



Avigilon Control Center™ System Integration Guide

with AMAG Symmetry™ Security Management System
8.0.2

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Introduction

The AMAG Symmetry™ Security Management System and Avigilon Control Center (ACC)™ software integration allows for the two systems to combine alarm monitoring abilities. The integration includes:

- The Alarm Mapping Gateway software that enables specific device commands in the Symmetry software to be mapped to alarms created in the ACC software.
- The Video Integration software that allows you to monitor Avigilon cameras in the Symmetry software.

Both parts of the integration can be used together or separately.

What's New

- Support for video analytics alarms
- Ability to search for alarm mappings and Avigilon alarms

Requirements

Vendor	Requirements
Avigilon	ACC Server Software 5.8 or later.
Avigilon	Avigilon Third Party Integration License: ACC5-AMAG-SMTRY
Avigilon	Avigilon AMAG software integration: AmagSymmetryGateway80-5.8.0.38.exe Installer includes: <ul style="list-style-type: none">• Alarm Mapping Gateway software.• Video Integration software.
AMAG	Symmetry Server software 8.0.2.
For the Alarm Mapping Gateway software only:	
AMAG	Symmetry XML Open Integration Module 8.0.2.
AMAG	Symmetry SDK License: XML-DEV-KIT-V8.0.2
For the Video Integration software only:	
AMAG	Symmetry Video Integration License: VID-CAM-xxx-V8

For More Information

For more Information about the procedures outlined in this guide, refer to the following specific software documentation:

- *Avigilon Control Center Client User Guide*
- *Avigilon Control Center Server User Guide*
- *Symmetry Software User Guide*
- *Symmetry Security Management System Online Help*

Installation

Upgrading the Integration

From Avigilon Control Center 4 Software

If you are upgrading to this version of the Avigilon AMAG integration software, be aware that this version of the integration is only compatible with ACC 5 software.

NOTE: To preserve all of your current integration settings, you must upgrade to ACC 5 software and make sure all servers in the site can be accessed by the integration. If a server is offline or inaccessible to the integration during the upgrade, the integration settings for that server are lost.

It is recommended that you back up a copy of all the alarm mappings before you upgrade the integration. The backup file for previous versions of the integration software may be labeled `GatewayParam.xml` or `AlarmConfig.xml`. Make sure the backup file is labeled correctly when you import it into the integration. For more information, see *Backing Up Mapped Alarms* on page 14.

NOTE: ACC 5 software provides the ability to organize multiple servers into sites and share settings between servers. To use this feature effectively, you must upgrade all servers in your site before upgrading the integration or all of the previous mappings may be lost.

When you upgrade the integration, the installer will shut down the integration Windows service. After the upgrade is complete, click **Save and Apply** in the Configuration Tool to use the updated configuration. To confirm that the integration has been configured correctly, see *Configuring Server Settings* on page 11.

From AMAG Symmetry 6.2 Onwards

If you are upgrading the AMAG Symmetry software and the Video Integration software from version 6.2 to 8.0.2, uninstall the previous Avigilon Plugin and Alarm Mapping Gateway from Windows before installing the latest version of the software.

Installation

Server

Install the following on the same server:

- The Symmetry Server software.
- The XML Open Integration Module is required if you are installing the Avigilon AMAG Alarm Mapping Gateway software.
- (Optional) The Avigilon AMAG Video Integration software for viewing Avigilon video in the Symmetry software.

The following can be installed on any server on the same network:

- The ACC Server software.
- The Avigilon AMAG Alarm Mapping Gateway software.

Client

Install the following as needed:

- Install the Symmetry Client software on the computers that require access to the Symmetry system.
- Install the ACC Client software on the computers that require access to the ACC System.

Configuration

The Avigilon AMAG integration software is used to direct alarm communication and video streams between the ACC software and the Symmetry software. Configure the two applications to perform the integration features.

Adding an Integration User in Symmetry Software

To give the integration software access to the AMAG system, you need to add a user with access to all the Company Groups that the integration will link to and a user with access to the Symmetry database or SQL Server. See the *Symmetry Software User Guide* for details about how to add users.

The integration software needs a Symmetry user and a SQL Server user to connect to the Symmetry software.

Adding an Integration User in Avigilon Control Center Software

To protect the security of the Avigilon Control Center system, add a user in the ACC Client software specifically for connecting the integration. The user you add will be used to connect the ACC system to the Avigilon integration software. See the *Avigilon Control Center Client User Guide* for more details.

This user must have the following permissions to enable all the integration features:

- View live images
 - Use PTZ controls
- View recorded images

This integration username and password is required to add Avigilon servers to the integration.

In the ACC Client software, complete the following steps:

1. In the Setup tab, select the site then click .
2. In the Groups tab, click .
3. In the following dialog box, select to copy the **Standard Users** group permissions.
4. In the Edit Group dialog box, give the new group a name then select the recommended permissions for the integration.

Make sure only the required permissions are selected.

5. Click **OK** to save the new group.
6. Select the Users tab then click .
7. In the Add User dialog box, enter a **User Name:**

8. In the Password area, complete the following fields:
 - **Password:** enter a password for the user.
 - **Confirm Password:** re-enter the password.
 - **Password never expires:** you may want to select this check box so that you do not need to update the ACC password for the integration..
9. Select the Member Of tab and select the check box beside the group you created earlier in this procedure.

The other two columns display the permissions linked to the selected group.
10. Click **OK**. The user is added to the system.

Setting Up Gateway Alarms in Avigilon Control Center Software

Alarms are manually created in the ACC Client software. Create the Avigilon Control Center alarms you want mapped to the device commands in the Symmetry software.

1. In the ACC Client software, open the site Setup tab and click .
2. In the Alarms dialog box, click .
3. On the Select Alarm Trigger Source page, select **External Software Event** from the Alarm Trigger Source: drop down list. Click  after you complete each page.
4. On the Select Linked Cameras page, select the cameras to link to this alarm, and set the **Pre-Alarm Record Time:** and **Recording Duration:**.
5. On the Select Alarm Recipients page, select the ACC software user that was added for the integration. You can also add any other groups or users that need to be notified when this alarm is triggered.
6. (Optional) If you would like to trigger an action when an alarm is acknowledged, select **Activate selected digital output(s) on alarm acknowledgement** check box.
 - a. Select the digital outputs to be activated and specify the duration.
 - b. Select **Require user confirmation before activating digital output(s)** check box if the user needs to confirm the alarm before the digital output action is initiated.
7. Enter a name for the alarm and set the alarm priority. The alarm name is used to identify the alarm during the integration.
8. Ensure **Enable alarm** check box is selected then click .

Setting Up Video Integration

Assigning Logical IDs to Cameras

In the Avigilon Control Center Client software, assign a logical ID to each camera. The integration software only allows you to access cameras with a logical ID. By default, cameras do not have a logical ID.

1. In the ACC Client software, right-click a camera in the System Explorer and select **Setup**.
2. In the camera Setup tab, click **General**.
3. In the General dialog box, enter a Logical ID: for the camera. The logical ID must be unique number.

Adding Avigilon Recorder and Cameras to the Symmetry Software

If you want to monitor Avigilon cameras in the Symmetry software, you must first add the Avigilon server and cameras to the Symmetry system.

1. In the Symmetry software, select the Install tab then click **Digital Video**.
2. In the Install Video & Audio dialog box, select **Avigilon Recorder** then click **New**.

NOTE: The Avigilon Recorder option is only listed if you have the Avigilon AMAG Video Integration installed on the Symmetry server.

3. Complete the following fields:

The screenshot shows a Windows-style dialog box titled "Install - Digital Video Device - Avigilon Recorder". It features a standard Windows window frame with minimize, maximize, and close buttons in the top right corner. The dialog is divided into two tabs: "Recorder Properties" (which is active) and "Reporting".

Under the "Recorder Properties" tab, the following fields are visible:

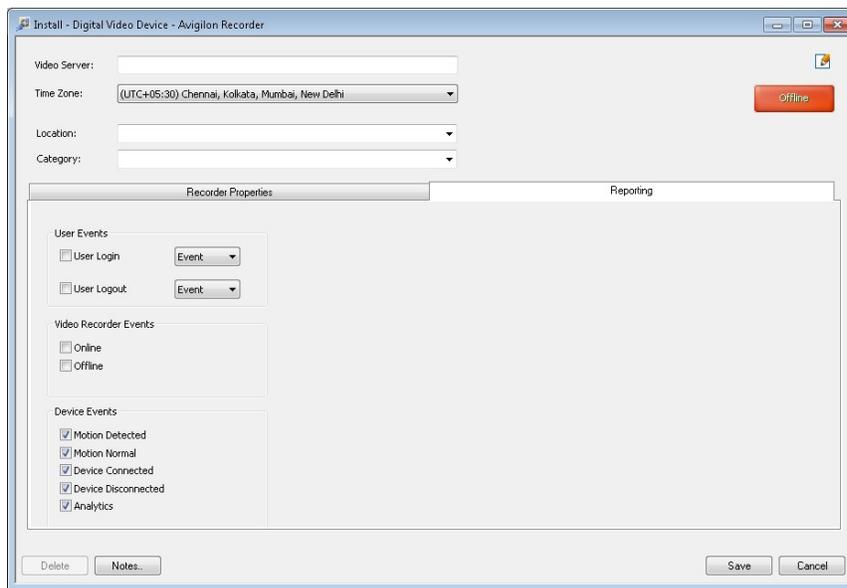
- Video Server:** A text input field containing "AviVR1".
- Time Zone:** A dropdown menu currently set to "(UTC-08:00) Pacific Time (US & Canada)".
- Location:** A dropdown menu.
- Category:** A dropdown menu.

Below these fields is a section titled "Recorder Properties" (repeated) containing:

- IP Address:** A text input field containing "10.10.21.58".
- Login Credentials:** A sub-section with two input fields: "User Name" containing "mslavov" and "Password" containing "abc123".
- Auto Reconnect Interval:** A text input field containing "60" followed by "(Sec)".

On the right side of the dialog, there is a red "Offline" button. At the bottom of the dialog, there are four buttons: "Delete", "Notes", "Save", and "Cancel".

- a. **Video Server:** enter a name for the Avigilon server.
- b. Under the Recorder Properties tab:
 - **IP Address:** enter the server's IP address.
 - **Login Credentials:** enter the username and password you created in the ACC Client software. For more information, see *Adding an Integration User in Symmetry Software* on page 5.
- c. Under the Reporting tab:
 - In the Device Events area, select all the events you want reported in the Symmetry software. Make sure the **Analytics** check box is selected to receive video analytics device events in the Symmetry software.



4. Click **Save**. The new server is now listed as an Avigilon Recorder.

Repeat the previous steps until all the required Avigilon servers have been added. Be aware that you can only add a camera to the system after the connected server has been added to the system.

Once an Avigilon server has been added to the Avigilon Recorder list, the Avigilon Camera option is displayed in the Install - Video & Audio dialog box.

5. In the Install - Video & Audio dialog box, select **Avigilon Camera** then click **New**.

6. Complete the following fields:

Install - Digital Video Device - Avigilon Camera

Description: AviCam1

Video Recorder: AviVR1 Video Channel: [Dropdown]

Owned by Company: My Company Camera Number: 1.0-H3-D1-1R
1.0MP-HD-H2
Cam-3.1415
Cam-3.14159

Location: [Text Field]

Category: [Dropdown]

Pan / Tilt / Zoom

Advanced Camera Properties

PTZ Settings

Enable Pan/Tilt Enable Zoom Enable Focus

Presets

Description	Number

Add Remove Go to Set

Picture

Live

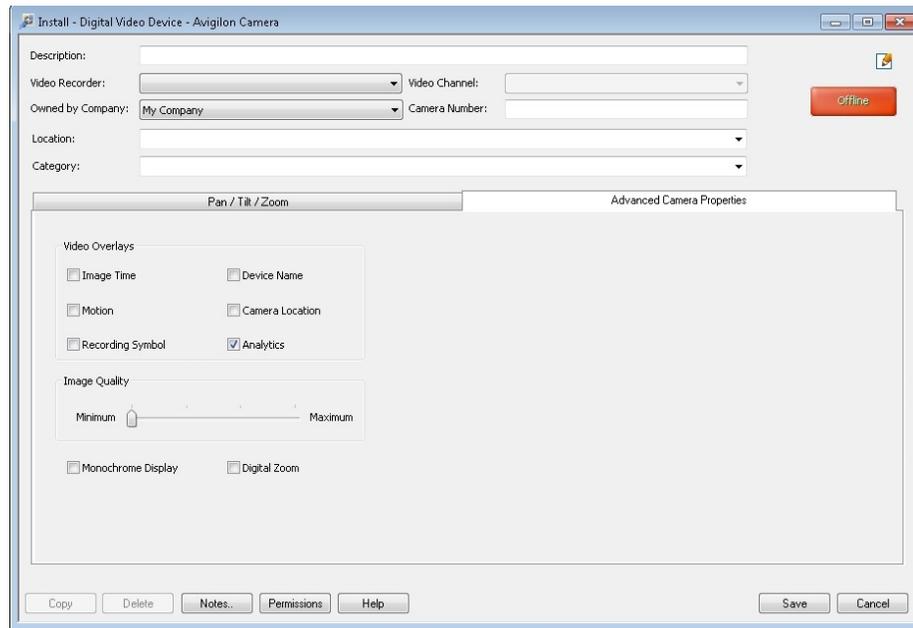
Copy Delete Notes Permissions Help Save Cancel

- Description:** give the camera a name.
- Video Recorder:** select the server the camera is connected to.
- Video Channel:** select the camera you want to see in the Symmetry software.

NOTE: Only cameras with logical IDs are listed. For more information, see *Assigning Logical IDs to Cameras* on page 7.

- If you are adding a PTZ camera, select the Pan/Tilt/Zoom tab and enable the relevant PTZ controls.

- e. If you are adding a video analytics device, select the Advanced Camera Properties tab and enable the **Analytics** option to display bounding boxes around classified objects.



7. Click **Save**. Repeat the previous steps until all the required cameras have been added.

Alarm Gateway

The Alarm Gateway is composed of two parts: a Windows service that runs automatically in the background, and a Configuration Tool software that is used to map alarms between the two systems.

Configuring Server Settings

Configure the Alarm Mapping Gateway to access the two applications.

The configuration application remembers the server configuration, so you do not need to repeat this procedure if the settings remain the same.

After you install the integration software, the Configuration Tool automatically opens. To access it manually, select **All Programs** or **All Programs > Avigilon > Avigilon AMAG Symmetry Gateway > Configure Avigilon to AMAG Symmetry Gateway**.

- If you upgraded your integration and all the configurations were successfully imported, you will automatically see the Configuration Tool window. Click **Configure Connections**.
- If this is a new installation, you will automatically see the Configure Connections dialog box.
 - a. Click **Add**.
 - b. In the following dialog box, enter the Avigilon server **IP Address**, **UserName** and **Password**, then click **OK**.

Use the username and password you created for the integration. See *Adding an Integration User in Avigilon Control Center Software* on page 5.

NOTE: If the Avigilon Control Center Server and the Avigilon AMAG Gateway Integration are installed on the same server, set the server IP Address as 127.0.0.1 instead of the actual IP address.

1. In the Configure Connections dialog box, complete the following fields:

IP	Version	Status
10.10.22.100	5.0.2.7	Ready

AMAG SMS

AMAG SMS Server: 10.10.22.236

AMAG SMS SDK User: installer

AMAG SMS SDK Password: ●●●●●●

SQL Server Instance: 10.10.22.236

SQL Server Catalog: multimax

Use Integrated Security

SQL Server User Name: sqlsmsuser

SQL Server Password: ●●●●●●

- **AMAG Symmetry Server:** enter the Symmetry Server IP address or hostname.
 - **AMAG Symmetry SDK User:** enter the Symmetry username you created for the integration. See *Adding an Integration User in Symmetry Software* on page 5.
 - **AMAG Symmetry SDK Password:** enter the password for the Symmetry user.
 - **SQL Server Instance:** enter the IP address or hostname for the Symmetry database.
 - **SQL Server Catalog:** enter the name of the Symmetry server catalog. It should be "multimax".
 - **Use Integrated Security:** select this check box if your SQL credentials are the same as your Windows login.
 - **SQL Server User Name:** enter your username for the Symmetry database.
 - **SQL Server Password:** enter your password for the Symmetry database.
2. Click **Connect** to link the ACC software and Symmetry software with the integration. A popup message appears to notified you that the connection is successful.
 3. Click **Done**. The Configuration Tool window is displayed.

The integration searches both software systems for alarms that can be mapped together.

Mapping Alarms

In the Configuration Tool is a list of all the current alarm mappings, and all the available alarms from the ACC software and the Symmetry software.

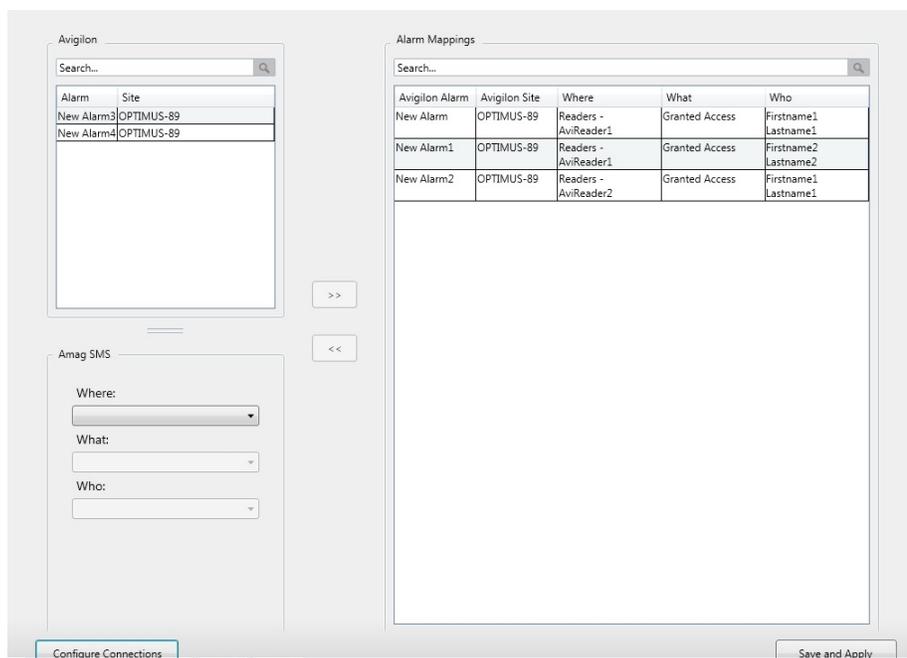
If the Configuration Tool is not already open, select **All Programs** or **All Programs > Avigilon > Avigilon AMAG Symmetry Gateway > Configure Avigilon to AMAG Symmetry Gateway**.

To map alarms together, complete the following steps:

1. In the AMAG Symmetry area, set the device commands that will trigger a Symmetry alarm for the integration.

The Symmetry software is pre-configured with a set of commands for the devices in your security system. For a detailed list of the available commands, see the *Security Management System Online Help for more information*.

- a. In the **Where** drop down list, select the device that this alarm will link to.
- b. In the **What** drop down list, select the command that triggers this alarm.
- c. If there is a user or role that needs to be associated with the alarm, the **Who** drop down list will auto-populate with the available options.



2. In the Avigilon area, select the alarm you want to map to. Listed here are the alarms you created in *Setting Up Gateway Alarms in Avigilon Control Center Software* on page 6.

Tip: Use the Search bar to find specific alarms in the list.

3. Click **>>**.
4. Click **Save**.
5. Repeat the previous steps until all the required alarms have been mapped.
6. Once all the required alarms have been mapped, click **Save and Apply**.

The Gateway Windows service is updated with all the new or changed mappings.

Backing Up Mapped Alarms

After you finish mapping all the alarms in the Configuration Tool, you can choose to back up a copy of the mappings.

If you are performing this procedure before upgrading the integration, be aware that backup files from previous versions of the integration may be labeled `GatewayParams.xml` or `AlarmConfig.xml`.

1. Navigate to `C:\Program Files (x86)\Avigilon\Avigilon AMAG Gateway\`.

NOTE: The filepath may be different depending on how your system is configured.

2. Copy and paste the `AMAG8AlarmConfig.xml` file to a back up location.

Restoring Mapped alarms

When you have a backup copy of the mapped alarms, you can restore the mapped alarms any time.

1. Locate your backup copy of the `AMAG8AlarmConfig.xml` file.

If you are restoring a backup from a previous version of the integration, locate your backup copy of the alarm mappings file and rename it `AMAG8AlarmConfig.xml`.

2. Copy and paste the backup file into the `C:\Program Files (x86)\Avigilon\Avigilon AMAG Gateway\` folder.

If prompted, allow Windows to overwrite the copy that is currently in the folder.

3. Open the integration Configuration Tool.

The restored mappings should be displayed in the Alarm Mappings list.

4. Click **Save and Apply** to update the Gateway Windows service and apply the alarm mapping changes.

Using the Integration

Monitoring Alarms

Once the alarms from the ACC software and Symmetry software have been mapped together, you can begin to use the integration.

When an Symmetry alarm is triggered, it will activate the mapped ACC alarm and the configured alarm actions are initiated.

- To monitor alarms in the Symmetry software, see the alarm monitoring section of the *Symmetry Software User Manual*.
- To monitor alarms in the ACC Client software, see the alarms section of the *Avigilon Control Center Client User Guide*.

Monitoring Video

Once the video integration is set up in the Symmetry software, you can monitor video captured by Avigilon cameras in the Symmetry software. For more information about monitoring video, see the Digital Video management section of the *Symmetry Software User Manual*.



Troubleshooting

If the following troubleshooting solutions do not resolve your issue, contact Avigilon Technical Support – <http://avigilon.com/support-and-downloads/>

Cannot Add Avigilon Cameras to Symmetry Software

When you try to add Avigilon cameras to the Symmetry system, no cameras are listed in the Video Channel drop down list.

This occurs when the cameras in the Avigilon system do not have logical IDs. Only cameras with logical IDs are listed in the Symmetry software.

To assign a camera a logical ID, see *Assigning Logical IDs to Cameras* on page 7.

Purged Avigilon Alarms Still Present in Symmetry Software

After you have acknowledged an alarm in the Avigilon Control Center Client software, you click **Purge Alarm** to clear the Alarms list. However, when you access the Symmetry software, the purged alarm is still listed as a **blue** alarm in the Alarms screen.

This occurs when a device that triggered the Symmetry alarm needs to be manually reset. For example, a window with a monitor point that has not been closed. The Avigilon Control Center software is able to acknowledge the Symmetry alarm but does not recognize that the device needs to be manually reset.

To clear the alarm from the Symmetry Alarms screen, manually reset the device then click **Clear**.

Mapped Avigilon Control Center Alarms Displayed as Unknown

Mapped alarms in the Configuration Tool are labeled in red as “Unknown.” The Avigilon Control Center Server that the integration is connected to displays an “Error” status in the Configure Connections dialog box.

This issue occurs if the Avigilon Control Center Server has rebooted or is offline.

Perform the following steps to ensure the integration functions correctly:

1. Check that the Avigilon Control Center Server is online and connected to the local network.
2. When the Avigilon Control Center Server is back online, open the Configuration Tool and click **Configure Connections**.
3. If the Avigilon Control Center Server is online, the server status would be “Ready.” If it is not, check the server connectivity again.
4. Close the Configure Connections dialog box. The Configuration Tool should now display the correct alarm names.
5. Click **Save and Apply** to ensure the alarm mappings are active.

Cannot Save Changes in the Configuration Tool

When you click **Save and Apply** in the Configuration Tool, an error message is displayed. The issue did not occur when you first accessed to the Configuration Tool after the installation.

To work around this issue, perform any of the following options:

- Run the Configuration Tool as an administrator.
- Disable User Account Control (UAC) in your Windows system.

