder to the **System** or **Logical** box in the **Available Resources** section of the **User Information** page.

   Note: You can drag multiple folders to the **Logical** box to customize the sites the user can access. This setting impacts all of the Searchlight features.

15 On the **Users** sub-tab toolbar, click the **Save** button.

   The user affected by the changes to that profile is automatically logged out of the system.

Viewing and Saving User Activity Audit Logs

You can monitor the activity of Searchlight users in the **System Overview > User Audit** page of Command Enterprise and export the audit logs as a Comma Separated Values (.csv) file compatible with Microsoft Excel.

Note: Audit logs are managed by the Command Enterprise Server. For more information, see the latest command enterprise User Guide, available for download from the March Networks official website and the Partner Portal.

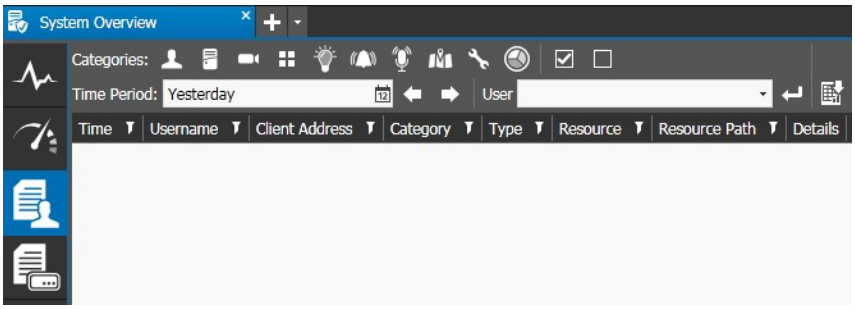
To view an audit of user activity

1 From the main menu, select **Tools** > **System Overview**.

   The **System Overview** tab opens.

2 Click the **User Audit** button in the side toolbar.

   The **User Audit** page appears.



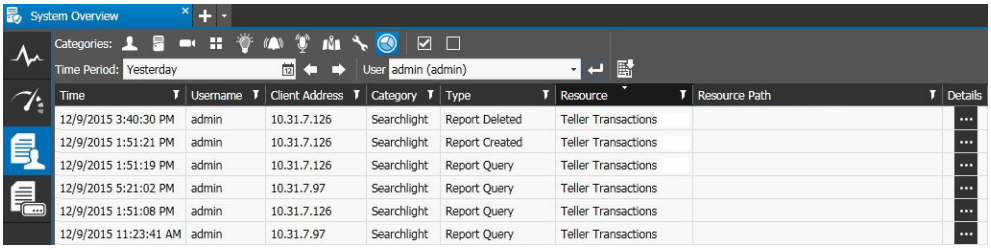
3 Click the **Searchlight** button on the **Categories** toolbar.

4 Select a **Time Period** from the list provided, or choose **Select Range** to open a calendar and set you own time period.

5 From the **User** list, select the check box corresponding to the user whose activities you want to view.

6 Click the **Search** button.

The results of the search appear.



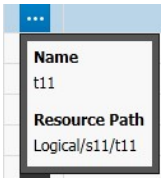
Note: You can also use the and arrow buttons (located to the right of the **Time Period** list) to quickly shift the selected time period backward and forward and refresh the search results with one click.

For example, if the Time Period is set to “Yesterday”:

- Clicking **Previous** sets the time period to the day before yesterday and refreshes the results list.
- Clicking **Next** sets the time period to today and refreshes the results list.

These buttons work with any time period from the list or a custom range you select using the calendar.

7 To view the details of the event, click the ellipsis button in the **Details** column.



8 If you want to export the results of your search to a Comma Separated Values (.csv) file compatible with Microsoft Excel, click the **Export** button to open a **Save As** dialog box.

In the **Save As** dialog, type a file name and choose a location for the file. Command saves the file so that it is available for analysis.

Configuring the Searchlight Settings

You can access the **Searchlight Settings** tab using Command’s main menu.

To access the Searchlight settings tab

1 From the main menu, select **Searchlight**.

The Searchlight home page appears.

2 Click the **Settings** button.

The **Searchlight Setting** tab opens.

3 Select your configuration:
- "Configuring the General Settings" on page 42
- "Creating Schedules" on page 44
- "Creating Email Notifications" on page 45

Configuring the General Settings

The **General** sub-tab allows you to set a timetable for all of the sites/stores added to Searchlight, create a video buffer for every transaction, configure the retention time for transactions, and add a custom string to the transaction text.

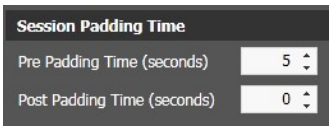
Note: The options included in the **Business Analytics** and **Report Label Management** sections are described in the "Configuring the Business Analytics Feature" section on page 101.

To configure the general settings

1 In the **Searchlight Settings** tab, click the **General** sub-tab.

2 In the **Video Padding Time** section, configure the **Pre Padding Time** and **Post Padding Time** values (in seconds) to create a video buffer that is added before and after the transaction happens.

3 In the **Session Padding Time** section, configure the **Pre Padding Time** and **Post Padding Time** values (in seconds) to extend the time of a session. This option is used by the **Report** business rule with the alarm associated to the POS terminal.



4 In the **Transaction Retention**, configure the time interval after which transaction data and related images are removed from the Searchlight database.

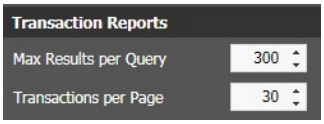
Important Note: When transaction data reach the 90% of the database capacity, an alert is added to the **Health** panel. It is strongly recommended to lower the **Transaction Retention** value to free up disk space for the database. If the alert appears again, please contact the March Networks Technical Support.

5 Leave the **Customer ID** section blank.

Note: This option is currently unused.

6 In the **Transaction Reports** section, configure the **Max Results per Query** value to set the maximum number of results displayed for a single report.

7 Configure the **Transactions per Page** value to set the maximum number of results displayed in a single page of a report.



Note: The **Max Results per Query** value does not represent the actual number of results that will be displayed: the number of results is dependent from the **Transactions per Page** value. For example: if the **Max Results per Query** value is set to 255 and the **Transactions per Page** value is set to 50, a total of 250 results will be displayed, divided in 5 pages (5 pages x 50 results).

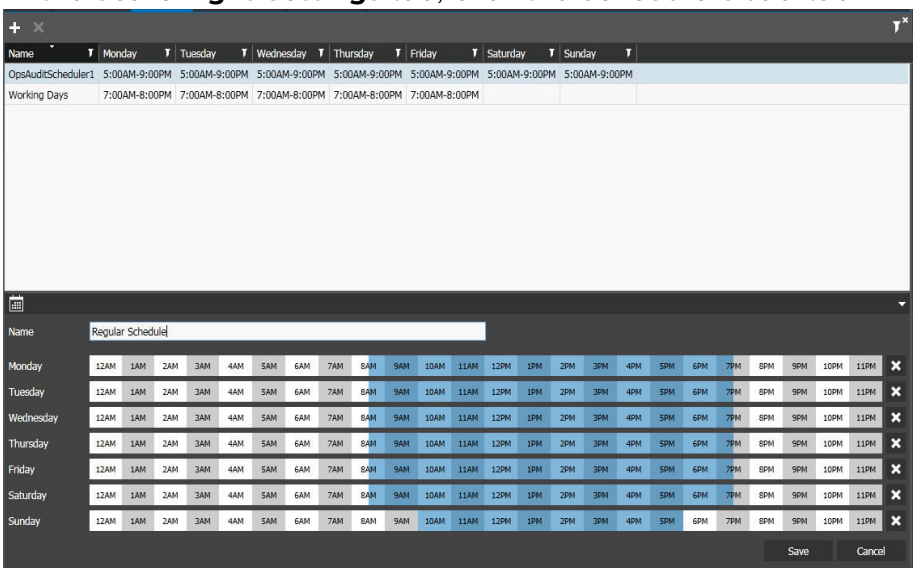
8 Click the **Save** button to save and apply the changes.

Creating Schedules

The **Schedulers** sub-tab allows you to create custom schedules for the images extraction for the different sites and for creating email notices for the **Operations Audit** feature. For more information about configuring sites, see “Creating Sites” on page 51.

To create a schedule

1 In the **Searchlight Settings** tab, click the **Schedulers** sub-tab.



2 Click the **Add Schedule** button on the toolbar.

A new schedule appears.

3 Enter a custom name for the schedule in the **Name** section.

4 To select a time interval for a day using the timeline, do the following:

- Click and hold the left mouse button down at the desired start time.

- Click and drag to define the length of the time interval. Alternatively you can add a single 30-minute time frame by clicking it.

Tip: To resize a time interval, click the single 30-minutes time frames to remove them from the schedule.

- You can set multiple time intervals for the same day.

Tip: To clear a schedule for a day, click the **Remove Schedule** button on the right of the schedule.

5 Repeat step 4 to create schedules for the remaining days.

6 Click the **Save** button to save and apply changes.

The schedule is added to the list.

Name	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
OpsAuditScheduler1	5:00AM-9:00PM	5:00AM-9:00PM	5:00AM-9:00PM	5:00AM-9:00PM	5:00AM-9:00PM	5:00AM-9:00PM	5:00AM-9:00PM
Schedule L.A. Store	8:00AM-1:30PM, 2:30PM-8:00PM	8:00AM-1:30PM, 2:30PM-8:00PM	8:00AM-1:30PM, 2:30PM-8:00PM	8:00AM-1:30PM, 2:30PM-8:00PM	8:00AM-1:30PM, 2:30PM-8:00PM	8:00AM-9:00PM	8:00AM-2:00PM
Working Days	7:00AM-8:00PM	7:00AM-8:00PM	7:00AM-8:00PM	7:00AM-8:00PM	7:00AM-8:00PM		

To delete a schedule

1 In the **Schedulers** sub-tab, select the schedule you want to delete in the list.

Note: If the schedule is associated to a site or to the **Operations Audit** feature, you must first remove the association.

2 Click the **Remove Schedule** button on the toolbar.

A warning dialog box appears.

3 Click **Ok**.

4 The schedule is deleted and is removed from the list.

Note: If the schedule was associated to a site, Searchlight no longer downloads snapshots for the **Operations Audit** feature for that site.

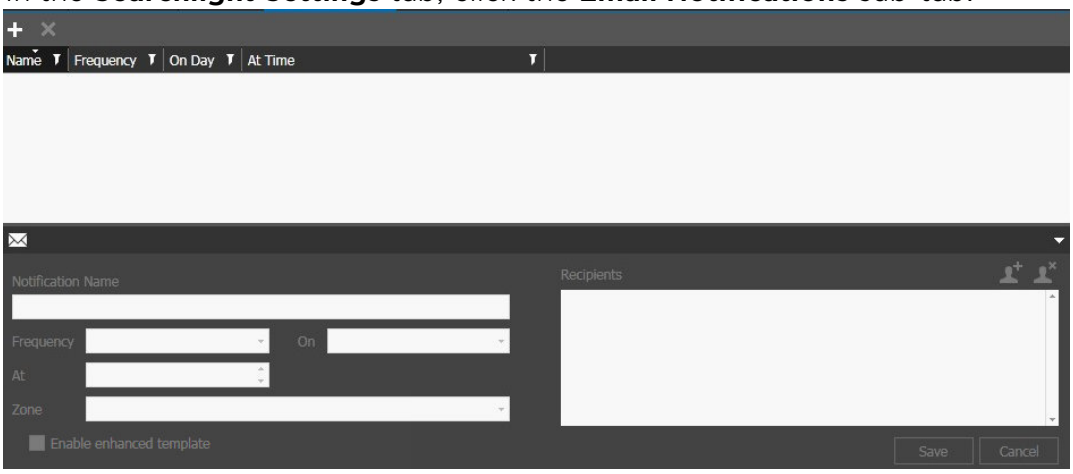
Creating Email Notifications

The **Email Notification** sub-tab allows you to create distribution lists for daily or weekly automatic email notifications from the **Business Rules** and the **Operations Audit** features.

Note: You can only add the email addresses associated to Command Enterprise local and LDAP user accounts. For more information, see the latest *Command Enterprise User Guide*, available for download from the March Networks official website and the Partner Portal.

To create an email notification

1 In the **Searchlight Settings** tab, click the **Email Notifications** sub-tab.



2 Click the **Add Notification** button on the toolbar.

The new notification is added to the list.

3 Enter a descriptive name for the notification in the **Notification Name** field.

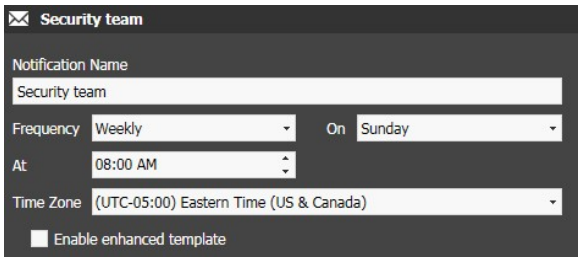
4 Select the email **Frequency** from the list.

Options include **Daily** and **Weekly**.

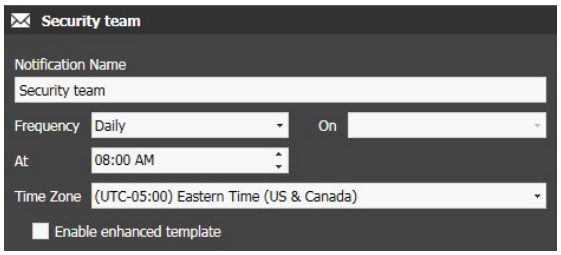
5 Select when the email is sent according to the selected **Frequency**:

- For the **Weekly** frequency select a day from the **On** list, and enter or select the time in the **At** field.
- For the **Daily** frequency, enter or select the time in the **At** field

6 Select the time zone of the recipients from the **Time Zone** list.



Weekly Frequency



Daily Frequency

7 Select the **Enable enhanced template** check box to receive more detailed **Business Rules** notifications that include snapshots associated to the triggered business rules and direct links to the transactions in Searchlight.

Notes:

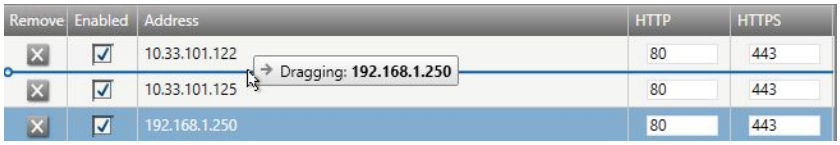
- A Business Rules email notification by default includes up to 50 transactions details. If you need to change that number, please contact the March Networks Technical Support.
- According to the mail client or web-mail portals in use, a warning message may appear when clicking the transaction links.
- The mail client or web-mail portal may automatically block or disable the links to the Searchlight application.
- The link automatically points to the server's IP address configured with the highest priority on the **Network** tab of the **CES** Console. To change the address priority:

a Open the CES console on the server running the Command Enterprise Software.

b Click the **Stop** button to stop the CES service.

c Click the **Network** tab.

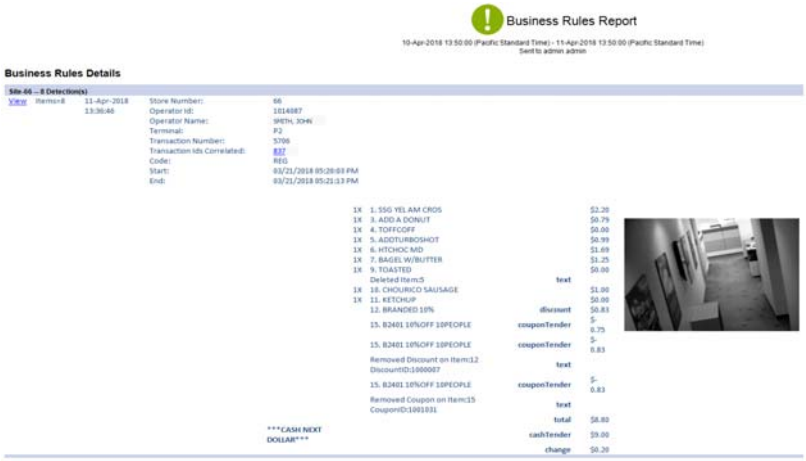
d Configure the server priority by dragging the IP address. The server in the top position has the highest priority.

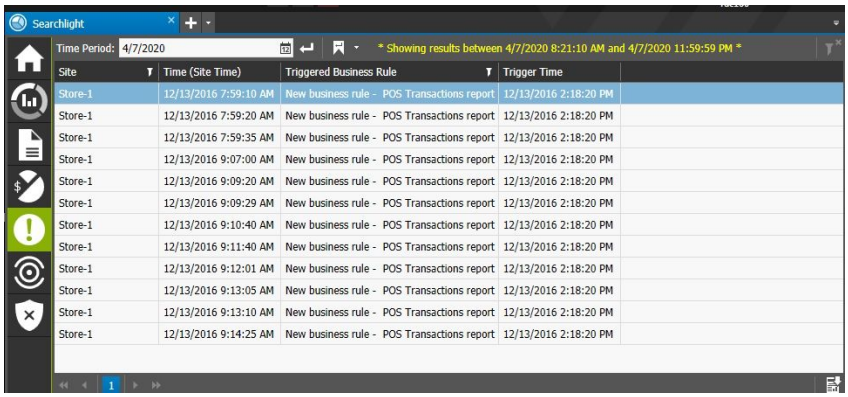


e Click the **Save** button to save and apply the changes.

f Click the **Start** button to start the CES service.

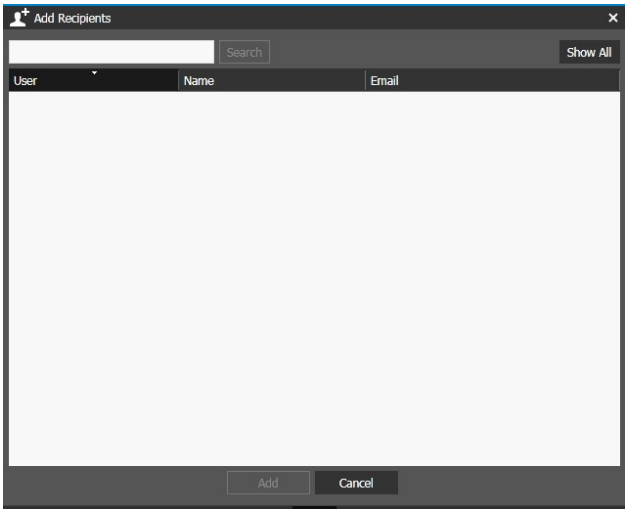
- After clicking the link, a message appears on Searchlight, warning about the automatic switch to the **Business Rules** page. A note about the current time frame also appears on the toolbar.



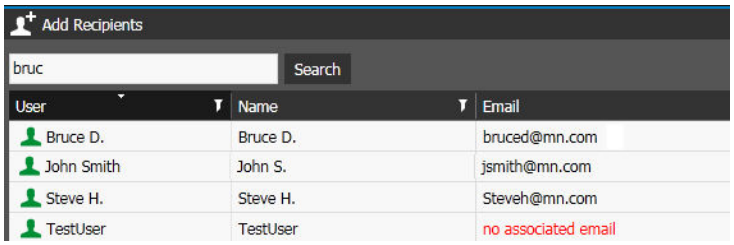


8 In the **Recipients** section, click the **Add Recipient** button to add recipients to the distribution list.

The **Add Recipients** dialog box appears.



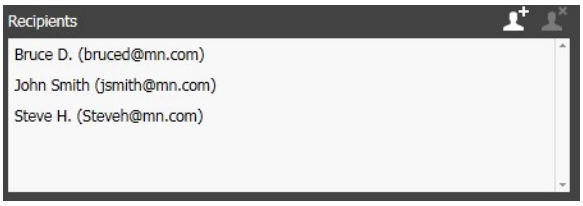
9 Do one of the following:
- To search for specific users, enter a filter criteria in the text box and click **Search**.
- To show all of the Command Enterprise users, click **Show All**.



10 Select the user accounts you want to add to the distribution list by keeping the **CTRL** key pressed and clicking additional user accounts.

11 Click **Add** to add the selected users to the distribution list.

Note: To remove a user account from the **Recipients** list, select it and then click the **Remove Recipient** button.



12 Click **Save** to save and apply the changes.

13 Repeat steps 2-11 to create additional distribution lists.

Note: To remove a notification, select it in the list, click the **Remove Noltification** button and then click **OK**.

Chapter 5

Creating and Editing Sites and POS Terminals

You can create and organize sites/stores and their Point of Sales (POS) terminals from the **Logical** tree in the **Navigation** panel. You can also add cameras and alarms to a site or to a single POS terminal inside the site to associate the relevant video and snapshots to the transaction data from the POS terminal.

Note: For more information about managing resources and folders in the **Logical** tree, see the *Command Enterprise User Guide*, available for download from the March Networks official website and the Partner Portal.

This chapter contains the following sections:

- "Creating Sites" on page 51
- "Creating a Point of Sale (POS) Terminal in a Site" on page 61

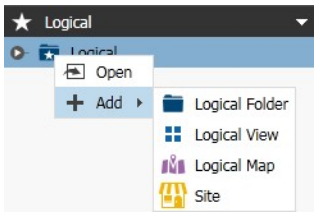
Creating Sites

You can create a new site in the **Logical** tree and associate cameras and alarms to it. Cameras and alarms associated to the site are required to populate the **Operations Audit** and **Security Audit** pages for the site.

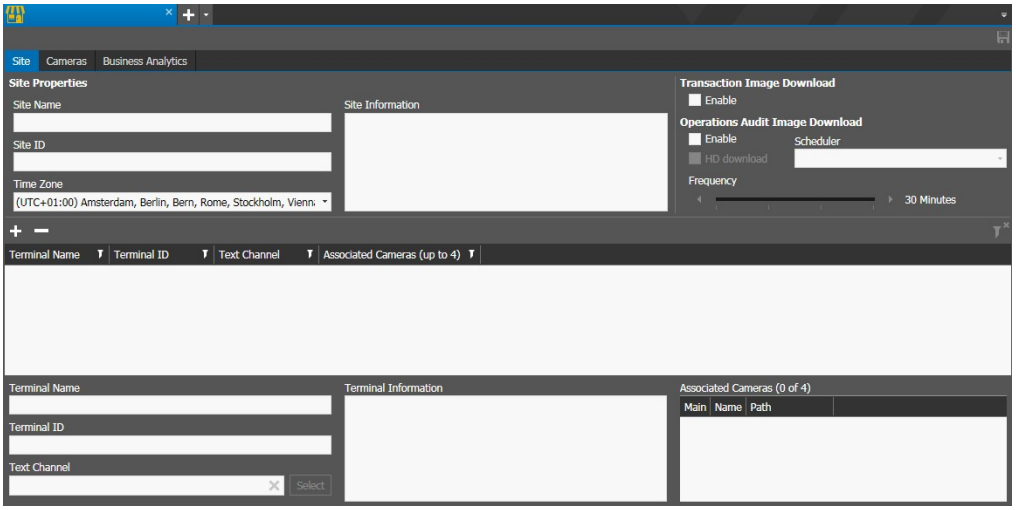
To create a site in the Logical tree

1 In the **Logical** tree, select the tree root or an existing folder.

2 Right-click the folder and select **Add->Site**.



The **Site** tab opens in the **Workspace**.



3 In the **Site Properties** section, enter a descriptive name for the site in the **Site Name** field.

4 Enter the site identification number in the **Site ID** field.

5 Select the proper **Time Zone** from the list.

6 (Optional) Enter a custom description or notes in the **Site Information** field.

7 To download a snapshot associated to every transaction processed in the site, select the **Enable** check box in the **Transaction Image Download** section.

8 Click the **Save** button to save and apply the changes.

Associating Cameras and Alarms to Sites

After you create a new site, you need to associate cameras and alarms to it: cameras are used by Searchlight to generate the **Operations Audit** report, while alarms are used in the **Security Audit** page. You can also associate Brickstream 3D sensors and MegaPX Analytics Dome cameras to a site to generate **Business Analytics** reports based on the **People Counting**, **Queue Monitoring**, and **Dwell Time** analytics.

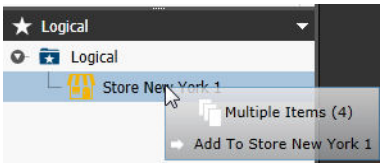
Important Notes:

- Adding cameras to a site is a different operation than associating a camera to a POS in a site. For more information, see "Associating Cameras and Alarms to POS Terminals" on page 62.
- You cannot add the same sensor or camera to two or more sites.
- It is not possible to configure video options (quality, field of view, privacy patches) for the camera using the Searchlight application.

To associate a camera or an alarm to a site

1 Select one or multiple cameras and alarms in the **System** or **Logical** tree.

2 Drag the selected resources to the site.



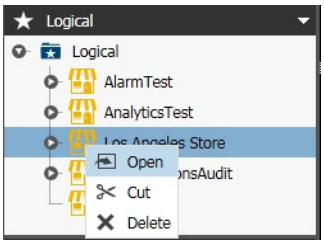
The resource icons appear under the site icon.

Configuring Site Cameras for Operations Audit

After you add cameras to a site, you can add them the **Operations Audit** feature. The **Operations Audit** is a customizable grid of thumbnails saved by the cameras associated to the site that allows investigators to quickly pinpoint the relevant images.

To configure a site camera for Operations Audit

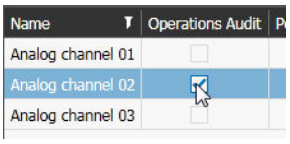
1 In the **Logical** tree, right-click a site and select **Open**.



The **Site** tab opens in the **Workspace**.

2 Click the **Cameras** sub-tab.

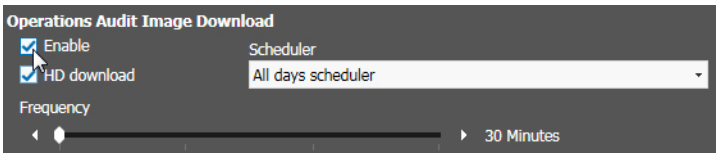
3 In the **Operations Audit** column, select the check boxes corresponding to the cameras you want to add to the feature.



4 Click the **Save** button to save and apply the changes.

5 Click the **Site** sub-tab.

6 In the **Operations Audit Image Download** section, select the **Enable** check box to allow downloading snapshots from the cameras configured for the **Operations Audit** feature.



7 Select the **HD Download** check box to download high definition snapshots, if available.

Notes:

- If high definition images are not available, Searchlight downloads standard definition images.
- This option refers to the images that are attached to the Operations Audit notices and to the instant emails. For more information, see “To remove a notification, select it in the list, click the Remove Noltification button and then click OK.” on page 49 and “Using Operations Audit” on page 141.

8 Select a configured schedule from the **Scheduler** list.

Note: For more information about creating and customizing schedules, see “Creating Schedules” on page 44.

9 To configure how frequently snapshots are downloaded in every time interval, select the interval on the timeline, and then move the **Frequency** slider. Searchlight downloads snapshots with the configured frequency.

10 Click the **Save** button to save and apply the changes.

Customizing Business Analytics Reports

Searchlight works in concert with the video analytics available on the Brickstream 3D sensors and the MegaPX Analytics Indoor Dome cameras to generate custom **Business Analytics** reports based on the People Counting, Queue Length, and Dwell Time analytics.

Important Notes:

- You must add one or more Brickstream 3D sensors or MegaPX Analytics Dome to a site to customize Business Analytics reports.
- Before adding a Brickstream 3D sensor or a MegaPX Analytics Dome camera to a site for the **Business Analytics** feature, ensure the analytic required for the report (**People Counting**, **Queue Length**, or **Dwell Time**) is properly configured on the device.
- There are five report labels that are created by default. You can customize them or create new ones on the **Searchlight Settings** tab. For more information, see "Managing Report Labels" on page 104.
- Searchlight is not compatible with the March Networks video analytics included on the legacy Edge 1 and 4 encoders, CamPX, CamPX MiniDome, and XDome cameras.

Select your configuration:

- "Customizing the Labels for Detection Zones" on page 54
- "Customizing a People Counting Report" on page 56
- "Customizing a Queue Length Report" on page 58
- "Customizing a Dwell Time Report" on page 59

Customizing the Labels for Detection Zones

Searchlight supports up to four detection zones for each analytic and you can select which zones you associate to a report. You can customize the labels for each zone: the labels appear in Business Analytics report when you drill down the data in the **Filter By** panel. For more information, see "Customizing Business Analytics Reports" on page 54.

To customize the label of a detection zone

1 In the **Logical** tree, right-click a site and select **Open**.

The **Site** tab opens in the **Workspace**.

2 Click the **Cameras** sub-tab.

3 Click the **Expand** button on the left of the camera to configure its detection zones.

The **Detection Zone** panel appears below the camera.

Note: The **Default Name** column lists the label for the detection zone configured on the camera; the **Display Name** column lists the label for the detection zones configured on Searchlight.

Zone Names

Default Name	Display Name
Zone 1	Zone 1
Zone 2	Zone 2
Zone 3	Zone 3
Zone 4	Zone 4

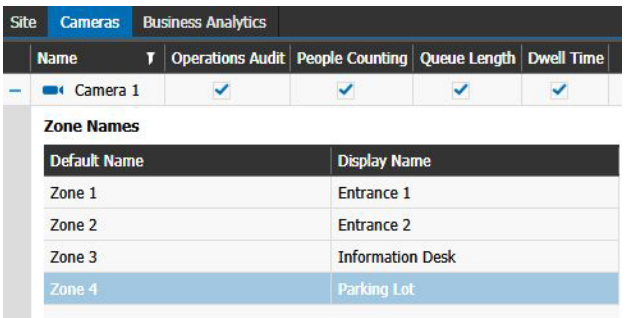
4 In the **Display Name** column, double-click the label you want to customize.

5 Enter the customized label and press the **ENTER** key.

The next label is automatically selected.

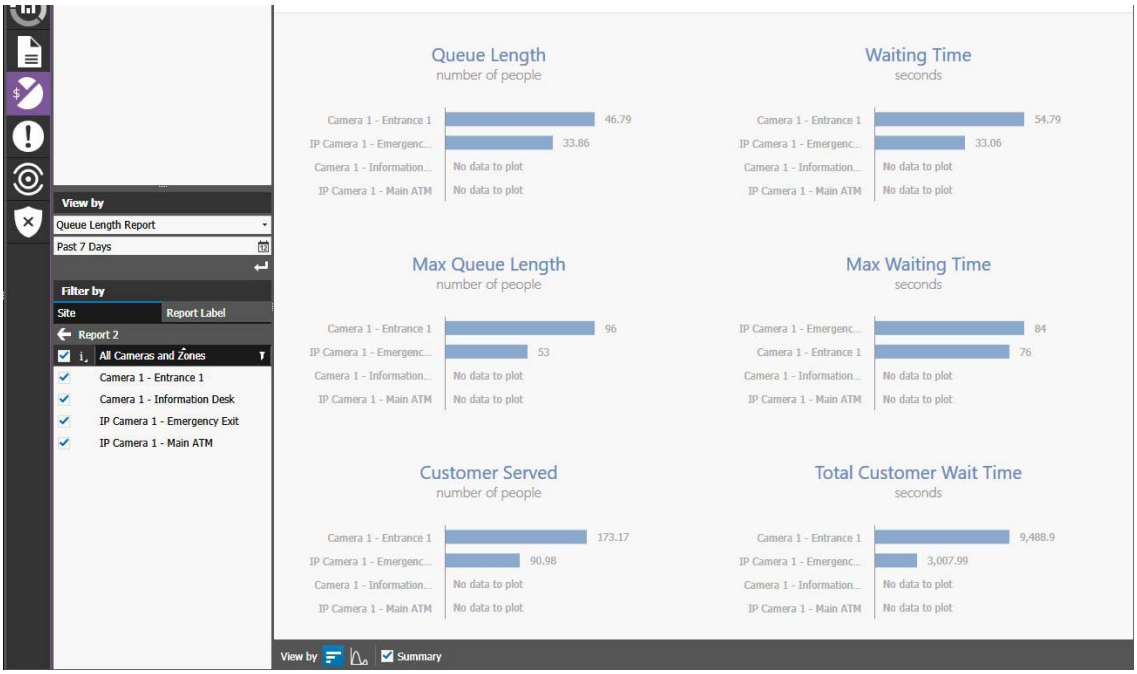
6 Customize the remaining labels, if needed.

7 Repeat steps 3-6 to customize the labels for a different camera.



8 Click the **Save** button to save and apply the changes.

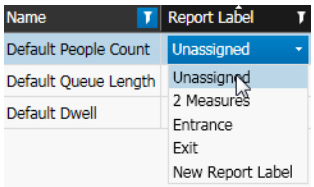
The labels now appear in Business Analytics reports.



Customizing a People Counting Report

Searchlight is able to generate detailed reports and charts based on the **People Counting** video analytic. For example, it is possible to generate a chart about the average hourly transaction amount and compare it to the number of visitors in the site.

Note: The **Default People Count** report is automatically added to the list. The default report for a site includes data from all of the configured analytics sensors or cameras in the site and from all of the zones configured on the devices. To display the report on the **Business Analytics** page, you must select a **Report Label** from the list. You can directly access the Searchlight Settings tab by clicking the **Settings** button on the **Business Analytics** sub-tab.



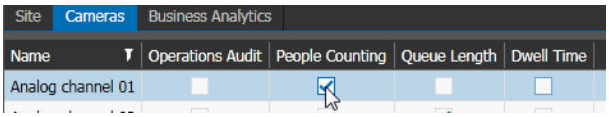
To customize a People Counting Report

1 In the **Logical** tree, right-click a site and select **Open**.

The **Site** tab opens in the **Workspace**.

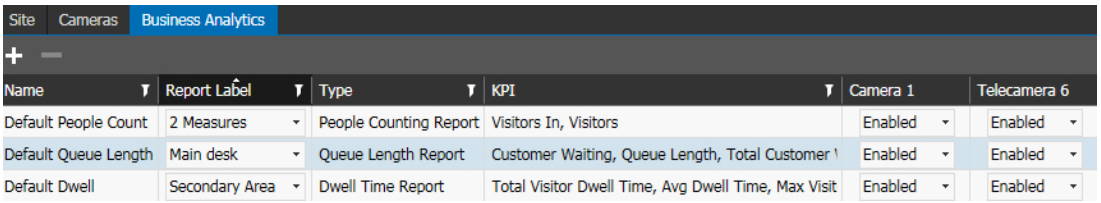
2 Click the **Cameras** sub-tab.

3 In the **People Counting** column, select the check boxes corresponding to the analytic cameras you want to add to the report.



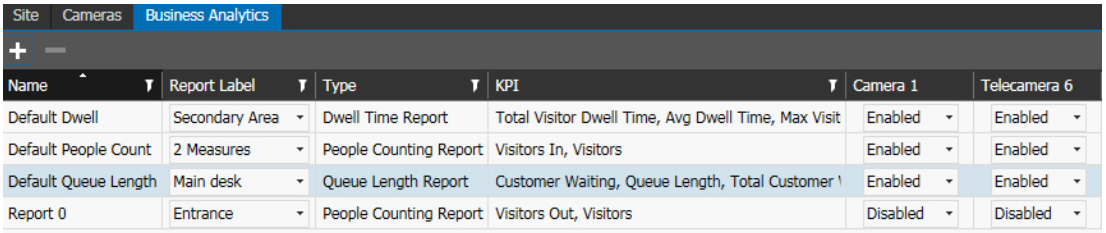
4 Click the **Save** button to save and apply the changes.

5 Click the **Business Analytics** sub-tab.



6 Click the **Add Report** button on the toolbar.

The new report is added to the list.

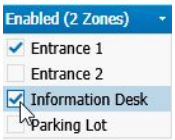


7 Double-click the **Name** field and enter a descriptive name for the report.

8 Select a label related to the **People Counting** analytic from the **Report Label** list.

Note: The **Type** and **KPI** columns are automatically updated according to the label selected.

9 For each analytic camera added to the site, select the check boxes corresponding to the detection zones from the drop down list.



Notes:

- Detection zones are configured directly on the Brickstream 3D sensor or on the MegaPX Analytics Dome camera.
- Select **Disabled** to remove the camera from the report.

10 Repeat steps 6-9 to create additional **People Counting** reports.

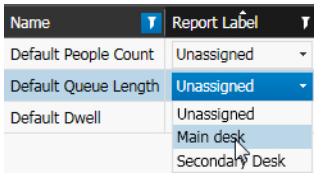
Note: To remove a report, select it in the list, and then click the **Remove Report** button.

11 Click the **Save** button to save and apply the changes.

Customizing a Queue Length Report

Searchlight is able to generate detailed reports and graphics based on the Queue Length video analytic. For example, it is possible to generate a graphic about the average number of people in a queue or about the average time spent by a person in a queue.

Note: The **Default Queue Length** report is automatically added to the list. The default report for a site includes data from all of the configured analytics sensors or cameras in the site and from all of the zones configured on the devices. To display the report on the **Business Analytics** page, you must select a **Report Label** from the list. You can directly access the Searchlight Settings tab by clicking the **Settings** button on the **Business Analytics** sub-tab.



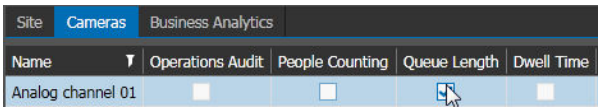
To customize a Queue Length Report

1 In the **Logical** tree, right-click a site and select **Open**.

The **Site** tab opens in the **Workspace**.

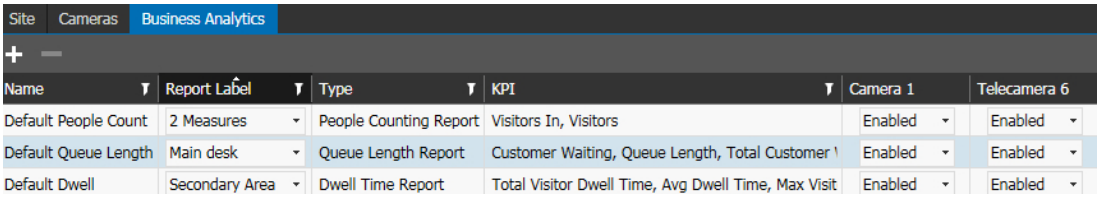
2 Click the **Cameras** sub-tab.

3 In the **Queue Length** column, select the check boxes corresponding to the analytic cameras you want to add to the report.



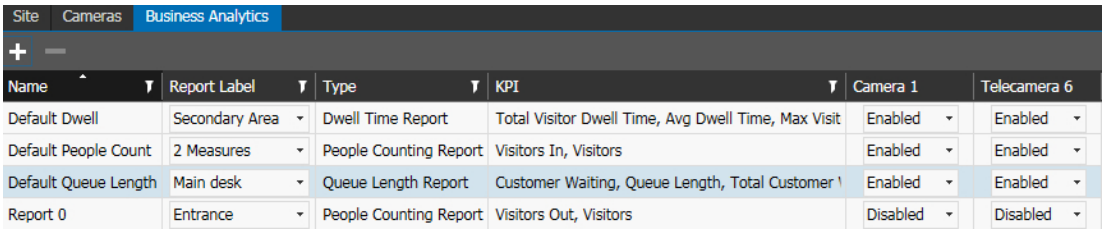
4 Click the **Save** button to save and apply the changes.

5 Click the **Business Analytics** sub-tab.



6 Click the **Add Report** button on the toolbar.

The new report is added to the list.

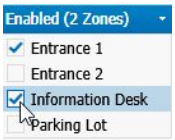


7 Double-click the **Name** field and enter a descriptive name for the report.

8 Select a label related to the **Queue Length** analytic from the **Report Label** list.

Note: The **Type** and **KPI** columns are automatically updated according to the label selected.

9 For each analytic camera added to the site, select the check boxes corresponding to the detection zones from the drop down list.



Notes:

- Detection zones are configured directly on the Brickstream 3D sensor or on the MegaPX Analytics Dome camera.
- Select **Disabled** to remove the camera from the report.

10 Repeat steps 6-9 to create additional **Queue Length** reports.

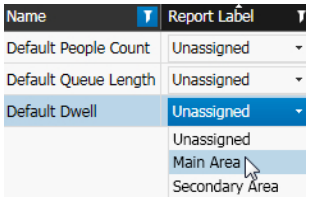
Note: To remove a report, select it in the list, and then click the **Remove Report** button.

11 Click the **Save** button to save and apply the changes.

Customizing a Dwell Time Report

Searchlight is able to generate detailed reports and graphics based on the Dwell Time video analytic. For example, it is possible to generate a graphic that tracks the average time that customers stop in front of a shelf of items for sale, and compare it to the number of active promotions on the items for sale. This can help determine if your promotions are attracting customer interest.

Note: The **Default Dwell** report is automatically added to the list. The default report for a site includes data from all of the configured analytics sensors or cameras in the site and from all of the zones configured on the devices. To display the report on the **Business Analytics** page, you must select a **Report Label** from the list. You can directly access the Searchlight Settings tab by clicking the **Settings** button on the **Business Analytics** sub-tab.



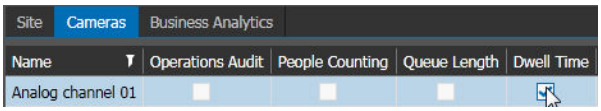
To customize a Dwell Time Report

1 In the **Logical** tree, right-click a site and select **Open**.

The **Site** tab opens in the **Workspace**.

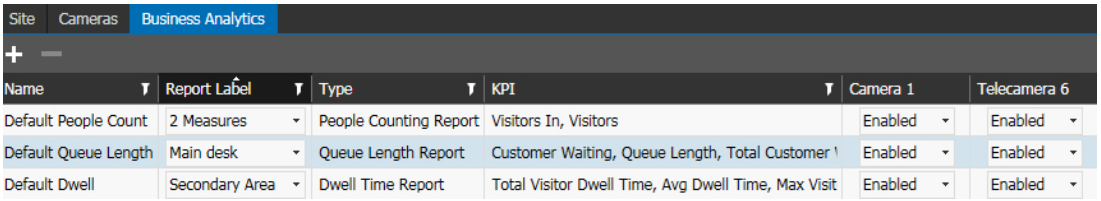
2 Click the **Cameras** sub-tab.

3 In the **Dwell Time** column, select the check boxes corresponding to the analytic cameras you want to add to the report.



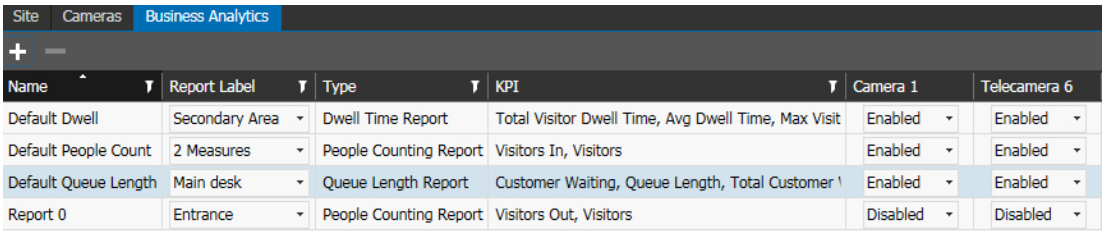
4 Click the **Save** button to save and apply the changes.

5 Click the **Business Analytics** sub-tab.



6 Click the **Add Report** button on the toolbar.

The new report is added to the list.

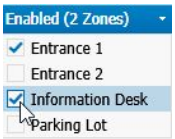


7 Double-click the **Name** field and enter a descriptive name for the report.

8 Select a label related to the **Dwell Time** analytic from the **Report Label** list.

Note: The **Type** and **KPI** columns are automatically updated according to the label selected.

9 For each analytic camera added to the site, select the check boxes corresponding to the detection zones from the drop down list.



Notes:

- Detection zones are configured directly on the Brickstream 3D sensor or on the MegaPX Analytics Dome camera.
- Select **Disabled** to remove the camera from the report.

10 Repeat steps 6-9 to create additional **Dwell Time** reports.

Note: To remove a report, select it in the list, and then click the **Remove Report** button.

11 Click the **Save** button to save and apply the changes.

Creating a Point of Sale (POS) Terminal in a Site

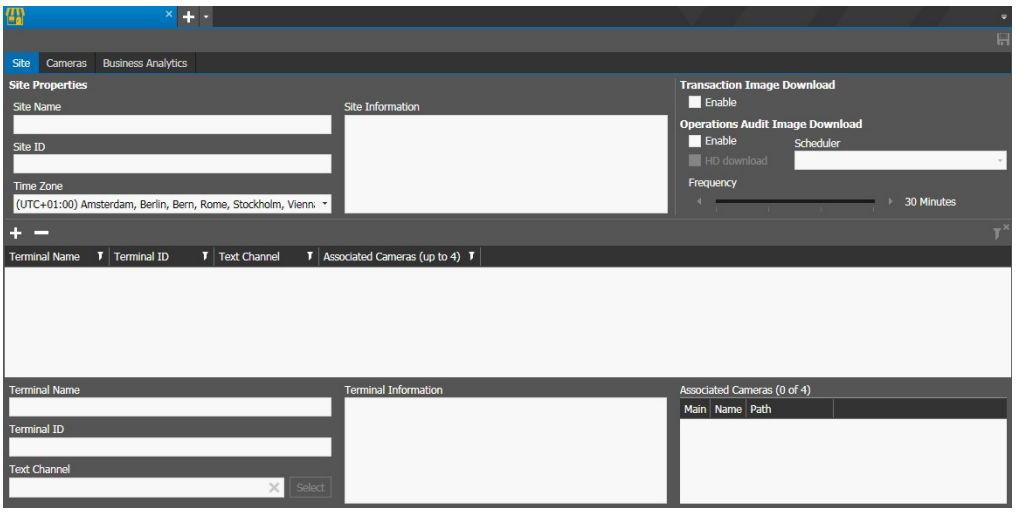
After you create a site, you can populate it with all of the Point of Sale (POS) terminals that are installed in the site.

Note: You can create up to 50 POS terminals in a single site.

To create a POS in a site

1 In the **Logical** tree, right-click a site and select **Open**.

The **Site** tab opens in the **Workspace**.



2 Click the **Add Terminal** button on the toolbar under the **Site Properties** section.

The new POS terminal is added to the list.

3 Enter a descriptive name for the POS in the **Terminal Name** field.

4 Enter the POS terminal identification number in the **Terminal ID** field.

5 If transaction data is not stored in a centralized location and is downloaded directly from NVRs connected to POS terminal through the serial interface, do the following:

a In the **Text Channel** section, click the **Select** button.

Note: The button is enabled only if one or more NVRs have a dataport active.

The **Select Text Channel** dialog box appears.

b Select an available **DVR** from the list.

c Select an available **Text Channel** on the NVR from the list.

Note: The list is populated only if two or more text channels are configured on the same device.

d Click **Ok** to add the text channel to the POS terminal.

6 (Optional) Enter a custom description or notes in the **Terminal information** field.

7 Click the **Save** button to save and apply the changes.

Associating Cameras and Alarms to POS Terminals

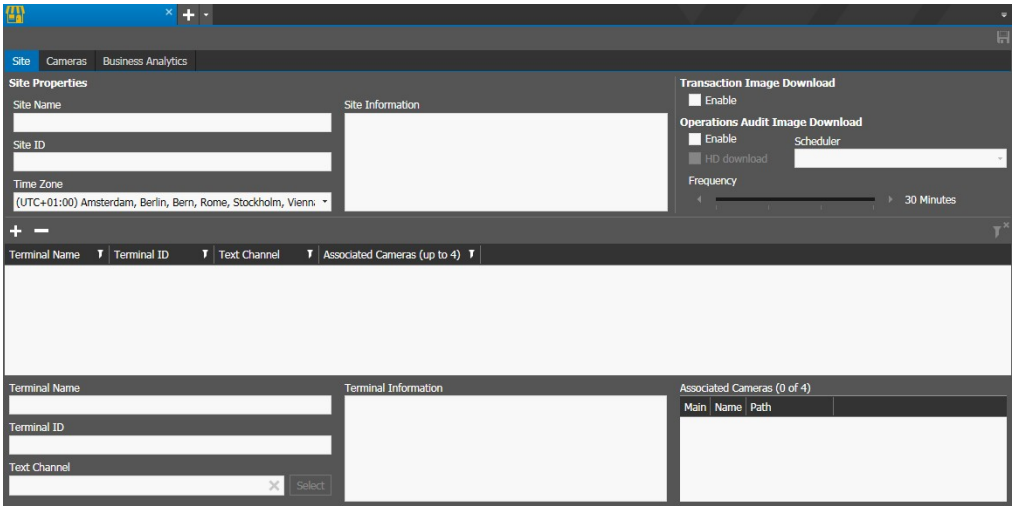
After you create a new POS, you can associate up to four cameras and an alarm to it: cameras are used by Searchlight to associate the relevant video to every transaction made on the POS, while alarms are used in the **Security Audit** (see "Customizing Security Audit Reports" on page 155) and **Business Rules** (see "Creating and Customizing Business Rules" on page 126) pages.

Important: To set up the **No Customer Detection** business rule, you must associate an alarm that detects the presence of a customer near the POS terminal. The alarm can be triggered by a physical device or by a video analytic (for example the **Presence Detection** analytic on the MegaPX ATM Camera, the **Presence Detection** alarm on Brickstream 3D sensors or the **Loitering** analytic on 8000 Series Hybrid NVRs). For more information, see "Creating and Customizing Business Rules" on page 126.

To associate cameras and an alarm to a site

1 In the **Logical** tree, right-click a site and select **Open**.

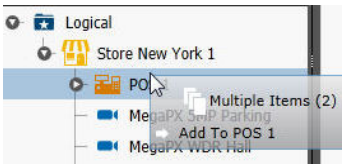
The **Site** tab opens in the **Workspace**.



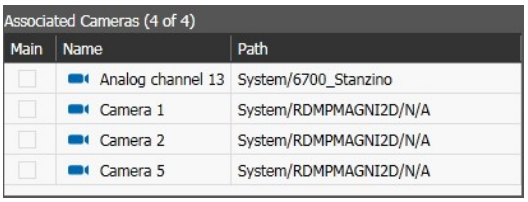
2 Select one or multiple cameras and/or an alarm in the **System** or **Logical** tree.

Note: You can associate up to four different cameras and a single alarm to a POS terminal.

3 Drag the selected resources to the POS in the **Logical** tree.



The resource icons appear under the POS icon; the cameras also appear in the **Associated Cameras** field in the **Site** tab.



Associated Cameras (4 of 4)

Main	Name	Path
	Analog channel 13	System/6700_Stanzino
	Camera 1	System/RDMPMAGNI2D/N/A
	Camera 2	System/RDMPMAGNI2D/N/A
	Camera 5	System/RDMPMAGNI2D/N/A

4 In the **Associated Cameras** field, select the **Main** check box corresponding to the a camera associated to the POS to automatically save a snapshot for every transaction executed on the POS terminal.

5 Click the **Save** button to save and apply the changes.

Deleting POS Terminals

You can delete a POS Terminal, removing it from the list.

To delete a POS terminal

1 In the **Logical** tree, right-click a site and select **Open**.

The **Site** tab opens in the **Workspace**.

2 Select the POS terminal you want to delete.

3 Click the **Remove Terminal** button on the toolbar under the **Site Properties** section.

A warning dialog box appears.

4 Click **Ok**.

The POS is deleted and is removed from the site.

Chapter 6

Customizing Transaction Reports

The **Transaction Reports** page allows you to create and customize reports using the available data and the relevant video received by the configured sites/stores and POS terminals.

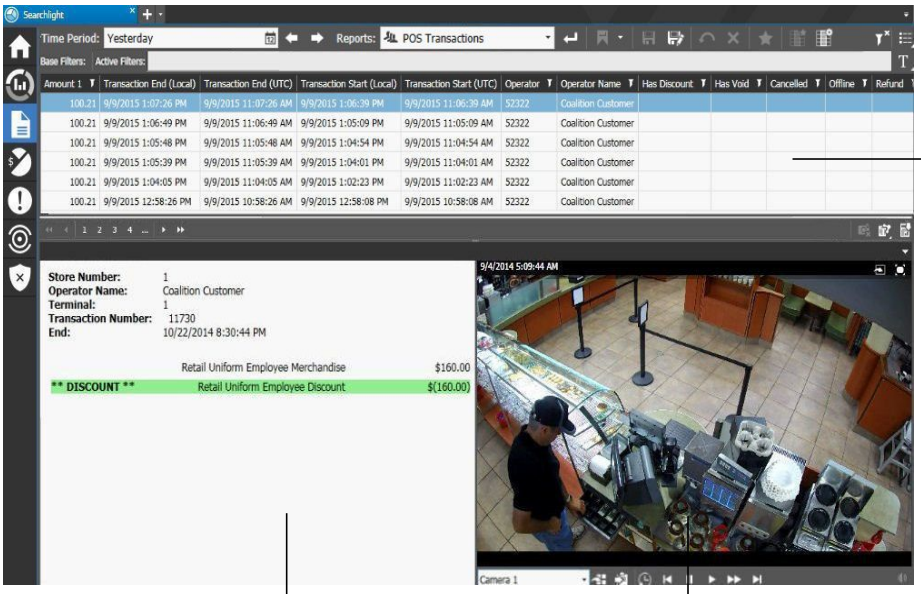
This chapter contains the following sections:

- “Overview” on page 65
- “Accessing the Default Report” on page 66
- “Customizing a Report” on page 68
- “Managing Reports” on page 75
- “Setting the KPI Badge on the Home Page” on page 81

Overview

The **Transaction Reports** page allows you to view and customize reports based on the available data and the relevant video received by the configured sites and POS terminals. You can customize a report by selecting a specific time frame, filtering by columns, filtering by data and by sorting columns and data. After you customize the report you can save it, export it as a Comma Separated Values file (.csv) file compatible with Microsoft Excel®, and also mark it as a favorite to automatically display it on the **Transactions Summary** page.

The **Transaction Reports** page is divided into three main graphical areas.



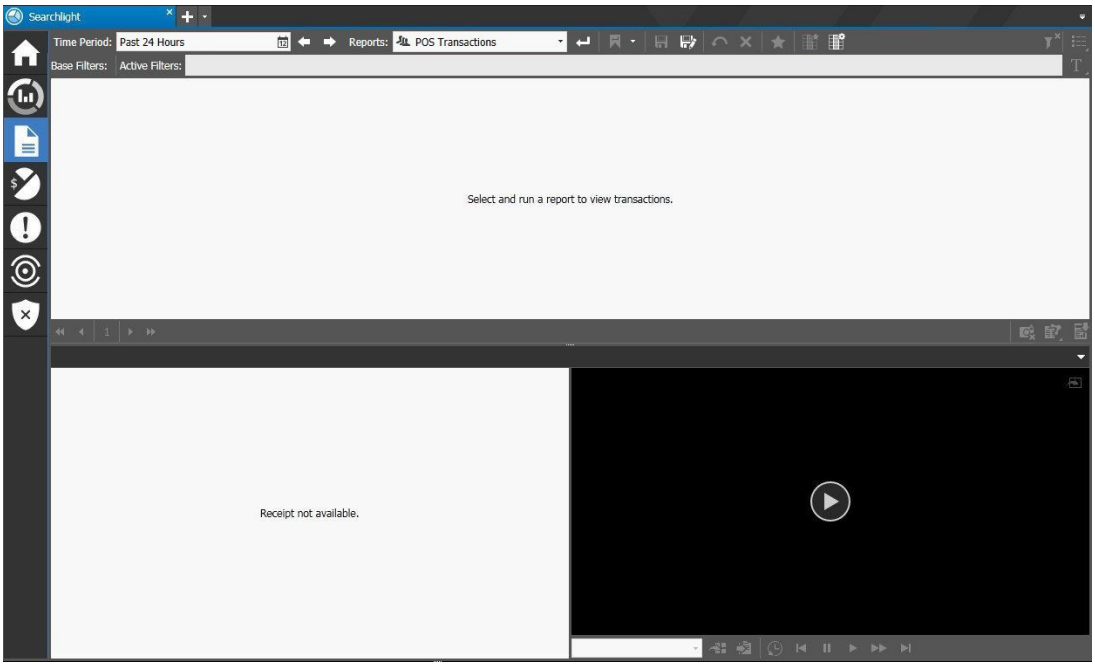
Accessing the Default Report

POS Transactions is the default report that includes all the data received by the sites and POS terminals added to Searchlight. It also includes every possible column regarding data that can be acquired from a central data server.

To access the default report

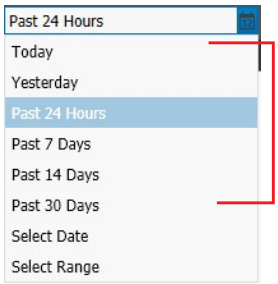
1 From the Searchlight home page, click the **Transaction Reports** tile.

The **Transaction Reports** page appears.



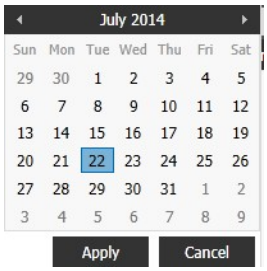
2 To specify the time frame of the data you want to view in the report, click the **Time Period** button on the **Reports** toolbar and do one of the following:

- Select a predefined time frame from the list (first six options).

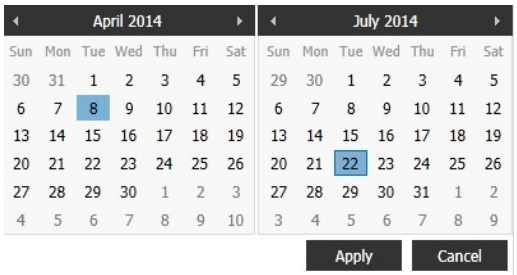


Predefined
Time Frames

- Click the **Select Date** option to select a specific day from the calendar field displayed. Click **Apply** to confirm the selection.



- Click the **Select Range** option to select a custom time frame from the calendar fields displayed. Click **Apply** to confirm the selection.

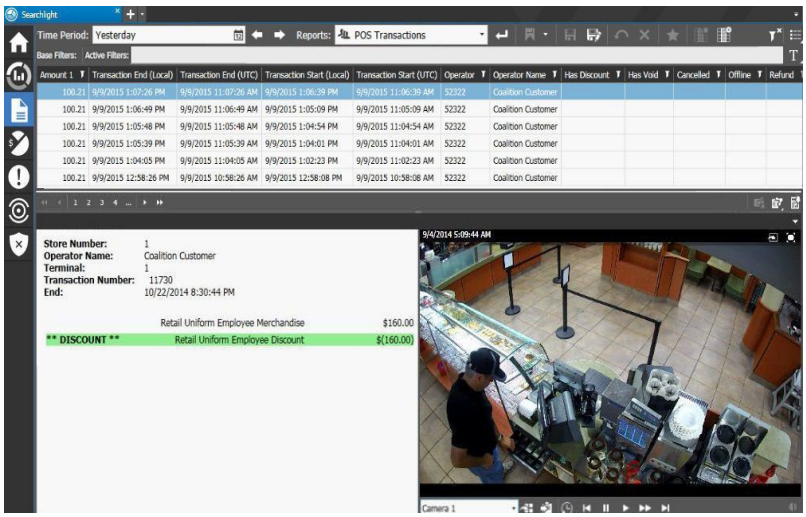


- Click the button to move the selection to the previous predefined or custom time frame.
- Click the button to move the selection to the next predefined or custom time frame.

3 Select **POS Transactions** from the **Reports** list.

4 Click the **Search** button.

The **POS Transactions** report appears on the page.



5 You can navigate within the report using the navigation toolbar.

Customizing a Report

The **POS Transactions** report includes all the data received by the sites and POS terminals added to Searchlight. It also includes every possible column regarding data that can be acquired from a data server. You can customize the **POS Transactions** report or a previously saved report by filtering the data and sorting the column lists with a different order. You can also rename column headers, move the column position, and show or hide column lists.

Note: To revert changes on a report, click the **Revert Changes** button on the toolbar.

To customize a report, you can perform any of the following operations:

- "Sorting and Filtering Columns" on page 68
- "Moving a Column List" on page 72
- "Hiding or Showing Column Lists" on page 72
- "Renaming Column Headers" on page 73
- "Saving a Report" on page 74

Sorting and Filtering Columns

You can sort and filter data in all column lists on a report.

Sorting in Columns

You can alphabetically or numerically sort a column list (depending on the content of the list).

To sort in a column

1 Click on a column header to show the **Sort** icon and automatically sort the elements in the column list in ascending alphabetical or numerical order.

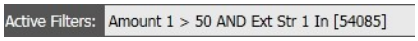
2 Click the **Sort** icon to automatically sort the elements in the column list in descending alphabetical or numerical order.

3 Click the **Sort** icon again to hide the icon and reset the column to the original unsorted status.

Filtering in Columns

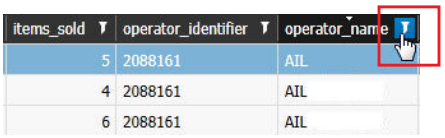
You can filter data in multiple column lists to show only specified list values.

Note: You can see the list of filters applied in the **Active Filter** field under the **Reports** toolbar.

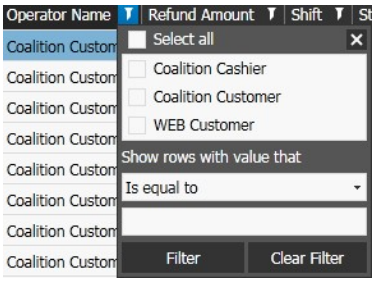


To filter in a column

1 Select a column header and click the **Filter** icon.



The **Filter** dialog box appears. The filtering options depend upon the content of the column, for example, some columns do not offer the check boxes.

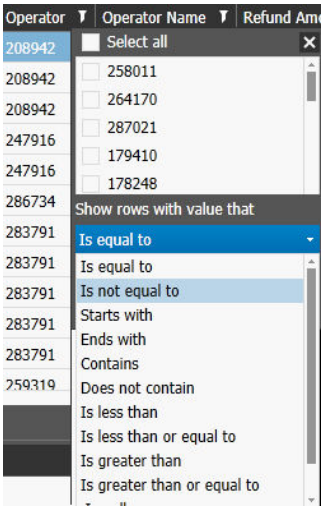


2 To filter using the check boxes (if available), select one or more check boxes or click **Select all** to select all column elements.

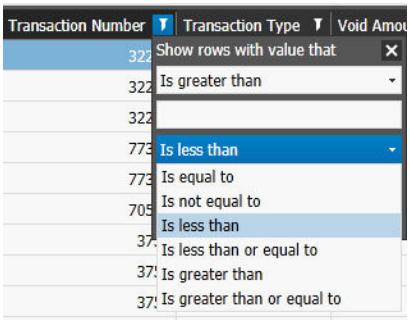
Note: If the number of different entries in a column is too large, the check boxes do not appear.

3 To configure a text filter, click the **Show rows with value that** drop-down list and select a filter expression.

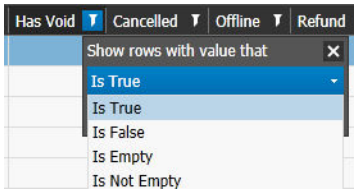
Note: The available options change according to the type of column.



Text Column



Number Column

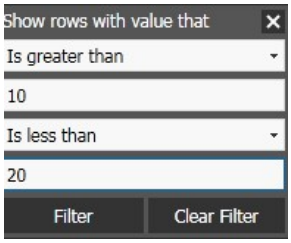


Boolean Column

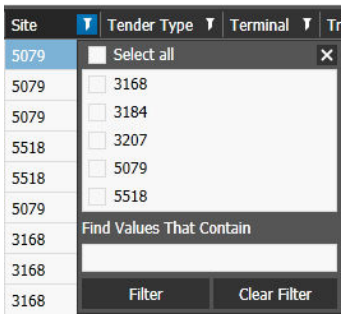
4 If applicable, enter a filter criteria in the text box.

Notes:

- For some columns with values you can also set two filters to specify a number between two set values (for example, you can filter the report to show only the transactions between $10 and $20).



- The **Site** and **Terminal** columns do not offer the drop-down list for the text filter and allows you to enter a value in the **Find Values That Contain** text box.



5 Click **Filter**.

The column list displays only those transaction details that match the specified filter criteria.

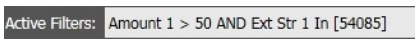
Notes:

- You can filter data in multiple column lists at the same time.
- The filters are applied also after changing the time frame for the report.
- To remove all existing filters from a selected list column, open the **Filter** dialog box and click **Clear Filter**.
- To remove all existing filters from the report, click the **Clear All Filters** button on the **Reports** toolbar.

Filtering by Text in Receipts

You can filter the transaction receipts to show only the specified text. This is useful to filter reports using information that are not added to the standard report columns.

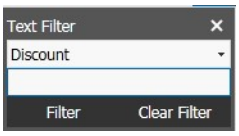
Note: You can see the list of filters applied in the **Active Filter** field under the **Reports** toolbar.



To filter by text in receipts

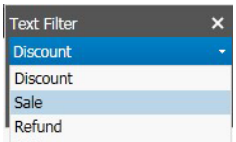
1 Under the **Reports** toolbar, click the **Search Text** button.

The **Text Filter** dialog box appears.



2 Click the **Filter** list and select a filter category.

You can select between **Discount**, **Sale**, and **Refund**.



3 Enter the filter criteria associated to the category in the text box.

4 Click **Filter**.

The reports displays only those transaction whose receipts match the specified filter criteria. The filter criteria is also highlighted in every receipt.

Notes:

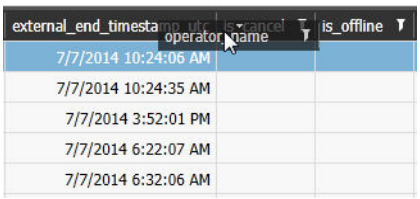
- The filter is applied also after changing the time frame for the report.
- To remove the text filter, open the **Text Filter** dialog box and click **Clear Filter**.
- To remove all existing filters from the report, click the **Clear All Filters** button on the **Reports** toolbar.

Moving a Column List

You can move any column list on a report.

To move a column list

- Drag the column header to a new position on the report before or after another header. The column list moves to the selected position.



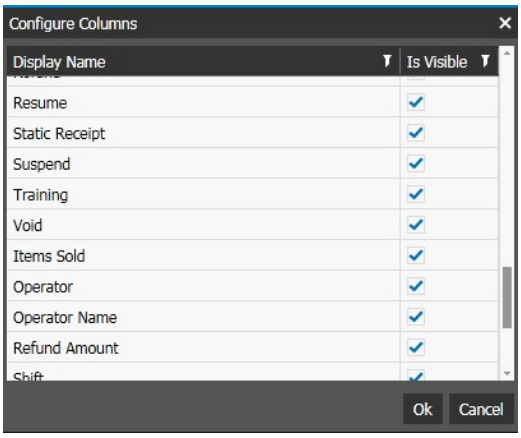
Hiding or Showing Column Lists

You can show or hide any column list in a report.

To hide or show a column list

1 Click the **Configure Columns** button on the **Reports** toolbar.

The **Configure Columns** dialog box appears.



2 Do one of the following:

- In the **Is Visible** column, clear the check box corresponding to the column list you want to hide.
- In the **Is Visible** column, select the check box corresponding to the column list you want to show.

3 Click **Ok** to apply the changes and close the dialog box.

Renaming Column Headers

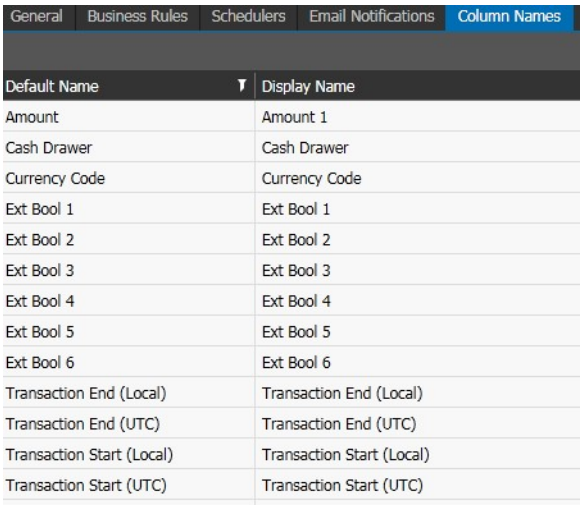
You can rename any column header with a descriptive name.

To rename column headers

1 Click the **Settings** button.

The **Searchlight Setting** tab opens.

2 Click the **Column Names** sub-tab.



General | Business Rules | Schedulers | Email Notifications | Column Names

Default Name	Display Name
Amount	Amount 1
Cash Drawer	Cash Drawer
Currency Code	Currency Code
Ext Bool 1	Ext Bool 1
Ext Bool 2	Ext Bool 2
Ext Bool 3	Ext Bool 3
Ext Bool 4	Ext Bool 4
Ext Bool 5	Ext Bool 5
Ext Bool 6	Ext Bool 6
Transaction End (Local)	Transaction End (Local)
Transaction End (UTC)	Transaction End (UTC)
Transaction Start (Local)	Transaction Start (Local)
Transaction Start (UTC)	Transaction Start (UTC)

3 Click the column header you want to rename in the **Display Name** column.

4 Type a new name and press **Enter**.

5 Click the **Save** button to save and apply the changes.

6 Close the **Searchlight Settings** tab.

Saving a Report

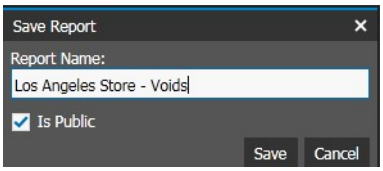
After you customize a report you can save it and add it to the reports list. You can also mark a report as a favorite to automatically display it on the **Transactions Summary** page and to move it to the top of the **Reports** list.

Note: When a report is saved, it is not automatically visible to other users connected to Searchlight. The report is added to the list only after the users log out and then log on again to Searchlight.

To save a report

1 Click the **Save As** button on the **Reports** toolbar.

The **Save Report** dialog box appears.



2 Enter a descriptive name for the custom report in the **Report Name** field.

Note: You cannot save a custom report using the name of the default report, *POS Transactions*.

3 Do one of the following:

- Select the **Is Public** check box to share the customized report with every **Searchlight** user with the **Reports - Edit** or **Reports - View** user rights. The user who created the report is the owner, only the report owner or the Superadmin user can modify or delete a public report.

  Note: If a public report was created with a previous Searchlight version, the report does not have an owner and can be modified or deleted by every user.

- Clear the **Is Public** check box to make the customized report visible to the current user only.

4 (Optional) After you save the custom report, you can mark it as a favorite. To mark a report as a favorite, click the **Set Report as Favorite** button on the **Reports** toolbar.

By marking the report as favorite, you move the report to the top of the **Reports** list and add it to the list of reports that are compared on the **Transaction Summary** page.

Managing Reports

After you customize and save a report, you can perform the following operations:

- "Setting the Default Query for the Transaction Reports Page" on page 75
- "Viewing the Video Associated to a Transaction" on page 75
- "Changing the View Mode" on page 77
- "Exporting Reports" on page 81
- "Viewing the Transactions Related to a Transaction" on page 79
- "Deleting Reports" on page 81

Setting the Default Query for the Transaction Reports Page

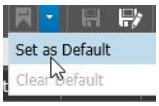
Searchlight allows you to save a default query for the **Transaction Reports** page: after clicking the tile, the default query is automatically performed.

Note: It is possible to save a different default query for each user.

To set the default query for the Transaction Reports page

1 In the **Transaction Reports** page, access a saved report and perform a query, as described in the previous sections.

2 Click the arrow near the **Search with default Parameters** button on the toolbar and select **Set as Default**.



The query is saved and performed each time you access the **Transaction Reports** page on a new session or each time you click the **Search with default Parameters** button.

Notes:

- When a default query is saved the **Search with default Parameters** button is highlighted.
- To remove the default query, click the arrow near the **Search with default Parameters** button on the toolbar and select **Clear Default**.

Viewing the Video Associated to a Transaction

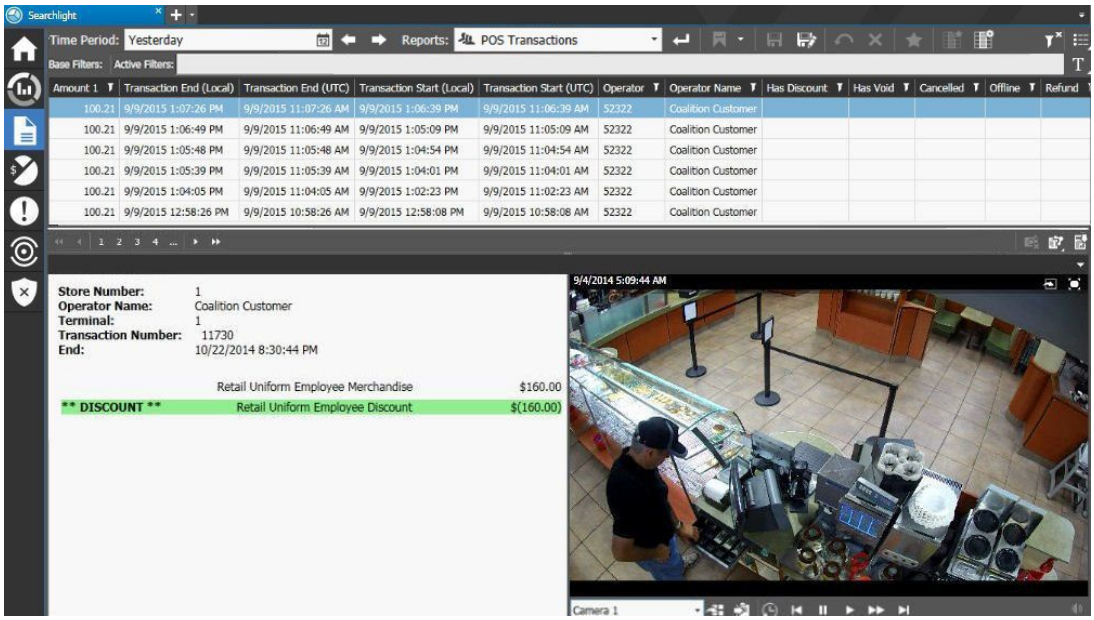
Every transaction in a report is associated to the relevant recorded video from the cameras added to the POS and to the relevant text from the POS terminal. For more information about adding cameras to a POS terminal, see "Associating Cameras and Alarms to POS Terminals" on page 62.

To view the video associated to a transaction

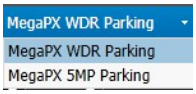
1 In the **Reports** page, access a saved report. For more information about accessing reports, see "Accessing the Default Report" on page 66.

2 Select a transaction row in the report.

The text transmitted by the POS terminal appears on the **Receipt Area**, while the video recorded by the first camera added to the POS terminal appears in the **Video Area**.



3 If two or more cameras are associated to the POS terminal, select the camera from the list on the **Playback** toolbar in the camera panel.



4 Click the **Play** button.

The video starts playing from the selected date and time.

5 (Optional) Click the **Open in View** button in the upper-right corner of the **Video Area** to open the video in a new tab.

6 Adjust the playback controls as required.

The following table describes the buttons in the **Playback** toolbar.

Toolbar Button	Tooltip	Description
	Open in a View	Opens a **View** tab that includes the cameras associated to the POS terminal.
	Export to Case	Opens a **Case Management** tab that allows you to export the transaction in a file that includes the receipt and the related videos and thumbnails. For more information, see “Managing Cases” on page 166.

Toolbar Button	Tooltip	Description
	Jump Back 10 Seconds	Activates instant replay. This button allows you to jump 10 seconds back in the video.
	Go To Start	Goes to the beginning of the recorded video.
	Pause	Pauses video playback.
	Play	Plays the video.
	Play Forward	When in archive mode, fast forwards the video. **Note:** Click multiple times to increase the speed. When the playback is paused, jumps to the following frame (frame-by-frame mode).
	Go To End	Goes to the end of the recorded video.

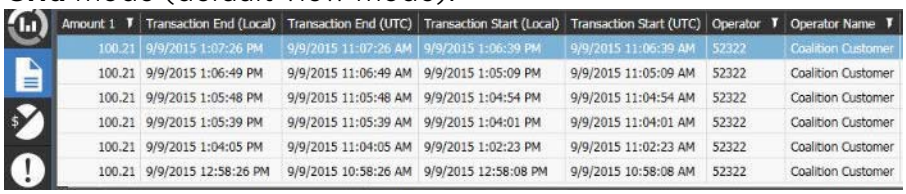
7 Alternatively, you can use the **Receipt Area** to jump back and forward in the recorded video: click a receipt line to automatically move the recorded video to the time that corresponds to the receipt line transmitted by the POS terminal.

Important: Some POS terminals do not add a time stamp to a receipt line. If timestamps are not available, Searchlight adds them to the text by simply dividing the total video running time by the number of receipt lines. For example, for a one minute video with four receipt lines, Searchlight automatically adds a time stamp every 15 seconds; by clicking on the third receipt line, the video automatically jumps to 0:45 time.

Changing the View Mode

The **Transaction Reports** page features three different view modes:

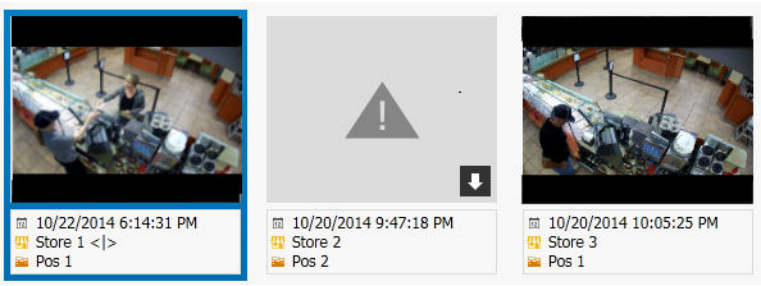
- **Grid** mode (default view mode).



Amount 1	Transaction End (Local)	Transaction End (UTC)	Transaction Start (Local)	Transaction Start (UTC)	Operator	Operator Name
100.21	9/9/2015 1:07:26 PM	9/9/2015 11:07:26 AM	9/9/2015 1:06:39 PM	9/9/2015 11:06:39 AM	52322	Coalition Customer
100.21	9/9/2015 1:06:49 PM	9/9/2015 11:06:49 AM	9/9/2015 1:05:09 PM	9/9/2015 11:05:09 AM	52322	Coalition Customer
100.21	9/9/2015 1:05:48 PM	9/9/2015 11:05:48 AM	9/9/2015 1:04:54 PM	9/9/2015 11:04:54 AM	52322	Coalition Customer
100.21	9/9/2015 1:05:39 PM	9/9/2015 11:05:39 AM	9/9/2015 1:04:01 PM	9/9/2015 11:04:01 AM	52322	Coalition Customer
100.21	9/9/2015 1:04:05 PM	9/9/2015 11:04:05 AM	9/9/2015 1:02:23 PM	9/9/2015 11:02:23 AM	52322	Coalition Customer
100.21	9/9/2015 12:58:26 PM	9/9/2015 10:58:26 AM	9/9/2015 12:58:08 PM	9/9/2015 10:58:08 AM	52322	Coalition Customer

The data is collected in a customizable table.

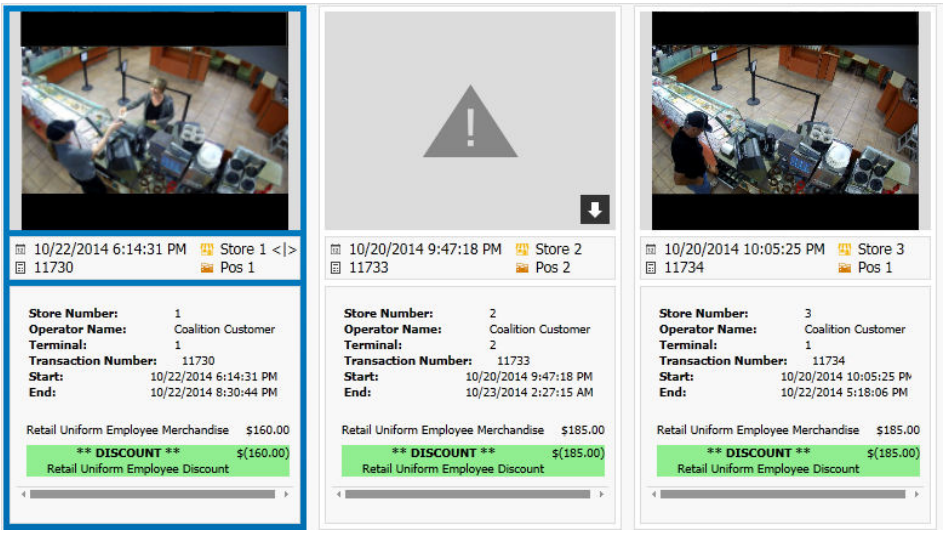
- **Thumbnail** mode.



The data is collected in a grid of thumbnails. Every thumbnail represents a transaction and displays a snapshot taken at the transaction time, basic information about the transaction date and time, the site name, and the POS terminal ID. The thumbnail view mode also allows you to delete one or more snapshots from the Archiver.

Note: The snapshot is automatically displayed only if the check box for a camera associated to the POS is selected in the **Associated Camera** section on the **POS** section. However, you can manually download the snapshot by clicking the **Download** button on a snapshot. For more information about editing POS terminals, see "Associating Cameras and Alarms to POS Terminals" on page 62.

- **Receipt** mode.



The data is collected in a grid of large receipts. Every receipt represents a transaction and is divided into three sections:

- The upper section displays a snapshot taken at the transaction time. It is also possible to delete one or more snapshots from the Archiver.

  Note: The snapshot is automatically displayed only if the check box for a camera associated to the POS is selected in the **Associated Camera** section on the **POS** section. However, you can manually download the first available snapshot by clicking the **Download** button on a snapshot. For more information about editing POS terminals, see "Associating Cameras and Alarms to POS Terminals" on page 62.

- The middle section displays information about the transaction date and time, the site name, the receipt number, the POS terminal ID, and the operator ID.
- The lower section displays the receipt lines transmitted by the POS terminal.

To change the view mode

- Click the **Change View Mode** button on the **Reports** toolbar and select the preferred view mode.

  Note: The view mode is not saved. Every time a report is opened in a new Command Enterprise session, it reverts to **Grid** view mode.

To delete snapshots from the Archiver

1. Change the view mode to **Thumbnail** or **Receipt**.
2. Select one or more transactions in the list.
3. Click the **Delete Snapshot** button on the report navigation toolbar to delete the snapshots from the Archiver.

   A warning dialog box appears.
4. Click **Yes** to confirm the image deletion.

Viewing the Transactions Related to a Transaction

Searchlight allows you to view the transactions related to the selected transaction. After selecting the transaction and filter, Searchlight opens the **Related by...** tab, containing the transactions processed in the four days before and the four days after the selected transaction, if available. The **Related by...** tab allows you to perform the same operations as a regular report: view the video associated to a transaction, change the view mode, and export the transactions in a Comma Separated Value (.csv) file.

Notes:

- It is not possible to sort or filter the transactions in a **Related by...** tab.
- The **Related by...** tab is independent from the original report and any operation performed on the tab does not affect the original report.

You can open the following tabs:

- **Related by Operator:** This tab contains the transactions processed by the same operator workstation in the four days before and the four days after the selected transaction.
- **Related by Site:** This tab contains the transactions processed in the same site in the four days before and the four days after the selected transaction.
- **Related by Terminal:** This tab contains the transactions processed by the same POS terminal in the four days before and the four days after the selected transaction.

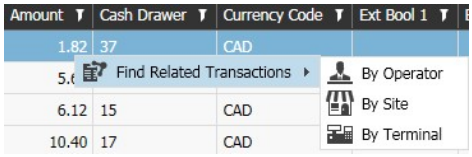
To view the transactions related to the selected transaction

1. Select a transaction in a report.

2 Do any of the following:

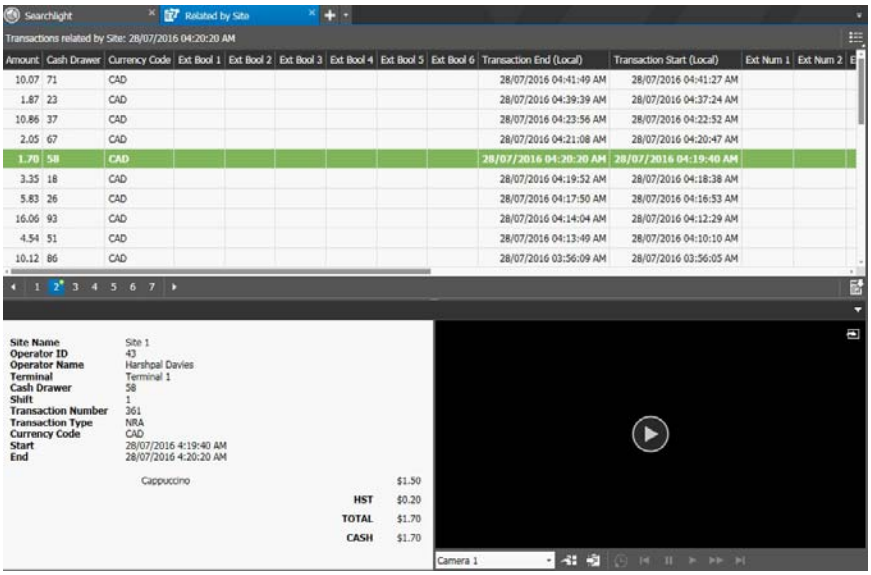
- Click the **Find Related Transactions** button on the report navigation toolbar and select one of the available options.

- Right-click the transaction and select one of the available options.



3 The **Related by...** tab opens in the workspace. The tab includes the transaction processed in the same site, or by the same operator or POS Terminal in the four days before and the four days after the selected transaction.

Note: The selected transaction is highlighted in green and the page containing the selected transaction has an asterisk on the report navigation toolbar.



4 On the **Related by...** tab you can select any transactions and perform any of the following operations:

- View the video associated to a transaction. For more information, see “Viewing the Video Associated to a Transaction” on page 75.
- Change the view mode. For more information, see “Changing the View Mode” on page 77.
- Export the transactions in a Comma Separated Value (.csv) file. For more information, see “Exporting Reports” on page 81.

Note: The **Related by...** tab is independent from the original report and any operation performed on the tab does not affect the original report.

Exporting Reports

Searchlight allows you to export the report results in a Comma Separated Values file (.csv) file. This file format is fully compatible with Microsoft Excel and similar products.

Note: Searchlight exports data using **Unicode (UTF-8)** encoding and using semicolons to separate the values.

To export a report

1 With the report open, click the **Export** button on the report navigation toolbar.

2 Click **Yes**.

The **Save As** window appears.

3 In the **Save As** dialog box, type a file name and location for the file.

Searchlight exports the report file in a *CSV* file.

Deleting Reports

You can delete a custom report, removing it from the **Reports** list.

Note: If the report has been marked as favorite or added to a business rule, deleting it affects the **Transactions Summary** and **Business Rules** pages.

To delete a report

1 Access the report you want to delete.

2 Click the **Remove Reports** button.

A warning dialog box appears.

3 Click **Ok**.

The report is deleted and is removed from the **Reports** list.

Setting the KPI Badge on the Home Page

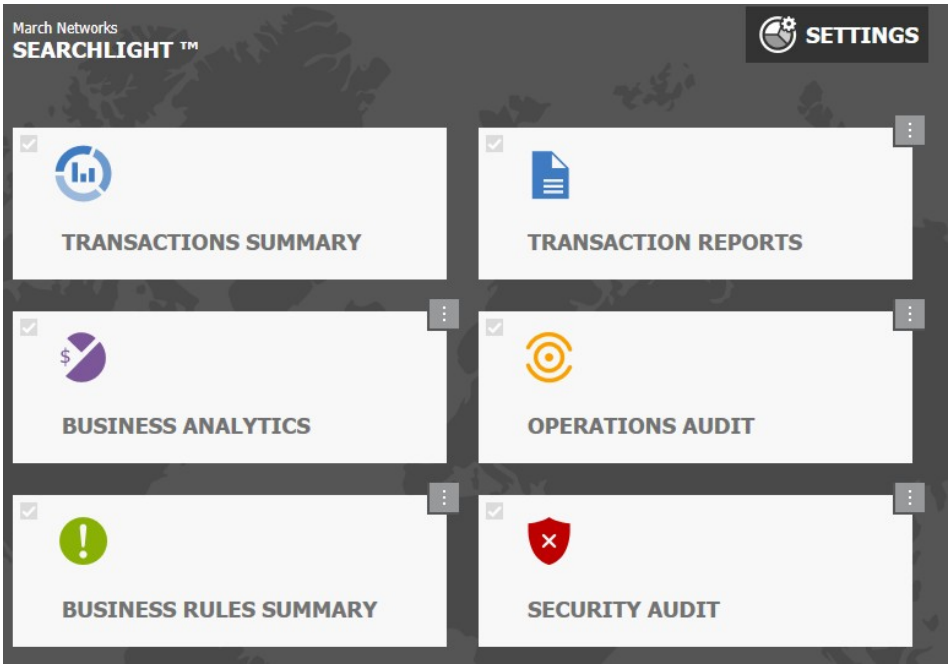
Searchlight allows you to set a KPI Badge on the home page for the **Transaction Reports** page. A KPI Badge is associated to a saved report and automatically displays the number of transactions that have been added to the report in the last 24 hours. You can also set thresholds to change the badge's color according to the number of transactions (green=good; yellow=warning; red=critical).

Note: The KPI Badge is automatically refreshed every 5 minutes or each time the user logs on to the CES and access the Searchlight application.

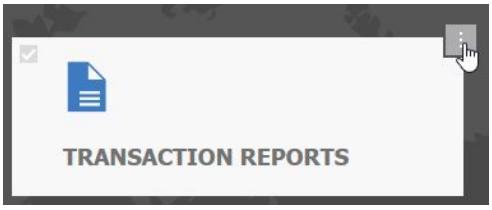
To set the KPI Badge on the home page

1 Click the **Home** button on the side toolbar to return to the Searchlight home page.

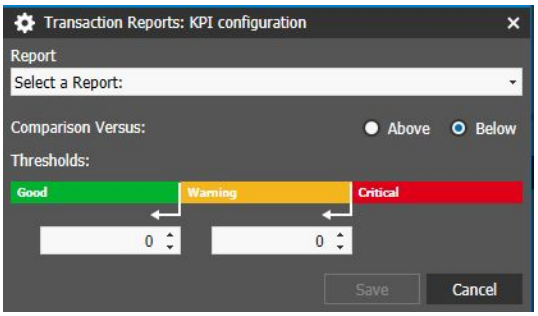
The Searchlight home page appears.



2 Right-click the KPI Badge on the upper-right corner of the tile.



The **Transaction Reports: KPI Configuration** dialog box appears.



3 Select a default report or a saved report from the **Report** list.

4 In the **Comparison Versus** section, select the badge behavior.

Options include **Above** (the badge is green if the number of transactions in the report is higher than the threshold for the good status) and **Below** (the badge is green if the number of transactions in the report is lower than the threshold for the good status).

5 Set the threshold values for the green (**Good**) and yellow (**Warning**) statuses.

Note: If you selected **Above**, the value for the green status must be higher that the yellow value. If you selected **Below**, the value for the green status must be lower that the yellow value.

6 Click **Save** to save and apply the changes.

The dialog box is closed and the KPI Badge automatically updated.

7 Click the KPI Badge to perform the query for the **Past 24 Hours** timeframe on the report associated to the badge.

Chapter 7

Customizing Transaction Summaries

The **Transactions Summary** page hosts the reports dashboards, which allow you to compare the reports marked as favorite. The page allows you to compare different reports, generate charts, and export the results as a Comma Separated Values file (.csv) file compatible with Microsoft Excel.

Important Notes:

- Before using the **Transactions Summary** feature, you must mark one custom report as favorite and optionally configure up to three aggregate columns on it.
- You can mark up to ten custom reports as favorite.
- The examples in this section include a single preferred report. However, you can add up to ten reports marked as a favorite to the dashboard to compare the results and charts. Every report marked as a favorite has its own **Transaction Breakdown** and **Aggregate** columns on the **Store** and **Operator** dashboards.

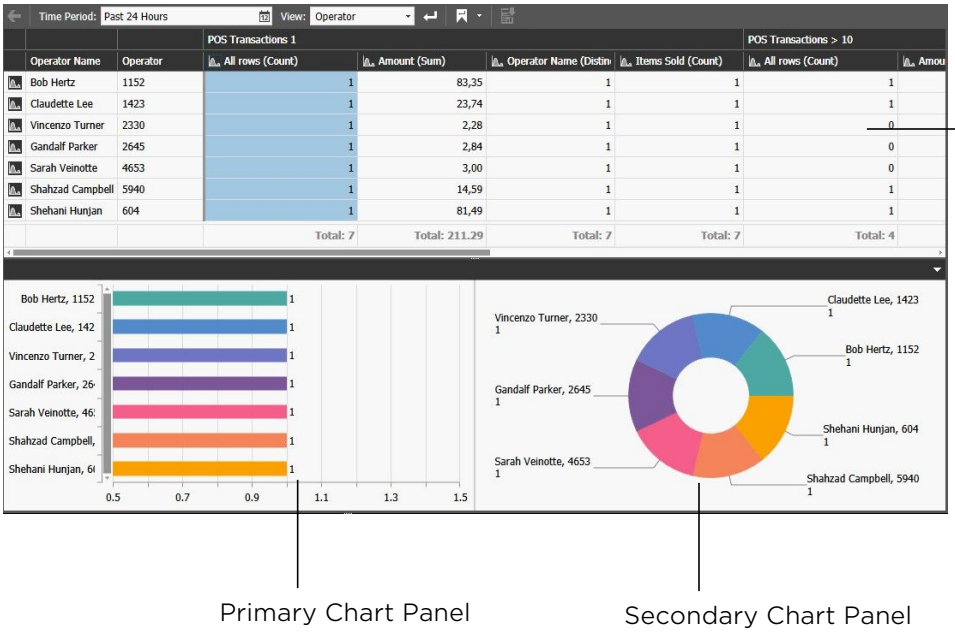
This chapter contains the following sections:

- “Transactions Summary Overview” on page 85
- “Adding a Report to the Transactions Summary Page” on page 88
- “Configuring Aggregate Columns” on page 88
- “Accessing Site and Operator Dashboards” on page 89
- “Managing Site Dashboards” on page 92
- “Managing Operator Dashboards” on page 95

Transactions Summary Overview

The **Transactions Summary** page allows you to compare the total number of transactions in the specified time frame with customized reports (filtered number of transactions in the specified time frame). The page allows you to compare different reports, generate charts, and export the results as a Comma Separated Values file (.csv) file compatible with Microsoft Excel.

The **Transactions Summary** page is divided into three main graphical areas.



Store/Operator Dashboard

Primary Chart Panel

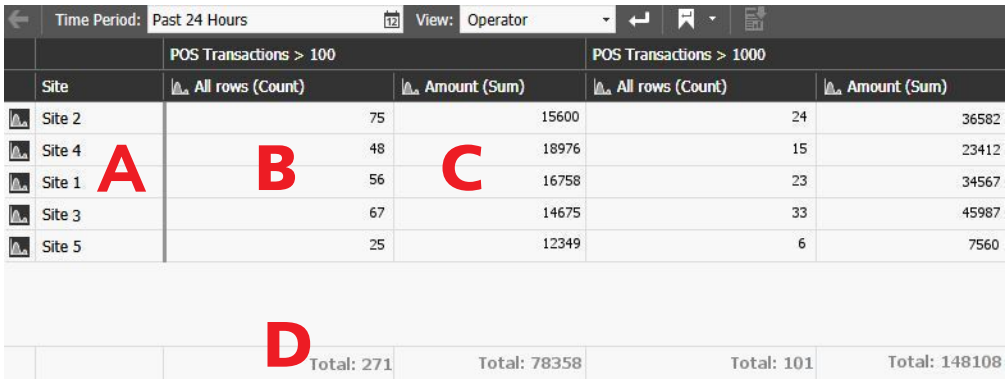
Secondary Chart Panel

You can display two different type of dashboards:

- The **Store** dashboard compares the number of total transactions in the report to the number of transactions executed in the single sites in the selected time frame. For more information, see “Site Dashboard” on page 86.
- The **Operator** dashboard compares the number of transactions executed in a site to the number of transactions executed by the operators in the selected time frame. For more information, see “Operator Dashboard” on page 87.

Site Dashboard

The following image and table describe the available columns for a **Site** dashboard.

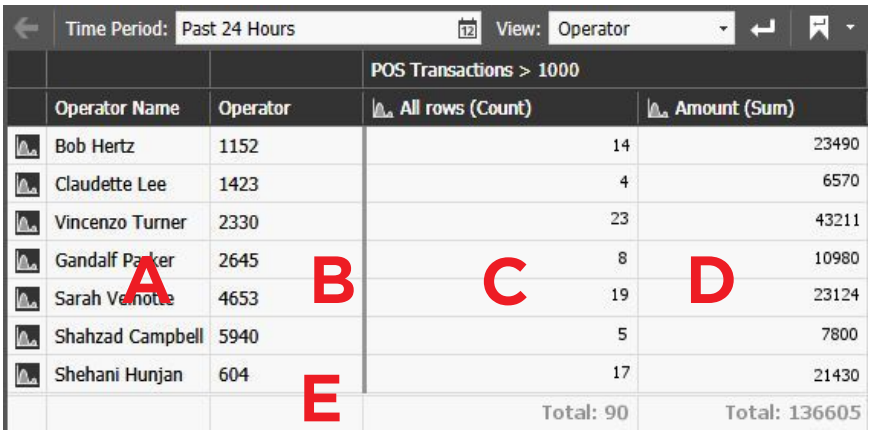


Store

Column	Column Title	Content
A	**Site**	This column lists the sites that are present in the favorite report.
B	**Transactions Breakdown**	This column displays the total number of transactions executed in a site. In this example, referring to the first row (**Site 2**), 75 is the number of every transaction processed in this site with amounts higher than $100.
C	**Aggregate Columns**	These custom columns display data from the favorite report, aggregated following the user-defined rules. In this example, referring to the first row (**Site 2**), 15670 is the sum of every transaction processed in this site with amounts higher than $100.
D	**Total**	This row reports the sum of the values in each column.

Operator Dashboard

The following image and table describe the available columns for a **Operator** dashboard.



Operator

Column	Column Title	Content
A	**Operator Name**	This column lists the operators that have processed transactions in the favorite report.
B	**Operator**	This column lists the identification number of the operators that have processed transactions in the favorite report.
C	**Transactions Breakdown**	This column displays the total number of transactions executed by an operator. In this example, referring to the first row (**Bob Hertz**), 14 is the number of transactions processed by this operator with amounts higher than $1000.
D	**Aggregate Columns**	These custom columns display data from the preferred report, aggregated following the user-defined rules. In this example, referring to the first row (**Bob Hertz**), $23490 is the sum of every transaction processed by this operator with amounts higher than $1000.
E	**Total**	This row reports the sum of the values in each column.

Adding a Report to the Transactions Summary Page

After you save a custom report, you can mark it as a favorite. By marking the report as favorite, you add it to the list of reports that are compared on the **Transactions Summary** page. You can mark up to ten different reports as a favorite.

Note: Reports marked as a favorite are listed in bold in the **Reports** list.

To mark a report as a favorite

1 In the **Transactions Reports** page, access a saved report.

2 Click the **Set Report as Favorite** button on the **Reports** toolbar to mark a report as a favorite.

The report is now listed in bold in the **Reports** list and the button is highlighted in blue.

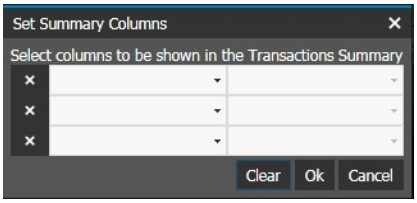
Configuring Aggregate Columns

After you mark a report as a favorite, you can also aggregate the data in a column to automatically perform simple operations like sum, difference, and average values. You can configure up to three different aggregate columns; the aggregate columns are displayed on the **Transactions Summary** page only.

To configure an aggregate column

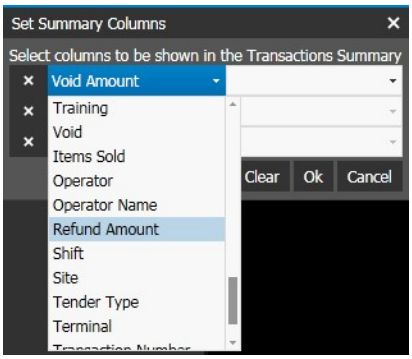
1 Click the **Summary Columns** button on the **Reports** toolbar.

The **Set Summary Columns** dialog box appears.

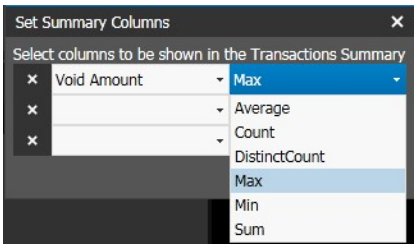


2 Select a column from the report from the list on the left side.

Note: The list is populated also by columns hidden in the report.



3 Select the operation to be performed on the data in the column from the list on the right side.



4 Repeat steps 2-3 to configure additional aggregate columns.

5 Click **Ok** to close the dialog box.

6 Click the **Save** button to save and apply the changes.

Notes:

- You can perform different operations on the same column.
- To count the number of *True* or *False* occurrences in columns with Boolean values (for example the *Is Void* or *Is Offline* columns), you must first filter the report by the desired value and then configure the aggregate column.
- To remove an aggregate column from the **Transactions Summary** page, click the **Remove Column** button on the left of the two drop down lists.
- To remove every aggregate column from the **Transactions Summary** page, click the **Clear** button.

Accessing Site and Operator Dashboards

You can access the **Site** and **Operator** dashboards by selecting a time frame and the type of data you want to compare.

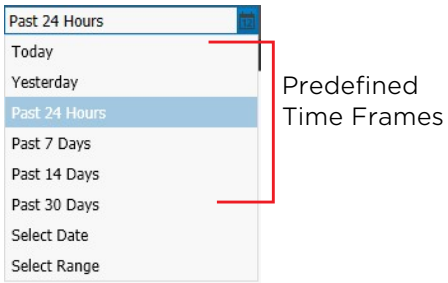
To access the dashboards

1 From the Searchlight home page, click the **Transactions Summary** tile.

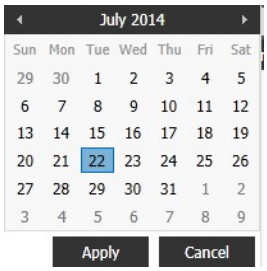
The **Transactions Summary** page opens.

2 To specify the time frame for the dashboard, click the **Time Period** button on the toolbar and do one of the following:

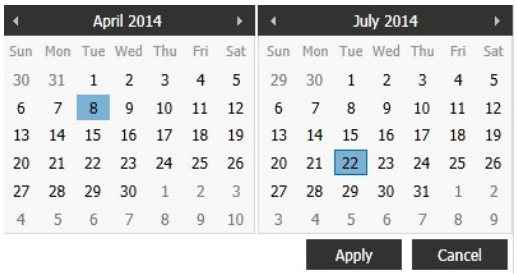
- Select a predefined time frame from the list (first six options).



- Click the **Select Date** option to select a specific day from the calendar field displayed. Click **Apply** to confirm the selection.



- Click the **Select Range** option to select a custom time frame from the calendar fields displayed. Click **Apply** to confirm the selection.



3 Select the type of data you want to compare from the **View** list:

- Select **Site** to compare the number of total transactions in the report to the number of transactions executed in the single sites in the selected time frame.
- Select **Operator** to compare the number of transactions executed in a site to the number of transactions executed by the operators in the selected time frame.

4 Click the **Search** button.

The data appears on the page.

Time Period: Past 24 Hours View: Operator

	POS Transactions > 100		POS Transactions > 1000	
Site	All rows (Count)	Amount (Sum)	All rows (Count)	Amount (Sum)
Site 2	75	15600	24	36582
Site 4	48	18976	15	23412
Site 1	56	16758	23	34567
Site 3	67	14675	33	45987
Site 5	25	12349	6	7560

Store

Time Period: Past 24 Hours View: Operator

		POS Transactions > 1000	
Operator Name	Operator	All rows (Count)	Amount (Sum)
Bob Hertz	1152	14	23490
Claudette Lee	1423	4	6570
Vincenzo Turner	2330	23	43211
Gandalf Parker	2645	8	10980
Sarah Veinotte	4653	19	23124

Operator

Setting the Default Query for the Transaction Summary Page

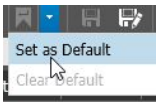
Searchlight allows you to save a default query for the **Transaction Summary** page: after clicking the tile, the default query is automatically performed.

Note: It is possible to save a different default query for each user.

To set the default query for the Transaction Summary page

1 In the **Transaction Summary** page, perform a query on a dashboard, as described in the previous sections.

2 Click the arrow near the **Search with Default Parameters** button on the toolbar and select **Set as Default**.



The query is saved and performed each time you access the **Transaction Summary** page on a new session or each time you click the **Search with Default Parameters** button.

Notes:

- When a default query is saved the **Search with Default Parameters** button is highlighted.

3 To remove the default query, click the arrow near the **Search with Default Parameters** button on the toolbar and select **Clear Default**.

Managing Site Dashboards

Site dashboards allow you to perform a number of operations to further refine data, export the dashboard in a Comma Separated Values file (.csv) file, and generate charts.

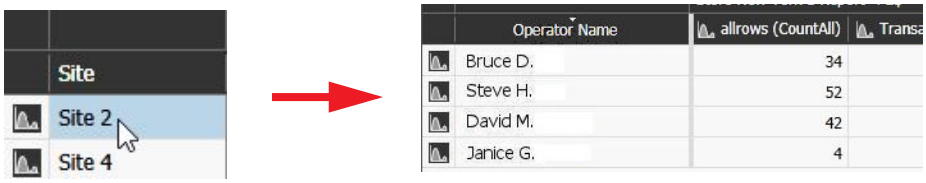
To manage a Store dashboard

1 Access a **Site** dashboard, as described in “Accessing Site and Operator Dashboards” on page 89.

2 Click on a column header to show the **Sort** icon and automatically sort the elements in the column list in ascending alphabetical or numerical order. Click the **Sort** icon again to and automatically sort the elements in the column list in descending alphabetical or numerical order. Click the **Sort** icon a third time to hide the icon and reset the column to the original unsorted status.

3 Double-click a cell in the **Site** column to automatically switch to a **Operator** dashboard, that includes the POS operators that work in the selected site.

Tip: Click the **Go to Previous** button on the **Transaction Summary** toolbar to return to the **Site** dashboard.

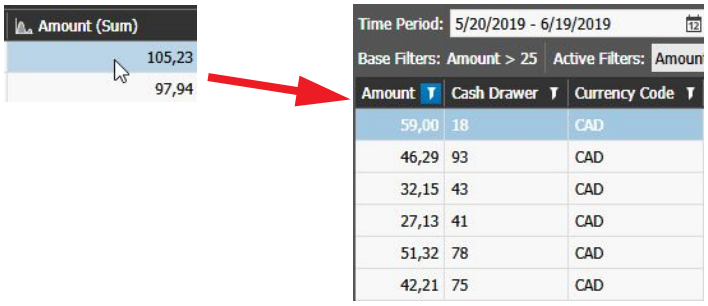


4 Double-click a cell in the **Transactions Breakdown** (see “Site Dashboard” on page 86) or in an aggregate column to automatically filter the original preferred report by the transactions executed in the selected site.

The **Reports** page appears.

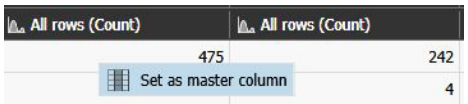
Notes:

- To save the new report, click the **Save** or **Save As** button.
- To return to the **Site** dashboard, click the **Transactions Summary** button in the navigation bar.



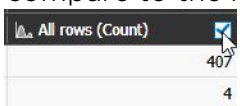
5 You can compare two or more columns in the same dashboard:

a Right-click the column you want to select as the master column and click **Select as master column**.



The **Aggregates Sum** column appears on the right.

b Select the check boxes corresponding to the reference columns you want to compare to the master column.



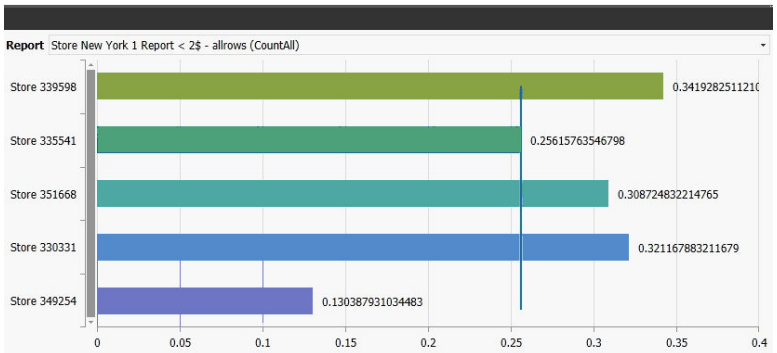
The comparison column appears on the right of the reference columns. The percentage is given by comparing the value in the master column and the reference column, while the percentage in the **Aggregated Sum** column is the sum of each percentage included in the comparison columns.

Notes:

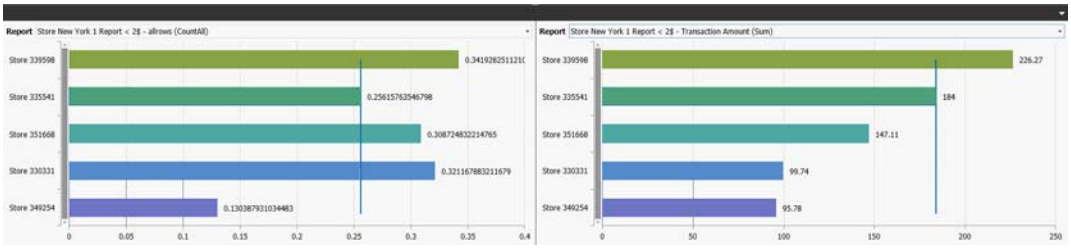
- To select a different master column, right-click it and then click **Select as master column**.
- To leave the comparison mode, right-click the master column and then click **Clear master column**.

6 Click the **Chart** icon on a cell in the **Site** column to automatically generate a bar chart based on the **Transactions Breakdown** percentages.

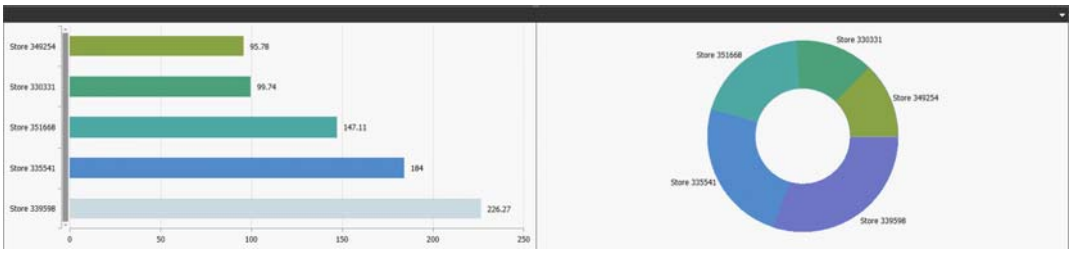
The chart appears in the **Primary Chart** panel.



Tip: To compare the bar chart to a chart generated by data in different columns (for example the **Transactions Breakdown** column of a different preferred report, or an aggregate column), select the desired column from the **Report** list in the **Secondary Chart** panel.



7 Click the **Chart** icon on a column header to automatically generate a bar chart (**Primary Chart** panel) and a donut chart (**Secondary Chart** panel) based on the data included in the column list.



8 Click the **Export** button on the **Transaction Summary** toolbar to export the **Site** dashboard as a Comma Separated Values file (.csv) file.

Note: Searchlight exports data using **Unicode (UTF-8)** encoding and using semicolons to separate the values.

Managing Operator Dashboards

Operator dashboards allow you to perform a number of operations to further refine data, export the dashboard in a Comma Separated Values file (.csv) file, and generate charts.

To manage a Operator dashboard

1 Access a **Operator** dashboard, as described in “Accessing Site and Operator Dashboards” on page 89.

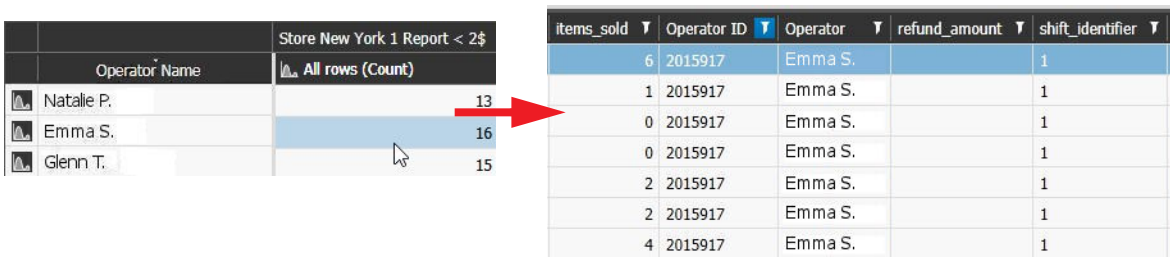
2 Click on a column header to show the **Sort** icon and automatically sort the elements in the column list in ascending alphabetical or numerical order. Click the **Sort** icon again to and automatically sort the elements in the column list in descending alphabetical or numerical order. Click the **Sort** icon a third time to hide the icon and reset the column to the original unsorted status.

3 Double-click a cell in the **Transactions Breakdown** (see “Operator Dashboard” on page 87) or in an aggregate column to automatically filter the original preferred report by the transactions executed in the site by the selected POS operator.

The **Reports** page appears.

Notes:

- To save the new report, click the **Save** or **Save As** button.
- To return to the **Operator** dashboard, click the **Transactions Summary** button in the navigation bar.

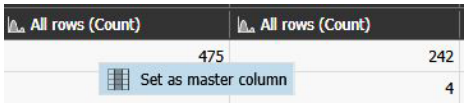


	Store New York 1 Report < 2$
Operator Name	All rows (Count)
Natalie P.	13
Emma S.	16
Glenn T.	15

items_sold	Operator ID	Operator	refund_amount	shift_identifier
6	2015917	Emma S.		1
1	2015917	Emma S.		1
0	2015917	Emma S.		1
0	2015917	Emma S.		1
2	2015917	Emma S.		1
2	2015917	Emma S.		1
4	2015917	Emma S.		1

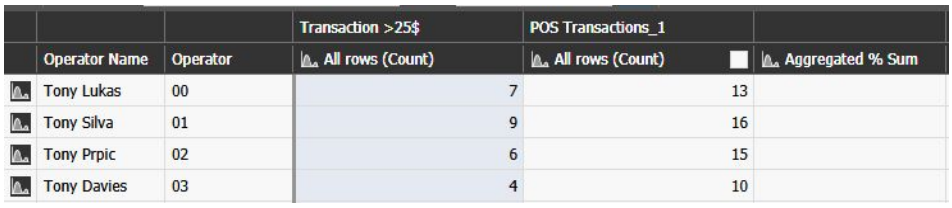
4 You can compare two or more columns in the same dashboard:

a Right-click the column you want to select as the master column and click **Select as master column**.



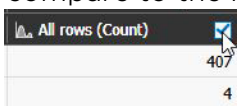
All rows (Count)	All rows (Count)
475	242
Set as master column	4

The **Aggregates Sum** column appears on the right.



		Transaction >25$	POS Transactions_1	
Operator Name	Operator	All rows (Count)	All rows (Count)	Aggregated % Sum
Tony Lukas	00	7	13	
Tony Silva	01	9	16	
Tony Prpic	02	6	15	
Tony Davies	03	4	10	

b Select the check boxes corresponding to the reference columns you want to compare to the master column.



The comparison column appears on the right of the reference columns. The percentage is given by comparing the value in the master column and the reference column, while the percentage in the **Aggregated Sum** column is the sum of each percentage included in the comparison columns.

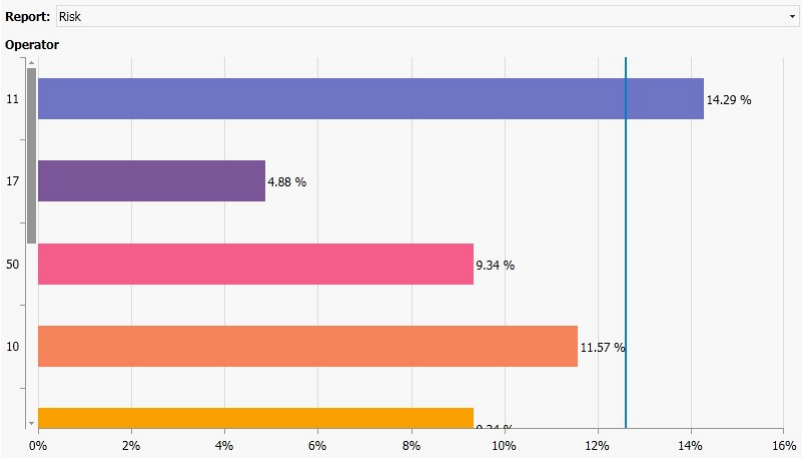
		Transaction >25$	POS Transactions_1		
Operator Name	Operator	All rows (Count)	All rows (Count)	% (All rows (Count))	Aggregated % Sum
Tony Lukas	00	7	13	185,71%	185,71%
Tony Silva	01	9	16	177,78%	177,78%
Tony Prpic	02	6	15	250,00%	250,00%
Tony Davies	03	4	10	250,00%	250,00%

Notes:

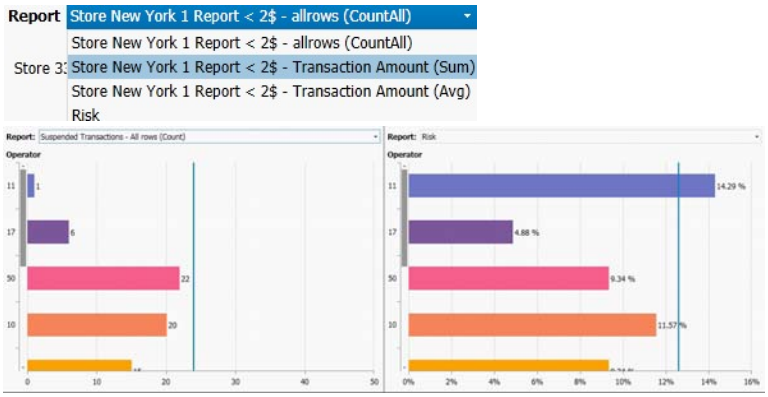
- To select a different master column, right-click it and then click **Select as master column**.
- To leave the comparison mode, right-click the master column and then click **Clear master column**.

5 Click the **Chart** icon on a cell in the **Operator** column to automatically generate a bar chart based on the **Transactions Breakdown** values.

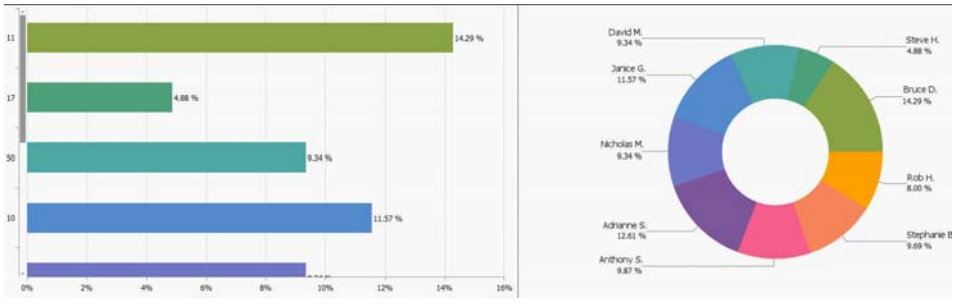
The chart appears in the **Primary Chart** panel.



Tip: To compare the bar chart to a chart generated by data in different columns (for example the **Transactions Breakdown** column of a different preferred report, or an aggregate column), select the desired column from the **Report** list in the **Secondary Chart** panel.



6 Click the **Chart** icon on a column header to automatically generate a bar chart (**Primary Chart** panel) and a donut chart (**Secondary Chart** panel) based on the data included in the column list.



7 Click the **Export** button on the **Transaction Summary** toolbar to export the **Operator** dashboard as a Comma Separated Values file (.csv) file.

Note: Searchlight exports data using **Unicode (UTF-8)** encoding and using semicolons to separate the values.

Chapter 8

Customizing Business Analytics Reports

The **Business Analytics** page hosts reports and charts based on the data collected by Brickstream 3D sensors added to the different sites.

Important Notes:

- Before using the Business Analytics feature, you must add Brickstream 3D sensors or MegaPX Analytic Dome cameras to a site and customize the analytics reports. For more information, see "Customizing Business Analytics Reports" on page 54.
- For more information about integrating Brickstream 3D sensors into the Searchlight solution, consult the *Integrate a Brickstream 3D Sensor in a Searchlight Environment*, available for download from the March Networks Partner Portal.
- The **Business Analytics** feature requires specific licenses. If the licenses are not added to Command Enterprise, the **Business Analytics** reports contain no data. Brickstream 3D sensors also require specific channel licenses, free of charge.
- Before adding a Brickstream 3D sensor or a MegaPX Analytics Dome camera to a site for the **Business Analytics** feature, ensure the analytic required for the report (**People Counting**, **Queue Length**, or **Dwell Time**) is properly configured on the device.

You can access three different reports:

- **People Counting Report:** A report that compares the number of people in a site to the number of transactions executed in the same time frame.
- **Queue Length Report:** A report that counts the average number of people in a queue and the average time passed by a person in the queue.
- **Dwell Time Report:** A report that counts the number of people stopping in the monitored zone and the average time a person stays in the monitored zone.

This chapter contains the following sections:

- "Adding Licenses for the Business Analytics Feature" on page 99
- "Configuring the Business Analytics Feature" on page 101
- "Overview" on page 109
- "Customizing Business Analytics Reports" on page 111
- "Setting the KPI Badge on the Home Page" on page 123

Adding Licenses for the Business Analytics Feature

Before accessing the **Business Analytics** page, you must add a **Searchlight Analytics** license for each site where the feature is active. Brickstream 3D sensors also require a specific, free of charge, license.

Note: Only user profiles with access to global rights and the **License Management** user right can access the **License Management** panel.

Select your configuration:

- "To add Searchlight Analytics licenses" on page 99
- "To add the Third-Party License Analytics Metadata Unlock License" on page 100

To add Searchlight Analytics licenses

1 Access the Command Enterprise Server using a user account based on the **Administrator** profile.

2 Click the button at the upper-left of Command to display the main menu.

3 From the main menu, select **License Management**.

The **Licensing** tab opens.

4 Click the **Additional Components** sub-tab.

The **Additional Components** sub-tab opens.

5 On the **Additional Components** toolbar, click the **Download Server ID** button.

You are prompted to save a text file (id.txt) to a local folder on your computer.

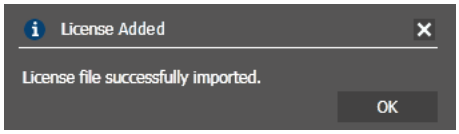
6 Contact March Networks Customer Operations to complete the transaction to purchase the required number of Searchlight licenses.

7 March Networks will send you an e-mail, with simple instructions that detail how to generate your license key file.

8 To import/enable the **Searchlight Analytics** licenses, click the **Add License** button.

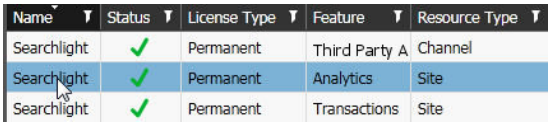
9 Locate and select the *app_licenses_analytics.xml* file and click **Open**.

The **License Added** dialog box appears, indicating the licenses are applied to Command. Click **OK**.



Note: If the license failed to import, an error message appears, indicating the reason for the failure.

10 In the **Licensing -> Additional Components** sub-tab, click the **Analytics** license in the list.

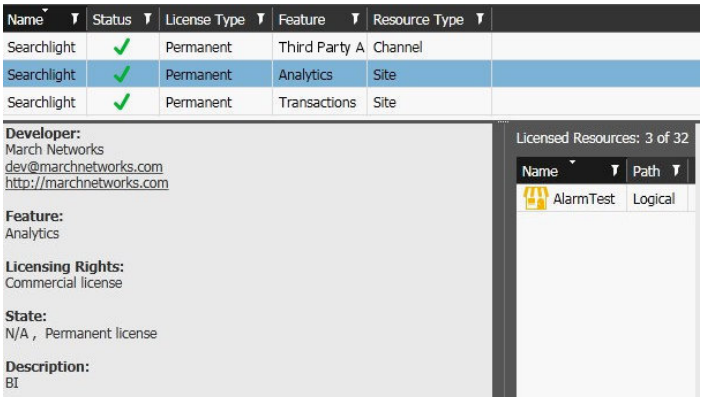


11 Drag the **Business Analytics** sites from the **Logical** tree to the **Licensed Resources** panel.

Tip: To remove a site license, select the site in the **Licensed Resources** panel and click the **Remove License** button.

12 Click the **Save** button to save and apply the changes.

The licensing status bar refreshes with the license details.



To add the Third-Party License Analytics Metadata Unlock License

1 Access the Command Enterprise Server using a user account based on the **Administrator** profile.

2 Click the button at the upper-left of Command to display the main menu.

3 From the main menu, select **License Management**.

The **Licensing** tab opens.

4 Click the **Additional Components** sub-tab.

The **Additional Components** sub-tab opens.

5 On the **Additional Components** toolbar, click the **Download Server ID** button.

You are prompted to save a text file (id.txt) to a local folder on your computer.

6 Contact March Networks Operations to complete the procedure to generate the third-party analytics license key file.

Note: March Networks will send you an e-mail, with simple instructions that detail how to generate your license key file.

7 To import/enable the license, click the **Add License** button.

8 Locate and select the license *xml* file and click **Open**.

The **License Added** dialog box appears, indicating the licenses are applied to Command. Click **OK**.

Note: If the license failed to import, an error message appears, indicating the reason for the failure.

9 On the **Additional Components** sub-tab, click the **Third Party Analytics** license.

Name	Status	License Type	Feature	Resource Type
Command	✓	Permanent	Third party analytics	Channel
Searchlight	✓	Permanent	Analytics	Site
Searchlight	✓	Permanent	Transactions	Site

10 Drag the Brickstream 3D sensors from the **System** tree to the **Licensed Resources** panel.

Note: To remove a license, select the camera in the **Licensed Resources** panel and click the **Remove License** button.

Licensed Resources: 2 of 128

Name	Path
Brickstream 1	System/TESTTALK
Brickstream 2	System/RDMPMAGNI2D

11 Click the **Save** button to save and apply the changes.

The licensing status bar refreshes with the license details. You can now add the Brickstream 3D sensor to the site where it is installed.

Configuring the Business Analytics Feature

The **Searchlight Settings** tab allows you to configure the timetable for **Business Analytics** line charts, the maximum number of items in bar charts, and manage labels to customize the **Business Analytics** reports. It also allows you to enable and create scheduled exports for **Business Analytics** data.

Select your configuration:

- "Configuring the General Settings" on page 102
- "Managing Report Labels" on page 104
- "Creating Scheduled Exports for Business Analytics Data" on page 107

Configuring the General Settings

The **Business Analytics** section on the **General** sub-tab allows you to configure the timetable for **Business Analytics** line charts, the maximum number of items in bar charts, and enable the **Analytics Data Export** feature.

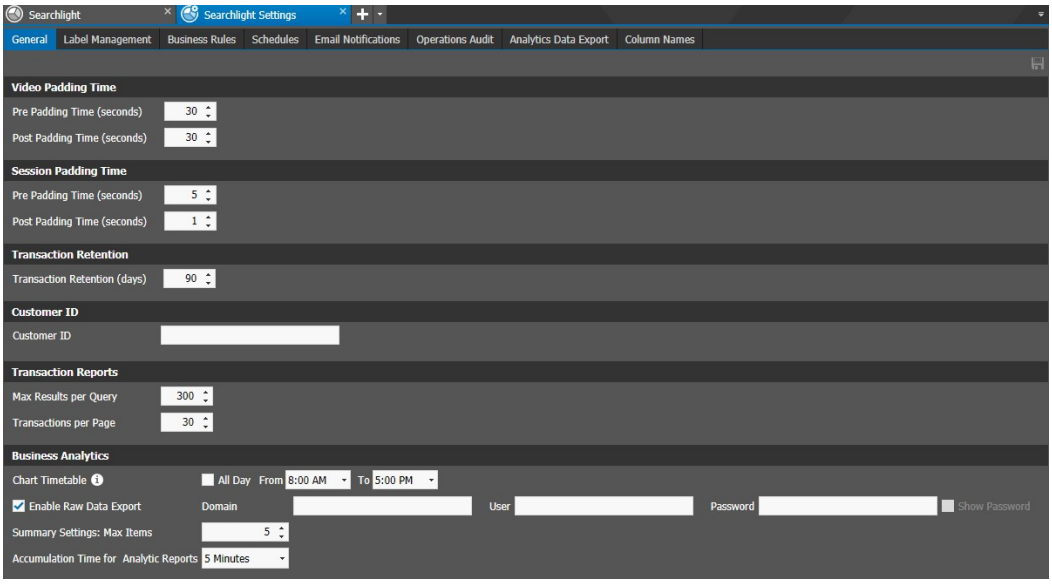
To configure the general settings

1 From the main menu, select **Searchlight**.

The Searchlight home page appears.

2 Click the **Settings** button.

The **Searchlight Setting** tab opens.



3 In the **Business Analytics** section, configure the bar **Chart Timetable** option, according to the site/stores timetable. Timetables affect the amount of data displayed in **Business Analytics** bar charts.

Notes:

- Aggregate data is processed only for this time interval.
- Closing hours are represented with a gray background on the charts.
- When the **Visitors on Site** KPI is displayed in the **Trend** view, the chart resets every day at the opening hour (**From** field). This is useful to have a chart that follows the timetable of the site.

To select a timetable, do one of the following:

- If the sites/stores are open 24 hours a day or if you do not want to set a timetable for all the sites, select the **All Day** check box.
- To set a timetable for all the sites added to Searchlight:

a Clear the **All Day** check box.

b Select the opening time, from the **From** list.

c Select the closing time, from the **To** list.

4 Select the **Enable Raw Data Export** check box to enable manual and scheduled exports for **Business Analytics** data.

5 Enter the **Domain** and credentials (**User** and **Password**) to access the shared folder where the scheduled exports will be saved. For more information, see "Creating Scheduled Exports for Business Analytics Data" on page 107.

6 Click the **Save** button to save and apply the changes.

After a few seconds, the **Analytics Data Export** sub-tab is added to the **Searchlight Settings** tab and the **Export Raw Data** button is added to the **View By** panel on the **Business Analytics** page.

7 Select a data granularity option from the **Accumulation Time for Analytic Reports**.

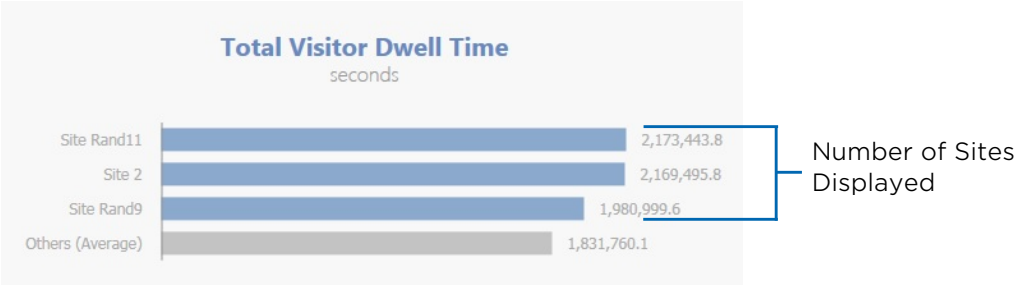
This option affects how Searchlight stores analytic data in the database and how analytic data are displayed on the charts.

Note: If you choose to aggregate more frequently than the default of 60 minutes, you must be aware that when data is aggregated it is saved in the Searchlight database, so the more frequent the aggregation, the more quickly the volume of data stored in the database increases. For example, if you set the aggregation to every 5 minutes, the system will save data to the database 12 times per hour, whereas with the default setting of 60 minutes, the system only saves data to the database once per hour.

8 In the **Summary Settings: Max Items** field, enter or select how many sites are displayed in the line charts (**Aggregate** view).

Note: The option is applicable only if the **Summary** check box is selected on an **Aggregate** view.

This option is useful to limit the number of sites displayed in a bar chart while on a **Aggregate** view. All the sites not displayed on the bar chart are automatically aggregated in the **Others** section.



9 Click the **Save** button to save and apply the changes.

Managing Report Labels

The **Analytic Report Labels** section on the **Label Management** sub-tab allows you create and customize report labels with the Key Performance Indicators (KPIs) you want to display for each analytic on the **Business Analytics** page.

Notes:

- Five labels are already added to the list: **Entrance** (People Counting - all 6 KPIs), **Main Area** (People Counting - People In and People Out KPIs), **Queue** (Queue Length - all 6 KPIs), **Counter** (Dwell Time - all 5 KPIs), and **Terminals** (Dwell Time - all 5 KPIs).
- Labels are used to create Business Analytics reports on the **Site** page. For more information, see "Customizing Business Analytics Reports" on page 54.

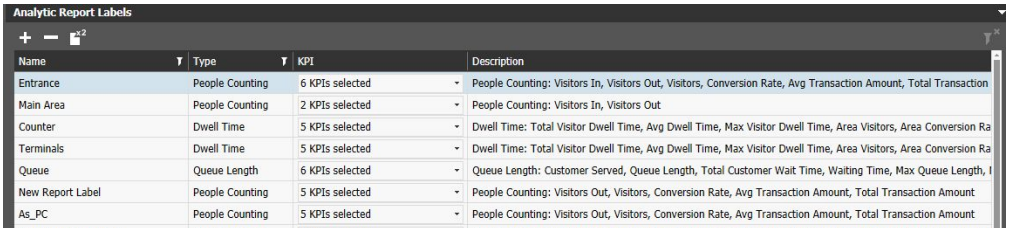
To manage report labels

1 In the **Searchlight Settings** tab, click the **Label Management** sub-tab.

2 In the **Analytic Report Labels** section, click the **Add Analytic Report Label** button to create a new report label.

The label is added to the list.

Note: You can also edit one of the default labels.



3 Double-click the **Name** field and enter a descriptive name for the label.

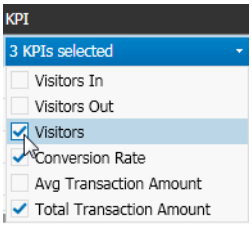
4 Select the analytic you want to create the label for from the **Type** list.

Options include **People Counting**, **Queue Length** and **Dwell Time**.

Note: According to the analytic selected, the number and type of KPIs change.

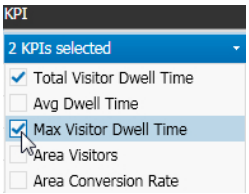
5 Click the **KPI** list and select the check boxes corresponding to the KPIs you want to add to the label.

Note: The description column is automatically updated according to the KPIs selected.



People Counting

Queue Length



Dwell Time

The available Key Performance Indicators (KPIs) are described in the following table.

Analytic	KPI	Description
People Counting	Visitors In	The number of visitors that entered the site in the selected time frame.
People Counting	Visitors Out	The number of visitors that left the site in the selected time frame.
People Counting	Visitors	The total number of visitors in a site in the selected time frame. **Note:** When displaying the **Visitors** KPI in **Trend** view, you can optionally switch from the **Visitors** KPI to the **Visitors On Site** KPI, which displays the actual number of people in a site in the selected time frame.
People Counting	Conversion Rate	This percentage is obtained by dividing the number of receipts by the number of visitors that has left the site in the selected time frame.
People Counting	Avg Transaction Amount	The average transaction value in a site in the selected time frame.
People Counting	Total Transaction Amount	The sum of every transaction in a site in the selected time frame.
Queue Length	Customer Served	The total number of people that has been in a queue in a site in the selected time frame.
Queue Length	Queue Length	The average number of people in a queue in a site in the selected time frame.
Queue Length	Total Customer Wait Time	The total time people spent in queues in a site in the selected time frame
Queue Length	Waiting Time	The average time a person spent in a queue in a site in the selected time frame.
Queue Length	Max Queue Length	The peaks of the average number of people in a queue in a site. The value is calculated on a daily or hourly basis, according to the selected time frame.
Queue Length	Max Waiting Time	The peaks of the average time a person spends in a queue in a site. The value is calculated on a daily or hourly basis, according to the selected time frame.
Dwell Time	Total Visitor Dwell Time	The total time people stopped in the monitored zone in the selected time frame.
Dwell Time	Avg Dwell Time	The average time people stopped in the monitored zone in the selected time frame.
Dwell Time	Max Visitor Dwell Time	The peaks of the average time a person stopped in the monitored zone in the selected time frame.
Dwell Time	Area Visitors	The total number of visitors who stopped in the monitored zone in the selected time frame.

Analytic	KPI	Description
Dwell Time	Area Conversion Rate	The percentage of people stopping in the monitored zones in the selected time frame. **Note:** The **Area Conversion Rate** is calculated only if the **People Counting** analytic is configured in the same zone.

6 Click the **Save** button to save and apply the changes.

7 Repeat steps 2-6 to create additional labels.

Notes:

- To remove a label, select it in the list, click the **Remove Label** button and then click **OK**.
- To use an existing label as template for a new label, select it in the list and click the **Duplicate Label** button.

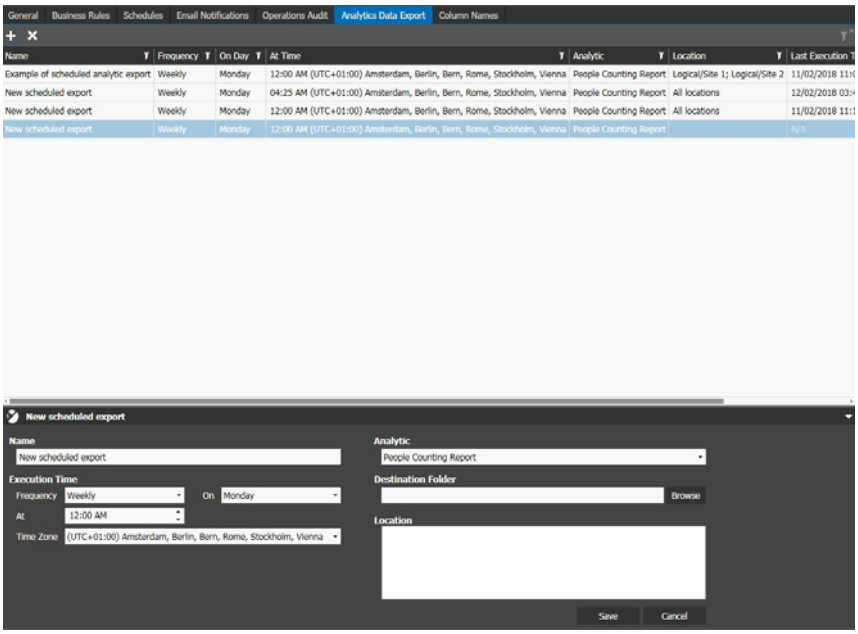
Creating Scheduled Exports for Business Analytics Data

The **Analytics Data Export** sub-tab allows you to configure scheduled exports for the data collected by the **Business Analytics** feature in Comma Separated Values (.csv) files.

Note: This file format is fully compatible with Microsoft Excel and similar products. Searchlight exports data using **Unicode (UTF-8)** encoding and using semicolons to separate the values.

To configure scheduled exports for Business Analytics data

1 In the **Searchlight Settings** tab, click the **Analytics Data Export** sub-tab.



2 Click the **Add Scheduled Export** button on the toolbar.

The new scheduled export is added to the list.

3 Enter a descriptive name for the schedule in the **Name** field.

4 In the **Execution Time** section, select the email **Frequency** from the list.

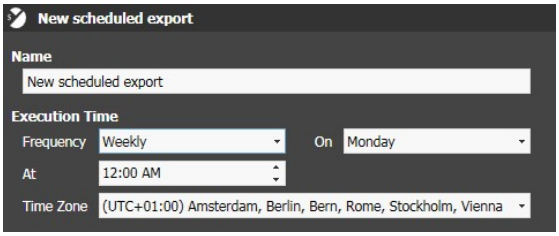
Options include **Hourly**, **Daily** and **Weekly**.

5 Select when the data is exported according to the selected **Frequency**:

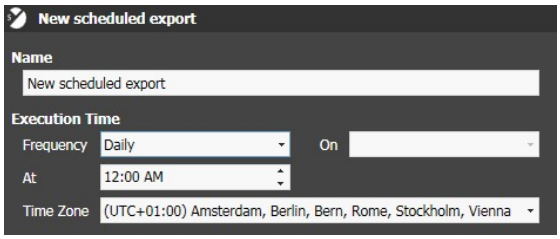
- For the **Weekly** frequency select a day from the **On** list, and enter or select the time in the **At** field.
- For the **Daily** frequency, enter or select the time in the **At** field.

  Note: For the **Hourly** frequency, it is not required to configure additional options.

6 Select the time zone of the recipients from the **Time Zone** list.



Weekly Frequency



Daily Frequency

7 Select the **Analytic** (People Counting, Queue Length, or Dwell Time) data you want to export from the list.

8 Enter the network folder where you want to save the exported data or click **Browse** to search for a shared folder on your network.

Note: You must specify a domain and valid credentials in the **Business Analytics** section of the **General** sub-tab to access the shared folder. For more information, see "Configuring the General Settings" on page 102.

9 Select which sites are included in the scheduled export by dragging one or more sites or a logical folder to the **Location** field.

10 Click **Save** to save and apply the changes.

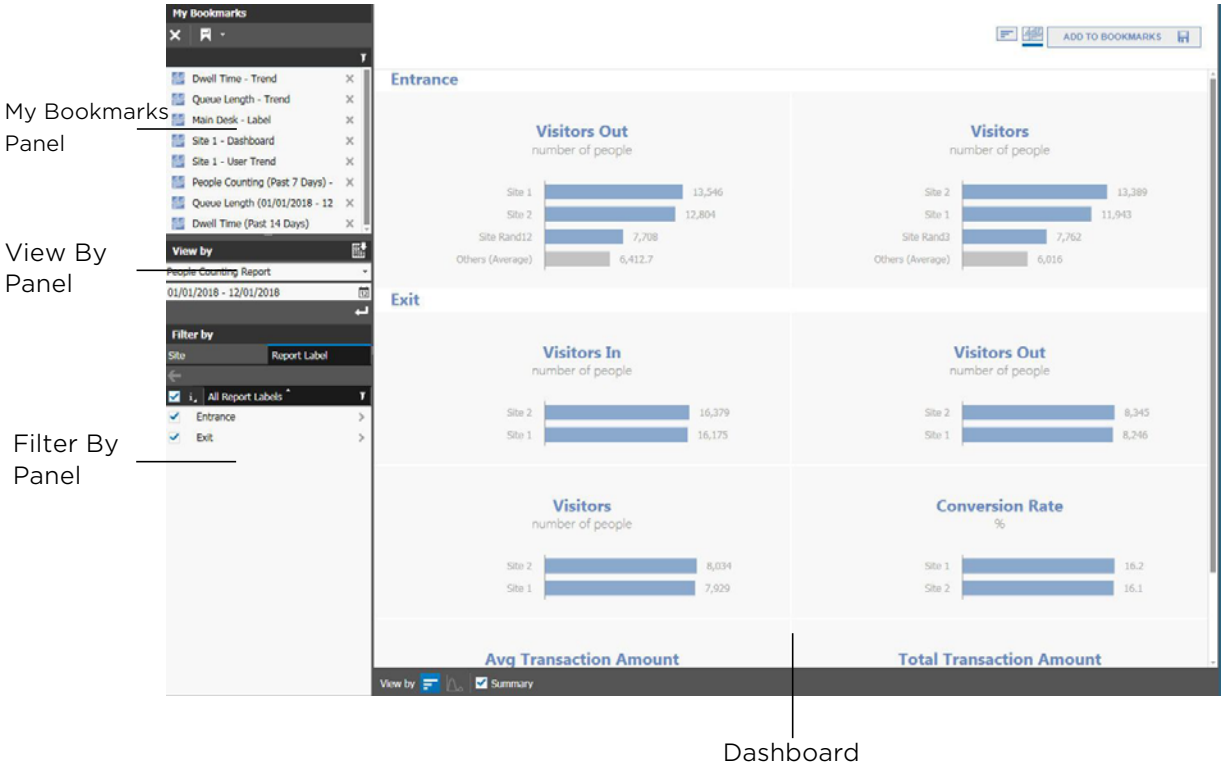
11 Repeat steps 2-10 to create additional scheduled export.

Notes:

- To remove a scheduled export, select it in the list, click the **Remove Scheduled Export** button and then click **OK**.
- If the **Last Execution Time** or the **Last Execution Result** columns for a schedule are not automatically updated, close and reopen the **Searchlight Settings** tab.

Overview

The **Business Analytics** page allows you to view bar and line charts based on the data collected by Brickstream 3D sensors.



The **Business Analytics** page is divided into four main graphical areas.

1 **My Bookmarks** panel — Located at the upper-left corner of the page, it allows you to load a saved bookmark and set it as the default view.

2 **View By** panel — Located at the mid-left area of the page, it allows you to select the analytic and specify the time frame for the **Business Analytics** report. It also allows you to manually download analytics data in a in a Comma Separated Values (.csv) file (if enabled).

3 **Filter By** panel — Located at the lower-left corner of the page, it allows you to filter the reports by site, report labels, and cameras.

4 **Dashboard** — Located at the center of the page, it displays the Key Performance Indicators (KPIs) selected in the report labels.

Business Analytics Page Buttons

The following table describes the buttons, check boxes and sliders available on the **Business Analytics** panels and dashboard.

Button	Location	Action
	My Bookmarks panel - Filter by panel	Filters the bookmarks, reports, cameras, and labels in the **My Bookmarks** and **Filter By** panels.
	My Bookmarks panel	Deletes a bookmark from the panel.
	My Bookmarks panel	Sets the selected bookmark as the default bookmark.
	View By panel	Download analytics data in a Comma Separated Values (.csv) file. **Note:** This button appears only if the **Enable Raw Data Export** check box is selected on the **Searchlight Settings** tab (see "Configuring the General Settings" on page 102).
	View By panel	Specifies the time frame for the report.
	View By panel	Performs the search for analytics data in the selected time frame.
	Filter By panel	Selects all of the reports, cameras, or labels in the **Filter By** panel.
	Filter By panel	Displays or hides the unselected reports, cameras or labels in the **Filter By** panel.
	Filter By panel	Returns to the previous selection screen (cameras -> report/label) while drilling down on the data.
	Filter By panel	Goes to the next selection screen (report/label -> cameras) while drilling down on the data.
	Dashboard	Switches to **Widget** mode.
	Dashboard	Switches to **Grid** mode.
ADD TO BOOKMARKS	Dashboard	Saves the current view (including the views and the selection of reports, labels, and cameras) to the **My Bookmarks** panel.
	Dashboard	Switches to **Aggregate** (bar charts) view.
	Dashboard	Switches to **Trend** (line charts) view. **Note:** The **Trend** view is not available when filtering by report labels.

Button	Location	Action
	Dashboard	Switches from **Visitors** KPI to **Visitors On Site** KPI view. **Note:** This button is available only in **Trend** view after performing a query on the **People Counting** analytic.
Summary	Dashboard	Enables the **Summary** mode while in **Aggregate** view. This is useful to limit the number of items on the bar charts.
Zoom Level:	Dashboard	Zooms in or out on line charts while in **Trend** view.

Customizing Business Analytics Reports

It is now possible to access Business Analytics reports and customize them by filtering the data by site, labels and cameras, and selecting the preferred visualization mode. It is also possible to save the customized report as a bookmark and export the analytics data in a Comma Separated Values (.csv) file.

Select your configuration:

- "Accessing Analytics Reports" on page 111
- "Managing Business Analytics Report" on page 113
- "Saving Bookmarks" on page 120
- "Setting the Default Bookmark for the Business Analytics Page" on page 121
- "Manually Exporting Analytics Data" on page 121

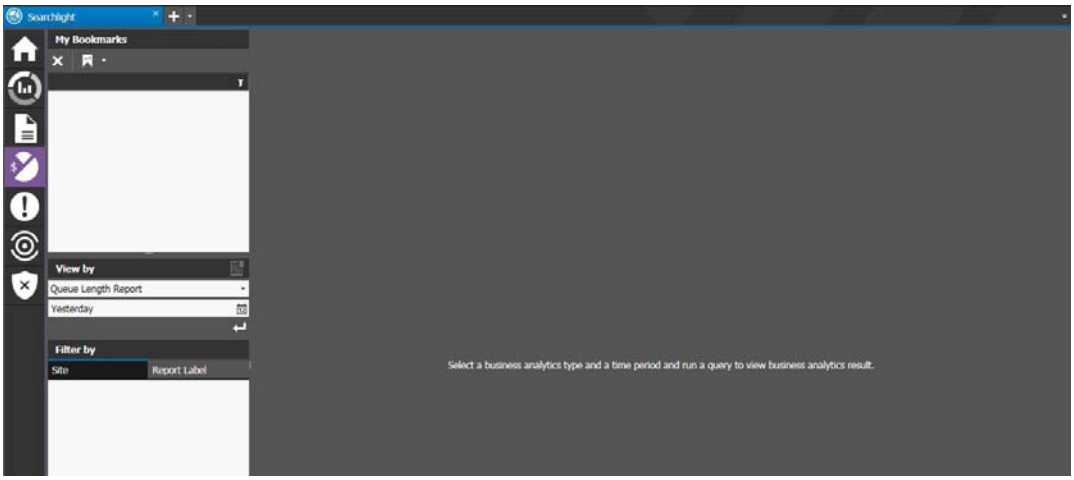
Accessing Analytics Reports

You can access an analytics report by selecting the type of report and a time frame.

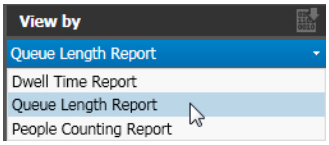
To access an analytic report

1 From the Searchlight home page, click the **Business Analytics** tile.

The **Business Analytics** page appears.

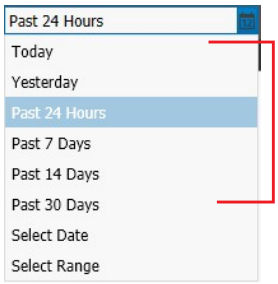


2 In the **View By** panel, select the analytic report you want to display from the **Analytics** list.



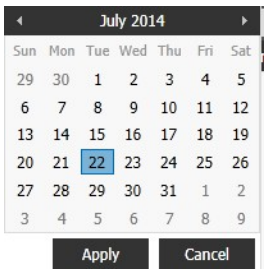
3 To specify the time frame of the data you want to view in the report, click the **Time Period** button on the **View By** panel and do one of the following:

- Select a predefined time frame from the list (first six options).

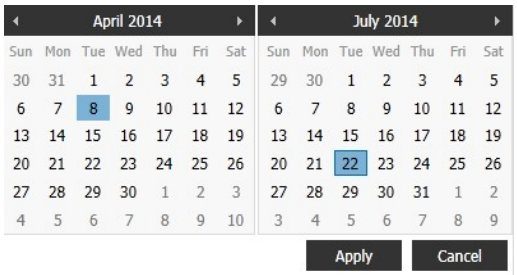


Predefined Time Frames

- Click the **Select Date** option to select a specific day from the calendar field displayed. Click **Apply** to confirm the selection.



- Click the **Select Range** option to select a custom time frame (up to one month) from the calendar fields displayed. Click **Apply** to confirm the selection.



4 Click the button.

Searchlight performs the search but does not display data or charts. You must refine the search and customize the view using the **Filter By** panel and the buttons on the **Dashboard**.

Managing Business Analytics Report

After accessing a **Business Analytics** report, you must refine the search by selecting the items (reports, labels, and/or cameras) you want to display on the **Dashboard**. You can also customize the visualization mode (**Widget** mode or **Grid** mode) and select to display bar charts (**Aggregate** view) or line charts (**Trend** view).

To filter business analytics report

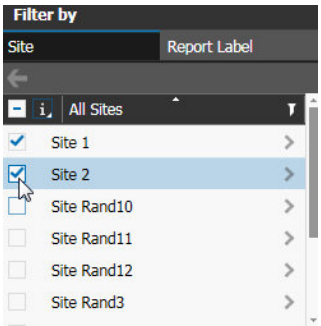
1 Access a **Business Analytics** report, as described in the previous section.

2 On the **Filter By** panel click the **Site** tab to refine the search by sites or click the **Report Labels** tab to refine the search by labels associated to **Business Analytics** reports.

Notes:

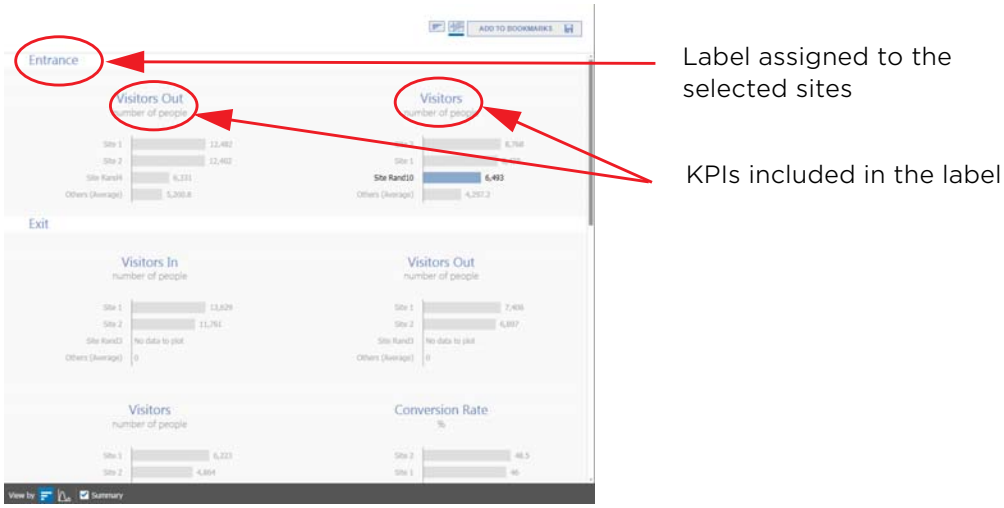
- The **Report Labels** list is populated with all the labels associated to the selected analytics and with actual data.
- You can filter the sites/labels list by clicking the **Filter** icon: select the check boxes corresponding to the sites/labels you want to display and click **Filter**.

3 Select the check boxes corresponding to the sites or labels you want to display on the **Dashboard**.

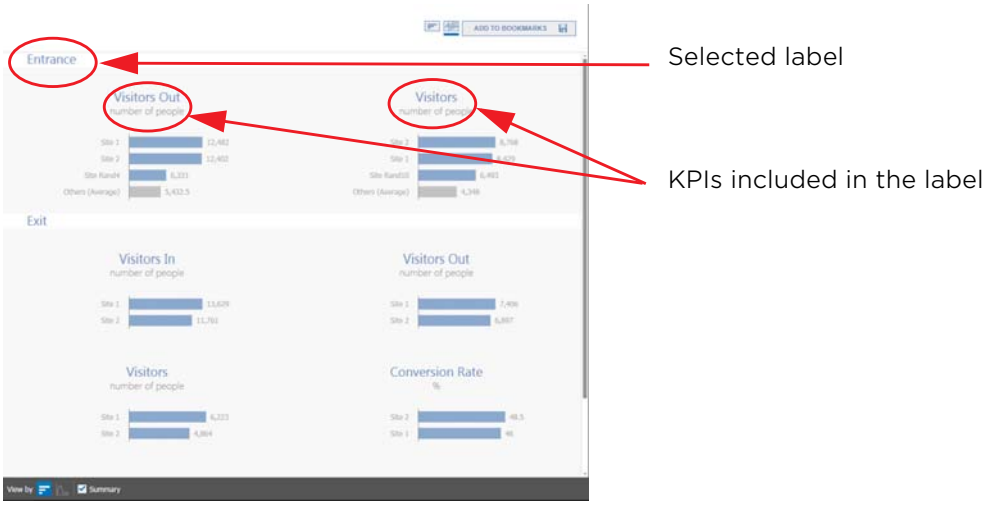


Note: You can hide the unselected sites/labels/cameras by clicking the **Display** button, and then selecting the **Selected** option.

Bar charts for the selected sites or labels appear on the **Dashboard**. If you select a site, all of the KPIs included in the labels assigned to the site are displayed. If you select a label, all of the sites the label has been assigned to are displayed.



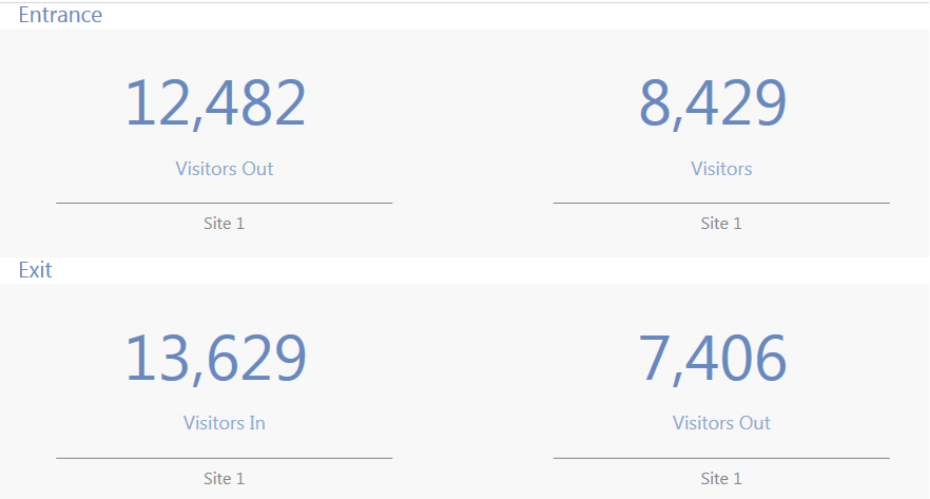
Filter by Site



Filter by Label

Notes:

- Select the check box on the panel toolbar to select all the sites/labels in the list.
- By default the **Dashboard** is configured with the **Grid** visualization mode and displays bar charts (**Aggregate** view) with the **Summary** option enabled.
- If you select a single site with one report and one label, values for the KPIs are displayed instead of charts.



4 The **Filter By** panel, also allows you to drill down on the data from the sites or labels to display data from selected detection zones on a camera:

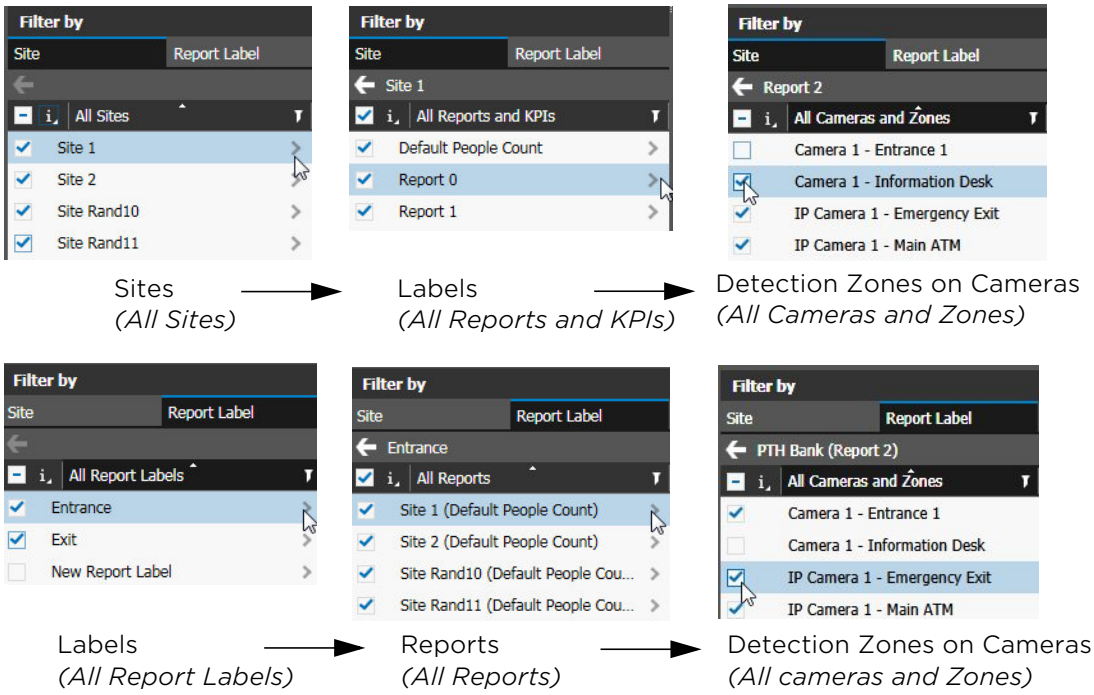
a On the **Filter By** panel, click the > button near a site/label to drill down on the analytics data for that site/label.

The labels or report associated to the original site/label appear.

b Select the labels/reports you want to display on the **Dashboard**, or click the > button near a label/report to drill down on the analytics data for that label/site.
Note: If you filter by site, all of the available KPIs for the analytic (see “Managing Report Labels” on page 104) are displayed, regardless of the KPIs included in the labels assigned to the site.

c Select the detection zones you want to display on the **Dashboard**.

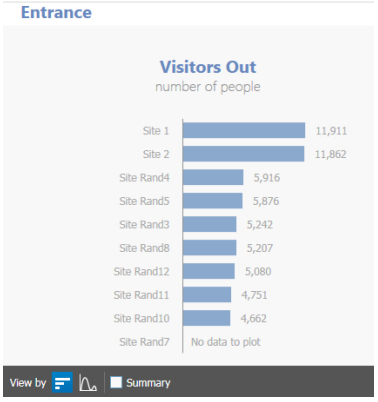
Note: To return to the previous selection screen, click the button on the **View By** panel toolbar.



5 While in **Aggregate** view (bar charts), select the **Summary** check box on the **Dashboard** toolbar to display a defined number of items (reports, labels and cameras) and aggregate all the data from the remaining items in the **Others** cumulative entry.

This is useful to limit the number of entries on a bar chart.

Note: You can define the number of items for a bar chart on the **Searchlight Settings** tab. For more information, see "Configuring the General Settings" on page 102.

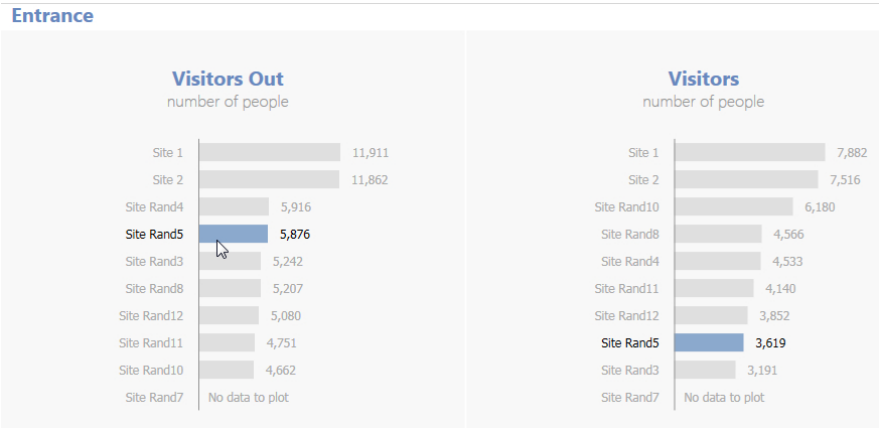


Summary Not Enabled

Summary Enabled

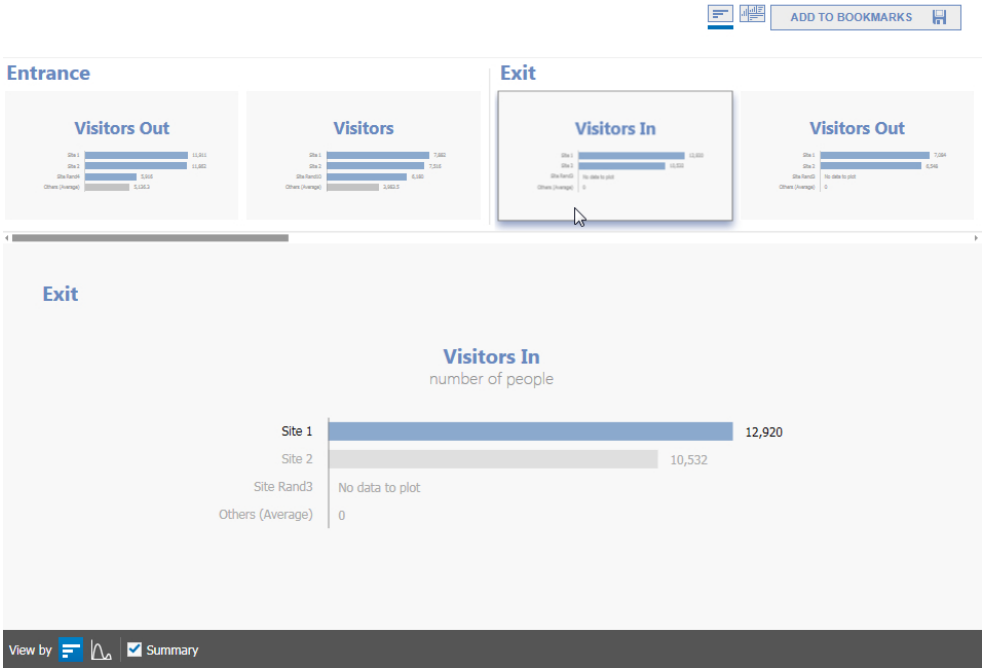
6 While in **Aggregate** view (bar charts), click an item on a chart to highlight it in all of the displayed bar charts.

Tip: You can also click the item on the **Filter By** panel. Multi-selection on the panel is not allowed.



7 While in **Aggregate** view (bar charts), click the button on the **Dashboard** to switch to **Widget** visualization mode.

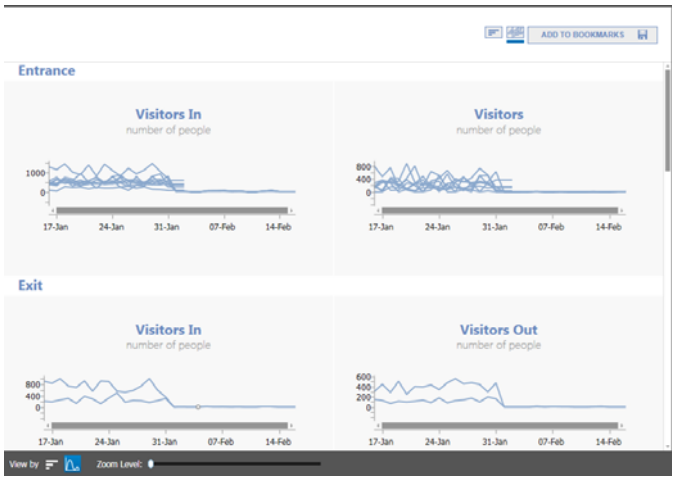
The bar charts are now visualized as thumbnails in the upper part of the **Dashboard**. Click a thumbnail to display its chart in the lower part of the **Dashboard**.



8 Click the button on the **Dashboard** toolbar to switch from **Aggregate** view (bar charts) to **Trend** view (line charts).

Notes:

- **Trend** view is available only when one or more sites are selected on the **Filter By** panel.
- The time unit (hours or days) of the line chart is dependent on the selected time frame and zoom factor (see next step).
- The hours when the site is closed are represented with a gray background on the charts (see "Configuring the Business Analytics Feature" on page 101).
- If a specific day is selected, the line charts appear only for the hours the site is open, according to the configured timetable (see "Configuring the General Settings" on page 102).



9 To zoom in or out on all of the line charts displayed, move the **Zoom Level** slider on the **Dashboard** toolbar.

Notes:

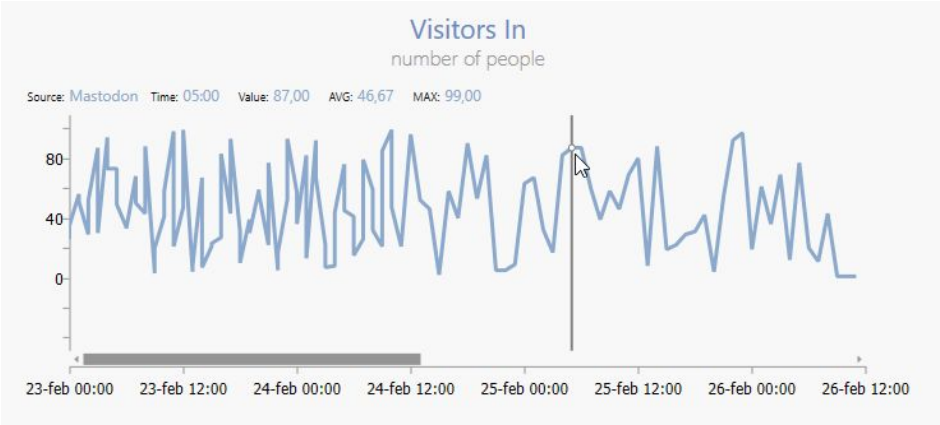
- The maximum zoom level depends on the data granularity configured with the **Accumulation Time for Analytic Reports** option (see "Configuring the Business Analytics Feature" on page 101).
- When the **Visitors on Site** KPI is displayed in the **Trend** view, the chart resets every day at the opening hour (**From** field). This is useful to have a chart that follows the timetable of the site (see "Configuring the Business Analytics Feature" on page 101).

10 To move a line chart, click anywhere on the chart and drag the mouse.

11 To display the values for a site, click a line on the chart.

The site is highlighted and the values (the source for the selected chart, the time where the mouse cursor is placed, the corresponding value, and the average and maximum values on the chart) for the selected KPI are displayed. You can move the mouse cursor to display the different values for the site in different times.

Tip: You can also click the item on the **Filter By** panel. Multi-selection on the panel is not allowed.



12 When displaying the values for the **People Counting** analytic, you can optionally switch from the **Visitors** KPI to the **Visitors on Site** KPI, which displays the number of actual people in a site in the selected time frame. To switch to the **Visitors On Site** KPI, click the **Show Visitors on Site** button.

Visitors KPI

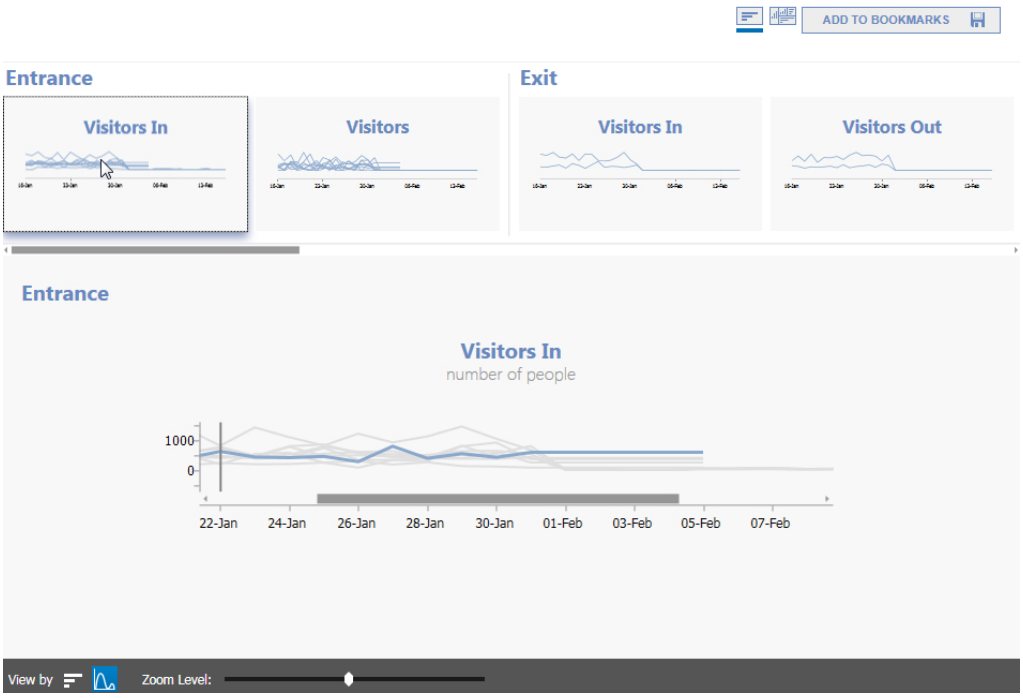
Visitors On Site KPI

Notes:

- The **Visitors On Site** KPI is read-only and can only be accessed in **Trend** view.
- If a timetable is configured for the site, the chart resets every day at the opening hour (**From** field). This is useful to have a chart that follows the timetable of the site (see "Configuring the Business Analytics Feature" on page 101).

13 While in **Trend** view (line charts), click the button on the **Dashboard** to switch to **Widget** visualization mode.

The line charts are now visualized as thumbnails in the upper part of the **Dashboard**. Click a thumbnail to display its chart in the lower part of the **Dashboard**.



Saving Bookmarks

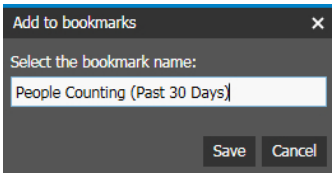
After accessing, filtering, and managing **Business Analytics** report, you can save the current **Dashboard** as a bookmark that is saved in the **My Bookmarks** panel. This is useful to instantly recall a relevant **Dashboard** without performing searches and filtering sites/labels.

To save a bookmark

1 Access and manage a **Business Analytics** report, as described in the previous sections.

2 With the report open on the **Dashboard**, click the **Add to Bookmarks** button on the **Dashboard**.

The **Add to Bookmarks** dialog box appears.



3 Enter a descriptive name for the bookmark and click **Save**.

Note: You can overwrite an existing bookmark by entering the same descriptive name.

The bookmark is saved in the **My Bookmarks** panel.

4 To load a saved bookmark, double-click it on the **My Bookmarks** panel.

Notes:

- To delete a bookmark, click the ✕ button near the bookmark, and then click **OK**.
- When you modify the view by using the **Filter By** panel, the *Modified* word appears near the bookmark title.

Queue Length (Past 30 Days) (Modified)

Setting the Default Bookmark for the Business Analytics Page

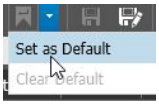
Searchlight allows you to save a default bookmark for the **Business Analytics** page: after clicking the tile, the default bookmark is automatically loaded and the related query performed.

Note: It is possible to save a different default bookmark for each user.

To set the default bookmark for the Business Analytics page

1 In the **Business Analytics** page, double-click one of the saved bookmarks.

2 Click the arrow near the **Apply Default Bookmark** button on the toolbar and select **Set as Default**.



The bookmark is saved and loaded each time you access the **Business Analytics** page on a new session or each time you click the **Apply Default Bookmark** button.

Notes:

- When a default bookmark is saved the **Apply Default Bookmark** button is highlighted.
- To remove the default bookmark, click the arrow near the **Apply Default Bookmark** button on the toolbar and select **Clear Default**

Manually Exporting Analytics Data

After performing a search, you can manually export the analytics data in a in a Comma Separated Values file (.csv) file. This file format is fully compatible with Microsoft Excel and similar products.

Notes:

- Searchlight exports data using **Unicode (UTF-8)** encoding and using semicolons to separate the values.

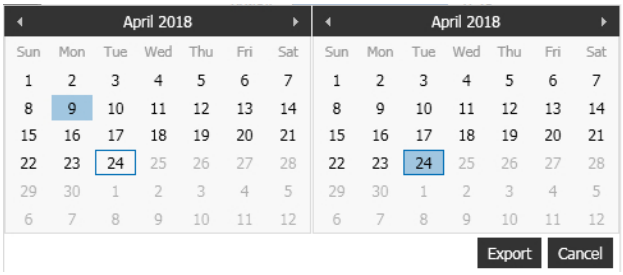
- The button appears on the **View By** panel only after selecting the **Enable Raw Data Export** check box on the **Searchlight Settings** tab. For more information, see "Configuring the General Settings" on page 102.

To manually export analytics data

1 Do one of the following:
   - Access a Business Analytics report as described in "Accessing Analytics Reports" on page 111.
   - Load a saved bookmark as described in "Saving Bookmarks" on page 120.

2 Click the **Manual Export** button on the **View By** panel toolbar.

   The calendar fields appear.



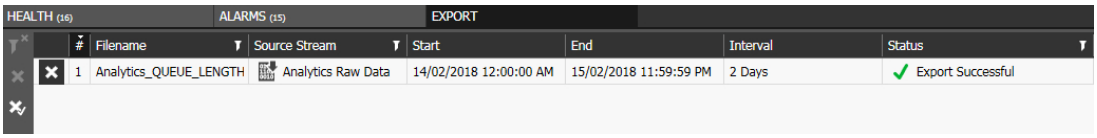
3 Select a custom time frame. Click **Export** to confirm the selection.

   The **Save As** window appears.

4 In the **Save As** dialog box, type a file name and location for the file.

5 Click **Save**.

   The CSV file is displayed in the **Export** panel in the **Dashboard**. The **Status** column shows the progress of the export.



Notes:

- If you want to stop the data export while it is still in progress, you can click the **Cancel Video Export** button. The file in progress is deleted. Click the **Restart Video Export** button that appears in the row to begin the export again.
- When the file is exported, you can click the **Close Export** button to clear the entry.

Setting the KPI Badge on the Home Page

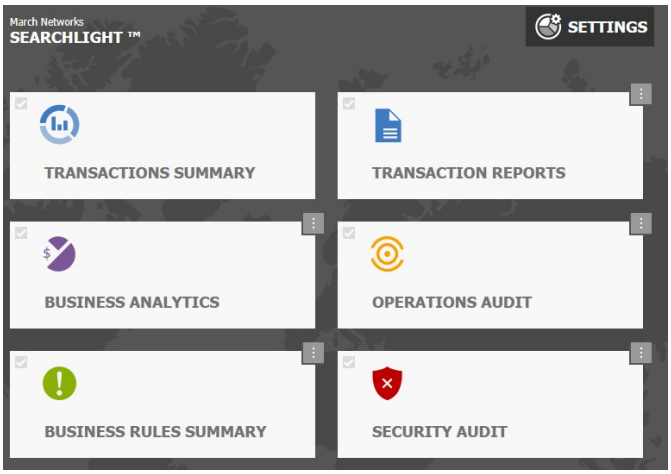
Searchlight allows you to set a KPI Badge on the home page for the **Business Analytics** page. A KPI Badge is associated to an analytics label and KPI and automatically displays the analytics data for that KPI in the last 24 hours. You can also set thresholds to change the badge's color according to the analytics data (green=good; yellow=warning; red=critical).

Note: The KPI Badge is automatically refreshed every 5 minutes or each time the user logs on to the CES and access the Searchlight application.

To set the KPI Badge on the home page

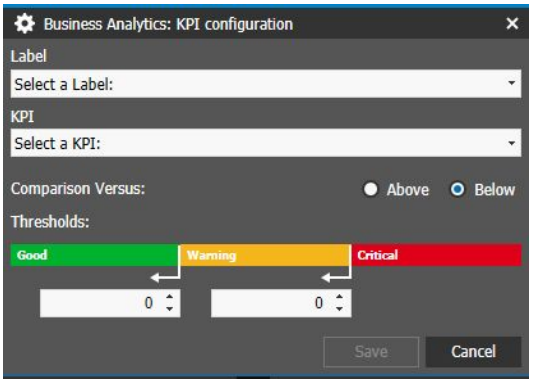
1 Click the button on the side toolbar to return to the Searchlight home page.

The Searchlight home page appears.



2 Right-click the KPI Badge on the upper-right corner of the tile.

The **Business Analytics: KPI Configuration** dialog box appears.



3 Select a label from the **Label** list.

4 Select a KPI associated to the label from the **KPI** list.

5 In the **Comparison Versus** section, select the badge behavior.

Options include **Above** (the badge is green if the value of the data in the report is higher than the threshold for the good status) and **Below** (the badge is green if the value of the data in the report is lower than the threshold for the good status).

6 Set the threshold values for the green (**Good**) and yellow (**Warning**) statuses.

Note: If you selected **Above**, the value for the green status must be higher that the yellow value. If you selected **Below**, the value for the green status must be lower that the yellow value.

7 Click **Save** to save and apply the changes.

The dialog box is closed and the KPI Badge automatically updated.

8 Click the KPI Badge to perform the query for the **Past 24 Hours** timeframe on the analytic associated to the label configured for the badge.

Chapter 9

Creating Business Rules

The **Searchlight Settings** tab allows you to create custom events to instantly notify security teams about suspicious transactions.

Notes:

- Starting from version 4.8, the **No Customer Detection** business rule has been removed and integrated in the enhanced **Report** rule. For more information, see "Creating and Customizing Business Rules" on page 126.
- To add the state of an alarm to the Report business rule, you must add an alarm to the POS terminal that processes the transactions in the specified report.

This chapter contains the following sections:

- "Creating and Customizing Business Rules" on page 126
- "Deleting Business Rules" on page 130

Creating and Customizing Business Rules

You can create and customize business rules based on the following conditions:

- **Report** rule: a new transaction is added to a custom report.

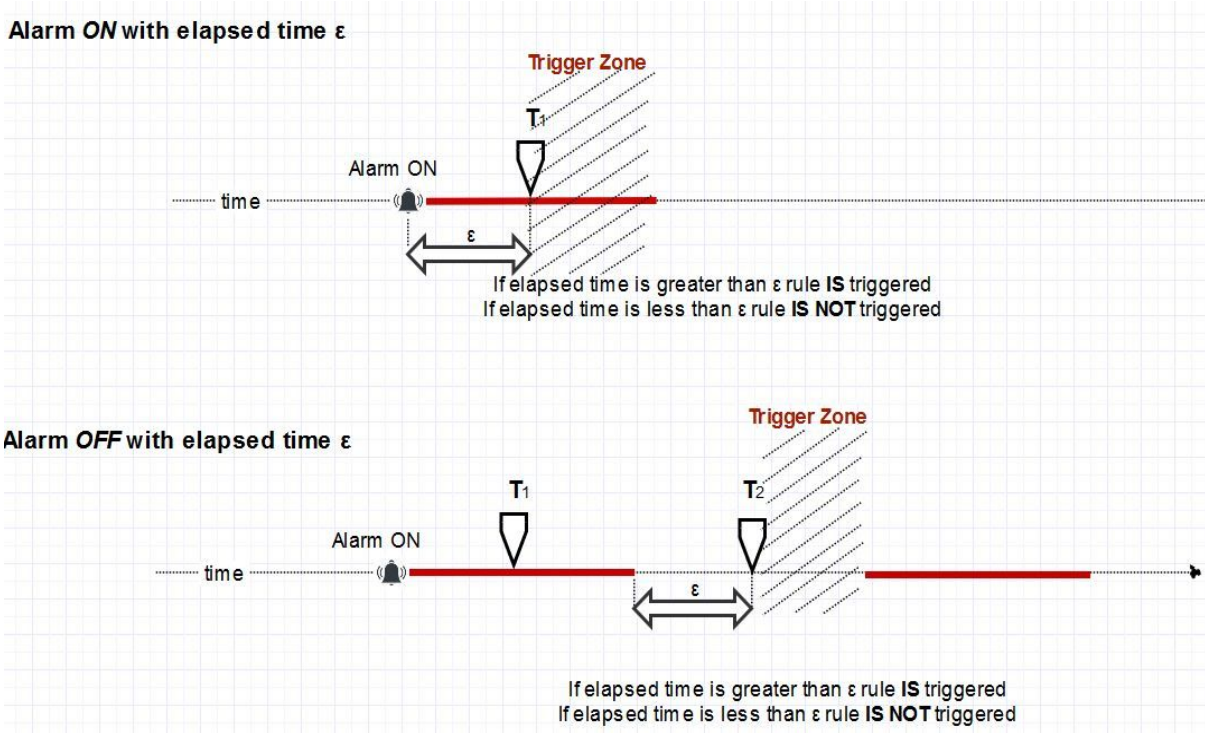
  For example: a report includes only transactions with values greater than $100. Every time a transaction greater than $100 is processed by a POS terminal, a new entry is added to the report and the business rule is triggered.

  If you add the condition *Alarm On* with an elapsed time of 15 seconds, the rule is triggered when the new transaction is added to the report and the transaction session ends when the alarm associated to the POS terminal that processed the transaction is triggered for at least 15 seconds.

  If you add the condition *Alarm Off* with an elapsed time of 10 seconds, the rule is triggered when the new transaction is added to the report and the transaction session ends when the alarm associated to the POS terminal that processed the transaction is inactive for at least 10 seconds.

  Note: The transaction session time is determined by the time the transaction is processed and the configured **Pre** and **Post Session Padding Time** options (see "Configuring the Searchlight Settings" on page 41).

  The following diagram explains how the **Report** rule with alarm state works. The value ε is the configured elapsed time for the alarm, while the *Trigger Zone* is the time interval within which the transaction session time must end to trigger a business rule.



- **Report Sequence** rule: a new transaction is added to the first custom report, and a new transaction is added to the second custom report within the configured time interval.

  For example: the first report includes only transactions with values greater than $200; the second report includes only transactions processed by credit cards of a specific vendor. Every time a transaction greater than $500 is processed and one of the selected credit cards is used within the configured time interval (**Max Time Interval**), the business rule is triggered.
- **SweetHearting** rule: a customer is detected at the POS terminal but no transaction is processed by the POS terminal.
- **Important:** To set up the **SweetHearting** business rule, you must associate an alarm that detects the presence of a customer at the POS terminal. The alarm can be triggered by a physical device or by a video analytic (for example the **Presence Detection** analytic on the MegaPX ATM camera and on 8000/9000 Series Hybrid NVRs, the **Presence Detection** alarm on Brickstream 3D sensors, or the **Face Detection** and **Loitering** analytics on legacy March Networks edge devices). The business rule is triggered when a person is detected at the POS terminal (alarm triggered), but no transactions are processed by the POS terminal. For more information about configuring POS terminals and alarms, see “Associating Cameras and Alarms to POS Terminals” on page 62.

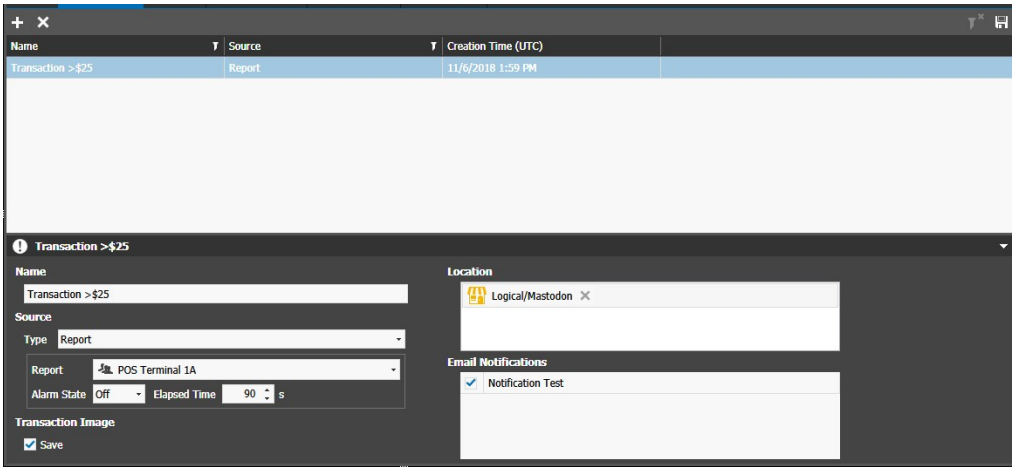
When a business rule is triggered, a new entry is added to the **Business Rules** report. For more information about accessing and customizing **Business Rules** reports, see “Customizing Business Rules Reports” on page 131.

To configure the automatic notifications, you must first configure a distribution list in the **Searchlight Settings** tab. For more information about configuring distribution lists, see “Creating Email Notifications” on page 45.

To create and customize a business rule

1 From the Searchlight home page, Click the **Settings** button.

2 Click the **Business Rules** sub-tab.



3 To create a new business rule, Click the **Add Business Rule** button on the toolbar.

A new business rule is added to the list with the default name *New Business Rule #*.

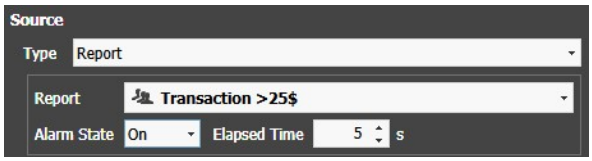
4 Enter a descriptive name in the **Name** field.

5 In the **Source** section, select the condition that triggers the business rule from the **Type** list. Depending on the selected condition, you are asked to perform different procedures:

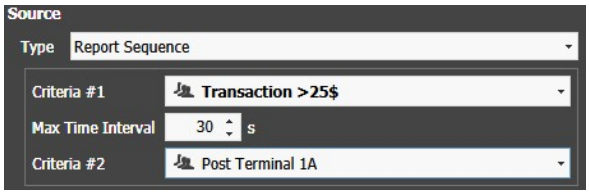
- **Report:** Select an available public report from the list.

  If you do not select an alarm state, the business rule is triggered every time a new transaction is added to a custom report.

  Optionally, you can also add the alarm state as a condition by selecting **On** or **Off** from the **Alarm State** list, and then enter or select the time interval for the alarm in the **Elapsed Time** field. For more information about customizing and saving reports, see "Customizing Transaction Reports" on page 64.



- **Report Sequence:** Select the two public report from the **Criteria #1** and **Criteria #2** lists, and then enter or select the time interval in the **Max. Time Interval** field.



Important Note: Starting from version 4.8, the **No Customer Detection** business rule has been removed and integrated in the enhanced **Report** rule. To set up the **No Customer Detection** business rule in the **Report** rule, you must first associate an alarm that detects the presence of a customer to the POS terminal. The alarm can be triggered by a physical device or by a video analytic (for example the **Presence Detection** analytic on the MegaPX ATM camera and on 8000/9000 Series Hybrid NVRs, the **Presence Detection** alarm on Brickstream 3D sensors, or the **Face Detection** and **Loitering** analytics on March Networks edge devices). The business rule is triggered when a transaction is processed by the POS terminal, and the associated alarm is **not** triggered (no customers are detected near the POS terminal). To configure the **No Customer Detection** business rule in the **Report** rule:

a Customize and save a report to show only the transactions processed by the POS terminal associated to the alarm (see "Customizing a Report" on page 68).

b Select **Report** from the **Type** list.

c Select the customized report from the **Report** list.

d Select **Off** from the **Alarm State** list.

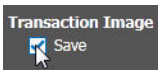
e Enter or select the value **0** for the alarm in the **Elapsed Time** field: the business rule is triggered each time the transaction is processed by the POS terminal and the alarm is inactive.

- **SweetHearting:** No action required.

6 Select which sites are included in the business rule by dragging a single site or logical folders to the **Location** field.

Note: By default, no site is added to the business rule.

7 In the **Transaction Image** section, select the **Save** check box to automatically save snapshots every time the business rule is triggered.



Notes:

- The snapshots are taken from the main camera associated to the POS terminals that triggered the business rule.
- The snapshots are saved in a folder on the server and can be exported as part of a case.

8 In the **Email Notifications** section, select the check boxes corresponding to the distribution lists to send daily or weekly automatic email notifications listing every time the selected business rule has been triggered during the day or week. For more information about configuring distribution lists, see “Creating Email Notifications” on page 45.

9 Click the **Save** button on the toolbar to save and apply changes.

Deleting Business Rules

You can delete a business rule and all the business rules entries from the database, removing it from the rules list.

To delete a business rule

1 In the **Business Rules** sub-tab, select the business rule you want to delete in the list.

2 Click the **Remove Business Rule** button in the toolbar.

A warning dialog box appears.

3 Click **Ok**.

The rule is deleted and is removed from the rules list. All the business rules entries are removed from the database as well.

Chapter 10

Customizing Business Rules Reports

The **Business Rules** page allows you to access and customize reports based on the business rules created on the **Business Rules Config** tab. For more information about creating and customizing business rules, see “Creating and Customizing Business Rules” on page 126.

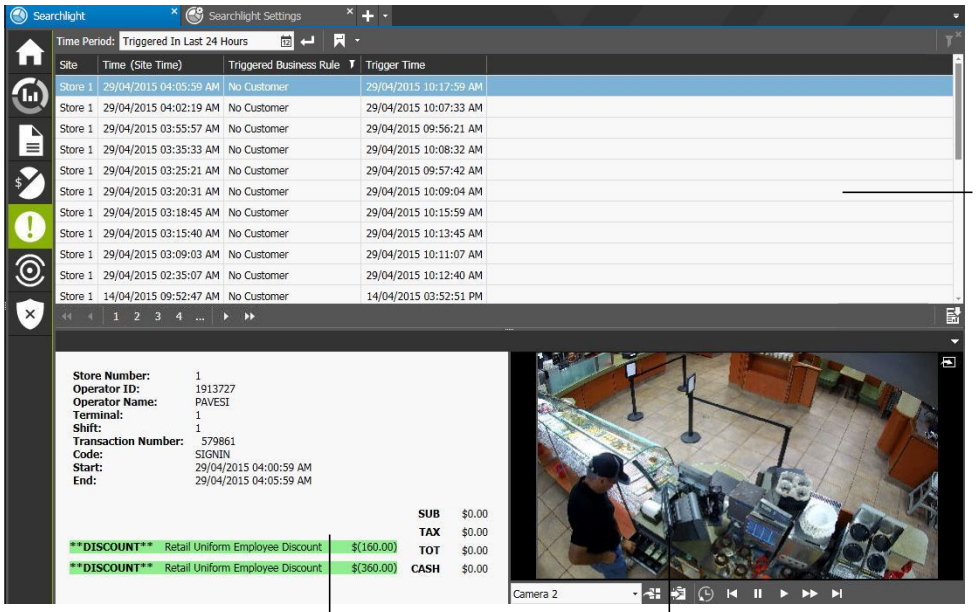
This chapter contains the following sections:

- “Overview” on page 132
- “Accessing Business Rules Reports” on page 133
- “Customizing a Report” on page 135
- “Managing Reports” on page 136
- “Setting the KPI Badge on the Home Page” on page 139

Overview

The **Business Rules** page allows you to view and customize reports based on the on the business rules created on the **Searchlight Settings** tab. You can customize a report by selecting a specific time frame, filtering by columns, and by sorting data. After you customize the report you can export it as a Comma Separated Values file (.csv) file compatible with Microsoft Excel.

The **Business Rules** page is divided into three main graphical areas.



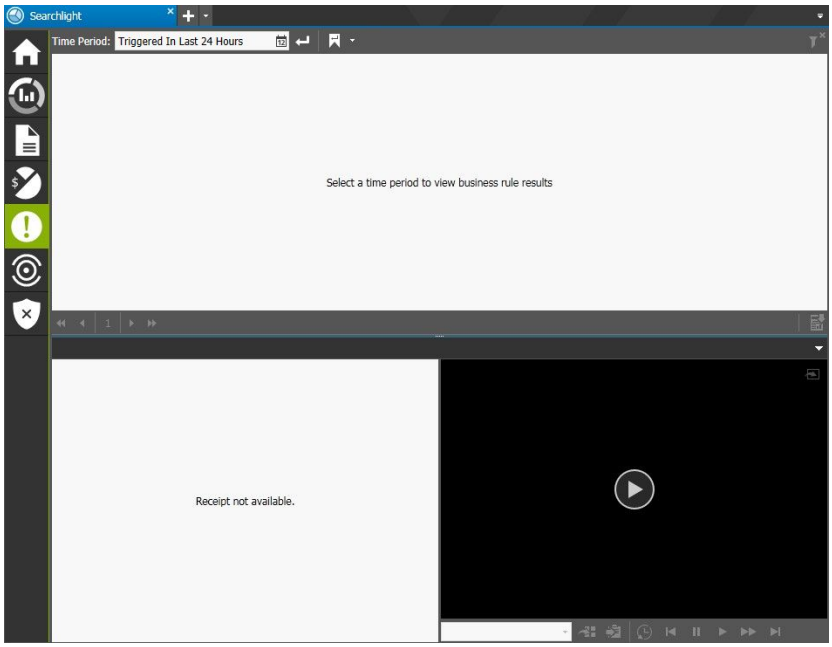
Accessing Business Rules Reports

To access a report, you must specify the time frame for the business rules triggered.

To access a Business Rules report

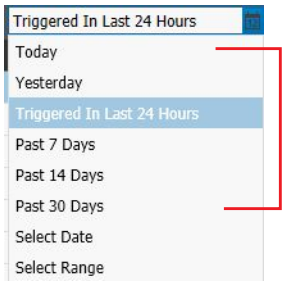
1 From the Searchlight home page, click the **Business Rules** tile.

The **Business Rules** page appears.



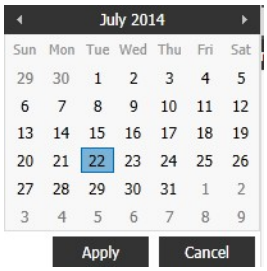
2 To specify the time frame of the business rules you want to view in the report, click the **Time Period** button on the toolbar and do one of the following:

- Select a predefined time frame from the list (first six options).

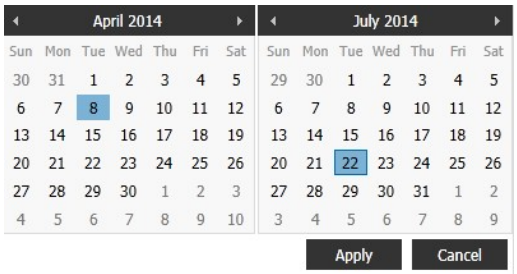


Predefined
Time Frames

- Click the **Select Date** option to select a specific day from the calendar field displayed. Click **Apply** to confirm the selection.

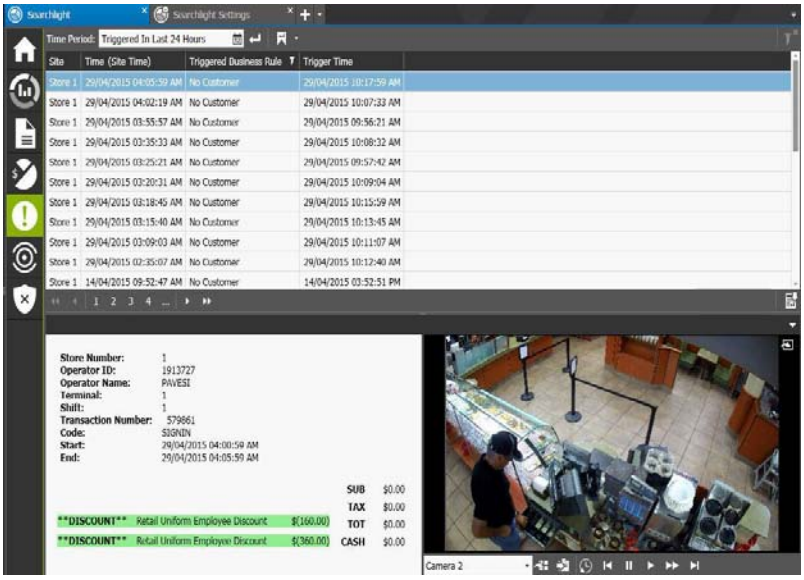


- Click the **Select Range** option to select a custom time frame from the calendar fields displayed. Click **Apply** to confirm the selection.



3 Click the **Search** button.

The report appears on the page and includes all the business rules triggered in the selected time frame.



4 You can navigate within the report using the navigation toolbar.

Customizing a Report

The default **Business Rules** report includes all the business rules triggered in the selected time frame. You can customize the default report by filtering by site and business rule, and sorting the column lists with a different order. You can also move the column position.

To customize a report, you can perform any of the following operations:

- "Sorting and Filtering Columns" on page 135
- "Moving a Column List" on page 136

Sorting and Filtering Columns

You can sort and filter data in all column lists on a report.

Sorting in Columns

You can alphabetically or numerically sort a column list (depending on the content of the list).

To sort in a column

1 Click on a column header to show the **Sort** icon.

2 Click the **Sort** icon to automatically sort the elements in the column list in ascending or descending alphabetical or numerical order.

Note: Click on the **Sort** icon again to change the order from ascending to descending or from descending to ascending.

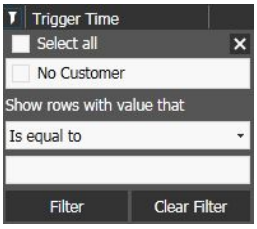
Filtering in Columns

You can filter data in a column list to show only specified list values.

To filter in a column

1 Select a column header and click the **Filter** icon.

The **Filter** dialog box appears.



2 To filter using the check boxes (if available), select one or more check boxes or click **Select all** to select all column elements and click **Filter**.

The column list displays only those device details that match the specified filter criteria.

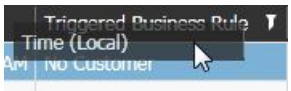
Note: To remove all existing filters from a selected list column, open the **Filter** dialog box and click **Clear Filter**.

Moving a Column List

You can move any column list on a report.

To move a column list

- Drag the column header to a new position on the report before or after another header. The column list move to the selected position.



Managing Reports

After you customize a **Business Rules** report, you can perform the following operations:

- "Setting the Default Query for the Business Rules Summary Page" on page 136
- "Viewing the Video Associated to a Transaction" on page 137
- "Exporting Business Rules Reports" on page 139

Setting the Default Query for the Business Rules Summary Page

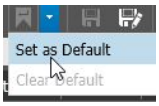
Searchlight allows you to save a default query for the **Business Rules Summary** page: after clicking the tile, the default query is automatically performed.

Note: It is possible to save a different default query for each user.

To set the default query for the Transaction Reports page

1 In the **Business Rules Summary** page, perform a query on the report, as described in the previous sections.

2 Click the arrow near the **Search with default Parameters** button on the toolbar and select **Set as Default**.



The query is saved and performed each time you access the **Business Rules Summary** page on a new session or each time you click the **Search with default Parameters** button.

Notes:

- When a default query is saved the **Search with default Parameters** button is highlighted.
- To remove the default query, click the arrow near the **Search with default Parameters** button on the toolbar and select **Clear Default**.

Viewing the Video Associated to a Transaction

If one or more cameras are associated to the transaction that triggered a business rule, you can view the video associated to the transaction in the **Camera** panel.

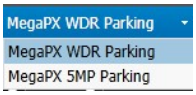
To view the video associated to a transaction

1 Customize a **Business Rules** report as described in the previous section.

2 Select an entry in the report.

The receipt lines associated to the transaction appear in the **Receipt Area**, while the video recorded by the first camera added to the POS terminal that processed the transaction appears in the **Video Area**.

3 If two or more cameras are associated to the POS terminal, select the camera from the list on the **Playback** toolbar in the camera panel.



4 Click the **Play** button.

The video starts playing from the selected date and time.

5 (Optional) Click the **Open in View** button in the upper-right corner of the **Camera** panel to open the video in a new tab.

6 Adjust the playback controls as required.

The following table describes the buttons in the **Playback** toolbar.

Toolbar Button	Tooltip	Description
	Open in a View	Opens a **View** tab that includes the cameras associated to the POS terminal that triggered the business rule.
	Export to Case	Opens a **Case Management** tab that allows you to export the transaction in a file that includes the receipt and the related videos and thumbnails. For more information, see “Managing Cases” on page 166.
	Jump Back 10 Seconds	Activates instant replay. This button allows you to jump 10 seconds back in the video.

Toolbar Button	Tooltip	Description
	Go To Start	Goes to the beginning of the recorded video.
	Pause	Pauses video playback.
	Play	Plays the video.
	Play Forward	When in archive mode, fast forwards the video. **Note:** Click multiple times to increase the speed. When the playback is paused, jumps to the following frame (frame-by-frame mode).
	Go To End	Goes to the end of the recorded video.

7 Alternatively, you can use the **Receipt Area** to jump back and forward in the recorded video: click a text insertion entry to automatically move the recorded video to the time that corresponds to the text entry transmitted by the POS terminal.

Important: Some POS terminals do not add a time stamp to a text entry. If timestamps are not available, Searchlight for Retail adds them to the text by simply dividing the total video running time by the number of text entries. For example, for a one minute video with four text entries, Searchlight for Retail automatically adds a time stamp every 15 seconds; by clicking on the third text entry, the video automatically jumps to 0:45 time.

Exporting Business Rules Reports

Searchlight for Retail allows you to export the **Business Rules** reports in a Comma Separated Values file (.csv) file. This file format is fully compatible with Microsoft Excel and similar products.

Note: Searchlight exports data using **Unicode (UTF-8)** encoding and using semicolons to separate the values.

To export a report

1 With the report open, click the **Export** button on the report navigation toolbar.

A warning dialog box appears.

2 Click **Yes**.

The **Save As** window appears.

3 In the **Save As** dialog box, type a file name and location for the file.

Searchlight for Retail export the report file in a Comma Separated Values file (.csv) file.

Setting the KPI Badge on the Home Page

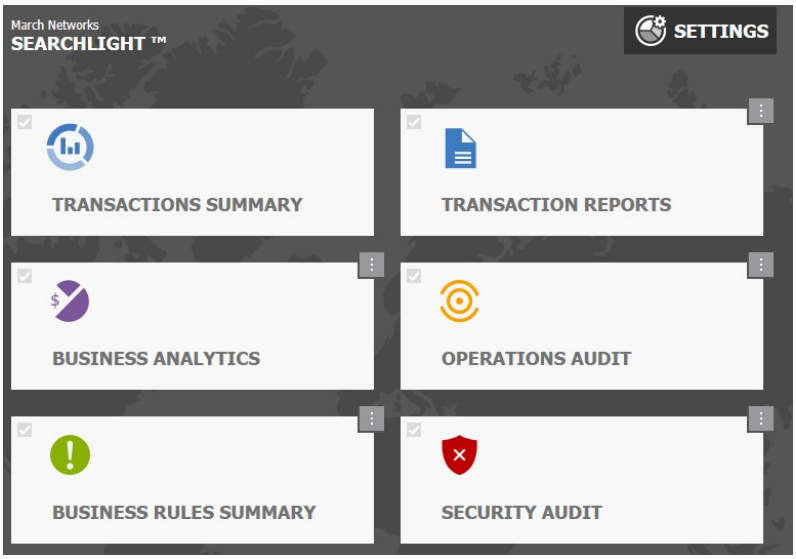
Searchlight allows you to set a KPI Badge on the home page for the **Business Rules Summary** page. A KPI Badge is associated to the number of business rules triggered in the last 24 hours. You can also set thresholds to change the badge's color according to the number of transactions (green=good; yellow=warning; red=critical).

Note: The KPI Badge is automatically refreshed every 5 minutes or each time the user logs on to the CES and access the Searchlight application.

To set the KPI Badge on the home page

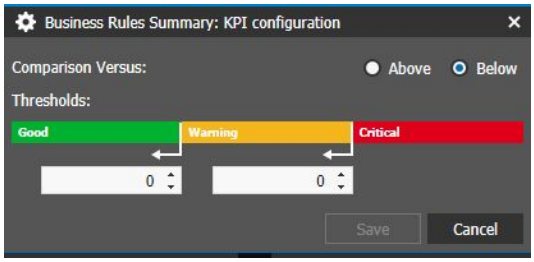
1 Click the button on the side toolbar to return to the Searchlight home page.

The Searchlight home page appears.



2 Right-click the KPI Badge on the upper-right corner of the tile.

The **Business Rules: KPI Configuration** dialog box appears.



3 In the **Comparison Versus** section, select the badge behavior.

Options include **Above** (the badge is green if the number of transactions in the report is higher than the threshold for the good status) and **Below** (the badge is green if the number of transactions in the report is lower than the threshold for the good status).

4 Set the threshold values for the green (**Good**) and yellow (**Warning**) statuses.

Note: If you selected **Above**, the value for the green status must be higher that the yellow value. If you selected **Below**, the value for the green status must be lower that the yellow value.

5 Click **Save** to save and apply the changes.

The dialog box is closed and the KPI Badge automatically updated.

6 Click the KPI Badge to perform the query for the **Triggered in Last 24 Hours** timeframe.

Chapter 11

Using Operations Audit

The **Operations Audit** page automatically creates an overview of the site/branch, allowing investigators to view grids of snapshots periodically saved by the cameras associated to a site. Investigators can also tag images with labels, directly attach snapshots to mail messages, and also create and schedule email reports that include the snapshots from the **Operations Audit** feature based on the current query.

Notes:

- Before you access and use the **Operations Audit** page, you must configure and schedule one or more site cameras for the feature. For more information, see "Configuring Site Cameras for Operations Audit" on page 50.
- The snapshots displayed on the **Operations Audit** page are standard definition images. If the **HD Download** option has been selected on a site, high definition images (if available) are downloaded and attached to the Operations Audit notices and to the instant emails. For more information, see "Configuring Site Cameras for Operations Audit" on page 50.

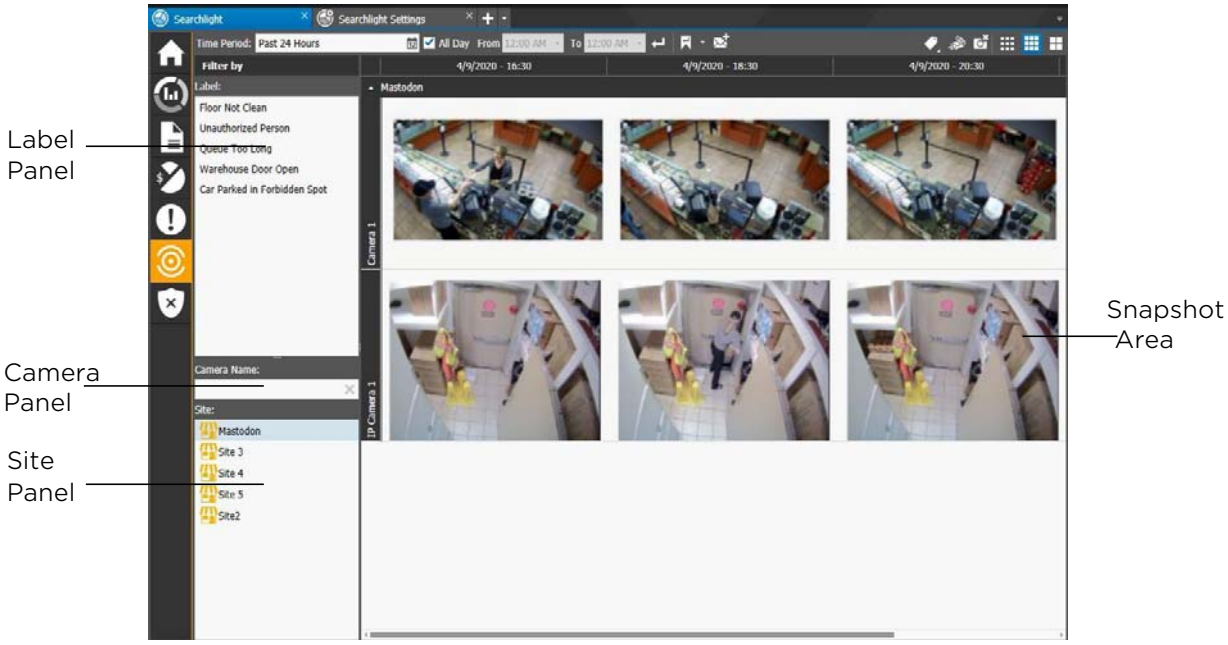
This chapter contains the following sections:

- "Overview" on page 142
- "Managing Operations Audit Labels" on page 142
- "Using Operations Audit" on page 143
- "Creating Operations Audit Notices" on page 149
- "Setting the KPI Badge on the Home Page" on page 152

Overview

The **Operations Audit** page allows you to view grids of snapshots periodically saved by the cameras associated to a site. You can select and directly attach snapshots to mail messages or apply custom labels to tag the images and retrieve them more easily.

The **Operations Audit** page is divided into four main graphical areas.



Managing Operations Audit Labels

The **Operations Audit Label** section on the **Label Management** sub-tab allows you create and customize labels for the snapshot saved by the Archiver on the **Operations Audit** page. By using labels to tag snapshots, you can create useful filters when reviewing the images.

To manage Operations Audit labels

1 In the **Searchlight Settings** tab, click the **Label Management** sub-tab.

2 In the **Operations Audit Label** section, click the **Add Operations Audit Label** button to create a new report label.

The label is added to the list.

3 Double-click the **Name** field and enter a descriptive name for the label.

4 Click the **Save** button to save and apply the changes.

5 Repeat steps 2-4 to create additional labels.

Notes:

- To remove a label, select it in the list, click the **Remove Operations Audit Label** button and then click **OK**.
- To use an existing label as template for a new label, select it in the list and click the **Duplicate Operations Audit Label** button.

Using Operations Audit

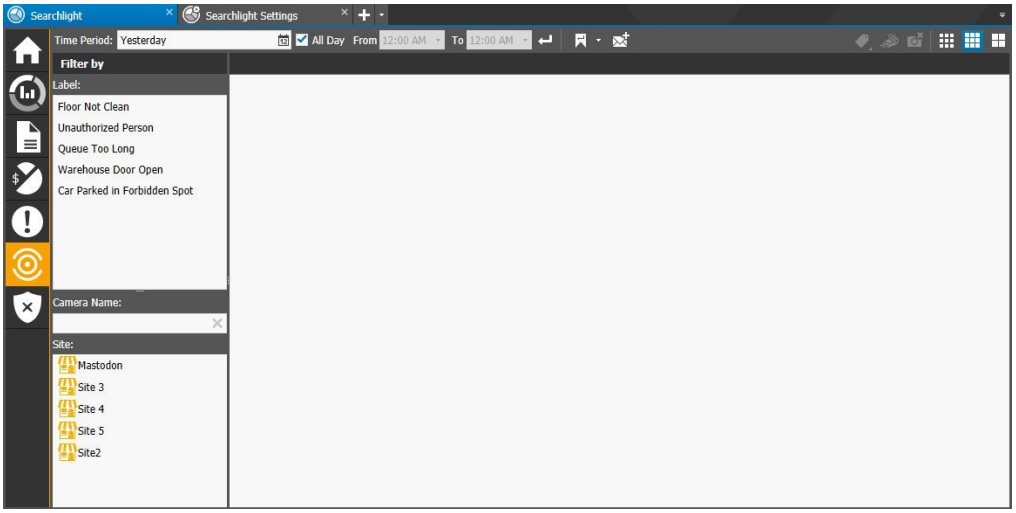
The **Operations Audit** page allows you to view a grid of snapshots periodically saved by the cameras associated to a site.

To use Operations Audit

1 From the Searchlight home page, click the **Operations Audit** tile.

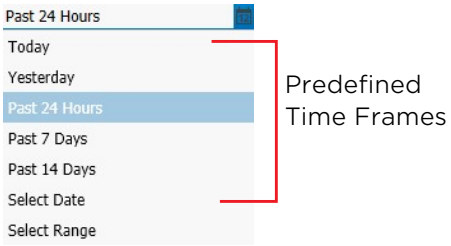
The **Operations Audit** page appears.

Note: Each user can set its own default query for the **Operations Audit** page (see "Setting the Default Query for the Operations Audit Page" on page 149): after clicking the tile, the default query is automatically performed.

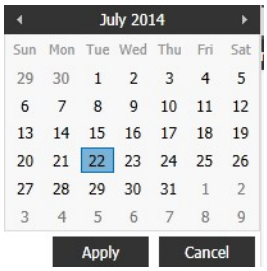


2 To specify the time frame of the snapshots you want to view in the report, click the **Time Period** button on the toolbar and do one of the following:

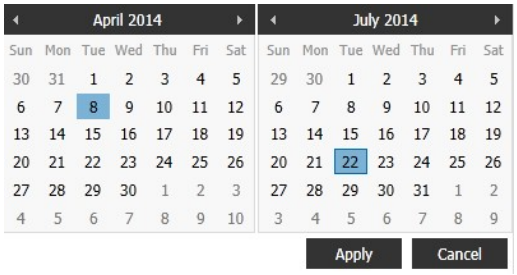
- Select a predefined time frame from the list (first five options).



- Click the **Select Date** option to select a specific day from the calendar field displayed. Click **Apply** to confirm the selection.

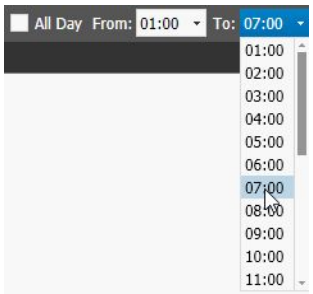


- Click the **Select Range** option to select a custom time frame from the calendar fields displayed. Click **Apply** to confirm the selection.



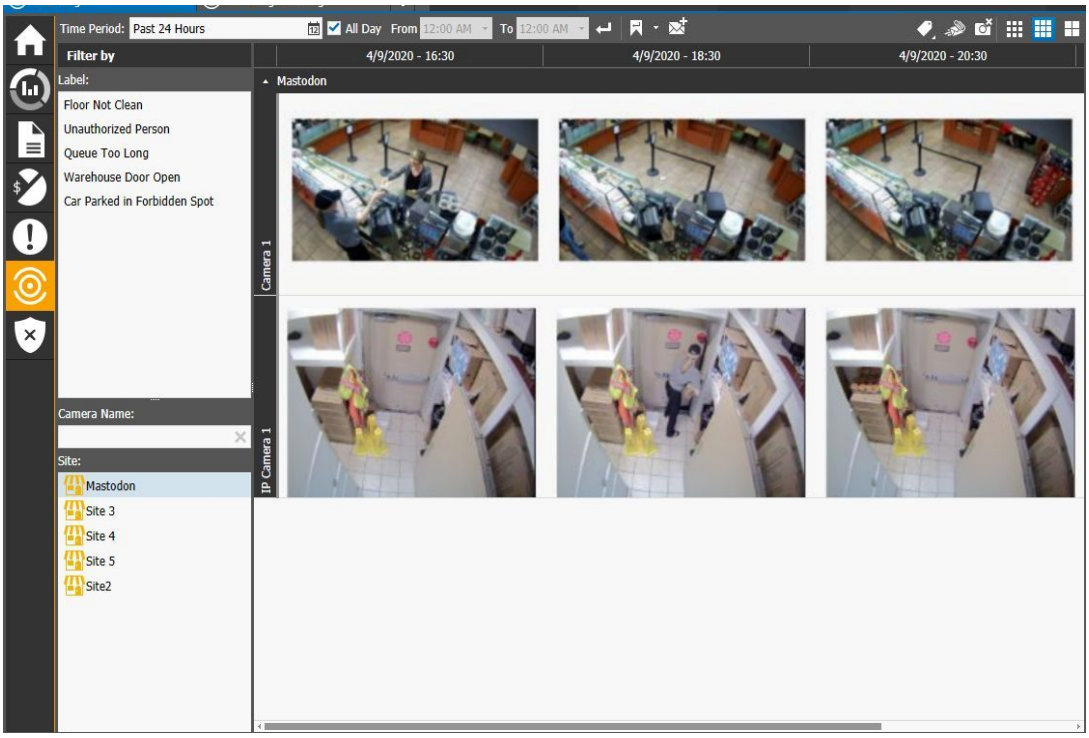
3 Do any of the following:

- Keep the **All Day** check box selected to view all the image saved in the selected time period.
- Clear the **All Day** check box to configure a custom timeframe (for example: only night hours). To configure the timeframe, select the opening and closing times for the timeframe from the **To** and **From** lists.



4 Click the **Search** button

The **Operations Audit** page is populated by the snapshots saved by the cameras added to the first site.



5 Select a label on the **Label** panel to see all the snapshots tagged with the label (see step 10) in the selected timeframe.

Note: You can select a single label at the time. To clear the label filter, press the **CTRL** key and click the label.

6 Select one or more site on the **Site** panel to see all the snapshots saved by the cameras added to the sites.

Note: You can select multiple sites by keeping the **CTRL** key pressed.

7 Enter a text filter in the **Camera Name** text box to see the snapshots saved by the cameras that matches the text filter.

Note: Click the **Clear Filter** ✕ button to clear the text filter.

8 Click the **Grid** buttons on the toolbar to modify the snapshot dimensions.

9 Double-click a snapshot to open the related camera as a video cell in the workspace area.

10 To tag one or more snapshots with a label, do the following:

a Hover the mouse cursor on the snapshot you want to tag.

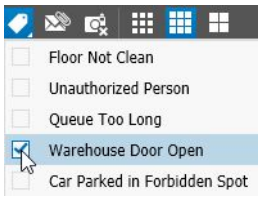
The snapshot is highlighted in blue.

b Select the check box in the upper-left corner.

c Repeat steps a-b to tag additional snapshots.

d Click the **Label Selected Images** button on the toolbar to open the labels menu.

e Select the one or more check boxes corresponding to the labels you want to assign to the snapshots.



The label icon appears on the selected snapshot.

Note: Hover the mouse on the label icon to see which labels are associated to the snapshot.

11 To instantly create an email containing one or more snapshots, do the following:

a Hover the mouse cursor on the snapshot you want to send.

The snapshot is highlighted in blue.

b Select the check box in the upper-left corner.

c Repeat steps a-b to add additional snapshots to the mail message.

d Click the **Export to Email** button on the toolbar to add the snapshots to the mail message as attachments.

The default mail client opens and a new message is created and the selected snapshots are automatically added to the email as attachments.

12 To delete one or more snapshots from the Command Media Archiver, do the following:

a Hover the mouse cursor on the snapshot you want to delete.

The snapshot is highlighted in blue.

b Select the check box in the upper-left corner.

c Repeat steps a-b to add additional snapshots to the selection.

d Click the **Delete Selected Images** button on the toolbar to delete the snapshots from the Archiver.

A warning dialog box appears.

e Click **Yes** to confirm the image deletion.

Setting the Default Query for the Operations Audit Page

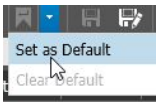
Searchlight allows you to save a default query for the **Operations Audit** page: after clicking the tile, the default query is automatically performed.

Note: It is possible to save a different default query for each user.

To set the default query for the Operations Audit page

1 In the **Operations Audit** page, perform a query, as described in the previous sections.

2 Click the arrow near the **Search with default Parameters** button on the toolbar and select **Set as Default**.



The query is saved and performed each time you access the **Operations Audit** page on a new session or each time you click the **Search with default Parameters** button. The query includes selected label, sites, and filtered cameras.

Notes:

- When a default query is saved the **Search with default Parameters** button is highlighted.
- To remove the default query, click the arrow near the **Search with default Parameters** button on the toolbar and select **Clear Default**.

Creating Operations Audit Notices

You can create and schedule email reports that include the snapshots from the **Operations Audit** page. You can create a new email notice in two different ways: you can create a new notice from scratch by accessing the **Operations Audit** sub-tab on the **Settings** page, or you can directly create a new notice based on the current query on the **Operations Audit** page by clicking the **Create Operations Audit Notice** button.

Notes:

- Only the images downloaded during the schedule configured for the site are added to the notice. For more information, see “Configuring Site Cameras for Operations Audit” on page 50.
- The schedule for notices can be a subset of the image download schedule: it is not required to include all of the downloaded images to the notices.
- Only user accounts with either the **Searchlight->Operations Audit** or the **Archive Video** user rights can receive **Operations Audit** notices. For more information, see “Assigning Sets of User Rights” on page 35 and consult the *Command Enterprise User Guide*, available for download on the March Networks official website and the Partner Portal.

Select your configuration:

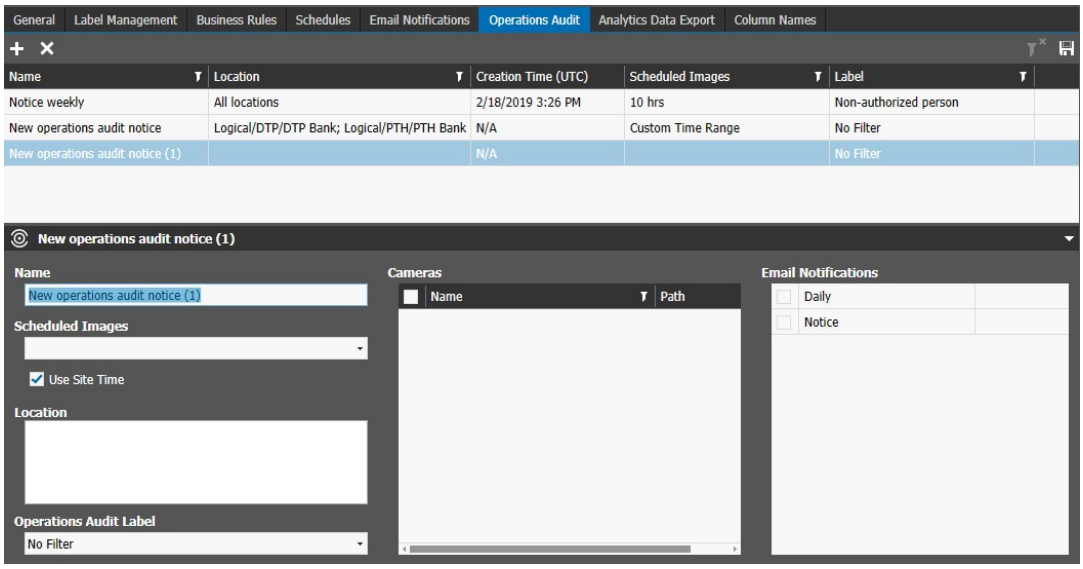
- “Creating a New Operations Audit Notice” on page 150
- “Creating an Operations Audit Notice From a Query” on page 151

Creating a New Operations Audit Notice

The **Operations Audit** sub-tab on the **Settings** page allows you to create and schedule email notices that include the snapshots from the **Operations Audit** feature. The email notices are sent to the distribution lists configured on the **Email Notifications** sub-tab, as explained in the previous section.

To create Operations Audit notices

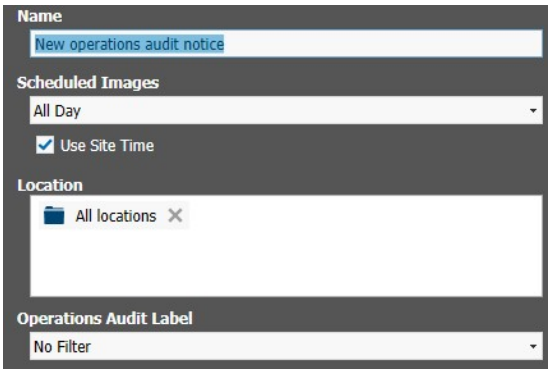
1 In the **Searchlight Settings** tab, click the **Operations Audit** sub-tab.



2 Click the **Add Notice** button on the toolbar.

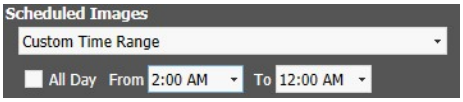
The new report is added to the list.

3 Enter a descriptive name for the notification in the **Name** field.



4 Select a configured schedule from the **Scheduled Images** list, or manually specify a time range by selecting the **Custom Time Range** option.

If you select the **Custom Time Range** option, you can either select the **All Day** check box (the images saved in the last 24 hours for each site, regardless of the **Use Site Time** option, are sent with the notice) or clear the All Day check box and specify a time range by selecting them from the **To** and **From** lists.



5 Select the **Use Site Time** check box to use the time of the single sites instead of the UTC time for the selected schedule.

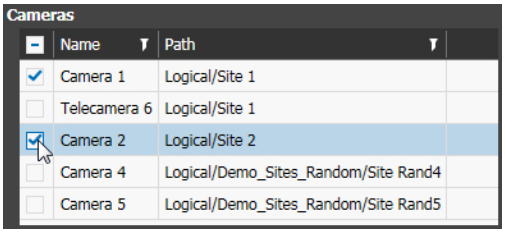
Note: It is recommended that you enable this option if the sites are located in different time zones.

6 Select which sites are included in the notice by dragging multiple sites or logical folders to the **Location** field.

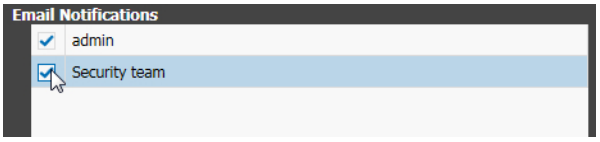
Note: By default, no site is added to the notice.

7 In the **Cameras** section, select the check box corresponding to the cameras you want to add to the notice.

Tip: Select the check box on the section toolbar to select all the cameras in the list.



8 In the **Email Notifications** section, select the check boxes corresponding to the distribution lists you want to send the report.



9 Click **Save** to save and apply the changes.

10 Repeat steps 2-8 to create additional notices.

Note: To remove a notice, select it in the list, click the **Remove** button and then click **OK**.

Creating an Operations Audit Notice From a Query

The **Operations Audit** page allows you to directly create a new email notice based on the current query displayed on the page.

To create an Operations Audit Notice from query

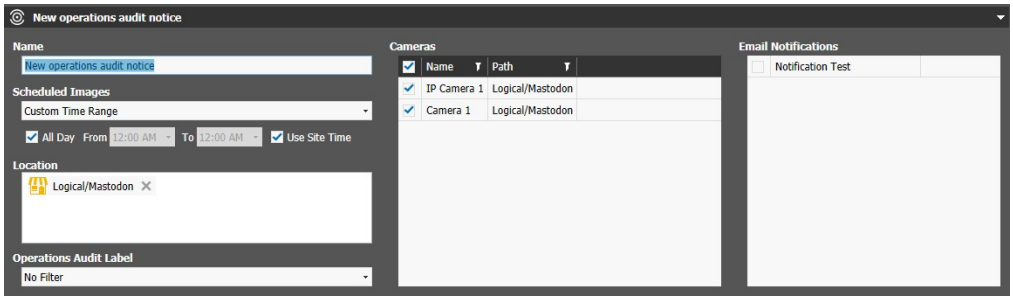
1 From the Searchlight home page, click the **Operations Audit** tile.

The **Operations Audit** page appears.

2 Perform a query, as described in "Using Operations Audit" on page 143.

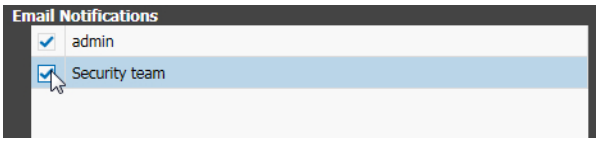
3 Click the **Create Operations Audit Notice** button on the toolbar.

The **Settings** tab automatically opens on the workspace on the **Operations Audit** sub-tab and a new email notice is automatically created including all the sites, cameras and labels specified in the original query.



4 Check and edit the notice settings as described in the previous section.

5 In the **Email Notifications** section, select the check boxes corresponding to the distribution lists you want to send the report.



6 Click **Save** to save and apply the changes.

Note: To remove a notice, select it in the list, click the **Remove** button and then click **OK**

Setting the KPI Badge on the Home Page

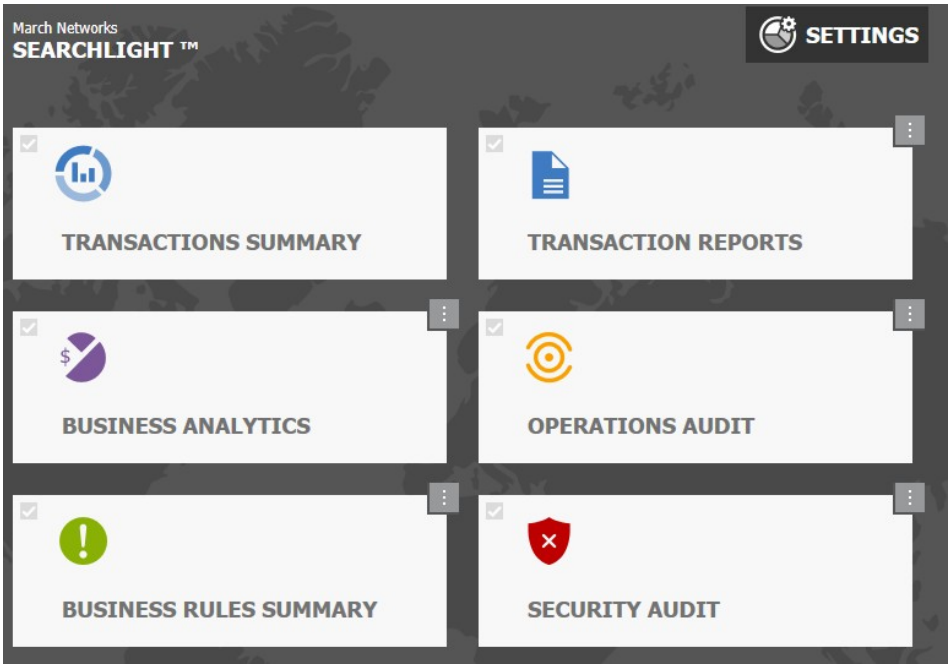
Searchlight allows you to set a KPI Badge on the home page for the **Operations Audit** page. A KPI Badge automatically displays the number of snapshots that have been tagged with a specific label in the last 24 hours. You can also set thresholds to change the badge's color according to the number of snapshots (green=good; yellow=warning; red=critical).

Note: The KPI Badge is automatically refreshed every 5 minutes or each time the user logs on to the CES and access the Searchlight application.

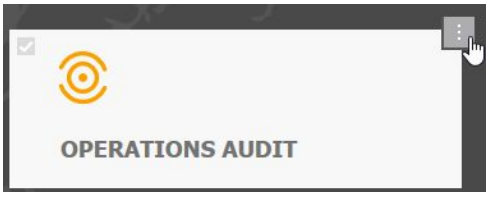
To set the KPI Badge on the home page

1 Click the button on the side toolbar to return to the Searchlight home page.

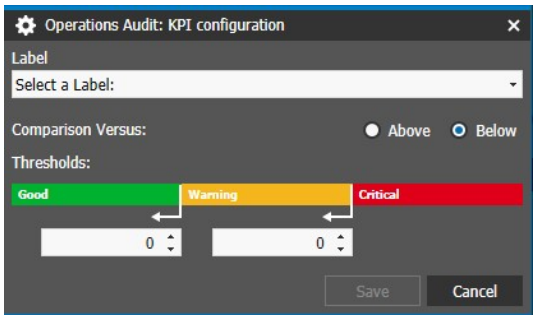
The Searchlight home page appears.



2 Right-click the KPI Badge on the upper-right corner of the tile.



The **Operations Audit: KPI Configuration** dialog box appears.



3 Select a configured label from the **Label** list.

4 In the **Comparison Versus** section, select the badge behavior.

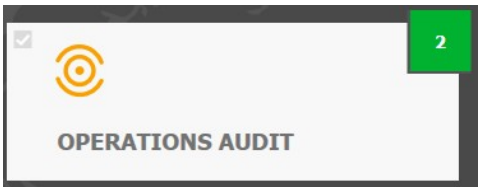
Options include **Above** (the badge is green if the number of snapshots tagged with the selected label is higher than the threshold for the good status) and **Below** (the badge is green if the number of snapshots tagged with the selected label in the report is lower than the threshold for the good status).

5 Set the threshold values for the green (**Good**) and yellow (**Warning**) statuses.

Note: If you selected **Above**, the value for the green status must be higher that the yellow value. If you selected **Below**, the value for the green status must be lower that the yellow value.

6 Click **Save** to save and apply the changes.

The dialog box is closed and the KPI Badge automatically updated.



7 Click the KPI Badge to perform the query for the selected snapshots in the last 24 hours.

Chapter 12

Customizing Security Audit Reports

The **Security Audit** page allows you to access and customize reports based on the alarms triggered in the sites/stores.

Important Note: Before you access and use the **Security Audit** page, you must associate the alarms to the sites. For more information, see "Associating Cameras and Alarms to Sites" on page 52.

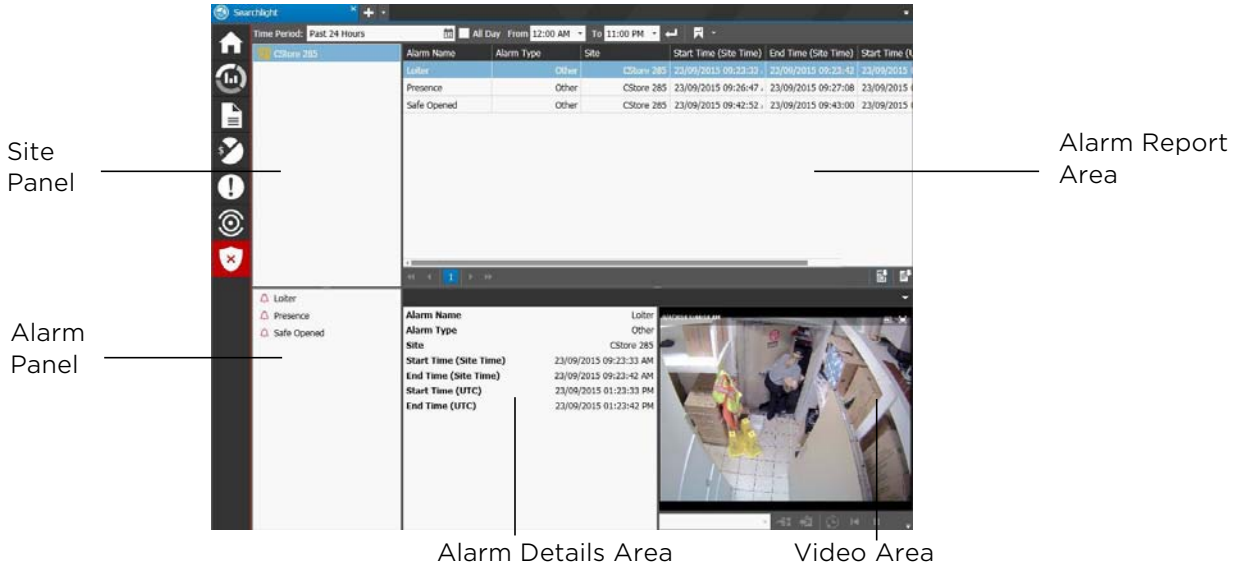
This chapter contains the following sections:

- "Overview" on page 156
- "Accessing Security Audit Reports" on page 157
- "Customizing a Report" on page 159
- "Managing Reports" on page 161
- "Setting the KPI Badge on the Home Page" on page 164

Overview

The **Security Audit** page allows you to view and customize reports based on the alarms triggered in the configured sites. You can customize a report by selecting a specific time frame, filtering by columns, filtering by site and alarms, and by sorting data. After you customize the report you can export it as a Comma Separated Values file (.csv) file compatible with Microsoft Excel.

The **Security Audit** page is divided into five main graphical areas.



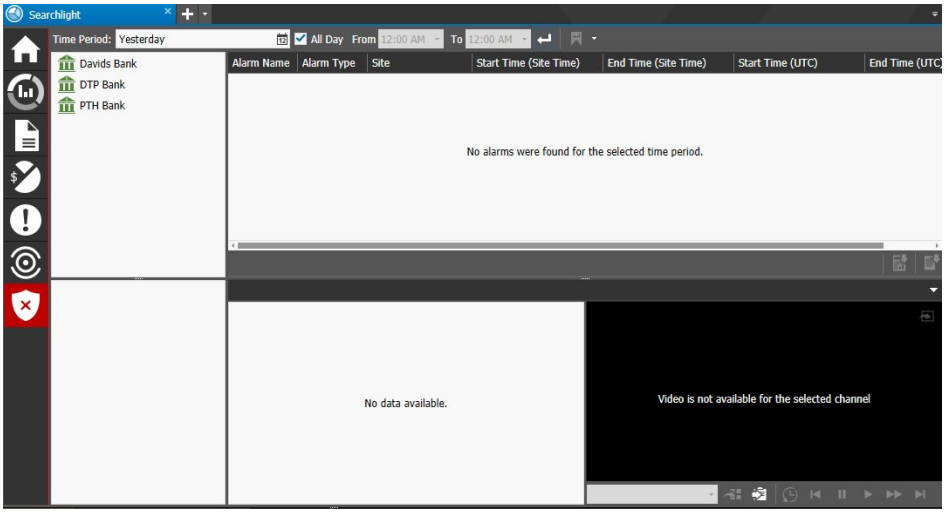
Accessing Security Audit Reports

To access a report, you must specify the time frame for the alarms triggered in the sites.

To access a Security Audit report

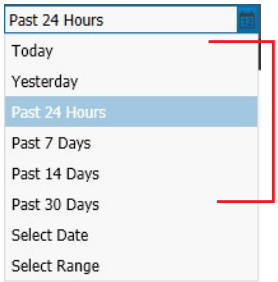
1 From the Searchlight home page, click the **Security Audit** tile.

The **Security Audit** page appears.



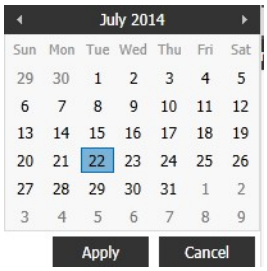
2 To specify the time frame of the alarms you want to view in the report, click the **Time Period** button on the toolbar and do one of the following:

- Select a predefined time frame from the list (first six options).

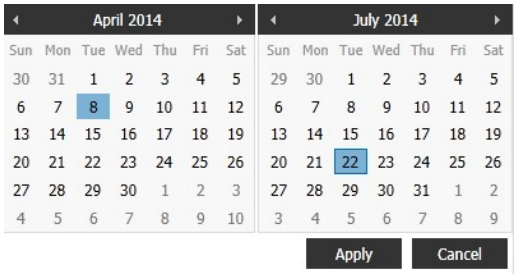


Predefined Time Frames

- Click the **Select Date** option to select a specific day from the calendar field displayed. Click **Apply** to confirm the selection.

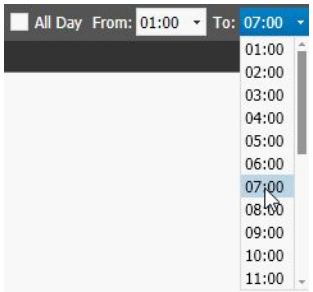


- Click the **Select Range** option to select a custom time frame from the calendar fields displayed. Click **Apply** to confirm the selection.



3 Do any of the following:

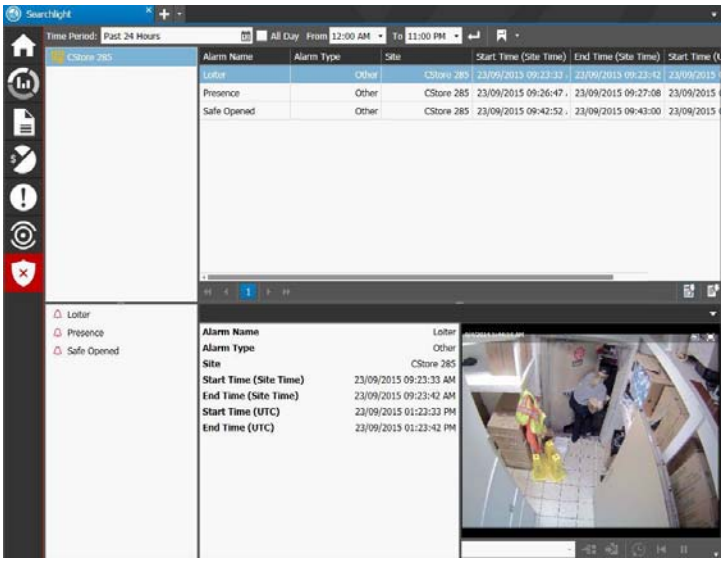
- Keep the **All Day** check box selected to view all the alarms triggered in the selected time period.
- Clear the **All Day** check box to configure a custom timeframe (for example: only night hours). To configure the timeframe, select the opening and closing times for the timeframe from the **To** and **From** lists.



4 Click the **Search** button.

The report appears on the page and includes all of the configured sites and their associated alarms.

Note: If an alarm is removed from a site, the alarms instances are still present in the Security Audit up to the removal date.



5 You can navigate within the report using the navigation toolbar.

Customizing a Report

The default **Security Audit** report includes all the sites added to Searchlight for Retail and their associated alarms. You can customize the default report by filtering the data by site and by single alarm, and sorting the column lists with a different order. You can also move the column position.

To customize a report, you can perform any of the following operations:

- “Filtering and Sorting Columns” on page 160
- “Moving a Column List” on page 160

Filtering and Sorting Columns

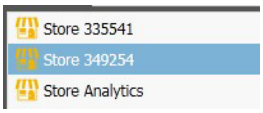
You can sort and filter data in all column lists on a report.

Filtering in Columns

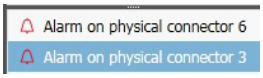
You can filter the report by site and by the single alarms associated to the site.

To filter in a column

1 To filter the alarm data by site, select a site in the **Site** panel.



2 To filter the alarm data in the selected site by single alarm, select an alarm in the **Alarm** panel.



Sorting in Columns

You can alphabetically or numerically sort a column list (depending on the content of the list).

To sort in a column

1 Click on a column header to show the **Sort** icon.

Alarm Name	Alarm Type	Site	Start Time (Site Time)	End Time (Site Time)	Start Time (UTC)	End Time (UTC)
Alarm 3	N/A	test	09/05/2016 05:47:12 PM	09/05/2016 05:47:27 PM	09/05/2016 03:47:12 PM	09/05/2016 03:47:27 PM
Allarme 1	N/A	27649	09/05/2016 05:47:17 PM	09/05/2016 05:47:23 PM	09/05/2016 03:47:17 PM	09/05/2016 03:47:23 PM
Allarme 1	N/A	27649	09/05/2016 05:47:30 PM	09/05/2016 05:47:42 PM	09/05/2016 03:47:30 PM	09/05/2016 03:47:42 PM
Alarm 3	N/A	test	09/05/2016 05:47:36 PM	09/05/2016 05:47:40 PM	09/05/2016 03:47:36 PM	09/05/2016 03:47:40 PM

2 Click the **Sort** icon to automatically sort the elements in the column list in ascending or descending alphabetical or numerical order.

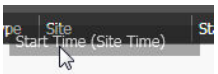
Note: Click on the **Sort** icon again to change the order from ascending to descending or from descending to ascending.

Moving a Column List

You can move any column list on a report.

To move a column list

- Drag the column header to a new position on the report before or after another header. The column list move to the selected position.



Managing Reports

After you customize a **Security Audit** report, you can perform the following operations:

- "Setting the Default Query for the Security Audit Page" on page 161
- "Viewing the Video Associated to an Alarm" on page 161
- "The following table describes the buttons in the Playback toolbar." on page 162
- "Exporting Security Audit Reports" on page 163

Setting the Default Query for the Security Audit Page

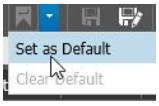
Searchlight allows you to save a default query for the **Security Audit** page: after clicking the tile, the default query is automatically performed.

Note: It is possible to save a different default query for each user.

To set the default query for the Security Audit page

1 In the **Security Audit** page, perform a query, as described in the previous sections.

2 Click the arrow near the **Search with default Parameters** button on the toolbar and select **Set as Default**.



The query is saved and performed each time you access the **Security Audit** page on a new session or each time you click the **Search with default Parameters** button. the query includes the selected sites.

Notes:

- When a default query is saved the **Search with default Parameters** button is highlighted.
- To remove the default query, click the arrow near the **Search with default Parameters** button on the toolbar and select **Clear Default**.

Viewing the Video Associated to an Alarm

If one or more cameras are associated to the alarm, you can view the video associated to the alarm entry in the **Camera** panel.

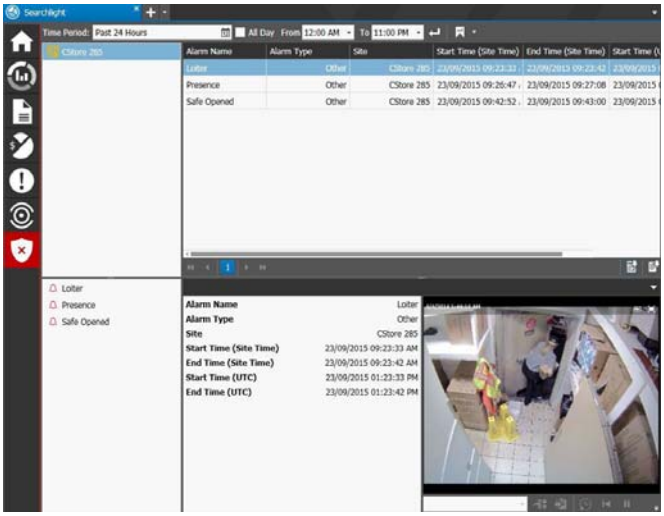
Note: You cannot associate one or more cameras to an alarm using Searchlight. To associate one or more cameras to an alarm, you must access the configuration interface of the recorder or CRS where the alarm was created.

To view the video associated to a transaction

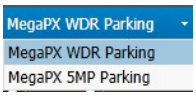
1 Customize a **Security Audit** report as described in the previous section.

2 Select an alarm entry in the report.

The alarm details appear in the **Alarm Details** panel, while the video recorded by the first camera associated to the alarm appears in the **Camera** panel.



3 If two or more cameras are associated to the alarm, select the camera from the list on the **Playback** toolbar in the camera panel.



4 Click the **Play** button.

The video starts playing from the selected date and time.

5 (Optional) Click the **Open in View** button in the upper-right corner of the **Camera** panel to open the video in a new tab.

6 Adjust the playback controls as required.

The following table describes the buttons in the **Playback** toolbar.

Toolbar Button	Tooltip	Description
	Open in a View	Opens an **Alarm View** tab that includes the cameras associated to the alarm.
	Export to Case	Opens a **Case Management** tab that allows you to export the transaction in a file that includes the receipt and the related videos and thumbnails. For more information, see “Managing Cases” on page 166.
	Jump Back 10 Seconds	Activates instant replay. This button allows you to jump 10 seconds back in the video.

Toolbar Button	Tooltip	Description
	Go To Start	Goes to the beginning of the recorded video.
	Pause	Pauses video playback.
	Play	Plays the video.
	Play Forward	When in archive mode, fast forwards the video. **Note:** Click multiple times to increase the speed. When the playback is paused, jumps to the following frame (frame-by-frame mode).
	Go To End	Goes to the end of the recorded video.

Exporting Security Audit Reports

Searchlight for Retail allows you to export the **Security Audit** reports in a Comma Separated Values file (.csv) file. This file format is fully compatible with Microsoft Excel and similar products.

Note: Searchlight exports data using **Unicode (UTF-8)** encoding and using semicolons to separate the values.

To export a report

1 With the report open, click the **Export Show Result** button on the report navigation toolbar to export the alarms filtered in the Alarms Detail panel, or click the **Export All Security Audits** button to export every alarm in the selected time interval.

2 Click **Yes**.

The **Save As** window appears.

3 In the **Save As** dialog box, type a file name and location for the file.

Searchlight for Retail exports the report file in a Comma Separated Values file (.csv) file.

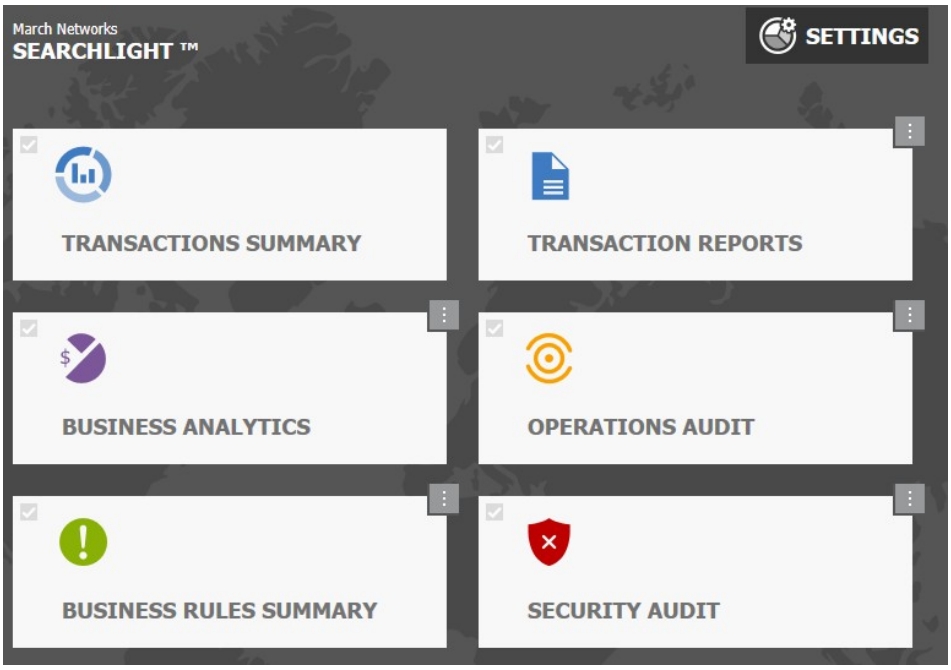
Setting the KPI Badge on the Home Page

Searchlight allows you to set a KPI Badge on the home page for the **Security Audit** page. A KPI Badge automatically displays the number of alarms that have been triggered in the last 24 hours or in a specific timeframe of the last 24 hours. You can also set thresholds to change the badge's color according to the number of alarms (green=good; yellow=warning; red=critical).

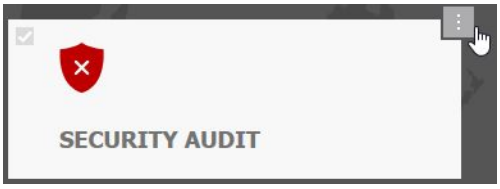
Note: The KPI Badge is automatically refreshed every 5 minutes or each time the user logs on to the CES and access the Searchlight application.

To set the KPI Badge on the home page

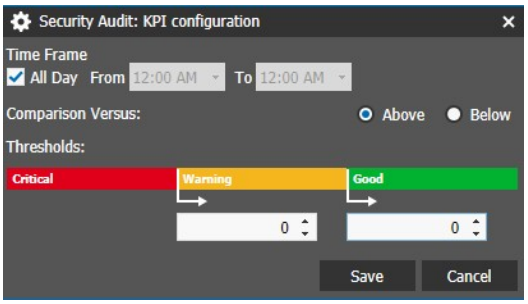
1 Click the button on the side toolbar to return to the Searchlight home page.
The Searchlight home page appears.



2 Right-click the KPI Badge on the upper-right corner of the tile.



The **Security Audit: KPI Configuration** dialog box appears.



3 Select an option from the **Time Frame** list to refine the value displayed in the badge:

- Keep the **All Day** check box selected to view all the alarms triggered in the selected time period in the last 24 hours.
- Clear the **All Day** check box to configure a custom timeframe (for example: only night hours) in the last 24 hours. To configure the timeframe, select the opening and closing times for the timeframe from the **To** and **From** lists.

4 In the **Comparison Versus** section, select the badge behavior.

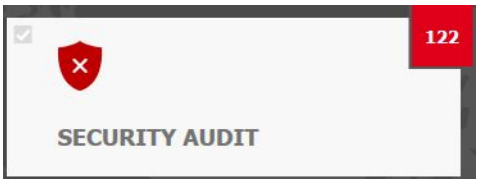
Options include **Above** (the badge is green if the number of alarms in the report is higher than the threshold for the good status) and **Below** (the badge is green if the number of alarms in the report is lower than the threshold for the good status).

5 Set the threshold values for the green (**Good**) and yellow (**Warning**) statuses.

Note: If you selected **Above**, the value for the green status must be higher that the yellow value. If you selected **Below**, the value for the green status must be lower that the yellow value.

6 Click **Save** to save and apply the changes.

The dialog box is closed and the KPI Badge automatically updated.



7 Click the KPI Badge to perform the query for the selected timeframe in the last 24 hours.

Chapter 13

Managing Cases

Command Enterprise allows you to manage and export Searchlight cases using a proprietary file format and a proprietary media player, Command Player, included on the Software DVD. It also allows you to create a summary of the case in PDF format.

Searchlight allows you to export entries from the **Transaction Reports, Business Rules**, and **Security Audit** pages.

Notes:

- For more information about case management, see the *Command Client User Guides*, available for download from the March Networks official website and the Partner Portal.
- For more information about Command Player installation and usage, see the *Command Player User Guide*, available for download from the March Networks official website and the Partner Portal.

This chapter contains the following sections:

- “Preparing and Exporting Searchlight Cases” on page 167
- “Reviewing Cases” on page 171

Preparing and Exporting Searchlight Cases

You can export any entry from the **Transaction Reports, Business Rules**, and **Security Audit** pages in a case. A case includes the transaction data (Receipt) or the alarm data, and the relevant video recorded from the cameras added to the POS terminal. You can prepare and customize cases by removing cameras from a transaction/alarm and by including multiple transactions/alarms. Searchlight also allows you to export a summary of the case in PDF format.

Select your operation:

- Prepare and customize a case. See “To prepare and customize a Searchlight case” on page 167.
- Export a summary of the case in PDF format. See “Reviewing Cases” on page 171.
- Export a case using the Command proprietary format (CME). See “To export a case” on page 170.

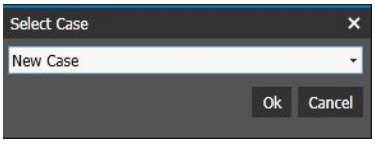
To prepare and customize a Searchlight case

1 Access a report on the **Transactions Reports**, **Business Rules**, or **Security Audit** page.

2 Select a row in the report.

3 Click the **Export to Case** button.

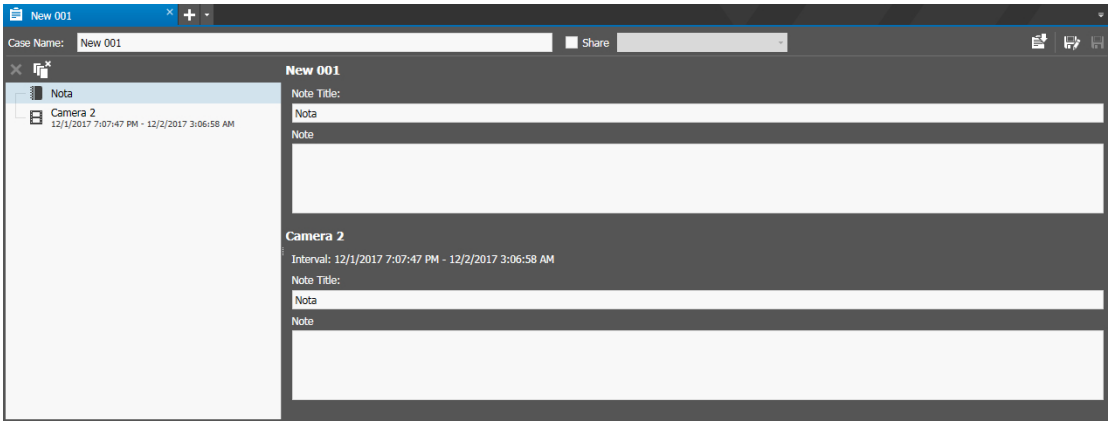
The **Select Case** dialog box appears.



4 Do one of the following:

- Select **New Case** from the list to open and manage a new case.
- Select an existing case (saved in the **Evidence** tab on the navigation panel) to add the video and the data to that case.

5 The **Case Management** tab opens.



6 Enter a descriptive name for the case in the **Case Name** field.

Note: By default, the case name uses the following format: *Case CaseEndDate.CaseEndTime*.

7 Select the **Share** check box and select an available group of users from the list to allow the selected users to open and edit the case.

8 In the **Resources List** panel, on the right of the tab, click the **Note** to enter the case notes in the **Note Panel**, on the left of the tab. You can access the case notes in Command Player or, if you export the case as a PDF file, at the beginning of the PDF summary.

Note: You can also add notes for each resource added to the case.

9 (Optional) Click the **Save** button on the toolbar to save the case and add it to the **Case** tab in the **Navigation** panel, or click the **Save As** button to save the changes in a different case.

10 In the **Resources List** panel, on the right of the tab, do any of the following:

- To add one or more additional transactions/alarms to the case, click the **Searchlight** tab, select a different row, click the **Export to Case** button, and then select the existing case from the **Select Case** list. A new **Receipt** appears in the **Resources List** on the **Case Management** tab.

  Tip: You can also add report entries from different pages. For example, you can add a suspicious transaction from the **Transaction Reports** page, the corresponding entries on the **Business Rules** and **Security Audit** pages.

- To remove the video from a camera associated to the POS terminal, expand the transaction **Thumbnail**, select the camera, and click the **Remove Video** button.
- To remove a transaction from the case, select a **Thumbnail** in the **Resources List** and click the **Remove Transaction** button. The transaction and all the video associated are removed from the case.
- To remove every transaction from the case, click the **Remove All Transactions** button.

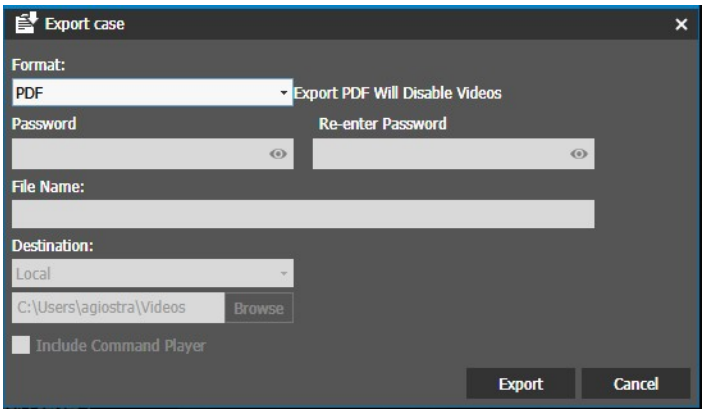
To export a summary of the case in PDF format

1 Prepare and customize a case, as described in the previous section.

2 Click the **Export to PDF** button.

The **Export Case** dialog box appears.

3 Select **PDF** from the **Format** list.

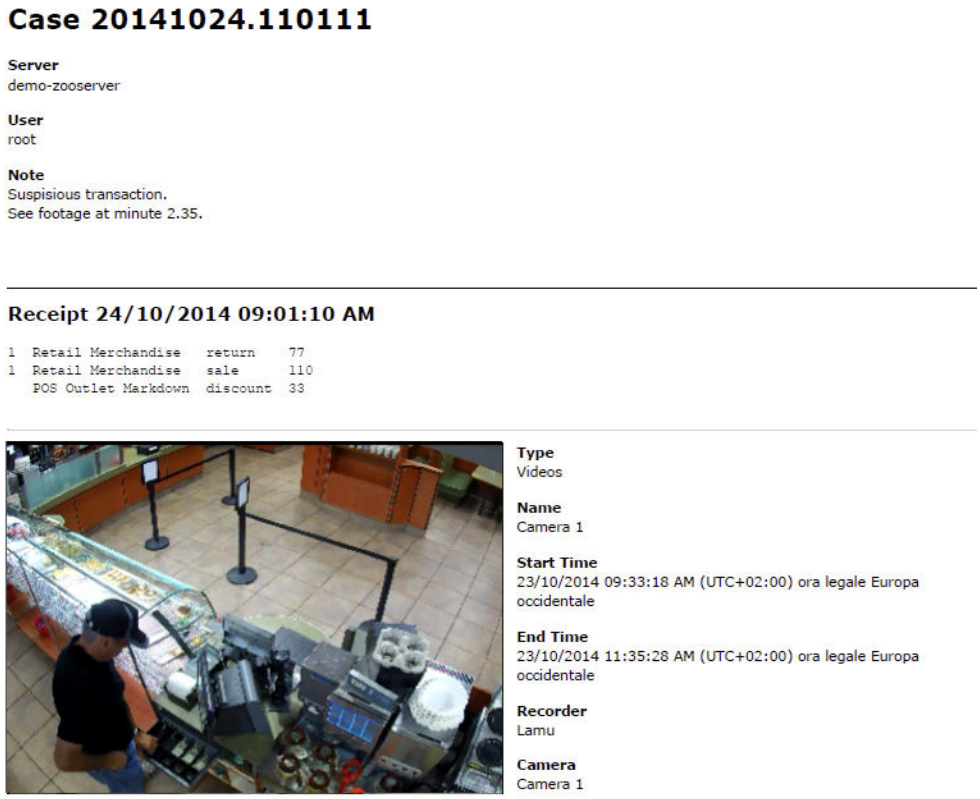


4 Click **Export**.

The **Save As** dialog box appears.

5 In the **Save As** dialog box, type a file name and browse for a location for the PDF file.

The case summary is saved in PDF format. The PDF file includes information about the Command Enterprise server, the user account that exported the file, the case notes, the transaction/alarm data and a thumbnail from every camera associated to the POS terminal.



Case 20141024.110111

Server
demo-zooserver

User
root

Note
Suspisious transaction.
See footage at minute 2.35.

Receipt 24/10/2014 09:01:10 AM

```
1  Retail Merchandise   return    77
1  Retail Merchandise   sale      110
   POS Outlet Markdown  discount  33
```

Type
Videos

Name
Camera 1

Start Time
23/10/2014 09:33:18 AM (UTC+02:00) ora legale Europa occidentale

End Time
23/10/2014 11:35:28 AM (UTC+02:00) ora legale Europa occidentale

Recorder
Lamu

Camera
Camera 1

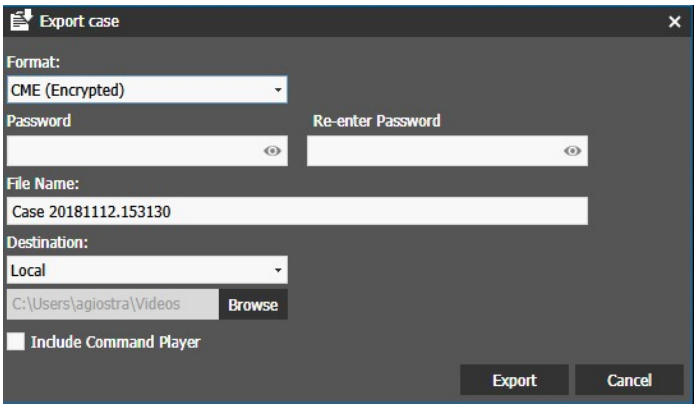
To export a case

1 Prepare and customize a case, as described in the previous section.

2 Click the **Export Case** button.

The **Export Case** dialog box appears.

3 Select your configuration:



- Select **CME (Native)** from the **Format** list to export the case without encrypting it.
- Select **CME (Encrypted)** from the **Format** list to encrypt the case while exporting it. You must also enter the password required to open and decrypt the case in the **Password** and **Re-Enter Password** fields.

4 Enter the name for the case file.

Note: By default the file name is identical to the case name.

5 In the **Destination** section, select from:

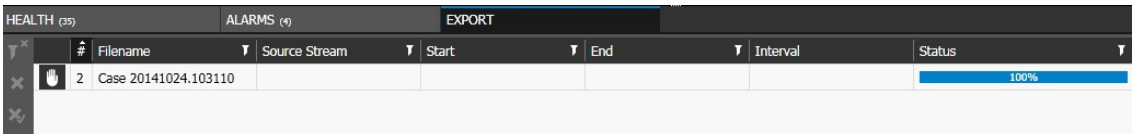
- The exported video destination folder: to change the destination folder (including removable media such as USB drives), click **Browse**.
- **CD/DVD Drive:** If you select this option, a drop-down menu allows you to select the destination DVD recorder.

6 (Optional) Select the **Include Command Player** check box to include the portable version of Command Player in the case package.

Note: Cases are exported using a proprietary file format (.CME) that can be read only from the Command Player application. The portable version of the Player does not require any installation.

7 Click **Export**.

The case file is displayed in the **Export** panel in the **Dashboard**. The **Status** column shows the progress of the export.



Reviewing Cases

After you export the case, you can review it using Command Player. Command Player is a tool that allows you to authenticate and play back recorded cases exported from Searchlight in the proprietary Command Multimedia Evidence (.CME) file format. This proprietary file format ensures that sensitive video evidence cannot be easily shared over the Internet.

To ensure that third-party investigators or law enforcement authorities can review evidence copied to external media, the Command Player can be automatically included when evidence files are exported to external media.

For more information about Command Player installation and usage, see the *Command Player User Guide*, available for download from the March Networks official website and the Partner Portal.

To review a case

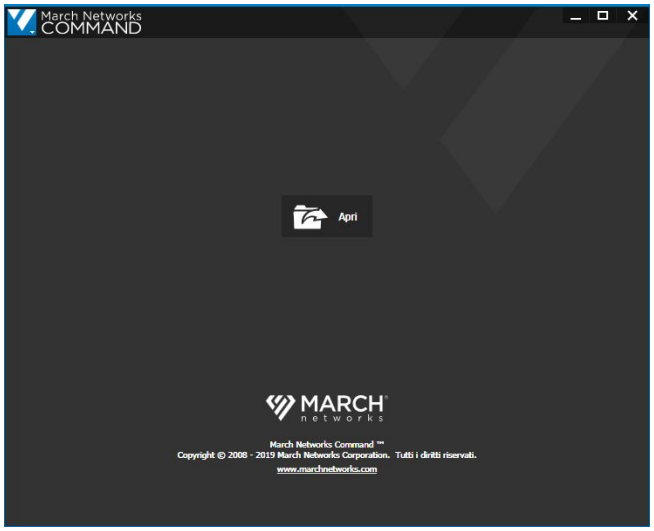
1 According to the Command Player version in use (installed or portable) launch the application by doing the following:

- **Portable:** Double-click the Command Player Portable file to open the Player. The file is automatically loaded into the Player.
- **Installed:**

a Click **Start > March Networks > Command Player** or double-click the Command Player icon on the desktop, if available.

Note: The Command Player installed version also allows to directly double-click the case file to open the player and load the case (go to Step 5).

b The Player opens without files loaded.



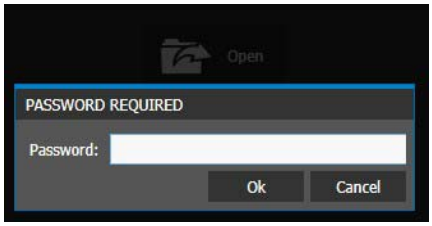
c Click the **Open** button.

d In the window that appears, browse for the CME file you want to view.

e Select the file and click **Open**.

The case is loaded into the Player.

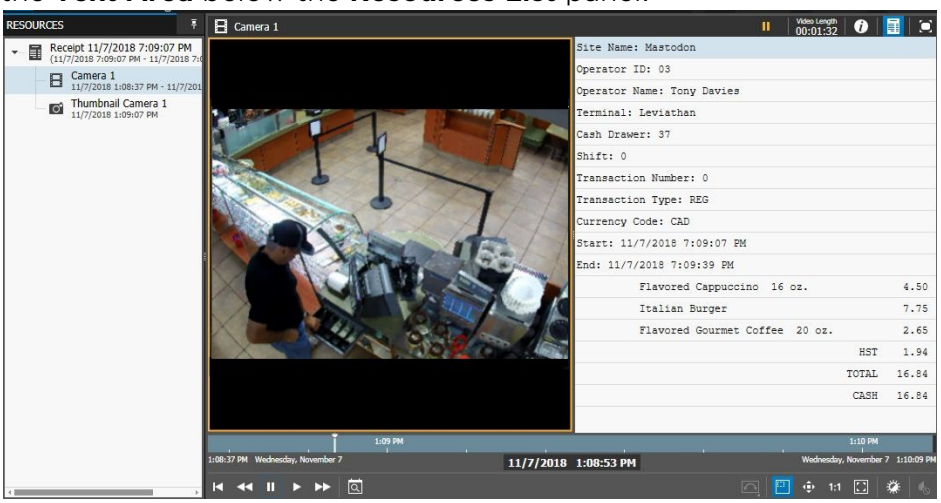
Note: If the case was encrypted, the **Password Required** dialog box appears. Enter the password required to decrypt the case, and then click **Ok**.



2 Click **Note** in the **Resources List** to open the case notes.

3 Expand the transaction **Receipt** in the **Resources List** and click a video file recorded from a camera associated to the POS terminal.

The video starts playing in the display area and the transaction/alarm data appear in the **Text Area** below the **Resources List** panel.



4 Adjust the playback controls as required.

Note: For more information about the available controls and their use, see the *Command Player User Guide*, available for download from the March Networks official website and the Partner Portal.

5 Alternatively, you can use the **Receipt Area** to jump back and forward in the recorded video: click a text line to automatically move the recorded video to the time that corresponds to the text line transmitted by the POS terminal.

Important: Some terminals do not add a time stamp to a receipt line. If timestamps are not available, Searchlight adds them to the text by simply dividing the total video running time by the number of text lines. For example, for a one minute video with four text lines, Searchlight automatically adds a time stamp every 15 seconds; by clicking on the third receipt line, the video automatically jumps to 0:45 time.

Company Overview

March Networks® helps organizations transform video into business intelligence through the integration of surveillance video, analytics, and data from business systems and IoT devices. Companies worldwide use our software solutions to improve efficiency and compliance, reduce losses and risk, enhance customer service and compete more successfully. With deep roots in video security and networking, March Networks is also recognized as the leader in scalable, enterprise-class video management and hosted services. We are proud to work with many of the world's largest financial institutions, retail brands, cannabis operators and transit authorities, and deliver our software and systems through an extensive distribution and partner network in more than 70 countries. Founded in 2000, March Networks is headquartered in Ottawa, Ontario, Canada. For more information, please visit *www.marchnetworks.com*.

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