SiteWatch™ Situational Awareness Software Guide For Axis Cameras

SiteWatch Version 5.1

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You can determine whether your equipment is causing interference by turning it off. If the interference stops, it was probably caused by the e-Watch® equipment or one of its peripheral devices. If the equipment causes interference to radio or television reception, try to correct the interference by using one or more of the following measures:

Turn the television or radio antenna until the interference stops.
Move the equipment to one side or the other of the television or radio.
Move the equipment farther away from the television or radio.
Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radio are on circuits controlled by different circuit breakers or fuses.)

Modifications to this product not authorized by E-Watch could void the FCC approval and negate your authority to operate the product.

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The use of the word partner does not imply a partnership relationship between e-Watch and any other company.

e-Watch systems do not prevent crimes from being committed, but are intended to be used to monitor and investigate.

e-Watch components are electronic devices and complex commercial software products. As such, they may fail on occasion. Multiple devices with overlapping zones should be used for redundancy.

e-Watch event notification capabilities must be user programmed and activated prior to use. System reliability is dependent on the underlying network infrastructure and associated communications services that may fail on occasion. The user of the e-Watch system is advised to evaluate risk associated with network failures and operator errors. Routine auditing and preventive maintenance of the system is essential to assure optimum performance.

Event analysis and recreation is subject to system configuration, lighting conditions, environmental conditions, lens and housing cleanliness, distance to subject, operator-invoked control settings, and many other factors.

Read and follow all documentation to assure proper performance.

CONTENTS

PREFACE

The preface describes the purpose, audience, organization, and conventions of this guide and provides information on how to obtain related documents.

The preface covers these topics:

- Purpose
- Audience
- Organization
- Related Documentation
- Conventions
- Obtaining Documentation
- Documentation Feedback
- Obtaining Assistance

Purpose

This guide provides instructions for using Axis Communications AB (Axis) cameras with the SiteWatch™ Situational Awareness Software. It includes descriptions of procedural tasks to complete when installing and configuring Axis cameras as well as diagrams and illustrations. It identifies Graphical User Interface (GUI) buttons, menus, dialog windows, and their configuration.

Audience

The SiteWatch Situational Awareness Software Guide For Axis Cameras provides operating instructions for personnel responsible for setting up and maintaining the e-Watch Surveillance System. Some knowledge of Microsoft Windows® and Windows® Web Browsing is preferred. Some knowledge of network protocols and TCP/IP principles is preferred.

It is assumed that the reader of this guide is familiar with the SiteWatch Situational Awareness Software. For information and procedures on how to

install and configure the SiteWatch Situational Awareness Software, refer to e-Watch Corporation document URG-9110-002 SiteWatch Situational Awareness Software Administration Guide, available from e-Watch Corporation. For information and procedures on how to operate the ViewWatch™ interface, refer to e-Watch Corporation document URG-9106-002 SiteWatch Situational Awareness Software User Guide, available from e-Watch Corporation.

Technical training from a qualified e-Watch training program is recommended. This guide is designed to supplement such training and is not meant to replace classroom training from a qualified instructor.

Organization

This document is organized as shown in the following table

Table 0-1 Document Organization

Part	Description
Part 1	'Guide For Axis Cameras' Contains information on installation and configuration of Axis cameras for use with SiteWatch.
Part 2	'Appendices' Contains lists, glossary and meaning of abbreviations.

Related Documentation

Refer to the following documents for further information about related e-Watch applications and products:

- URG-9106-002—SiteWatch™ Situational Awareness System User Guide
- URG-9110-002—SiteWatch™ Situational Awareness System Administration Guide
- URG-9111-001—e-Watch® Situational Awareness System Quick Start Guide
- URG-9112-001—e-Watch Product Overview

Conventions

This document uses the following conventions:

Table 0-2. Conventions

Convention	Description
Boldface font	Commands and keywords are in **boldface**.
Italic font	Arguments for which you supply values are in *italics*.
[ ]	Elements in square brackets are optional.
{x|y|z}	Alternate keywords are grouped in brackets and separated by vertical bars.
[x|y|z]	Optional keywords are grouped in brackets and separated by vertical bars.
String	A non-quoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
`Screen` font	Terminal sessions and information the system displays are in `screen` font.
`Boldface screen` font	Information you must enter is in **`boldface screen`** font.
`Italic screen` font	Arguments for which you supply values are in *`italic screen`* font.
^	The symbol ^ represents the key labeled Control - for example, the key combination of ^D in a screen display means hold down the Control key while you press the D key.
-->	This pointer highlights an important line of text in an example.
<>	Non-printing characters, such as passwords, are in angle brackets.

Obtaining Documentation

The following sections provide sources for obtaining documentation from e-Watch Corporation.

World Wide Web

e-Watch documents can be found by going to the e-Watch web site

www.e-watch.com

By Mail

e-Watch Corporation.
7800 IH 10 West, Suite 720
San Antonio, Texas 78230
210.349.2000

support@e-watch.com

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To submit comments by mail, write to the following address:

e-Watch Corporation
7800 IH 10 West, Suite 720
San Antonio, Texas 78230

We appreciate your comments.

Obtaining Assistance

The following sections provide sources for obtaining assistance from e-Watch Corporation.

Customer Support

For technical assistance please send requests to support@e-watch.com or your local e-Watch reseller. You may also call 210-349-2000 and ask for Customer Support.

Sales

For assistance with sales or marketing please call 210-349-2000 and ask for Sales or send requests to sales@e-watch.com.

CHAPTER 1

Introduction

Overview

e-Watch is a comprehensive surveillance and monitoring system adapted for transmitting Motion Picture Experts Group (MPEG) video streams, high resolution Joint Photographic Experts Group (JPEG) images, Motion JPEG (MJPEG), and detected event data over both wired and wireless networks (Local Area Network [LAN] and Wide Area Networks [WAN]). Additional functions, such as access control, environmental monitoring, and biographical database connectivity can be provided within one integrated system.

The e-Watch system is based on standard networking and Internet technology. Real-time data, as well as archived data, can be viewed from a monitor station or any authorized Personal Computer (PC) on the LAN, WAN, or the Internet. The archive application tracks and maintains all situational awareness information and provides high-speed access for fast location and display of data related to a specific event.

Automated notification of alarm conditions and other events can be provided to response personnel via dial-up circuits, cellular phones, pagers, e-mail, or via the Internet.

A typical e-Watch system consists of a SiteWatch server and a number of e-Watch digital IP cameras and video encoders.

Cameras and video encoders distributed by Axis Communications AB (Axis) can also be incorporated into an e-Watch system. Adding Axis cameras provides an inexpensive way to expand the number of cameras attached to the system. Most of the control and alert features available with e-Watch cameras are also available with Axis cameras. These include:

- Viewing real-time video from anywhere on the Internet.
- Reviewing archived high-resolution images.
- Independent configuration of three separate video streams for archiving, low-resolution viewing and high-resolution viewing.
- Activity Gated Storage™, the innovative e-Watch technology for reducing archive storage requirements.
- Motion detection and alerts

For a complete list of supported Axis camera models please visit the Downloads page at www.e-watch.com.

IMPORTANT: Axis camera support is offered as a separate software module. Contact e-Watch sales for more information.

Procedures

Setting up the e-Watch system to work with Axis cameras consists of the following procedures:

1. Prepare the SiteWatch Situational Awareness Software to work with Axis cameras
2. Prepare the Axis cameras to work with the SiteWatch Situational Awareness Software
3. Connect the Axis cameras to the e-Watch system

e-Watch Components Required

The following is a list of components required for installing the e-Watch system.

1. SiteWatch installation CD
2. Hardware security device—USB or parallel key
3. e-Watch serial number
4. e-Watch registration number

Customer Supplied Components

The following is a list of components that are supplied by the customer for installing the e-Watch system and using Axis cameras.

1. Server with operating system
2. Tape device (optional)
3. Any necessary third-party software
4. Monitor station with operating system
5. Axis cameras

CHAPTER 2

Preparing SiteWatch

Before connecting Axis cameras to an e-Watch system, you must set the user name and password that the SiteWatch Situational Awareness Software will use to communicate with Axis cameras.

IMPORTANT: The user name and password you set in the SiteWatch Situational Awareness Software must also be set up in each Axis camera. See Chapter 3.

IMPORTANT: This user should have administrator privileges for each Axis camera.

Setting The Third Party Admin User Name And Password In SiteWatch

Perform the following steps on the SiteWatch server console to set the third party admin user name and password (see Figures 2-1 and 2-2).

1. Open the e-Watch Server App.
2. Click the Registry tab.
3. Scroll down and click on the ThirdPartyAdminUsername key.
4. Enter the user name in the Value box.
5. Click the Set button.
6. Click on the ThirdPartyAdminPassword key.
7. Enter the password in the Value box.
8. Click the Set button.

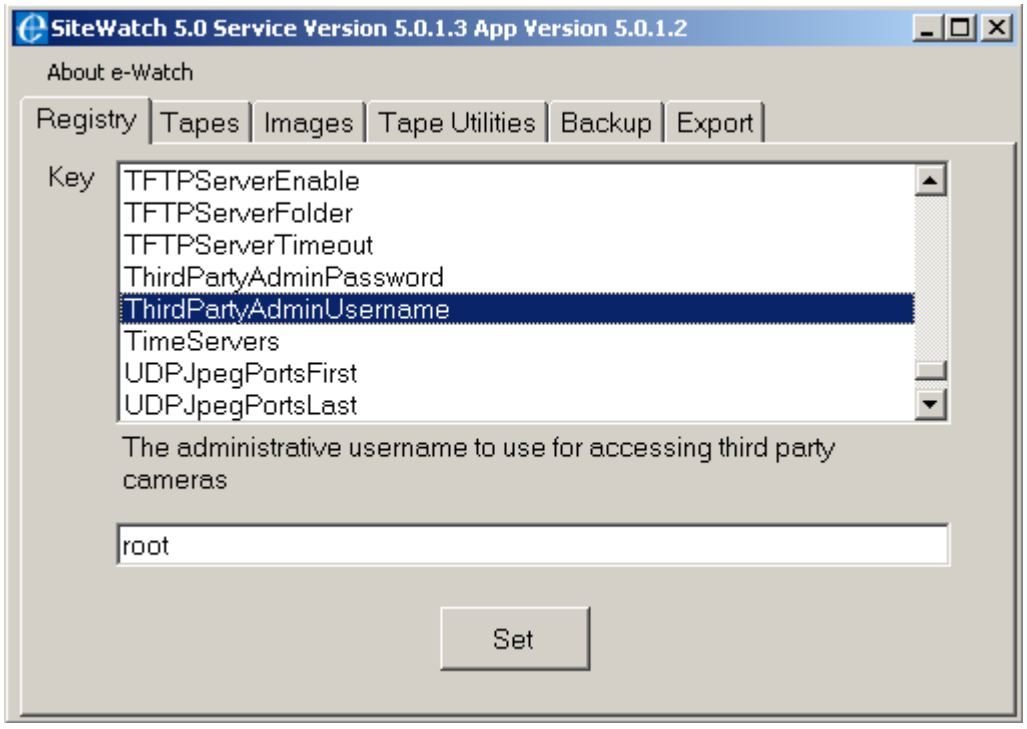

Figure 2-1. Third Party Username

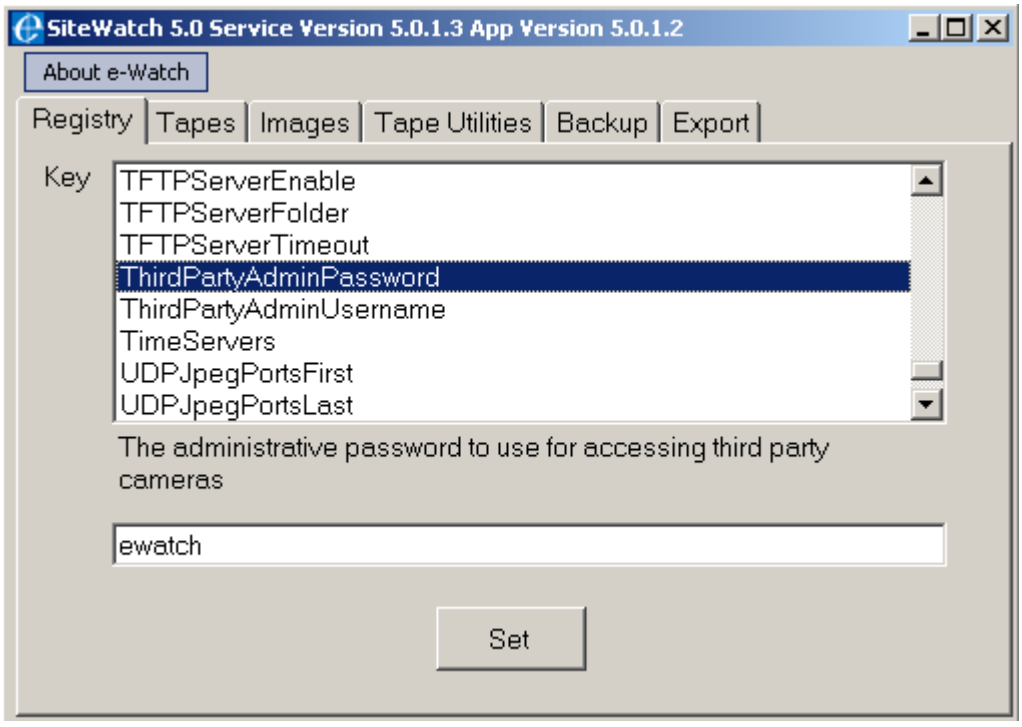

Figure 2-2. Third Party Password

CHAPTER 3

Preparing Axis Cameras

Before connecting an Axis camera to an e-Watch system you must define the user name and password that the SiteWatch Situation Awareness Software will use to communicate with the camera. The procedures described in this chapter are provided as examples and apply to the Axis camera model 225FD. The procedures for other Axis camera models may be different. Consult the documentation for your particular Axis camera model.

IMPORTANT: The user name must belong to the user group **Administrator**.

IMPORTANT: The user name and password must match the user name and password set in the SiteWatch Situational Awareness Software. See Chapter 2.

Setting The User Name

Perform the following steps to set the user name (see Figure 3-1). If you plan to use the built-in user name “root”, then you can skip these steps.

1. Open Internet Explorer.
2. Navigate to the URL: **`http://<camera ip address>`**.
3. Click Setup.
4. Click Users.
5. Click the Add button.
6. Enter the user name and password.
7. Click the Administrator radio button.
8. Click the OK button

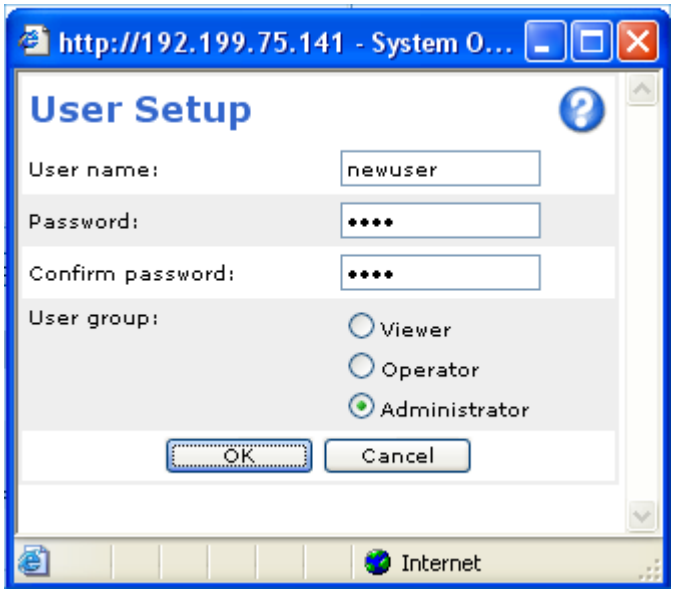

Figure 3-1. Setting The Axis User Name And Password

Setting The Password

Perform the following steps to set the password (see Figure 3-1).

1. Open Internet Explorer.
2. Navigate to the URL: **`http://<camera ip address>`**.
3. Click Setup.
4. Click Users.
5. Click the user name to highlight it.
6. Click the Modify button.
7. Enter the password.
8. Click the Administrator radio button.
9. Click the OK button

CHAPTER 4

Connecting Axis Cameras

After you have prepared the SiteWatch Situational Awareness Software and the Axis cameras, you must connect the Axis cameras to the e-Watch system. If your SiteWatch Server is running an operating system that supports the Simple Service Discovery Protocol (SSDP), then you can use SSDP to connect the Axis cameras.

INPORTANT: As of this writing Microsoft Windows XP supports SSDP, but Microsoft Server 2003 does not.

If your operating system does not support the Simple Service Discovery Protocol (SSDP), then you can use the e-Watch Camera IP utility or the e-Watch Camera Configuration utility to connect the Axis cameras

Connecting Axis Cameras Using SSDP

Refer to Figure 4-1.

Enabling SSDP

1. Click Start
2. Click Control Panel
3. Double click Administrative Tools
4. Double click Services
5. Right click SSDP Discovery Service, then click Properties
6. Change the Startup type to Automatic or Manual
7. Click the Apply button
8. Click the Start button
9. Click the OK button
10. Verify that the status of the SSDP Discovery Service is “Started”

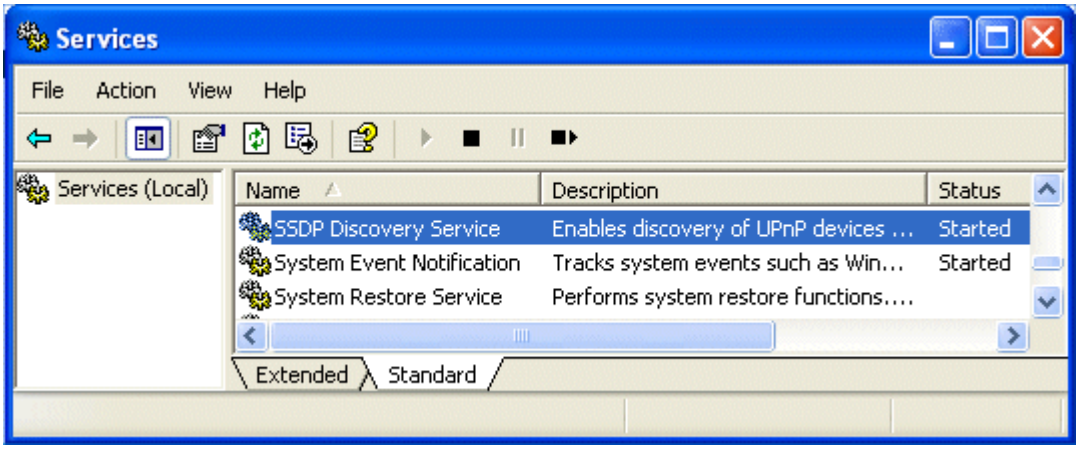

Figure 4-1. SSDP Discovery Service Enabled

After a short time, the e-Watch service will discover the Axis cameras and add them to the e-Watch camera database. You can then use the ViewWatch Define Maps dialog to add the Axis cameras to your site maps.

IMPORTANT: Some denial of service attacks utilize the SSDP Discovery Service, so you may wish to disable the service after all Axis cameras have been discovered.

IMPORTANT: the SSDP messages used to discover the Axis cameras may not be forwarded across subnets.

Restricting Axis Cameras To One e-Watch Server

Every e-Watch server that has SSDP enabled will detect all Axis cameras on the network. It is therefore possible for one Axis camera to be discovered by more than one e-Watch server. To prevent this from happening, you can restrict Axis cameras to one e-Watch server.

Setting The Registry Value

Perform these steps on the e-Watch Server console. See Figure 4-2.

1. Click Start
2. Click Programs
3. Click e-Watch
4. Click Server App
5. Click the Registry tab
6. Click the key **ThirdPartyRequireServerConfig**
7. Change the value to **true**
8. Click the Set button

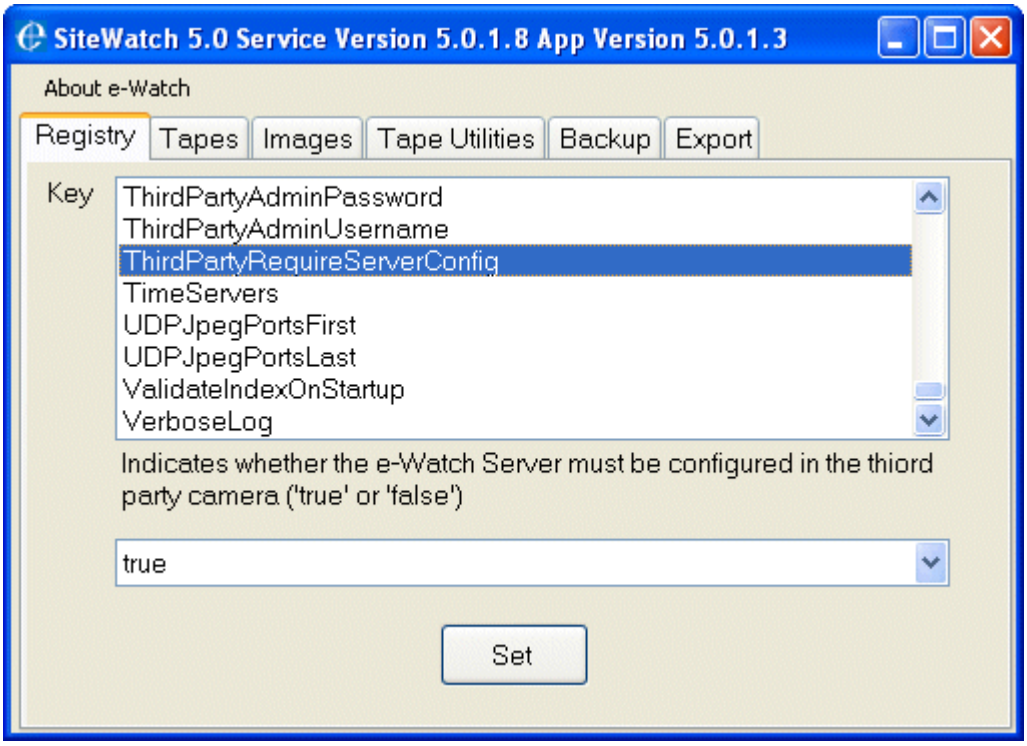

Figure 4-2. ThirdPartyRequireServerConfig Registry Value

Updating The Axis Camera

Perform these steps on the e-Watch Server console. See Figure 4-3.

1. Click Start
2. Click Programs
3. Click e-Watch
4. Click Camera IP
5. Click the Axis Cameras tab
6. Enter the Axis admin user name and password
7. Click the Search button
8. Click on an Axis camera is the list

If the SSDP Discovery Service is not enabled, you can enter each Axis camera's IP address in the Axis camera box then press the Enter key.

9. Type the IP address of the e-Watch Server in the e-Watch Server box
10. Click the Save button

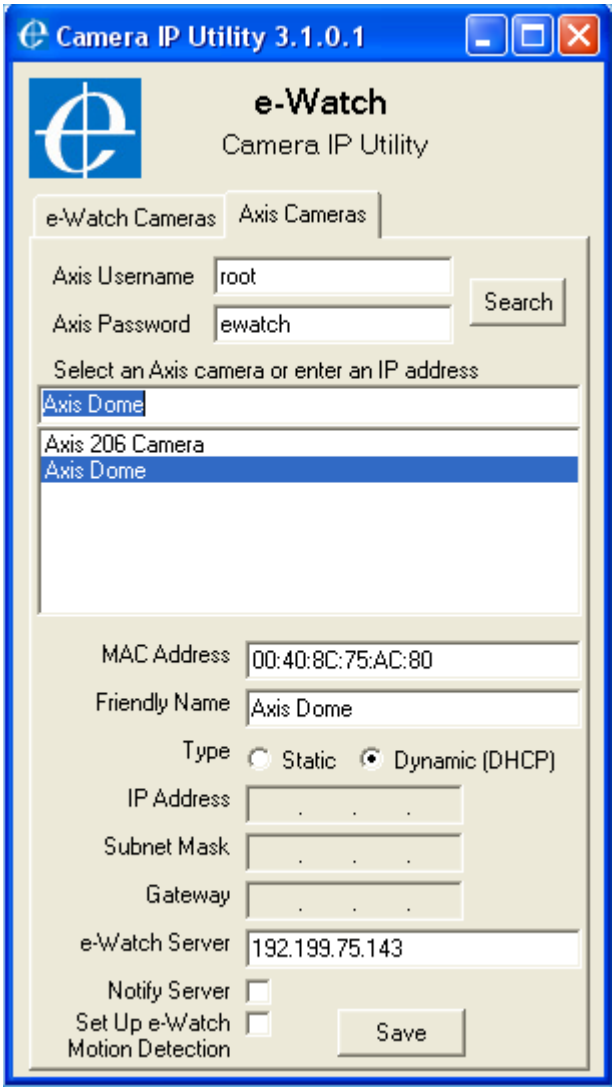

Figure 4-3. Restricting Axis Camera To One e-Watch Server

Connecting Axis Cameras Using The e-Watch Camera IP Utility

You can use the e-Watch Camera IP utility to connect Axis cameras if the operating system on the e-Watch Service does not support SSDP (e.g. Microsoft Windows Server 2003). See Figure 4-4.

To simplify the procedure, you may wish to run the e-Watch Camera IP utility on a computer that does have SSDP installed and enabled. Just copy c:\e-watch\exe\cameraip.exe from the e-Watch Server to the target computer, or share the folder c:\e-watch\exe on the e-Watch Server. The

target computer must have Microsoft .NET and the Microsoft J# Redistributable Package installed.

Perform the following steps.

1. Run the e-Watch Camera IP utility.
2. Click the Axis Cameras tab
3. Enter the Axis admin user name and password
4. Click the Search button
5. Click on an Axis camera in the list

If the SSDP Discovery Service is not enabled, you can enter each Axis camera's IP address in the Axis camera box then press the Enter key.

6. Type the IP address of the e-Watch Server in the e-Watch Server box
7. Check the Notify Server checkbox
8. Click the Save button

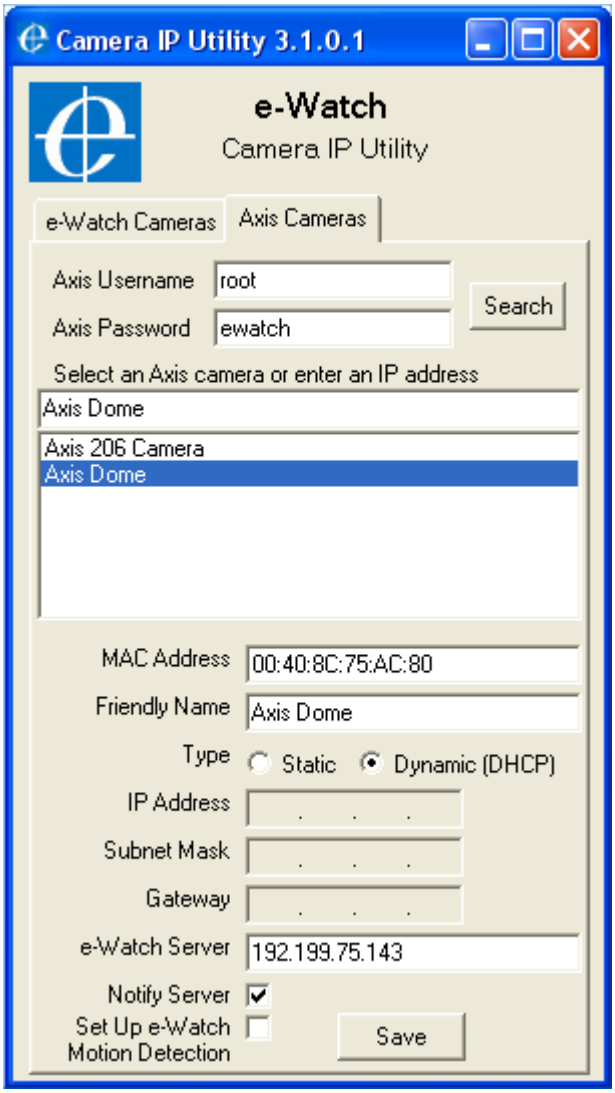

Figure 4-4. Connecting Axis Camera Using e-Watch Camera IP Utility

Connecting Axis Cameras Using The e-Watch Camera Configuration Utility

You can also accomplish this task using the e-Watch Camera Configuration Utility. See Figure 4-5.

1. Run the e-Watch Camera Configuration utility.
2. In the Camera Connection section, click the IP Address tab
3. Select Axis Camera in the Camera Type list
4. Enter the Axis user name and password
5. Enter the Axis camera's IP address
6. Click the Connect button
7. In the Configuration section, click the IP tab
8. Type the IP address of the e-Watch Server in the e-Watch Server box
9. Check the Notify Server checkbox
10. Click the Apply button

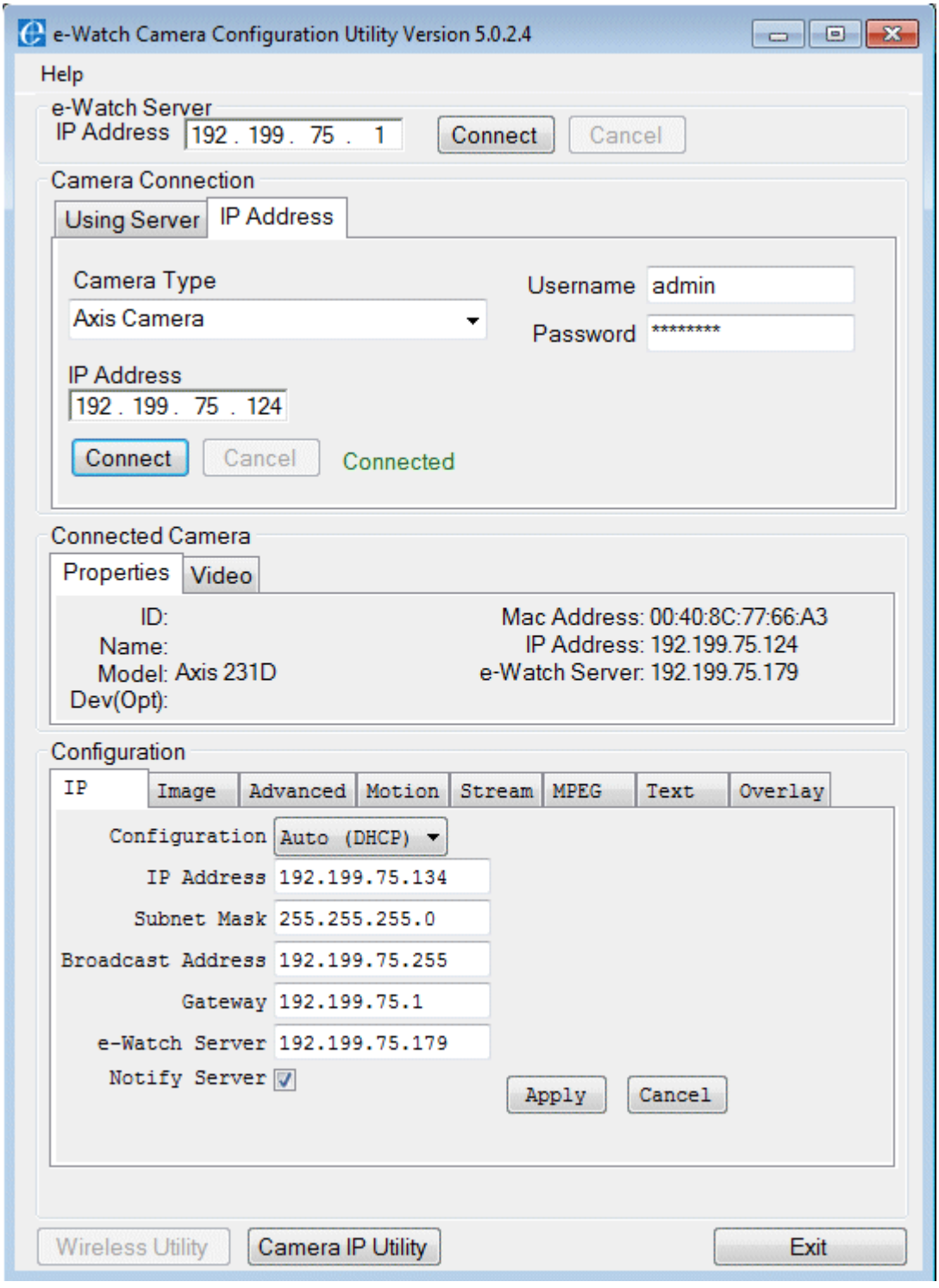

Figure 4-5. Connecting Axis Camera Using e-Watch Camera Configuration Utility

Setting Up Motion Detection And Boot Event

Axis cameras that support Motion Detection and Event Configuration can participate in e-Watch Activity Gated Storage. Activity Gated Storage greatly reduces the amount of storage required for archived images.

When you set up motion detection for an Axis camera, e-Watch will also create a boot event that will automatically notify the e-Watch system in the event that the camera's IP address is changed.

Using The e-Watch Camera IP Utility

1. Run the e-Watch Camera IP utility.
2. Click the Axis Cameras tab
3. Enter the Axis admin user name and password
4. Click the Search button
5. Click on an Axis camera is the list

If the SSDP Discovery Service is not enabled, you can enter the Axis camera's IP address in the Axis camera box then press the Enter key.

6. Check the Setup e-Watch Motion Detection checkbox
7. Click the Save button

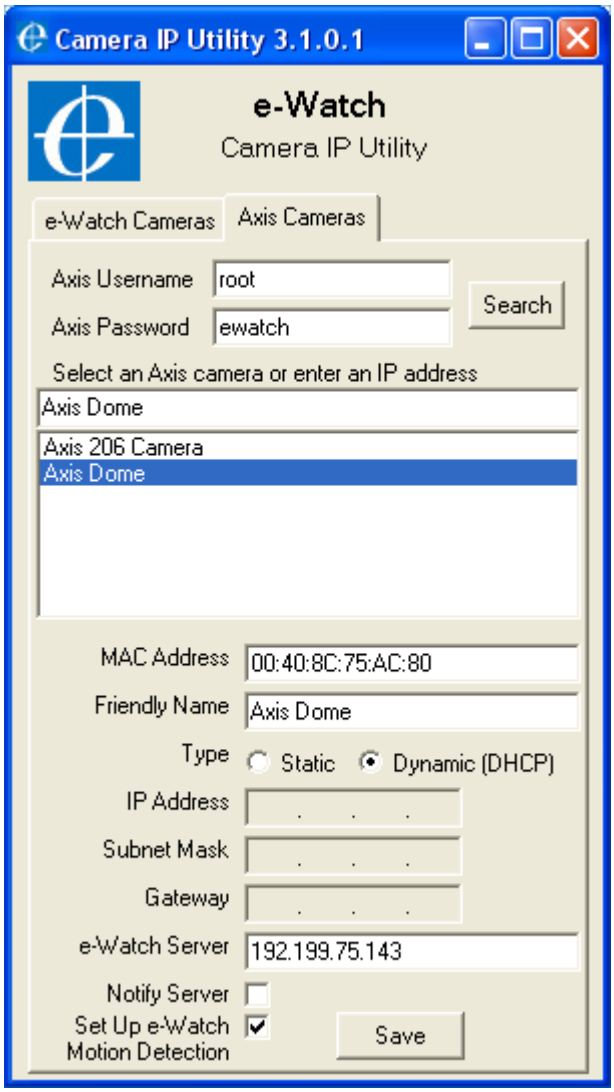

Figure 4-6. Motion Detection Using The Camera IP Utility

Using The e-Watch Camera Configuration Utility

You can also set up motion detection using the e-Watch Camera Configuration Utility. See Figure 4-7.

1. Run the e-Watch Camera IP utility.
2. In the Camera Connection section, click the Using Server tab
3. Select the camera in the Old Cameras list
4. Click the Connect button
5. Click the Setup Motion Detection button

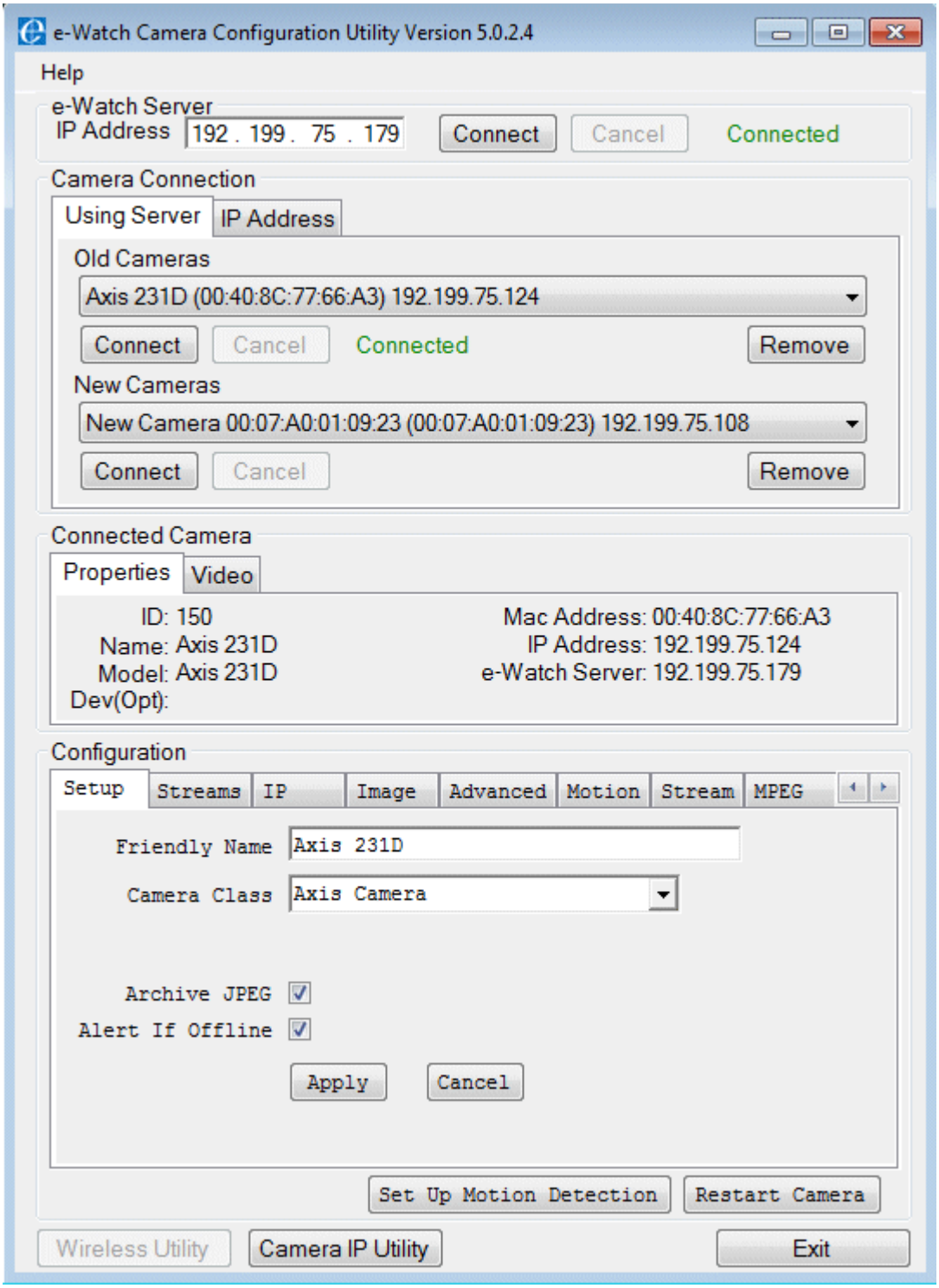

Figure 4-7. Motion Detection Using The Camera Configuration Utility

Using The ViewWatch Camera Definition Page

You can also set up motion detection using the ViewWatch Camera Definition Page. See Figure 4-8.

1. Start ViewWatch and log on as an administrator.
2. Click **Define Cameras** in the ViewWatch Define Menu.
3. Click the camera in the cameras list.
4. Click the Edit button.
5. Click the Setup tab.
6. Click the Setup Motion Detection button.

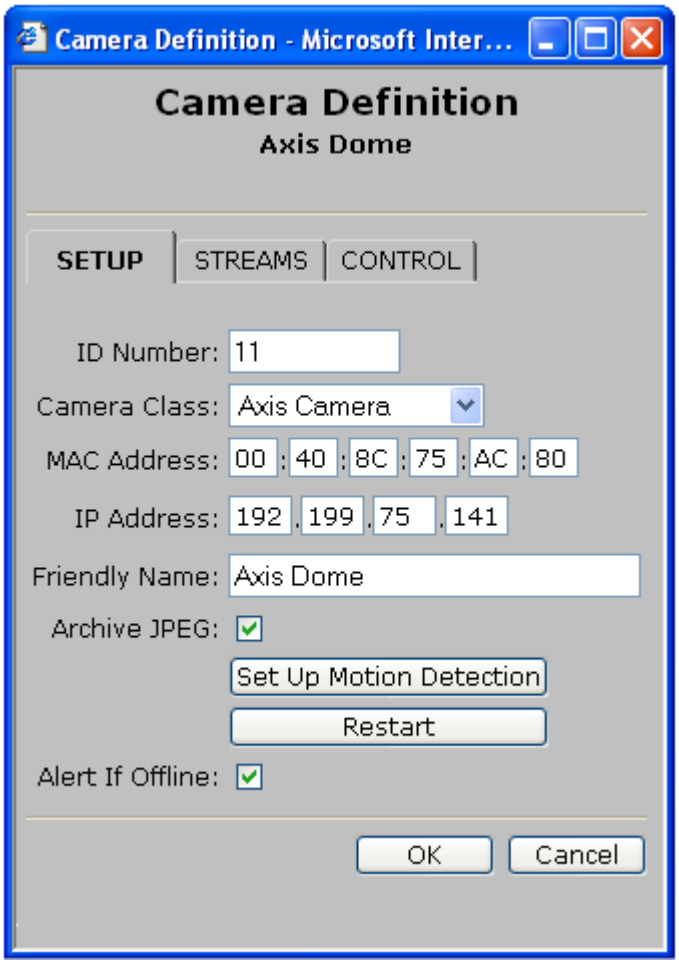

Figure 4-8. Motion Detection Using The Camera Definition Page

Changing The IP Address Of Axis Cameras That Do Not Support Event Configuration

If you have set up Motion Detection as described above, e-Watch will have created a boot event that will notify the e-Watch system in the event that the camera's IP address is changed. However, some Axis cameras do not support Event Configuration and e-Watch cannot set up a boot event for these cameras.

If you change the IP address of an Axis camera that does not support Event Configuration, follow these steps to manually update the camera's IP address in the e-Watch system . See Figure 4-9.

1. Start ViewWatch and log on as an administrator.
2. Click **Define Cameras** in the ViewWatch Define Menu.
3. Click the camera in the cameras list.
4. Click the Edit button.
5. Click the Control tab.
6. Click the IP tab.
7. Enter the camera's new IP configuration.
8. Click the Save button.

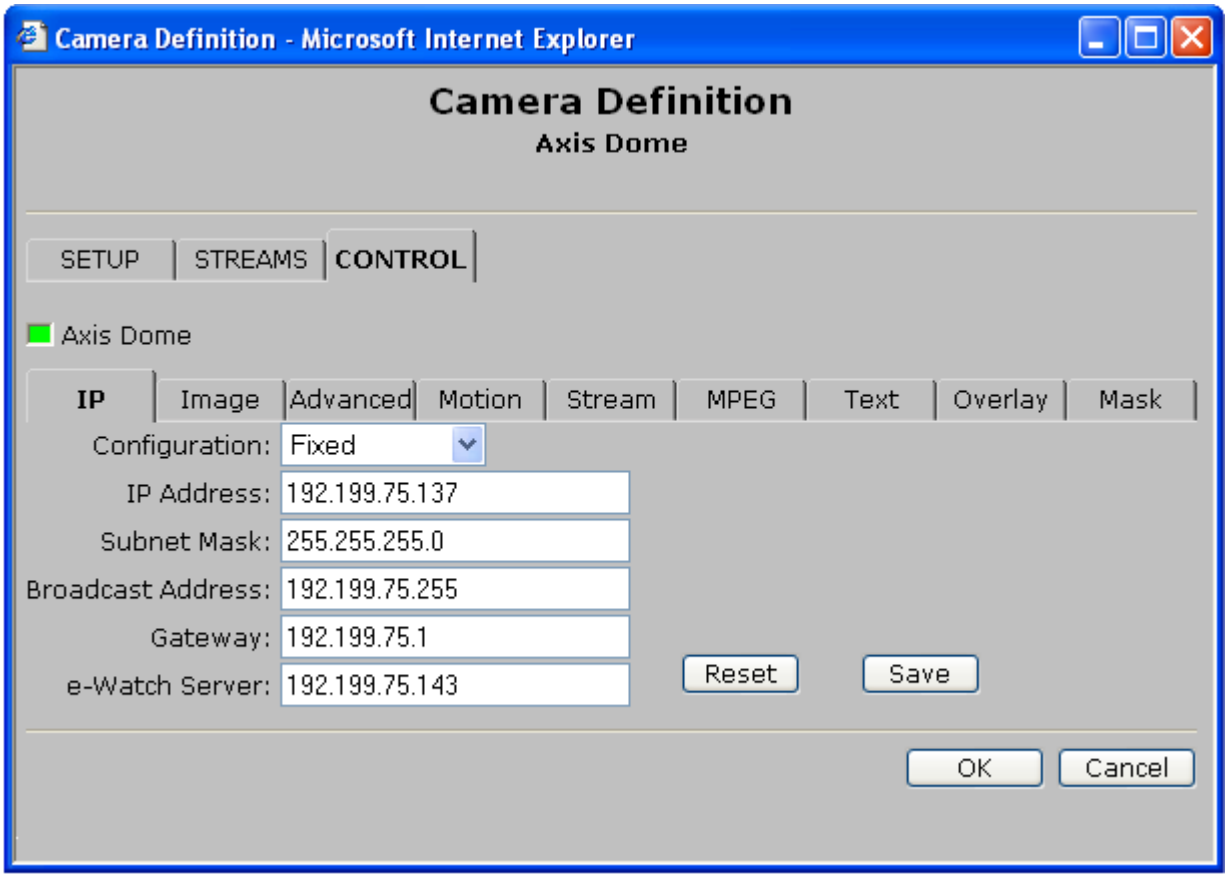

Figure 4-9. Manually Updating The Camera's IP Address

APPENDIX A

List Of Figures