

TechTip V1006 – Diagnose / Setup FTP

Applies to:

All IQeye Cameras

Summary:

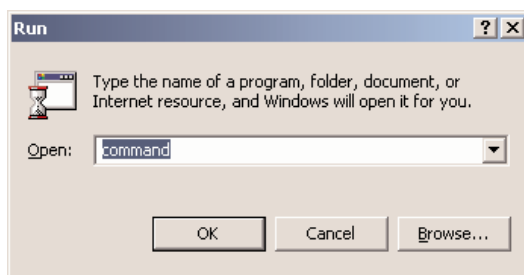
Use these steps to aid in the setup or diagnosis of FTP related issues. Use these steps if you are planning to use IQlibrarian or triggers to send images from an IQeye camera to an FTP server.

Contents:

- Test FTP Server
- Setup / Verify Camera Settings
- Advanced diagnosis (enable logging)
- Advanced diagnosis (sample log output)
- More Information

Test FTP Server

1. Start a DOS window.
Start | Run | Command.



2. Verify username / password is good.
Log into FTP server with an FTP client.
Notice the password is not displayed on the screen Doc.

```

C:\WINNT\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-1999.

C:\DOCUME~1\BU>ftp 192.168.1.50
Connected to 192.168.1.50.
220 Serv-U FTP Server v5.2 for WinSock ready...
User (192.73.220.20:(none)): iqlib
331 User name okay, need password.
Password:
230 User logged in, proceed.
ftp>
  
```

3. Confirm you have MKDIR privileges and long filename support.
 - a. Make a directory and a directory below that.
 - b. Confirm you have write privileges in this new, lower directory. PUT a file into the second directory you created.
 - c. Confirm long filename support.

```

C:\WINNT\system32\command.com
ftp> mkdir testdir
257 "/testdir" directory created.
ftp> mkdir /testdir/testdir2
257 "/testdir/testdir2" directory created.
ftp> put temp.jpg /testdir/testdir2/temp.jpg
200 PORT Command successful.
150 Opening ASCII mode data connection for temp.jpg.
226 Transfer complete.
ftp: 154329 bytes sent in 0.00Seconds 154329000.00Kbytes/sec.
ftp> put temp.jpg /testdir/testdir2/verylongftpstoragefilenameest.jpg
200 PORT Command successful.
150 Opening ASCII mode data connection for verylongftpstoragefilenameest.jpg.
226 Transfer complete.
ftp: 154329 bytes sent in 0.01Seconds 10288.60Kbytes/sec.
ftp> cd /testdir/testdir2
250 Directory changed to /testdir/testdir2
ftp> dir
200 PORT Command successful.
150 Opening ASCII mode data connection for /bin/ls.
drw-rw-rw-  1 user  group      0 Dec  9 11:07 .
drw-rw-rw-  1 user  group      0 Dec  9 11:07 ..
-rw-rw-rw-  1 user  group    154329 Dec  9 11:06 temp.jpg
-rw-rw-rw-  1 user  group    154329 Dec  9 11:07 verylongftpstoragefilename
etest.jpg
226 Transfer complete.
ftp: 273 bytes received in 0.00Seconds 273000.00Kbytes/sec.
ftp>

```

4. Confirm you have delete file and remove directory privileges.
 - a. Make and remove a directory.
 - b. put and delete a file.

```

C:\WINNT\system32\command.com
ftp>
ftp> mkdir test
257 "/test" directory created.
ftp> rmdir test
250 RMD command successful.
ftp> put temp.jpg
200 PORT Command successful.
150 Opening ASCII mode data connection for temp.jpg.
226 Transfer complete.
ftp: 154329 bytes sent in 0.00Seconds 154329000.00Kbytes/sec.
ftp> del temp.jpg
250 DELE command successful.
ftp>

```

5. Is there a specific path that you want images to go into? Write it down.
6. Know what directory your specific login (username) puts you into. Your login's FTP root directory is often NOT the FTP root directory The FTP root directory is usually NOT the root directory of the system. (If it is, have your system manager flogged.)
7. Important - logout of the FTP session.

Setup / Verify Camera Settings

Log into the admin pages of your camera.

Server Page

1. Confirm current versions of firmware version and bootcode version. <http://www.iqeye.com/spt/software.htm>.
2. If the TCP/IP gateway is entered, confirm it and the camera's IP address are in the same subnet. **Note:** *if the camera's IP address is in a different subnet than the FTP server, then a valid gateway must be entered.*
3. Confirm the primary nameserver IP address is entered properly. This is only if you are using symbolic names.
4. Confirm time zone, clock date and clock time are all set properly.
5. Confirm the IQeye Name contains only valid characters for your FTP server. **Note:** *The camera name is used to create directories on your FTP server, so it needs to contain characters that are recognized by the FTP server.*
6. Test to confirm the camera can 'see' the FTP server
 - a. Telnet to the camera
 - b. Log-in as a privileged user
 - c. PING the FTP servers IP address
 - d. If you cannot ping the FTP server, try to PING the gateway (if entered)

Trigger Page

1. Confirm FTP settings:
 - a. ftp hostname = the IP address of your FTP server. For now, use the IP address of the FTP server instead of a name, this will avoid any name resolution issues for now.
 - b. backup hostname = blank.
 - c. username and password for FTP server (as tested above).
 - d. file name = \$ST.\$FN (default. example: 14_35_52.trig+0.jpg).
 - e. file path = \$SN/\$SD (default. example: CameraName/Mon_Nov_11_2002).
 - f. unique filename = disabled (default).
2. Push Trigger Now link at lower left of screen.
3. **Important:** in order to update the last result field, you need to refresh the page.
4. If last result is anything other than success, click the question mark to the right of the last result field to see what the errors mean.

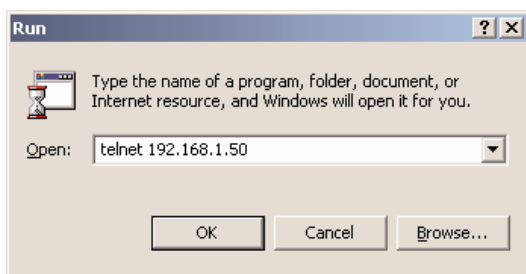
Once you get the success status, then you can begin to experiment with other path and file names, if you desire.

Advanced diagnosis (enable logging)

If the above steps do not address the FTP issue, you may enable advanced logging on the IQeye camera to log and track network activity. This consists of two parts – enabling logging on the camera and reviewing the resulting log data.

1. From your PC, telnet to the camera.

Run | command | telnet nnn.nnn.nnn.nnn (insert your camera's IP address here)



2. Login as privileged user (su)

- User input is shown in red for clarity.
- Password is not displayed on the screen.
- Enter these commands to enable logging:

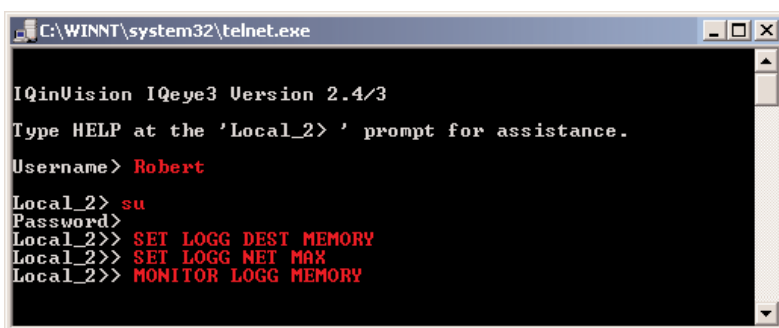
```
SET LOGGING DESTINATION MEMORY
```

```
SET LOGGING NETWORK MAXIMUM
```

```
MONITOR LOGGING MEMORY
```

Note: these commands were abbreviated in the example below.

- When you hit 'enter' after the final command, all network activity will be displayed on the screen.



- Press 'enter' again to stop the data and use the scroll bar to go backwards and review any data that may have scrolled off the top of the screen.

Advanced diagnosis (sample log output)

These examples show typical log outputs for different types of FTP problems.

Successful login and file transfer

```

Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: USER iqlib
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: 331 User name okay, need password.
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: 230 User logged in, proceed.
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: PWD
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: 257 "/" is current directory.
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: FtpLogin() - Success
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: CWD /
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: 250 Directory changed to /
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: CWD IQEYE010A70/Thu_Dec_09_2004
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: 550 /IQEYE010A70/Thu_Dec_09_2004: No such file or directory.
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: CWD IQEYE010A70
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: 550 /IQEYE010A70: No such file or directory.
Thu Dec 9 14:52:06 2004 IQEYE010A70: NETWORK: debug: MKD IQEYE010A70
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 257 "/IQEYE010A70" directory created.
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: CWD IQEYE010A70
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 250 Directory changed to /IQEYE010A70
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: CWD Thu_Dec_09_2004
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 550 /IQEYE010A70/Thu_Dec_09_2004: No such file or directory.
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: MKD Thu_Dec_09_2004
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 257 "/IQEYE010A70/Thu_Dec_09_2004" directory created.
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: CWD Thu_Dec_09_2004
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 250 Directory changed to /IQEYE010A70/Thu_Dec_09_2004
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: TYPE I
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 200 Type set to I.
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: PASV
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 227 Entering Passive Mode (192,73,220,20,6,39)
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: STOR 14_52_06.trig+0.jpg.tmp
Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 150 Opening BINARY mode data connection for
14_52_06.trig+0.jpg.tmp.

```

Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: RNFR 14_52_06.trig+0.jpg.tmp
 Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 350 File or directory exists, ready for destination name
 Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: RNTD 14_52_06.trig+0.jpg
 Thu Dec 9 14:52:07 2004 IQEYE010A70: NETWORK: debug: 250 RNTD command successful.

This shows the camera failing to create a directory (IQEYE010A70) on the FTP server due to no create directory privilege.

Thu Dec 9 14:15:38 2004 IQEYE010A70: NETWORK: debug: CWD /
 Thu Dec 9 14:15:38 2004 IQEYE010A70: NETWORK: debug: 250 Directory changed to /
 Thu Dec 9 14:15:38 2004 IQEYE010A70: NETWORK: debug: CWD IQEYE010A70/Thu_Dec_09_2004
 Thu Dec 9 14:15:38 2004 IQEYE010A70: NETWORK: debug: 550 /IQEYE010A70/Thu_Dec_09_2004: No such file or directory.
 Thu Dec 9 14:15:38 2004 IQEYE010A70: NETWORK: debug: CWD IQEYE010A70
 Thu Dec 9 14:15:38 2004 IQEYE010A70: NETWORK: debug: 550 /IQEYE010A70: No such file or directory.
 Thu Dec 9 14:15:38 2004 IQEYE010A70: NETWORK: debug: MKD IQEYE010A70
 Thu Dec 9 14:15:38 2004 IQEYE010A70: NETWORK: debug: 550 /IQEYE010A70: Permission denied.

Invalid characters used in a filename to create an error on the FTP server.

Thu Dec 9 14:13:56 2004 IQEYE010A70: NETWORK: debug: CWD /
 Thu Dec 9 14:13:56 2004 IQEYE010A70: NETWORK: debug: 250 Directory changed to /
 Thu Dec 9 14:13:56 2004 IQEYE010A70: NETWORK: debug: CWD *%)^&&#
 Thu Dec 9 14:13:56 2004 IQEYE010A70: NETWORK: debug: 550 /*%)^&&#: No such file or directory.
 Thu Dec 9 14:13:56 2004 IQEYE010A70: NETWORK: debug: CWD *%)^&&#
 Thu Dec 9 14:13:56 2004 IQEYE010A70: NETWORK: debug: 550 /*%)^&&#: No such file or directory.
 Thu Dec 9 14:13:56 2004 IQEYE010A70: NETWORK: debug: MKD *%)^&&#
 Thu Dec 9 14:13:56 2004 IQEYE010A70: NETWORK: debug: 550 /*%)^&&#: failed to create.

Invalid username and/or password

Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: USER iqliber
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: 331 User name okay, need password.
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: 530 Not logged in.
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: QUIT

Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: 221 Goodbye!
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: err: FTP::Connection failed...Retrying (1 of 2)
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: USER iqliber
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: 331 User name okay, need password.
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: 530 Not logged in.
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: QUIT
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: 221 Goodbye!
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: err: FTP::Connection failed...Retrying (2 of 2)
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: USER iqliber
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: 331 User name okay, need password.
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: 530 Not logged in.
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: QUIT
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: debug: 221 Goodbye!
 Thu Dec 9 14:13:32 2004 IQEYE010A70: NETWORK: err: FTP::All 2 Retries failed...Connection to 192.73.220.20 Failed.

Valid IP address, but no FTP server running

Thu Dec 9 14:52:44 2004 IQEYE010A70: NETWORK: err: FTP::Connection failed...Retrying (1 of 2)
 Thu Dec 9 14:52:44 2004 IQEYE010A70: NETWORK: err: FTP::Connection failed...Retrying (2 of 2)
 Thu Dec 9 14:52:44 2004 IQEYE010A70: NETWORK: err: FTP::All 2 Retries failed...Connection to 192.73.220.20 Failed.

FTP account with no File Write privileges

Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: CWD /
 Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 250 Directory changed to /
 Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: CWD IQEYE010A70/Thu_Dec_09_2004
 Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 250 Directory changed to /IQEYE010A70/Thu_Dec_09_2004
 Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: PASV
 Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 227 Entering Passive Mode (192,73,220,20,5,241)
 Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: STOR 14_49_28.trig+0.jpg.tmp

```

Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 550 Permission denied.
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: QUIT
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 221 Goodbye!
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: USER iqlib
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 331 User name okay, need password.
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 230 User logged in, proceed.
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: PWD
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 257 "/" is current directory.
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: FtpLogin() - Success
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: CWD /
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 250 Directory changed to /
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: CWD IQEYE010A70/Thu_Dec_09_2004
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 250 Directory changed to /IQEYE010A70/Thu_Dec_09_2004
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: DELE 14_49_28.trig+0.jpg.tmp
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 550 /IQEYE010A70/Thu_Dec_09_2004/14_49_28.trig+0.jpg.tmp:
                                No such file or directory.
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: TYPE I
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 200 Type set to I.
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: PASV
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 227 Entering Passive Mode (192,73,220,20,5,242)
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: STOR 14_49_28.trig+0.jpg.tmp
Thu Dec 9 14:49:28 2004 IQEYE010A70: NETWORK: debug: 550 Permission denied.

```

More Information

- Win2k: Was FTP user account created as a local or domain user? If domain user, you need to use domain name/user name as the username on the Trigger page in the camera.
- FTP setup - Directory Listing Style UNIX or DOS conventions. Long file names (Unix) should be selected.
- TechTip - Install an FTP server on a PC.