

## Assign an IP Address

### Default IP Address

The Axis network video product is designed for use on an Ethernet network and requires an IP address for access. Most networks today have a DHCP server that automatically assigns IP addresses to connected devices. If your network does not have a DHCP server the network video product will use 192.168.0.90 as the default IP address.

### Recommended Methods in Windows®

AXIS IP Utility and AXIS Camera Management are recommended methods for assigning an IP address in Windows®. These free applications are available on the **Installation and Management Software CD** supplied with this product, or they can be downloaded from [www.axis.com/techsup](http://www.axis.com/techsup).

| Method   | Recommended for   |
|--|---|
|  AXIS IP Utility        | Single camera<br>Small installations  |
|  AXIS Camera Management | Multiple cameras<br>Large installations<br>Installation on a different subnet |

#### Notes:

- If assigning the IP address fails, check that there is no firewall blocking the operation.
- For other methods of assigning or discovering the IP address, for example in other operating systems, see *Other Operating Systems and Methods* on page 6.

## AXIS IP Utility – single camera/small installation

AXIS IP Utility automatically discovers and displays Axis devices on your network. The application can also be used to manually assign a static IP address.

Note that the computer running AXIS IP Utility must be on the same network segment (physical subnet) as the network video product.

### Automatic discovery

1. Check that the Axis product is connected to the network and has powered up.
2. Start AXIS IP Utility.
3. When the Axis product name appears in the window, double-click to open its web pages.
4. See page 4 for instructions on how to set the password.

### Assign the IP address manually (optional)

1. Acquire an unused IP address on the same network segment as your computer.
2. Select the network video product in the list.
3. Click the button  Assign new IP address to selected device and enter the IP address.
4. Click the **Assign** button and proceed according to instructions.
5. When the network video product appears in the window, double-click to open its web pages.
6. See page 4 for instructions on how to set the password.

### AXIS Camera Management - multiple cameras/large installations

AXIS Camera Management can automatically discover multiple Axis devices, show connection status, manage firmware upgrades and assign IP addresses.

#### Automatic discovery

1. Check that the Axis product is connected to the network and has powered up.
2. Start AXIS Camera Management. When the Axis product appears in the window, right-click the link and select **Live View Home Page**.
3. See page 4 for instructions on how to set the password.

#### Assign IP addresses in multiple devices

AXIS Camera Management speeds up the process of assigning IP addresses to multiple devices, by suggesting IP addresses from a specified range.

1. Select the devices you wish to configure (different models can be selected) and click the **Assign IP** button .
2. Select **Assign the following IP address range** and enter the IP address range, subnet mask and default router the devices will use.
3. Click **Update**. Suggested IP addresses are listed under **New IP Addresses** and can be edited by selecting a device and clicking the **Edit** button.
4. Click **OK**.

### Set the Password

To gain access to the Axis product, the password for the default administrator user **root** must be set. This is done in the **Configure Root Password** dialog, which appears when the product is accessed for the first time.

#### Standard HTTP connection

To set the password through a standard HTTP connection, enter the desired password in the first dialog.

#### Encrypted HTTPS connection

To prevent network eavesdropping, the root password can be set through an encrypted HTTPS connection, which requires an HTTPS certificate. HTTPS (Hypertext Transfer Protocol over SSL) is a protocol used to encrypt traffic between web browsers and servers. The HTTPS certificate ensures encrypted exchange of information.

To set the password through an encrypted HTTPS connection, follow these steps:

1. Click **Create self-signed certificate**.
2. Provide the requested information and click **OK**. The certificate is created and the password can now be set securely. All traffic to and from the product is encrypted from this point on.
3. Enter a password and then re-enter to confirm the spelling. Click **OK**. The password has now been configured.

#### Notes:

- The default administrator user name **root** is permanent and cannot be deleted.
- If the password for the **root** user is lost, the product must be reset to the factory default settings. For information on how to do this, refer to the User Manual on [www.axis.com](http://www.axis.com)

### PTZ mode (if applicable)

PTZ mode is set the first time the Axis PTZ product is accessed and can only be changed by resetting the product to factory default.

**Digital PTZ** is the default mode and should be used when a pan/tilt/zoom head is **not** used.

If the camera is mounted to a pan/tilt/zoom head, select **Uploadable PTZ driver**. For instructions on how to upload a PTZ driver, please see the User Manual available at [www.axis.com](http://www.axis.com)

### Power Line Frequency (if applicable)

When accessing the product for the first time, select the power line frequency (50 Hz or 60 Hz) used at the location of the Axis product.

- Americas: usually 60 Hz
- Rest of the world: usually 50 Hz

**Important:** Local variations may apply, always check with the local authorities.

Selecting the wrong frequency may cause image flicker if the product is used in fluorescent light environments. When using 50 Hz, the maximum frame rate is limited to 25 fps.

### Access the Video Stream

The Live View page is displayed with links to the setup pages to customize the Axis product.

If required, click **Yes** to install AXIS Media Control, which allows viewing of the video stream in Internet Explorer. You will need administrator rights on the computer to do this.

#### Note:

- To install AXIS Media Control in Windows 7/Windows Vista, you must run Internet Explorer as an administrator. Right-click the Internet Explorer icon and select **Run as administrator**.

### Access from the Internet

Once installed, your Axis product is accessible on your local network (LAN). To access the product from the Internet, the network routers must be configured to allow incoming traffic. This usually done on a specific port:

- HTTP port (default port 80) for viewing and configuration
- RTSP port (default port 554) for viewing H.264 video streams

Please refer to the documentation for your router for further instructions. For more information on this and other topics, visit the Axis Support Web at [www.axis.com/techsup](http://www.axis.com/techsup)

### Further Information

Refer to the User Manual which is available from Axis web site at [www.axis.com](http://www.axis.com)

Tip!

Visit [www.axis.com/techsup](http://www.axis.com/techsup) to check if there is updated firmware available for your Axis product. To see the currently installed firmware version, see Setup > About in the web pages.

## Other Operating Systems and Methods

The table below shows the other methods available for assigning or discovering the IP address. All methods are enabled by default, and all can be disabled.

|                          | Use in operating system   | Notes  |
|--------------------------|---------------------------|--|
| AVHS Service Connection  | All                       | To connect to an AVHS service, refer to the service provider's Installation guide. For information and help in finding a local AVHS Service Provider go to <a href="http://www.axis.com/hosting">www.axis.com/hosting</a>                  |
| UPnP™                    | Windows®                  | When enabled on your computer, the Axis network video product is automatically detected and added to My Network Places/Network.  |
| Bonjour®                 | Mac OS X® (10.4 or later) | Applicable to browsers with support for Bonjour. Navigate to the Bonjour bookmark in your browser (for example Safari) and click on the link to access the web pages.  |
| AXIS Dynamic DNS Service | All                       | A free service from Axis that allows you to quickly and simply install your Axis network video product. Requires an Internet connection with no HTTP proxy. See <a href="http://www.axiscam.net">www.axiscam.net</a> for more information. |
| ARP/Ping                 | All                       | See below. The command must be issued within 2 minutes of connecting power.  |
| DHCP server              | All                       | To view the admin pages for the network DHCP server, see the server's own documentation.   |

## Assign the IP address with ARP/Ping

1. Acquire a free static IP address on the same network segment as your computer.
2. Locate the serial number (S/N) on the product label.
3. Open a command prompt on your computer and enter the following commands:

|  |
|--|
| <b>Windows syntax</b>  |
| <pre>arp -s &lt;IP Address&gt; &lt;Serial Number&gt; ping -l 408 -t &lt;IP Address&gt;</pre> |
| <b>Windows example</b>   |
| <pre>arp -s 192.168.0.125 00-40-8c-18-10-00 ping -l 408 -t 192.168.0.125</pre>               |

|  |
|--|
| <b>UNIX/Linux/Mac syntax</b>   |
| <pre>arp -s &lt;IP Address&gt; &lt;Serial Number&gt; temp ping -s 408 &lt;IP Address&gt;</pre> |
| <b>UNIX/Linux/Mac example</b>  |
| <pre>arp -s 192.168.0.125 00:40:8c:18:10:00 temp ping -s 408 192.168.0.125</pre>               |

4. Check that the network cable is connected to the Axis product and then start/restart, by disconnecting and reconnecting power.
5. Close the command prompt when you see 'Reply from 192.168.0.125:...' or similar.
6. In your browser, type in `http://<IP address>` in the Location/Address field.

### Notes:

- To open a command prompt in Windows: from the Start menu, select **Run...** and type `cmd`. Click OK.
- To use the ARP command in Windows 7/Windows Vista, right-click the command prompt icon and select **Run as administrator**.
- To use the ARP command on a Mac OS X, use the Terminal utility in **Application > Utilities**.