



Video Camera Replacement *(EXCERPT – Tim Benedict)*

Table of Contents

| | |
|--|----|
| Replacing a Video Camera | 2 |
| Introduction | 2 |
| Replacement Camera Configuration | 2 |
| Troubleshooting | 10 |

Table of Figures

| | |
|--|----|
| Figure 1. Password Configuration Window | 3 |
| Figure 2. Password Entry Window | 3 |
| Figure 3. Live View Page..... | 4 |
| Figure 4. Video Streams Setting Window | 4 |
| Figure 5. Camera Settings Window | 5 |
| Figure 6. Warning Message | 6 |
| Figure 7. “Processing” Overlay | 6 |
| Figure 8. Camera Limits Window | 7 |
| Figure 9. Date & Time Settings Window..... | 8 |
| Figure 10. Advanced TCP/IP Settings Window | 8 |
| Figure 11. Basic TCP/IP Settings Window..... | 9 |
| Figure 12. Configuration Save Dialog Box..... | 9 |
| Figure 13. Video Stream Settings Window | 11 |



Video Camera Replacement (EXCERPT – Tim Benedict)

Replacing a Video Camera

Introduction

The [REDACTED] camera system is provided with pre-configured cameras. If a camera is to be replaced, the new camera must be configured prior to the on-site installation. The camera to be replaced must be removed from its location before configuring a replacement camera.

A PoE (Power over Ethernet) source is provided in the control room to power the new camera and connect it to the system for this configuration process.

The procedure below will initialize the new camera and allow it communicate with the system properly. *Live View* and *Recording* settings should be maintained from the original camera's settings and not require configuration. If any of the following issues are noted, refer to the troubleshooting section below for a complete list of configuration details.

- Change in image quality
- Change in perceived image delay time
- Excessive change in network bandwidth usage

Replacement Camera Configuration

1. Navigate to the Camera Management page of the Axis Camera Station program
2. Take note of the name and IP address of the camera to be replaced. An “x” should be visible at the bottom right of the camera’s icon and the status should be “Not Accessible”
3. Locate the Axis High PoE that is stationed next to the camera control system keyboard.
4. Make sure that the “Data In” connector of this device is connected to a port on the back of the Portable Control Cabinet.
5. Plug the new camera into the RJ-45 port labeled “Data & Power Out”. An Axis 6035E PTZ camera will require a separate CAT 5 cable; the M3114 cable is built into the unit.
6. Wait two minutes for the camera to power up and initialize before proceeding.
7. Go to Internet Explorer and open up a new tab.
8. Type in the following IP address in the address area of Internet explorer and press the ENTER key: 192.168.0.90 (This is the default IP address of new Axis cameras)
9. A page will appear as in figure below. Enter [REDACTED] in the *Password* and *Confirm password* fields. Click the *OK* button.



Video Camera Replacement (EXCERPT – Tim Benedict)



Figure 1. Password Configuration Window

10. A Windows Security dialog box will appear as in figure below.

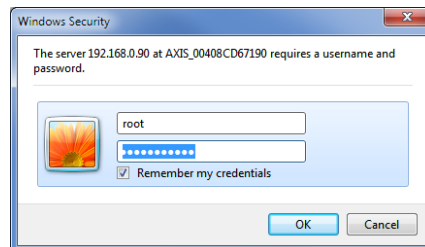



Figure 2. Password Entry Window

11. Enter the username as "█" and the password as "█" (no quotes) and click OK.

12. A Power line frequency page will appear. Select 60 Hz (power line frequency that is powering the cameras on-site) and click OK.

13. The camera web-interface page will open up in the browser displaying the camera image on the Live View page as in following figure. Click on *Setup* to access the camera's setup page.

Note: The number in the callout balloon  refers to a related step number.



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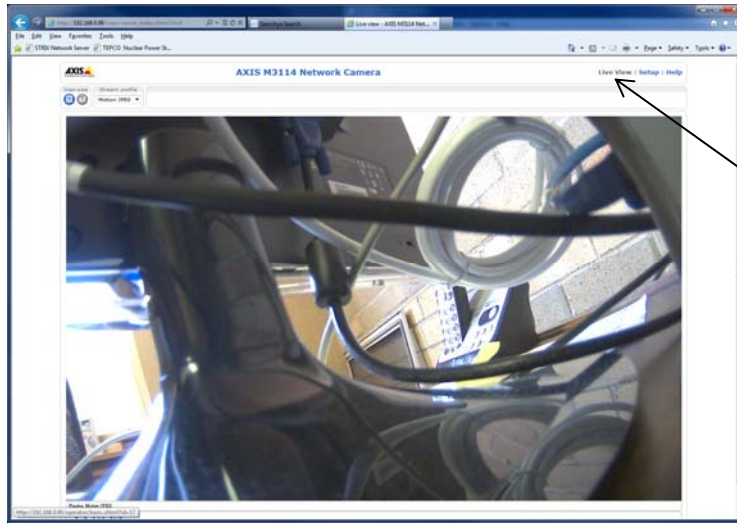


Figure 3. Live View Page

- 14. Click on item 4 *Video Stream* under *Basic Setup* on the Basic Setup Page that appears.
- 15. On Video Stream Settings page (figure below) click on check box for *Include date*, *Include time*, and *include text*:

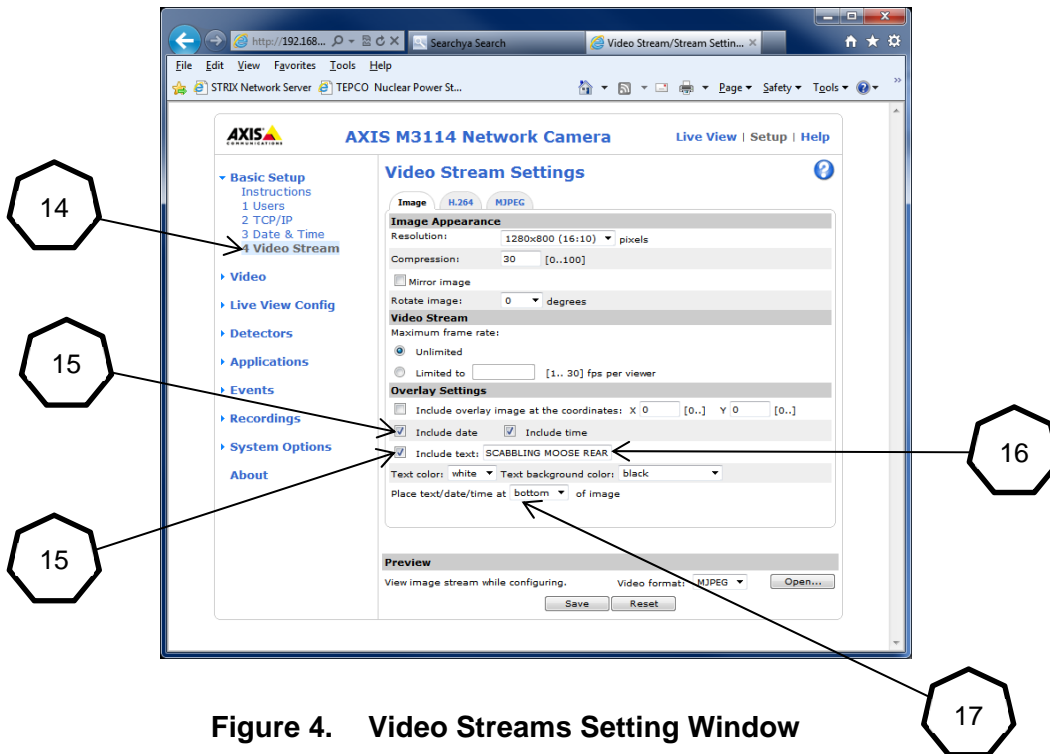


Figure 4. Video Streams Setting Window



Video Camera Replacement (EXCERPT – Tim Benedict)

16. Type the camera name in the *Include text:* box using all caps. Refer to the name of camera being replaced as found on Axis Camera Station camera management page of Step 2.
17. Set *Place text/date/time* to “bottom” of image.
18. Click *Save* and wait until *Save* button returns to grey color

The next two procedures apply to Pan, Tilt, Zoom (PTZ) cameras only. To continue configuration of a fixed lens camera, skip to step number 28.

19. Click on Video menu item on left side of screen.
20. Click on Camera Settings sub-menu.
21. Make sure that the Capture mode drop down box is set to 1080p 1920x1080 (16:9) @ 30fps.

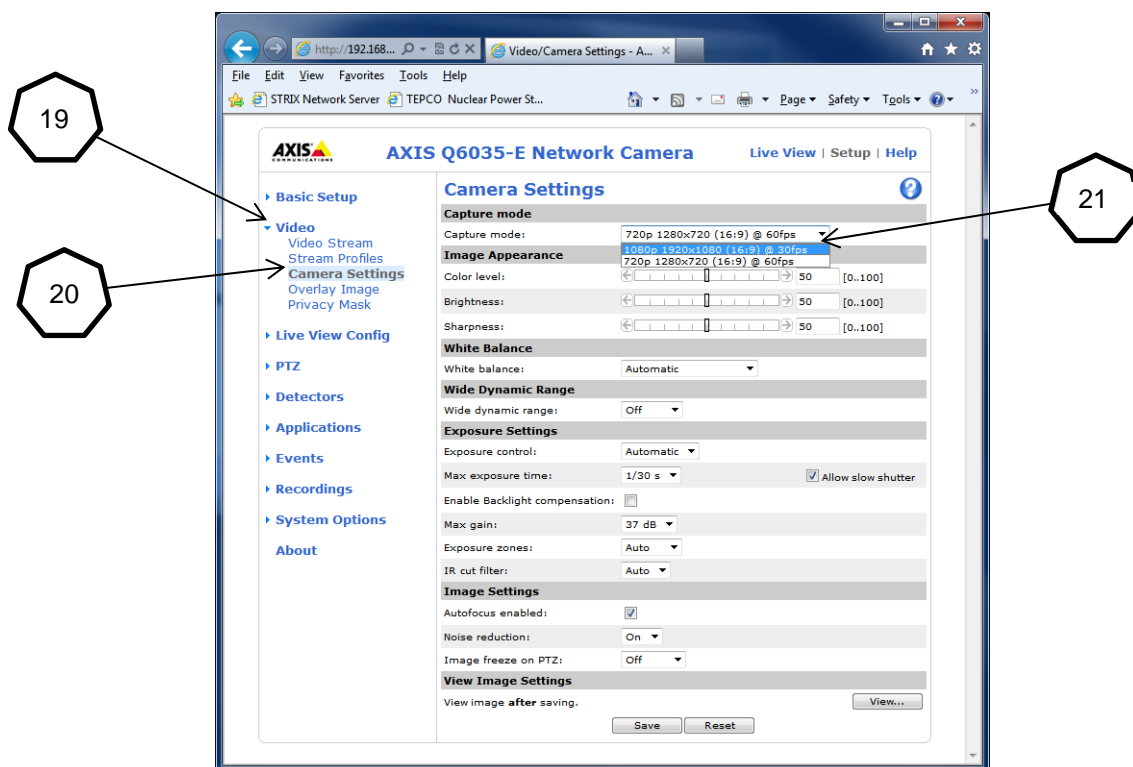


Figure 5. Camera Settings Window

22. If the setting is changed a warning message appears. Click OK.



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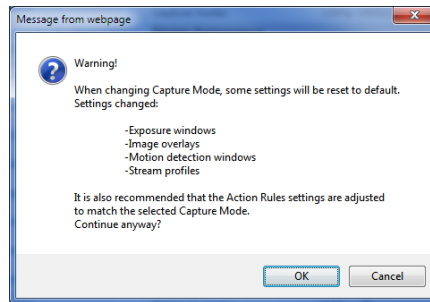


Figure 6. Warning Message

23. A Processing overlay appears on the window until the changes take place.

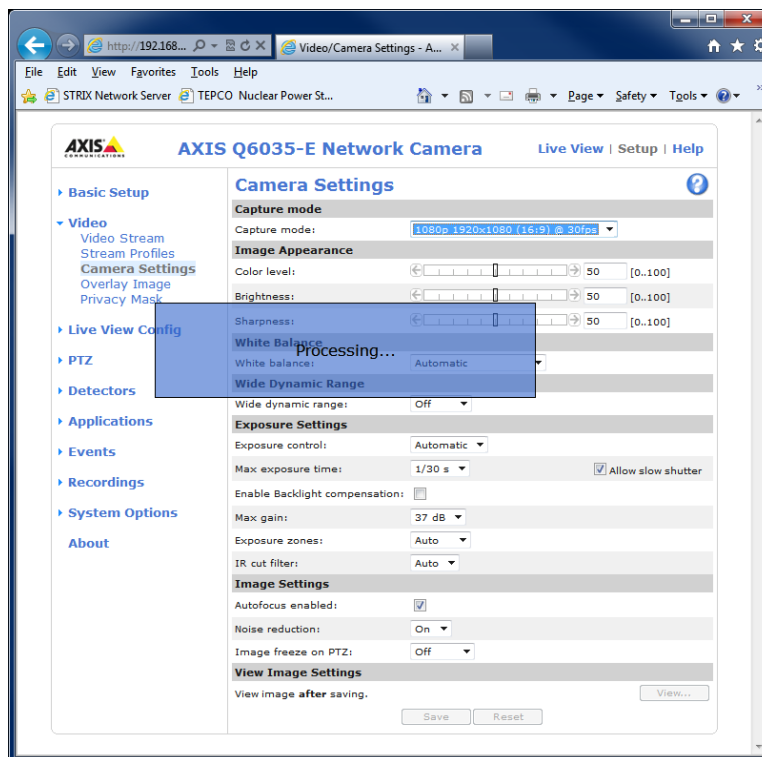


Figure 7. "Processing" Overlay

24. Click on the PTZ menu item, followed by the Advanced sub-menu. The Limits page will now be active.



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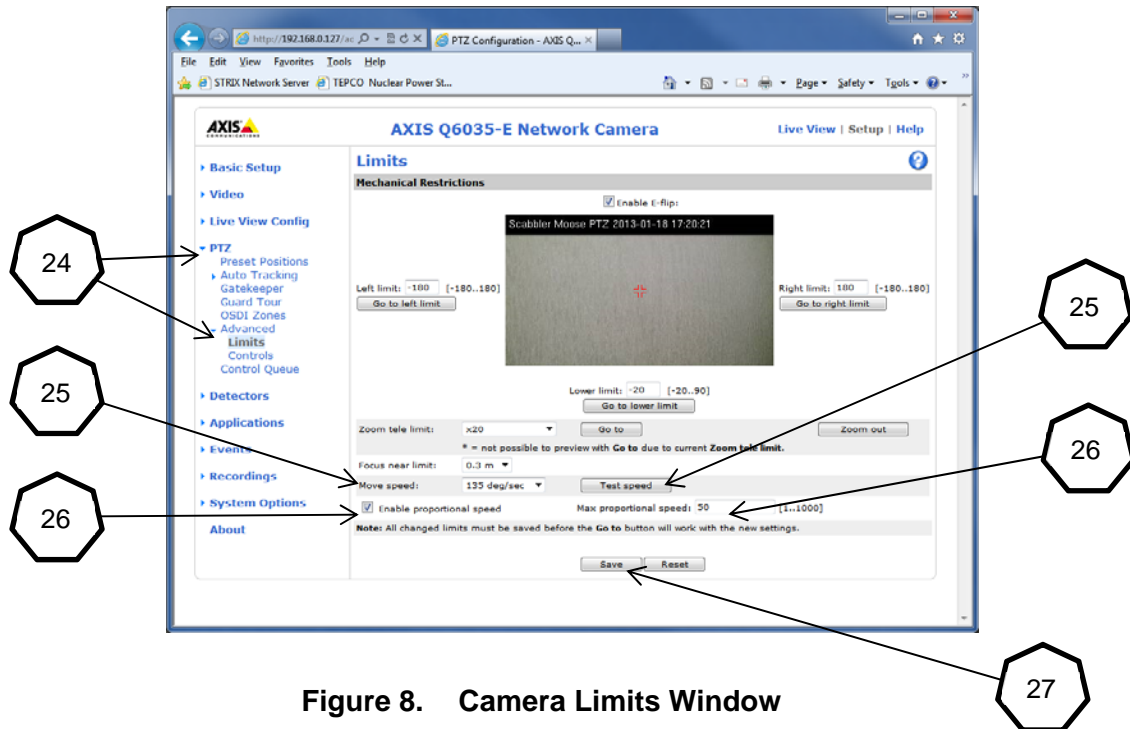


Figure 8. Camera Limits Window

25. The Move Speed determines the speed at which the camera moves when a preset is selected. 135 deg/sec is the recommended setting but personal operator preference may be accommodated. Click the Test speed button to observe the results
26. Make sure that the Enable proportional speed box is checked and enter a value of 50 for the Max proportional speed. This number determines the speed at which the image will move when using the joystick. It may also be changed to suit personal preference.
27. Click the Save button when finished with these settings.
28. Click on *Basic Set-up* menu item followed by item 3 *Date & Time*. The *Date & Time Settings* page will now be active (see following figure)
29. Click the *NTP server* [No server specified](#) link.



Video Camera Replacement (EXCERPT – Tim Benedict)

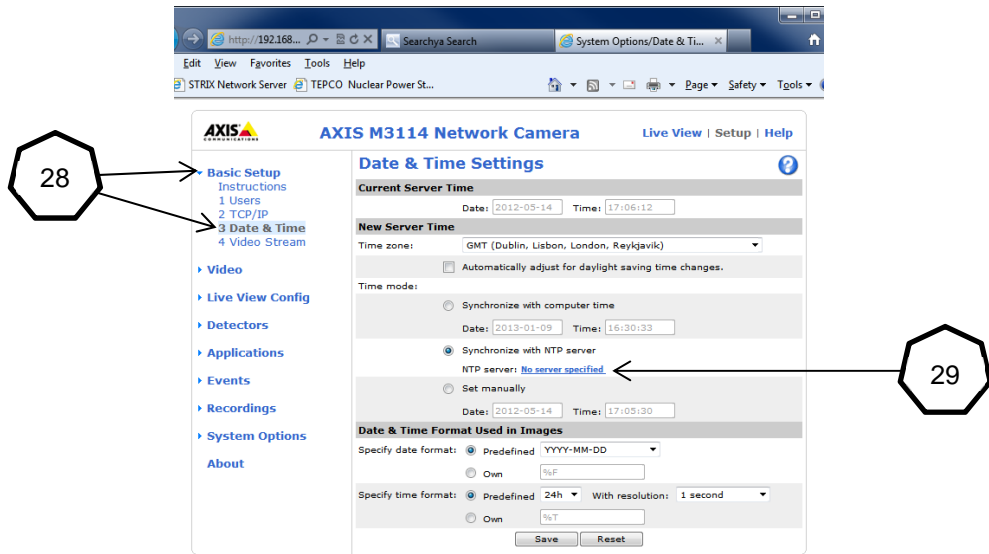


Figure 9. Date & Time Settings Window

30. The Advanced TCP/IP Settings page will appear as below. Click the Use the following NTP server address: radio button.

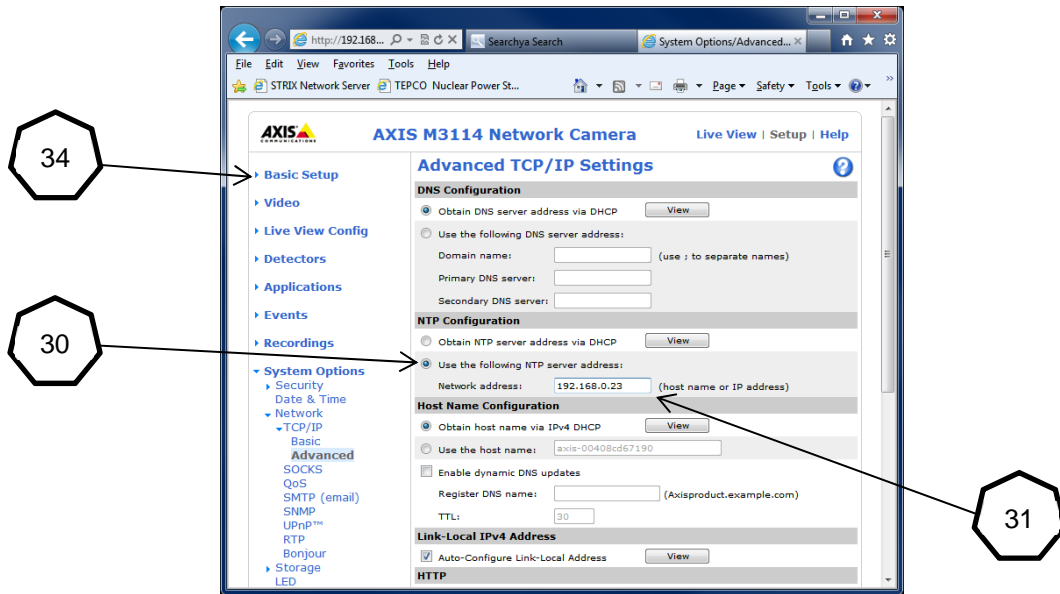


Figure 10. Advanced TCP/IP Settings Window

31. Enter the following IP address in the *Network address* field: **192.168.0.23**.

32. Scroll to bottom of page and click the *Save* button.



Video Camera Replacement (EXCERPT – Tim Benedict)

33. Wait until *Save* button turns grey. The page may scroll up.
34. Click on *Basic Setup* on left side of page. *Basic Setup* page will appear again.
35. Click on *2 TCP/IP*. *Basic TCP/IP Settings* page will appear.
36. Click on *Use the following IP address* radio button.

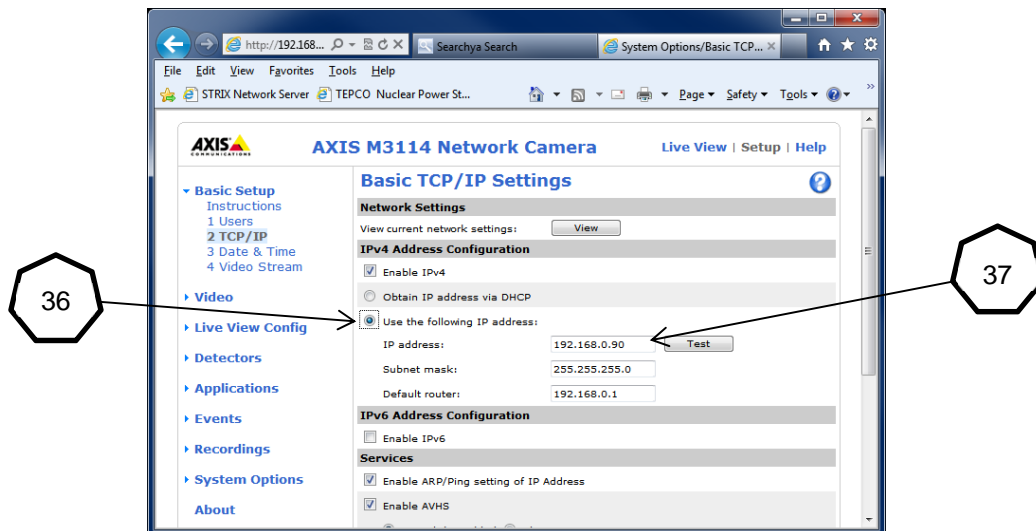


Figure 11. Basic TCP/IP Settings Window

37. Enter the appropriate IP address for the camera being replaced as noted in item 2. Note that the IP address displayed on the Axis Camera Station camera management page has changed at this point and is not to be used for this entry. Refer to Appendix C for the proper IP address for this camera.
38. Scroll to the bottom of the page and click the *Save* button. A dialog box will appear as below.

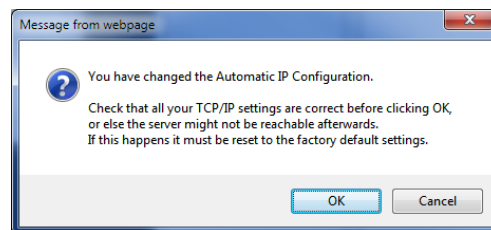


Figure 12. Configuration Save Dialog Box




Video Camera Replacement *(EXCERPT – Tim Benedict)*

39. Double check and note the IP address entered. Click the *OK* button.
40. Another dialog box appears stating that the IP address has been changed and the new address will need to be entered to access the camera's web page. Click the *OK* button.
41. Close the current camera web site tab in Internet Explorer and return to the camera management page of the Axis Camera Station program.
42. The IP address of the newly configured camera should change to the new IP address within one to two minutes and the status should change to *OK*. If not, see troubleshooting section below.
43. Verify that the new camera image appears on the Live View page and functions as expected.
44. Disconnect the camera from the Axis High PoE unit.
45. The replacement camera is now ready for on-site installation.

Troubleshooting

IP address does not change to newly configured state and new camera is unreachable from Axis Camera Station:

1. Open Internet Explorer and Type new IP address in Internet Explorer address bar to confirm changes. If camera's web site appears, go to step 3.
2. If camera web site does not appear, type in default address (192.168.0.90) and verify that all of the above changes have been made. Repeat steps 34 through 43 if necessary.
3. Refresh the camera on the camera management page. Select the camera and click the Refresh icon on the toolbar. 

The camera configuration parameters:

- Name – See Appendix C
- IP Address – See Appendix C
- Port – 80
- Credentials
 - User Name – root
 - Password – admin
- Live View Settings
 - Format – H.264
 - Resolution – 640 X 360 for ████████ and skid PTZ Cameras , 480 X 270 for fixed lens skid Cameras
 - Compression – 66
 - Frame Rate – 20 fps for all ████████ mounted cameras and the skid mounted PTZ cameras. 15 fps for stationary skid cameras.
 - Large Split Settings – Remove check marks from all check boxes
- Recording Settings (Continuous)



Video Camera Replacement (EXCERPT – Tim Benedict)

- Enabled
- Format – H.264
- Resolution – same as Live View Settings above
- Compression – 66
- Frame Rate – 20 fps for all [REDACTED] mounted cameras and the skid mounted PTZ cameras. 15 fps for stationary skid cameras.
- Recording Settings (Manual)
 - Enabled
 - Format – H.264
 - Resolution – same as Live View Settings above
 - Compression – 66
 - Frame Rate – 20 fps for all [REDACTED] mounted cameras and the skid mounted PTZ cameras. 15 fps for stationary skid
- Time and Date
 - Time Zone – (UTC + 9:00) Osaka, Sapporo, Tokyo
 - Synchronize with NTP Server – Synchronize with NTP server: 192.168.0.23
- Video Overlay Settings
(configured on camera web page – Setup > Video > Video Stream Settings)
 - Include Date
 - Include Time
 - Include text [Name per Appendix B]
 - Text color – white
 - Text background color – black
 - Place text/date/time at [bottom] of image
- Camera Settings (PTZ) Camera Only
 - Capture Mode - 1080p 1920x1080 (16:9) @ 30fps
- PTZ Limits (PTZ Only)
 - Move Speed - 135 Deg/Sec
 - Max Proportional Speed - 50

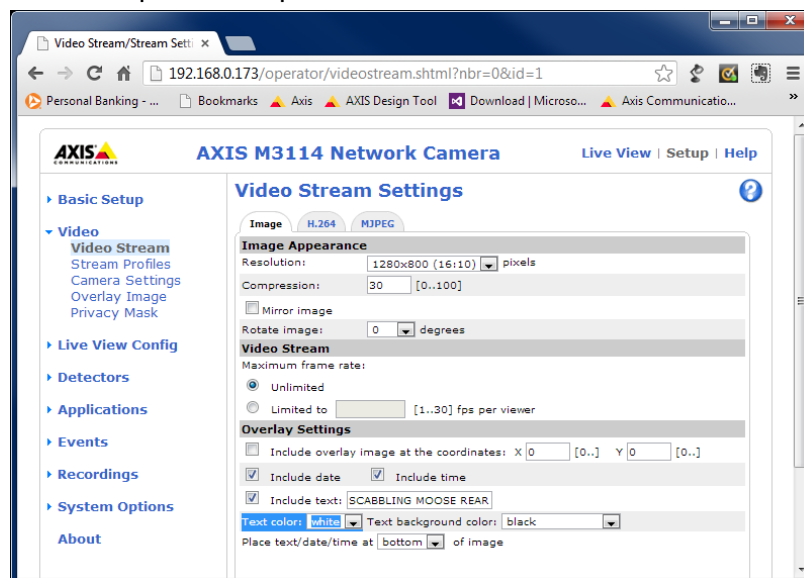


Figure 13. Video Stream Settings Window