



CHAPTER 5

Network Setup

The Network Setup windows let you configure various network-related settings for the IP camera.

The following sections describe the Network Setup windows in detail:

- [Basic Window, page 5-1](#)
- [IP Addressing Window, page 5-2](#)
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Basic Window

The Basic window provides options for identifying the IP camera and controlling basic operations.

To display the Basic window, perform the following steps:

Procedure

- Step 1** From the IP camera user interface, click the **Setup** link.
- Step 2** Click **Network Setup** to expand the menu.
- Step 3** From the Network Setup menu, click **Basic**.

The Basic window appears. If you change any options in this window, you must click the **Save Settings** button to save the changes. If you do not click this button, changes are not retained when you exit the window. **Save Settings** appears at the bottom of the window. You may need to scroll down to it.

[Table 5-1](#) describes the options in the Basic window.

Table 5-1 Basic Window Options

Option	Description
Basic Settings Area	
ID	Enter a unique identification for the IP camera, which is used to identify the IP camera to various external applications. The ID can contain up to 64 numbers.
Name	Enter a name for the IP camera. This name appears in the IP camera log file for information that is associated with this IP camera. The name can contain up to 64 characters, which can include letters, numbers, spaces, and these characters: ! \$ % () + , - . / = @ ^ _ ` { } ~. Cisco recommends that you give each IP camera a unique name so that you can identify it easily.
Description	Enter a description of the IP camera. For example, enter the IP camera location, such as “North Entrance Camera 1.” The description can contain up to 128 characters, which can include letters, numbers, spaces, and these characters: ! \$ % () + , - . / = @ ^ _ ` { } ~
Location	Enter the physical location of the IP camera, such as “North Entrance.” The location can contain up to 64 characters, which can include letters, numbers, spaces, and these characters: ! \$ % () + , - . / = @ ^ _ ` { } ~
Contact	Enter system contact information for someone such as the system administrator. For example, enter the e-mail address of the system administrator. The contact can contain up to 64 characters, which can include letters, numbers, spaces, and these characters: ! \$ % () + , - . / = @ ^ _ ` { } ~
Basic Device Operations Area	
Enable Power LED	Check this check box if you want the Power LED on the back of the IP camera to light. If you do not check this check box, this LED does not light.

IP Addressing Window

The IP Addressing window provides options for configuring the IP address of the IP camera.

To display the Basic window, perform the following steps:

Procedure

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- Step 1** From the IP camera user interface, click the **Setup** link.
 - Step 2** Click **Network Setup** to expand the menu.

Step 3 From the Network Setup menu, click **IP Addressing**.

The IP Addressing window appears. If you change any options in this window, you must click the **Save Settings** button to save the changes. If you do not click this button, changes are not retained when you exit the window. **Save Settings** appears at the bottom of the window. You may need to scroll down to it.

Table 5-2 describes the options in the IP Addressing window.

Table 5-2 IP Addressing Window Options

Option	Description
IP Addressing Area	
IP Version	Choose the IP version from the pull-down list. Currently, only IPv4 is supported.
Configuration Type	Choose the method by which the IP camera obtains its IP address: <ul style="list-style-type: none"> • Dynamic—If your network includes a DHCP server for dynamic allocation of IP addresses, choose this option if you want DHCP to assign an IP address and subnet mask to the IP camera. Depending on your router, the default gateway, primary DNS server, and secondary DNS server may also be assigned. The DHCP server must be configured to allocate static IP addresses based on MAC addresses so that the IP camera always receives the same address. • Static—Choose this option if you want to manually enter an IP address, subnet mask, default gateway, and DNS server IP addresses for the camera.
IP Address	If you configured the IP camera for a static IP address, enter that IP address.
Subnet Mask	If you configured the IP camera for a static IP address, enter the subnet mask for the IP camera. Use the same value that is configured for the PCs on your network.
Gateway Address	If you configured the IP camera for a static IP address, enter the gateway for the IP camera. Use the same value that is configured for the PCs on your network.
Primary DNS	<i>Optional.</i> Enter the IP address of the primary the DNS server that is used in your network. Use the same value that is used for the PCs on your LAN. Typically, your ISP provides this address. This address is required if you use a host name instead of an IP address in any configuration field in the IP camera configuration windows.
Secondary DNS	<i>Optional.</i> Enter the IP address of a secondary (backup) DNS server to use if the primary DNS server is unavailable. Enter the DNS server to be used if the primary DNS server is unavailable. This address is required if you have a secondary DNS server an you use a host name instead of an IP address in any configuration field in the IP camera configuration windows.

Time Window

The Time window provides options for setting and maintaining the time of the IP camera.

To display the Time window, perform the following steps:

Procedure

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- Step 1** From the IP camera user interface, click the **Setup** link.
 - Step 2** Click **Network Setup** to expand the menu.
 - Step 3** From the Network Setup menu, click **Time**.

The Time window appears. If you change any options in this window, you must click the **Save Settings** button to save the changes. If you do not click this button, changes are not retained when you exit the window. **Save Settings** appears at the bottom of the window. You may need to scroll down to it.

[Table 5-3](#) describes the options in the Time window.

Table 5-3 Time Window Options

Option	Description
Set Time Mode Area	
Manually Configure Time	Choose this option if you want to set the time for the IP camera manually.
Use NTP Server to Update Time	Choose this option if you want the IP camera to obtain its time from a network time protocol (NTP) server. If you check this check box, the camera contacts the designated NTP server every 64 seconds and synchronizes its internal clock with the time of that server.
Local Time Area	
Note These options do not apply if you choose the Use NTP Server to Update Time option.	
Set Local Date	Enter a date for the IP camera. The camera is updated with this date when you click Save Settings .
Set Local Time	Enter a time for the IP camera. The camera is updated with this time when you click Save Settings .
Clone PC Time button	Click this button to update the IP camera date and time with the date and time of the PC that you are using.
Time Zone and Daylight Saving Area	
Time Zone	Choose the time zone in which the IP camera is located. The time that appears when you view video from this IP camera reflects this time zone.
Adjust for Daylight Saving Time	Check this check box if you want the time of the IP camera to adjust automatically for daylight saving time.

Table 5-3 Time Window Options (continued)

Option	Description
Edit Default Daylight Saving Configuration for Time Zone	Check this check box if you want the daylight saving time adjustment of the IP camera to be different than the default adjustment for the selected time zone.
Time Offset	If you choose to overwrite the default time zone configuration, enter the number of minutes that the time of the camera adjusts when daylight saving time starts. The camera automatically adjusts its time back by this number of minutes when daylight saving time ends.
Start Date Start Time	If you choose to overwrite the default time zone configuration, enter the day and time (in 24 hour format) that daylight saving time begins. At this day and time, the time of the IP camera adjusts by the value in the Time Offset field.
End Date End Time	If you choose to overwrite the default time zone configuration, enter the day and time (in 24 hour format) that daylight saving time ends. At this day and time, the time of the IP camera adjusts to the non-daylight saving time.

NTP Server Settings Area

Note These options do not apply if you choose the Manually Configure Time option.

Primary NTP Server	If you configured the IP camera to obtain its time from an NTP server, identify the primary NTP server by choosing IP Address or Hostname from the drop-down list and entering the IP address or host name in the corresponding field.
Primary NTP Server Port	If you configured the IP camera to obtain its time from an NTP server, enter the primary NTP server port number. Valid values are 123 and 1024 through 65535. The default port is 123.
Secondary NTP Server	If you configured the IP camera to obtain its time from an NTP server, identify the secondary NTP server by choosing IP Address or Hostname from the drop-down list and entering the IP address or host name in the corresponding field.
Secondary NTP Server Port	If you configured the IP camera to obtain its time from an NTP server, enter the optional secondary NTP server port number. Valid values are 123 and 1024 through 65535. The default port is 123.

Discovery Window

The Discovery window provides options for configuring the IP camera to work with Cisco Discovery Protocol or Bonjour. These applications facilitate monitoring and management of your network.

To display the Discovery window, perform the following steps:

Procedure

- Step 1** From the IP camera user interface, click the **Setup** link.
- Step 2** Click **Network Setup** to expand the menu.

Step 3 From the Network Setup menu, click **Discovery**.

The Discovery window appears. If you change any options in this window, you must click the **Save Settings** button to save the changes. If you do not click this button, changes are not retained when you exit the window. **Save Settings** appears at the bottom of the window. You may need to scroll down to it.

[Table 5-4](#) describes the options in the Discovery window.

Table 5-4 Discovery Window Options

Option	Description
Cisco Discovery Protocol (CDP) Area	
Enable CDP	Check this check box if CDP is enabled in your network and you want the IP camera to broadcast CDP discovery messages.
Show Neighbors button	Displays a new window with information about CDP-enabled device neighbors in your network.
Bonjour Area	
Enable Bonjour	Check this check box if Bonjour is enabled in your network and you want the IP camera to broadcast Bonjour discovery messages.

IP Filter Window

The IP Filter window provides options for controlling access to the IP camera by designating up to 10 IP addresses or address ranges that are allowed or denied access to the IP camera.

To display the IP Filter window, perform the following steps:

Procedure

Step 1 From the IP camera user interface, click the **Setup** link.

Step 2 Click **Network Setup** to expand the menu.

Step 3 From the Network Setup menu, click **IP Filtering**.

The IP Filter window appears. If you change any options in this window, you must click the **Save Settings** button to save the changes. If you do not click this button, changes are not retained when you exit the window. **Save Settings** appears at the bottom of the window. You may need to scroll down to it.

[Table 5-5](#) describes the options in the IP Filter window.

Table 5-5 IP Filter Window Options

Option	Description
IP Filter Area	
Enable IP Filtering	Check this check box to cause the IP camera to allow or deny access to IP addresses as configured in the IP Filtering window.

Table 5-5 IP Filter Window Options (continued)

Option	Description
Filter Entries Area	
#	<i>Display only.</i> Filter number.
Action	Choose an action for the corresponding IP address or address range: <ul style="list-style-type: none"> • Deny—IP address or address range cannot access the IP camera • Allow—IP address or address range can access the IP camera
IP Address/Bit Mask	Enter the IP address and bit mask to which the corresponding action applies. Make these entries in Classless Inter-Domain Routing (CIDR) notation. CIDR is defined in RFC 4632.

QoS Window

The QoS window provides options for configuring quality of service (QoS) settings for video streams. To display the QoS window, perform the following steps:

Procedure

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- Step 1** From the IP camera user interface, click the **Setup** link.
- Step 2** Click **Network Setup** to expand the menu.
- Step 3** From the Network Setup menu, click **QoS**.

The QoS window appears. If you change any options in this window, you must click the **Save Settings** button to save the changes. If you do not click this button, changes are not retained when you exit the window. **Save Settings** appears at the bottom of the window. You may need to scroll down to it.

[Table 5-6](#) describes the options in the QoS window.

Table 5-6 QoS Window Options

Option	Description
Class of Service (CoS) Area	
Enable CoS for Video Streaming	Check this check box to enable class of service (CoS) control for video streams. If you enable this option, the IP camera specifies a VLAN tag that appends to an Ethernet MAC frame for video streaming data.
Video Priority	Value from 0 (lowest priority) through 7 (highest priority) that specifies the CoS priority value for steaming video data.
Video VLAN ID	Enter the ID of the video VLAN to which CoS packets are directed.
Enable CoS for Audio Streaming	Check this check box to enable class of service (CoS) control for audio streams. Note Support for audio will be available in future releases.

Table 5-6 QoS Window Options (continued)

Option	Description
Audio Priority	Value from 0 (lowest priority) through 7 (highest priority) that specifies the CoS priority value for steaming audio data.
Audio VLAN ID	Enter the ID of the audio VLAN to which CoS packets are directed.
Differentiated Services (DiffServ) Area	
Enable DiffServ for Video Streaming	Check this check box to enable Differentiated Services (DiffServ) for video streams. If you enable this option, the IP camera specifies the DSCP priority value that appends to an IP header for video streaming packets.
Video DSCP Priority Value	Value from 0 (lowest priority) through 63 (highest priority) that specifies the DSCP priority value for steaming video data.
Enable DiffServ for Audio Streaming	Check this check box to enable Differentiated Services (DiffServ) for audio streams. Note Support for audio will be available in future releases.
Audio DSCP Priority Value	Value from 0 (lowest priority) through 63 (highest priority) that specifies the DSCP priority value for steaming audio data.