

Sage WebcamXP Plugin - User's Guide

Description

The Sage WebcamXP plug-in is a .NET plug-in for HomeSeer that allows you to interface to the WebcamXP server.

- HomeSeer can get notified of camera motion detection.
- Enable/Disable motion detection for individual cameras
- Trigger still image capture from HomeSeer
- Trigger video to be recorded from HomeSeer
- Enable/Disable the DVR
- Enable/Disable the many servers and capabilities within WebcamXP including the web server, ftp uploader, http poster, etc.
- Trigger email, SMS, FTP, HTTP post and more from HomeSeer
- Works with both WebcamXP 5 and the newer Webcam 7
- Can support WebcamXP servers on remote servers
- Can support multiple WebcamXP servers.
- HomeSeer devices show status of servers and motion detection of cameras
- Custom actions allow easy triggering from events.
 - Setup events for security or occupancy detection using your cameras
 - Record video based on other events that take place such as the garage or other doors opening, door bell being pressed, other motion sensors activating, etc.

System Requirements

- HS2 or HSPRO
- WebcamXP 5 or Webcam 7 from Moonware Studios

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Installation and Activation

Plugin

The plugin is available through the HomeSeer Updater. It can also be installed by running the installer (.msi). If running the installer manually, shutdown HomeSeer, run the install, and then start HomeSeer.

NOTE: *If you notice that the installer is taking an usual amount of time (more than 20 seconds), it is likely that the dialog asking for activation is hidden behind the main dialog. Drag the main dialog to the side and you will see the other.*

If you did not select the option to activate the plugin during the installation process, you will need to do so before it can be configured and used. To do so...

1. Open the HomeSeer web interface.
2. Navigate to the setup section by clicking on the **Setup** button
3. Navigate the interface setup by clicking on the **Interfaces** tab
4. Scroll down, under the **Plug-in Interfaces** section until you see **Sage WebcamXP**. If it has not been activated, there will be a button next to it labeled **Disabled**. Click on this and that will activate the plugin. Then press the save button.

Once you have the plugin installed and activated, proceed on the section titled *Configuration*

Sage WebcamXP Interface

This is an additional piece of software that is required to be installed and running at all times on whatever computer WebcamXP server is running on. This may be the same computer that you are running HomeSeer on or it may be another computer on your LAN. Because it could be on a different computer, it is not installed automatically with the plugin install. However, the installation file is put onto your server during the plugin install. It is located in the {homeseer}\html\sagewebcamxp folder. You will see a file called, SageWebcamXPinterfaceSetup.msi. Run this on whatever computer(s) run WebcamXP. There are no unusual options here so it should be pretty straight-forward. See relevant topics under configuration for more information on the configuring this application.

NOTE: Since the Sage WebcamXP Interface need to be running at all times, it is recommended to copy the installed shortcut for this application to the startup folder so that it will start automatically when the computer is rebooted.

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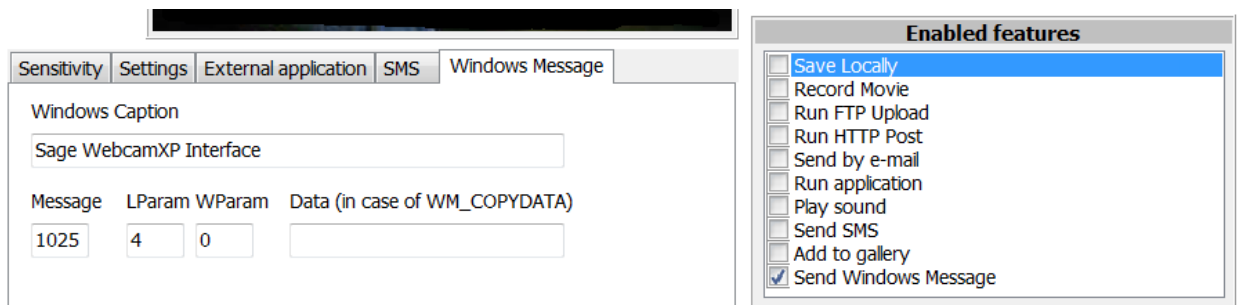
Configuration

WebcamXP

In order for the plugin to receive motion detection alerts, the following setup must be defined for each camera within the WebcamXP software itself. In WebcamXP, select the security section. It looks like the following...



From here the motion detection tab should be selected but select it if it isn't. For each camera, select the "Send Windows Message" checkbox. Also select the "Windows Message" tab for each camera and configure them as shown below. The **Windows Caption**, **Message**, and **LParam** are the key fields that need to be set. These will be set to the same values for all cameras. The LParam must be set to the same number as the camera.



The screenshot shows the configuration interface for the WebcamXP plugin. The 'Windows Message' tab is selected, and the 'Enabled features' list is visible on the right.

Message	LParam	WParam	Data (in case of WM_COPYDATA)
1025	4	0	

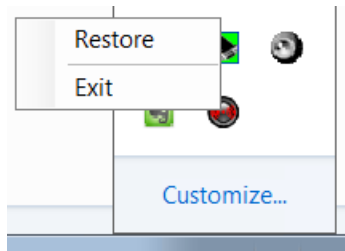
The 'Enabled features' list includes:

- Save Locally
- Record Movie
- Run FTP Upload
- Run HTTP Post
- Send by e-mail
- Run application
- Play sound
- Send SMS
- Add to gallery
- Send Windows Message

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Sage WebcamXP Interface

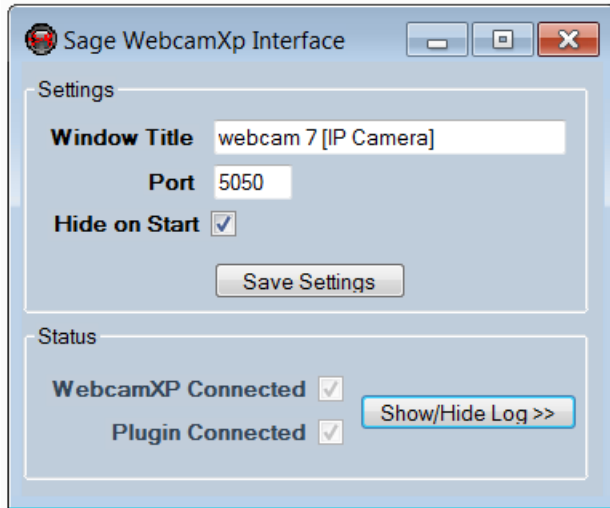
As mentioned in the previous section, this software should be installed and running at all times on computers that run the WebcamXP software. This application is designed to run in the task tray. There is a small context menu that is available by right-clicking on the icon in the tray.



The restore item will display the configuration/status form. This can also be done by double-clicking the icon. The Exit item will completely close the application. If this application is closed, it will not allow the plugin to operate. When the application is minimized, it will only be available in the tray, it will not show up in the task bar.

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When the configuration/status form is opened it will look like this...



The top group contains all of the settings that need to be configured and the bottom section is only status information. The settings are as follows...

- | | |
|---------------------------|---|
| Window Title | This needs to be set to the exact title of the WebcamXP window that is running. There are multiple versions and variations that can be run so please check the actual window that is running on your system. When you enter a title that is found running, the WebcamXP Connected checkbox in the status section will become checked. This lets you know that you got it right. |
| Port | This is the port that this application will communicate on. Unless you have something else that is running on that port, leave this at the default of 5050. Note that whatever port you have configured here need to be open on any internal firewalls you may have running. |
| Hide on Start | If this is checked, the configuration/status form will not be shown when the application is initially started. |
| Save Settings | Once you have the settings above the way you want them, press this button to have the application remember them for the next time it is run. |
| WebcamXP Connected | This is a status indicator that shows that the application is able to communicate with WebcamXP. (see the Windows Title field above) |
| Plugin Connected | This is a status indicator that shows that the application is communicating with the plugin. Note that this is not always 100% accurate as the connection can linger after the plugin is disconnected, but it will at least give you an indication that there was some successful communication. |
| Show/Hide Log | This will toggle the application log display. This can help to confirm that successful communication is taking place. It only stores the last 100 messages. |

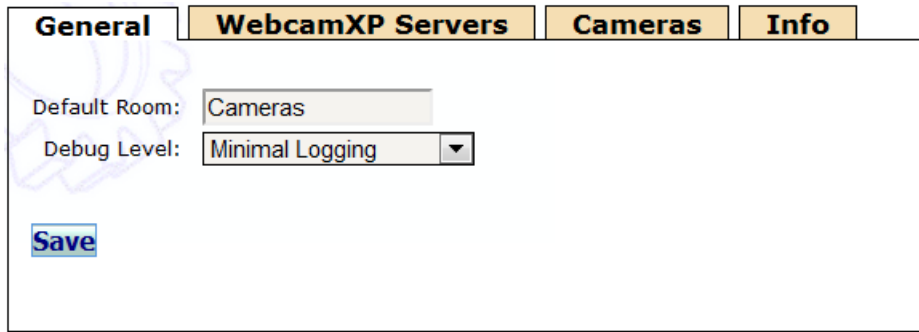
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Plugin

The plugins configuration page can be found under the interface setup. If you don't know how to get there, follow the steps in the *Installation and Activation* section of this document. Click on the **Config** button next to the Sage WebcamXP plugin. You will see the following page appear...

There are three main sections to the configuration; General, WebcamXP Servers, and Cameras.

General



The screenshot shows a configuration window with four tabs: **General**, **WebcamXP Servers**, **Cameras**, and **Info**. The **General** tab is active. It contains two settings: "Default Room:" with a text box containing "Cameras", and "Debug Level:" with a dropdown menu showing "Minimal Logging". A blue "Save" button is located at the bottom left of the configuration area.

Default Room

When the plugin creates it's devices it will create them in this room.

Debug Level

This controls the level of logging that the plugin will produce. The available settings are...

No Logging	Absolutely no logging will be output by the plugin directly.
Minimal	Typically only errors and warning will be logged at this level. This is the recommended level for normal operation.
Debug	This provides some information that will be useful if there are problems with the interface. It is less voluminous than the last option.
Detailed Debug	This is a more voluminous debug logging for issues. It is not recommended to have this option turned on for an extended period of time.

Change to the logging level take place after the Save button is pressed. There is no need to restart HomeSeer.

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WebcamXP Servers

General	WebcamXP Servers	Cameras	Info
Name	Host	Port	Actions
CamServer	localhost	5050	Save Delete
			Add

Here is where you will tell the plugin what computers you having running WebcamXP. There will be a blank row with an **Add** button. This is where you will enter the information for the server that you wish to add.

1. Enter the name for the server under the Name column. This can be any name that you like such as the host name of the computer.
2. Enter the host for the server under the Host column. This can be either the IP address or host name for the PC that is hosting the server.
3. Enter the port that was configured in the Sage WebcamXP Interface application. These must be the same. The default port is 5050 and should be used unless you know that you have a conflict. Also, make sure that you have port 5050 open on whatever internal firewalls that you may have running.
4. Press the **Add** button.

The new server will be registered with the plugin. You will see this new server now show up with a Save and Delete button next to it.

To update values for the server, make your changes and press the corresponding **Save** button on that row.

To delete a server select the corresponding **Delete** button.

Be aware that if you have events setup for this server, they will not be automatically updated to reflect the deletion of a server. You will have to make these adjustments manually.

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Cameras

General	WebcamXP Servers	Cameras	Info		
Name	Server	Cam #	Inactivity Secs.	Record Secs.	Actions
Driveway	CamServer	Camera 1	15	15	Save Delete
Family Room	CamServer	Camera 4	5	15	Save Delete
Front Door	CamServer	Camera 2	15	15	Save Delete
Garage	CamServer	Camera 3	15	15	Save Delete
	None	Not Set			Add

Here is where you will tell the plugin what cameras are connected to your WebcamXP servers. There will be a blank row with an **Add** button. This is where you will enter the information for the camera that you wish to add.

1. Enter the name for the camera under the Name column. This can be any name that you like such as the location of the camera.
2. Select the WebcamXP server for the camera. This was configured on the previous tab.
3. Enter the camera number as it is defined in WebcamXP.
4. Enter the inactivity seconds. WebcamXP will only notify that it has detected motion. This will put the camera device into a motion state. After the no motion within the time period defined here, the camera will be put into a still state.
5. Enter the default record seconds. If recording is triggered without duration, this is the default time that will be recorded. This will be used, for instance, when the record button is pressed on the camera device. The scripting or custom event actions give more control to override this time or set it to record until told to stop.
6. Press the **Add** button.

The new camera will be registered with the plugin. You will see this new camera now show up with a Save and Delete button next to it.

To update values for the camera, make your changes and press the corresponding **Save** button on that row.

To delete a camera select the corresponding **Delete** button.

Be aware that if you have events setup for this camera, they will not be automatically updated to reflect the deletion of a camera. You will have to make these adjustments manually.

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Virtual Devices

The plugin will create several virtual devices. The name, location, and location 2 can be changed without affecting their operation. So you can feel free to change these as you wish after they are created. One word of caution, if you delete these and then decide to recreate them, the new devices will be brand new with a new reference ID. This can be painful if there are things referencing the device by its reference. For instance, this will require HSTouch device status and command to be tweaked.

	Status	Floor	Room	Name	Code	Type	Last Change	Control
	Connected		Cameras	CamServer Status	-1	CamServer Status	Today 1:51:05 PM	
	Motion		Cameras	Family Room Cam	-2	Camera Status	Today 1:54:10 PM	Start Stop Capture Record
	Still		Cameras	Driveway Cam	-3	Camera Status	Today 1:32:48 PM	Start Stop Capture Record
	Still		Cameras	Front Door Cam	-4	Camera Status	Today 1:32:48 PM	Start Stop Capture Record
	Still		Cameras	Garage Cam	-5	Camera Status	Today 1:32:48 PM	Start Stop Capture Record

The following devices are created...

CamServer Status This will show that status of the connectivity. There are three states; Connected, Disconnected, and Unavailable. The connected and disconnected states indicate if the plugin can communicate with the Sage WebcamXP Interface application. The third status, unavailable, indicates if Sage WebcamXP Interface is able to communicate with the actual WebcamXP software.

Camera Status This will show the motion detection state of the camera. It also provides some quick buttons...

- Start – Start the motion detection for the camera on WebcamXP
- Stop – Stop the motion detection for the camera on WebcamXP
- Capture – Capture a still image in WebcamXP
- Record – Record a video of the default length specified in the camera configuration.

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Custom Actions

There are several custom actions that can be used to control the server or camera. These provide an easier and cleaner mechanism as opposed to calling the API for actions.

There is a new action available in the drop-down called **Sage WebcamXP Actions**. Selecting this will bring up a form where the action type and any required options can be entered.

The types of action that can be performed are contained in the following list. Note that all of these required additional options to be set.

Server Command

A particular server must be selected for this action.

The following options are available...

- Start or Stop Web Server
- Start or Stop FTP Send
- Start or Stop HTTP Post
- Start or Stop the DVR
- Start or Stop posting to the gallery
- Start or Stop the scheduler
- Close the WebcamXP application

Camera Command

A particular camera must be selected for this action.

The following options are available...

- Stop Recording – Can be used in conjunction with the record action to stop a record that was started without a predefined duration.
- Capture picture
- Start or Stop Motion Detection

The following triggers actions the same as defined in the security section of the WebcamXP application...

- Trigger Picture
- Trigger Motion
- Trigger FTP
- Trigger HTTP Post
- Trigger Email
- Trigger SMS
- Trigger Gallery

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Record Video

A particular camera must be selected for this action. Additionally, the following parameters must be defined...

Record As – This can be either Capture or Alert. This affects where WebcamXP stores the video on the hard disk.

Seconds – This is how many seconds to record. If set to zero, the recording will not have a predefined duration and must be stopped using the Stop Recording command under the Camera Commands action. If -1 is used here, it will use the default duration that has been defined for the camera in its configuration.

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Scripting API

Any of the following calls must be prefaced with the plugin object. For example...

```
hs.Plugin("SageWebcamXP").CaptureImage("Garage Cam")
```

StartWebServer(srvName)

Description: This will start the built-in web server

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

StopWebServer(srvName)

Description: This will stop the built-in web server

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

StopFtpSend(srvName)

Description: This will start the FTP send service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

StopFtpSend(srvName)

Description: This will stop the FTP send service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

StartHttpSend(srvName)

Description: This will start the HTTP posting service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

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StartHttpSend(srvName)

Description: This will stop the HTTP posting service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

StartDVR(srvName)

Description: This will start the DVR service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

StopDVR(srvName)

Description: This will start the DVR Service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

StartGallery(srvName)

Description: This will start the gallery service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

StopGallery(srvName)

Description: This will start the gallery service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

StartScheduler(srvName)

Description: This will start the scheduler service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

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StopScheduler(srvName)

Description: This will start the scheduler service

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

CloseServer(srvName)

Description: This will shutdown the WebcamXP application on the server

Arg. Name	Data Type	Notes
srvName	String	This is the server that is to be controlled.

CaptureImage(camName)

Description: Capture an image to the capture folder

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

CaptureVideo(camName)

Description: Capture a video recording

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.
asAlert	Boolean	If true the recording will be stored on the disk in the alert folders. If false, it will be stored in the capture folder
recSecs	Integer	This is the number of seconds to record. If set to zero, the recording will not be automatically stopped. In this case, the recording must be stopped using the StopCaptureVideo() routine below.

StopCaptureVideo(camName)

Description: End the recording that was started with CaptureVideo if not duration was specified.

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

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StartMotionDetection(camName)

Description: Start watching for motion

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

StopMotionDetection(camName)

Description: Stop watching for motion

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

TriggerImage(camName)

Description: Trigger image action as defined in WebcamXP

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

TriggerMotion(camName)

Description: Trigger motion to WebcamXP

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

TriggerFtp(camName)

Description: Trigger FTP action as defined in WebcamXP

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

TriggerHttp(camName)

Description: Trigger HTTP post action as defined in WebcamXP

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

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TriggerEmail(camName)

Description: Trigger email action as defined in WebcamXP

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

TriggerSms(camName)

Description: Trigger SMS action as defined in WebcamXP

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

TriggerGallery(camName)

Description: Trigger gallery action as defined in WebcamXP

Arg. Name	Data Type	Notes
camName	String	This is the camera that is to be controlled.

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Support/Contact Information

Support is available through multiple mechanisms. Feel free to post questions or issue on the HomeSeer forum or raise a help desk ticket. Also, there will be additional information on the Sage Software web site.

Tom Christian

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