Technical Note			
Ref:	TN-1030	Version:	1.00
Model:	GSE 60-series	Date:	14 Sep 10
Title: FTP Response Codes			

Response Codes

Response codes > 99

Response codes > 99 are from the FTP Server. The format is **XYZ** (where XYZ>99)

X denotes:

- 1. Positive preliminary reply. The action is being started but expect another reply before sending another command.
- 2. Positive completion reply. A new command can be sent.
- 3. Positive intermediate reply. The command has been accepted but another command must be sent.
- 4. Transient negative completion reply. The requested action did not take place, but the error condition is temporary so the command can be reissued later.
- 5. Permanent negative completion reply. The command was not accepted and should not be retried.

Y denotes:

- 1. Syntax error.
- 2. Information.
- 3. Connections. Replies referring to the control or data connections.
- 4. Authentication and accounting. Replies for the login or accounting commands.
- 5. Unspecified.
- 6. Filesystem status.

Z denotes:

Digit used to further divide the messages (ie up to 10 of each type)

Typical Messages are:

(Note that the actual text will vary from system to system. RFC 959 allows codes 110, 120, 125, 150, 200, 202, 211, 212, 213, 214, 215, 220, 221, 225, 226, 227, 230, 250, 257, 331, 332, 350, 421, 425, 426, 450, 451, 452, 500, 501, 502, 503, 504, 530, 532, 550, 551, 552, and 553. However this does not mean that your server uses all these codes or that no other codes have or will be added. Also the Ethernet option may receive some codes and convert them into its error code (i.e. code <99).)

- 110 Restart marker reply. In this case, the text is exact and not left to the particular implementation; it must read: MARK yyyy = mmmm Where yyyy is User-process data stream marker, and mmmm server's equivalent marker (note the spaces between markers and "=").
- **120** Service ready in nnn minutes.
- 125 Data connection already open; transfer starting.
- 150 File status okay; about to open data connection. (This is also known as a mark command).
- 200 Command OK
- 202 Command not implemented, superfluous at this site.
- 211 System status, or system help reply.
- 212 Directory status.
- 213 File status.
- 214 Help message of some type.
- 215 NAME system type. Where NAME is an official system name from the list in the Assigned Numbers document.
- 220 Service ready for new user.
- 221 Service closing control connection. Logged out if appropriate.
- 225 Data connection open; no transfer in progress.
- 226 Transfer Complete
- **227** Entering Passive Mode (h1,h2,h3,h4,p1,p2).
- 230 User logged in, proceed.
- 250 Command Successful
- 257 "PATHNAME" created.
- 331 Username OK, password required.
- 332 Need account for login.
- **350** Requested file action pending further information.
- 421 Service not available, closing control connection. This may be a reply to any command if the service knows it must shut down.
- 425 Can't open data connection.
- **426** Connection closed; transfer aborted.
- **450** Requested file action not taken. File unavailable (e.g., file busy).
- **451** Error writing file.
- **452** Requested action not taken. Insufficient storage space in system.
- **500** Syntax error (unrecognized command)
- **501** Syntax error (invalid arguments)
- **502** Unimplemented MODE type
- **503** Bad sequence of commands.
- **504** Command not implemented for that parameter.
- 530 Not logged in.

- 532 Need account for storing files.
- **550** Requested action not taken. File unavailable (e.g., file not found, no access).
- **551** Requested action aborted: page type unknown.
- **552** Requested file action aborted. Exceeded storage allocation (for current directory or dataset).
- 553 Requested action not taken. File name not allowed.

Response codes 0 to 99

Response codes >=0 and < 99 are information codes from the Ethernet option board.

- **0** FTP Command Okay
- 1 Signed On FTP Server
- 2 Signed Off FTP Server

Response codes < 0

Response codes < 0 are error codes from the Ethernet option board. Please note that to recover from these errors it may be necessary to quit the current FTP session (STX,F,Q...) and restart it (STX,F,s)

- -1 Time out
- -2 Password Error
- -3 Connection Failed (On end file (STX,F,E... command) this happens if the data transfer to server has been started but the connection to the server was lost before this command was issued).
- -4 Command Failed
- -5 Bad session
 (Can happen on quit (STX,F,Q... command) OR when the FTP command channel is lost when issuing End of file transmission (STX,F,E... command), arbitrary FTP command (STX,F,C... command), arbitrary FTP command with data stream (STX,F,c... command),
- -6 Network Error (On end file (STX,F,E... command) this happens if the FTP data channel could not be closed)
- -7 Command had more than 256 characters
- -8 Ftp Command format incorrect (i.e. STX,F,...ETX contains an error such as an invalid argument)

- **-9** Ftp Buffer Full
- -10 Data Transfer Receive Error
- -11 Data Transfer Send Error
- -12 Data Transfer Not Started (Can occur if the end of transmission command (STX,F,E...) is issued and a transfer is has not been started with the (STX,F,E... command) or has not been given time to start)
- **-13** FTP session already started (you must close the current session (STX,F,Q...) before starting another)