State of Michigan
Data Exchange Gateway

SSLFTP/SFTP client setup

SSLFTP/SFTP (WsFTP) Setup for the State of Michigan Data Exchange Gateway (DEG)

This is not a user doc on how to setup SSLFTP clients because this document can't cover all possible software that can be used as a client. This document gives the basic information needed for a user who is knowledgeable in the use of their SSLFTP/SFTP client software to set up their client. This document uses the WS-FTP 2007 as an example of how the setup information may be entered in a client software package. It is not a WS-FTP user guide or even a WS-FTP setup guide.

This is the WsFTP PRO SSLFTP/SFTP client setup to use with the State of Michigan Data Exchange Gateway (DEG) . This setup is configured to use SSL.

Use IP address 136.181.135.38

SSLFTP is port 11250 and data port 11200-11240
Note: You may need to open ports 11200-11240 in your firewall.

SFTP is port 2222

WsFTP Pro Version 2007

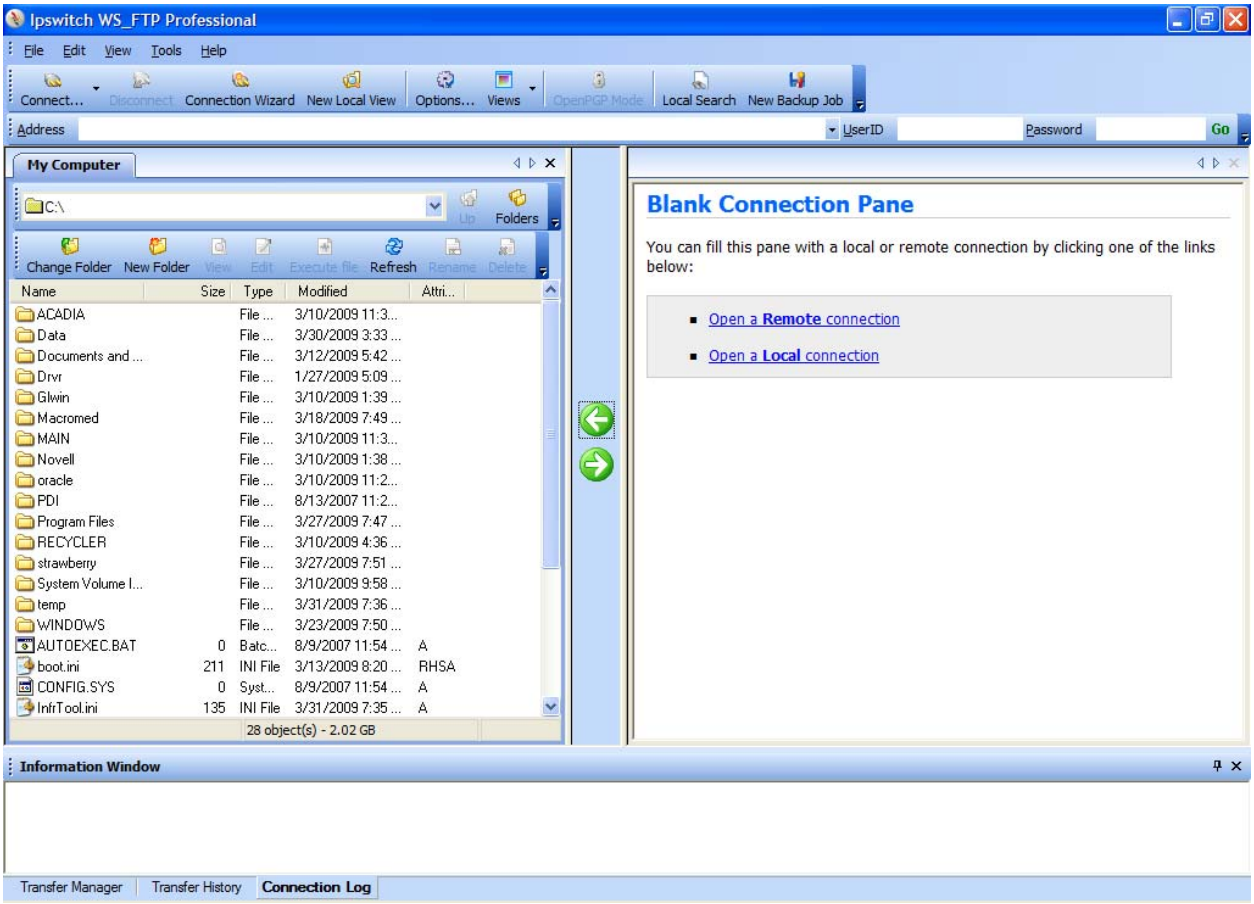
You will need a wsftp version that supports SSLFTP/SFTP.

NOTE about Passwords:

Currently all passwords are converted to upper case, regardless of what is entered. Please enter all passwords in Upper Case. In the future the DEG passwords may become case sensitive in which case, a password entered with lower case will fail to match the stored password. If you always use upper case password until notified that lower case passwords are usable then you will not have any problems when there is a change. This is very important if you are automating your connection with a program or script file.

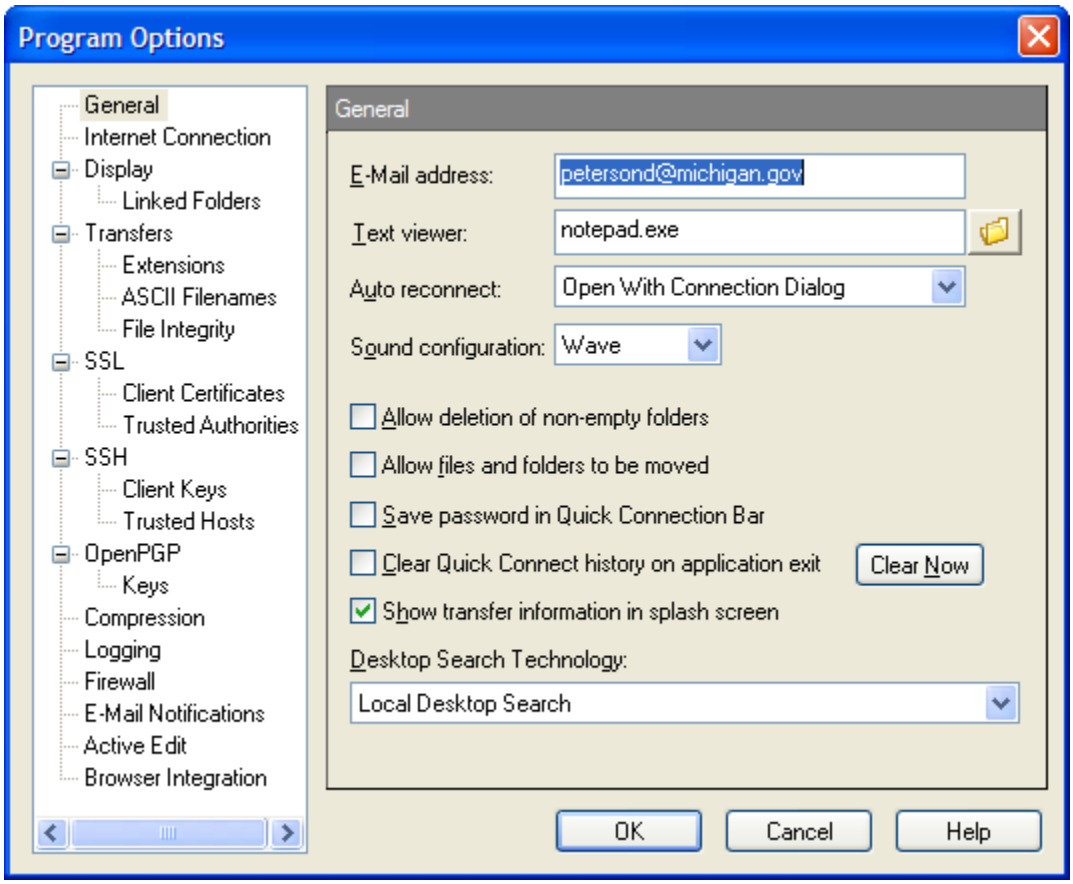
Main WsFTP Screen

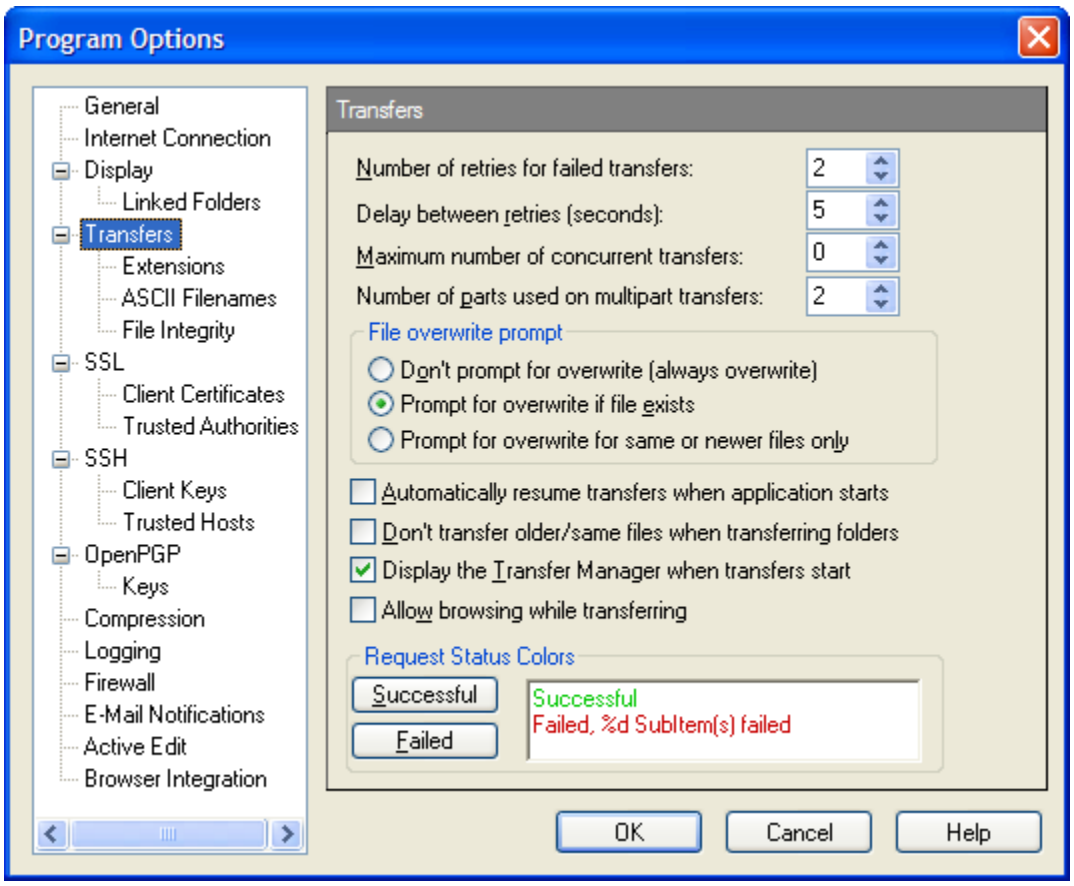
WsFTP Professional Version 2007

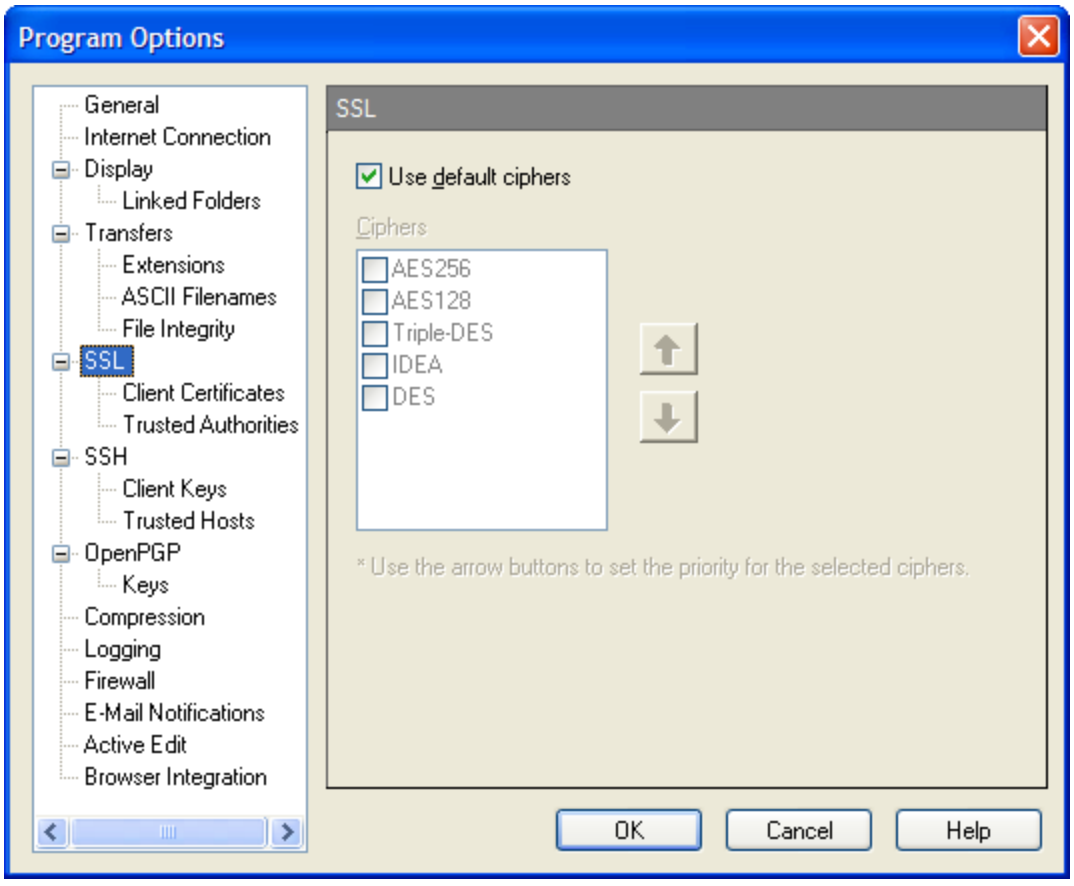


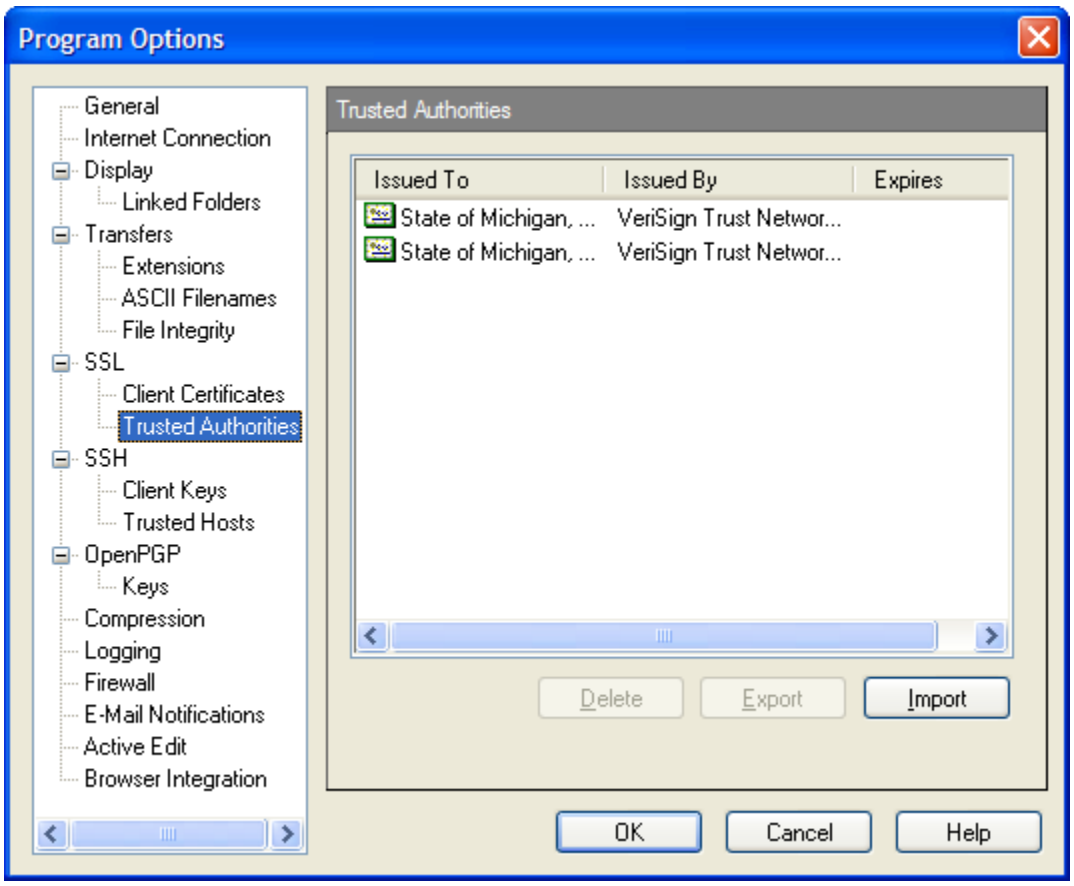
Options Menu > Program Options

Program Options Version 2007



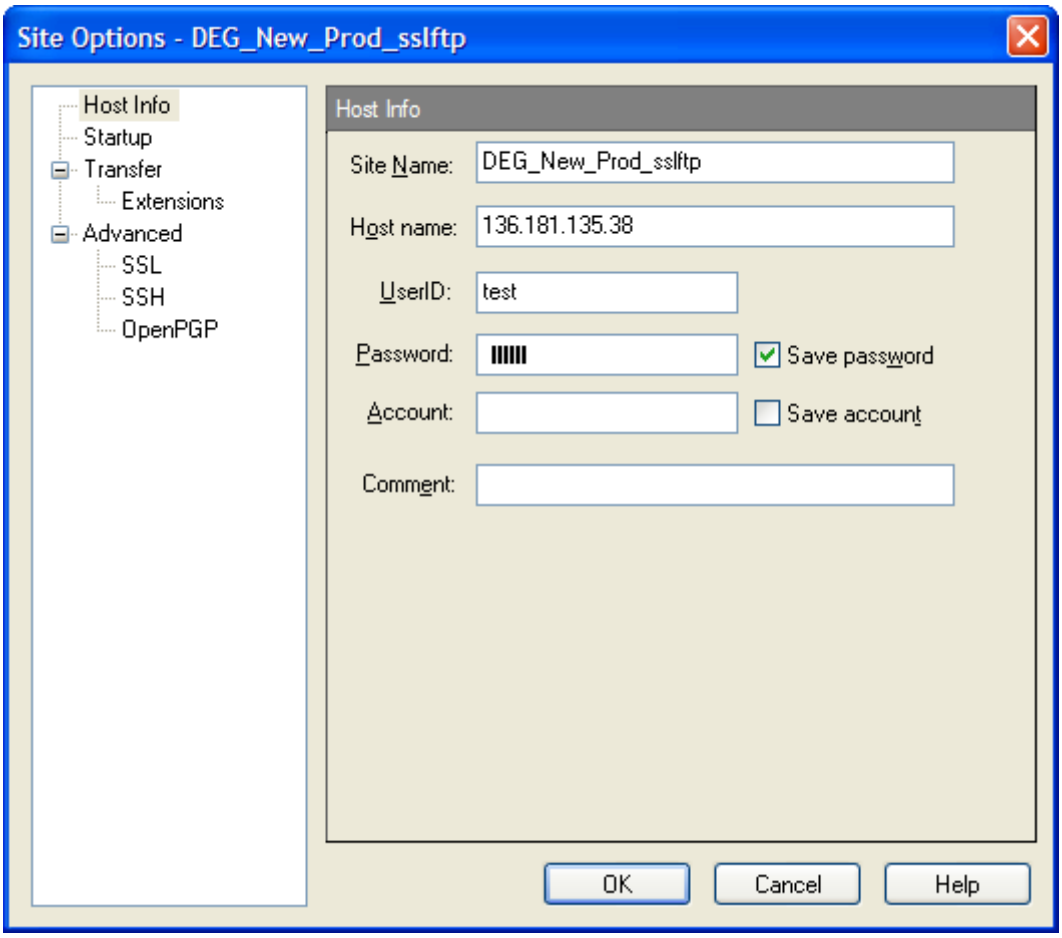

Program Options
General
Internet Connection
Display
Linked Folders
Transfers
Extensions
ASCII Filenames
File Integrity
SSL
Client Certificates
Trusted Authorities
SSH
Client Keys
Trusted Hosts
OpenPGP
Keys
Compression
Logging
Firewall
E-Mail Notifications
Active Edit
Browser Integration
Transfers
Number of retries for failed transfers:
2
Delay between retries (seconds):
5
Maximum number of concurrent transfers:
0
Number of parts used on multipart transfers:
2
File overwrite prompt
Don't prompt for overwrite (always overwrite)
Prompt for overwrite if file exists
Prompt for overwrite for same or newer files only
Automatically resume transfers when application starts
Don't transfer older/same files when transferring folders
Display the Transfer Manager when transfers start
Allow browsing while transferring
Request Status Colors
Successful
Failed
Successful
Failed, %d SubItem(s) failed
OK
Cancel
Help

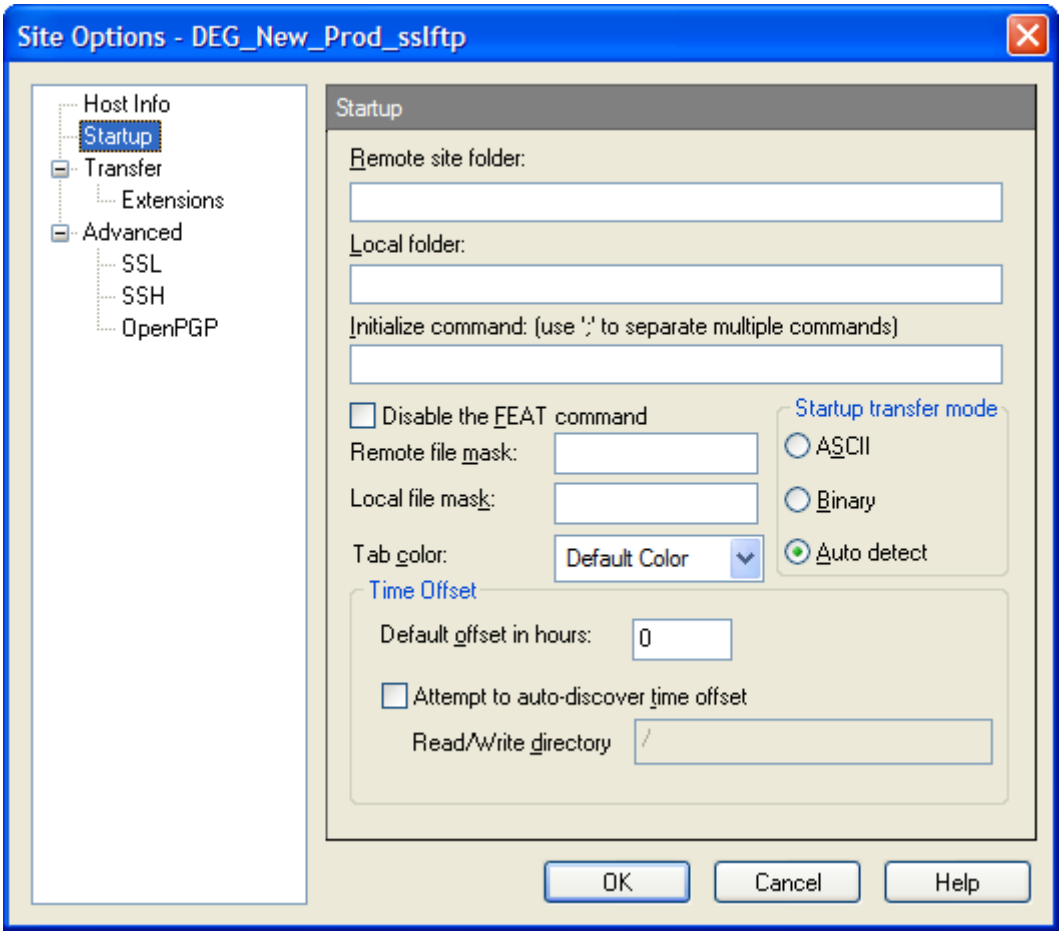

Program Options
General
Internet Connection
Display
Linked Folders
Transfers
Extensions
ASCII Filenames
File Integrity
SSL
Client Certificates
Trusted Authorities
SSH
Client Keys
Trusted Hosts
OpenPGP
Keys
Compression
Logging
Firewall
E-Mail Notifications
Active Edit
Browser Integration
SSL
Use default ciphers
Ciphers
AES256
AES128
Triple-DES
IDEA
DES
* Use the arrow buttons to set the priority for the selected ciphers.
OK
Cancel
Help

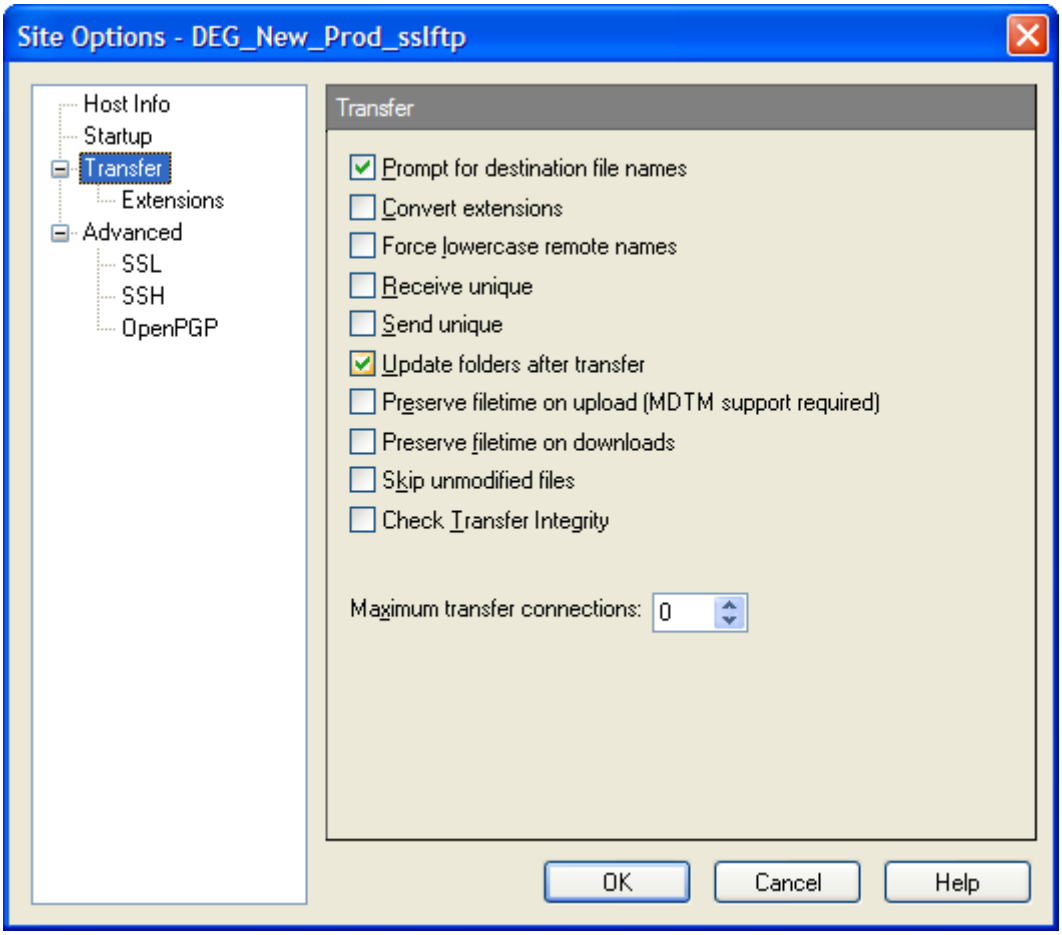

Program Options
General
Internet Connection
Display
Linked Folders
Transfers
Extensions
ASCII Filenames
File Integrity
SSL
Client Certificates
Trusted Authorities
SSH
Client Keys
Trusted Hosts
OpenPGP
Keys
Compression
Logging
Firewall
E-Mail Notifications
Active Edit
Browser Integration
Trusted Authorities
Issued To
Issued By
Expires
State of Michigan, ...
VeriSign Trust Networ...
State of Michigan, ...
VeriSign Trust Networ...
Delete
Export
Import
OK
Cancel
Help

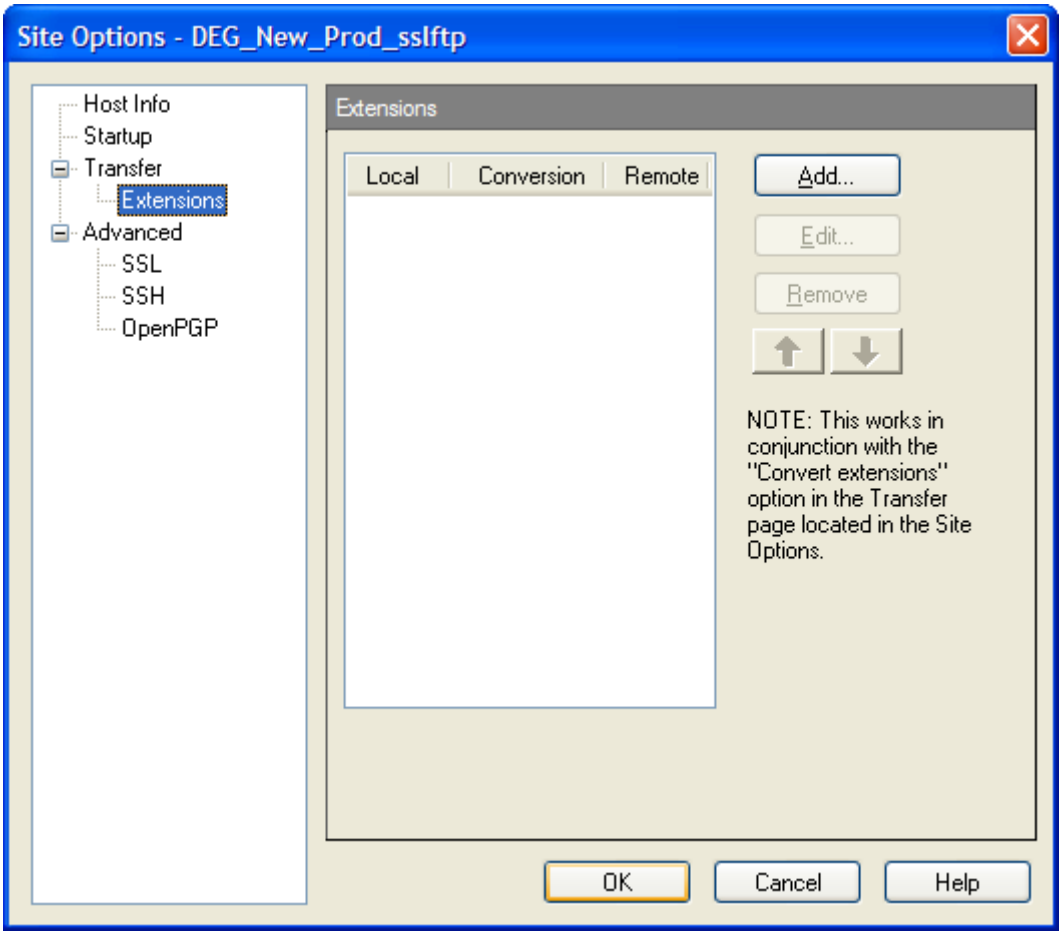
EXAMPLE OF SITE SETUP for SSLFTP

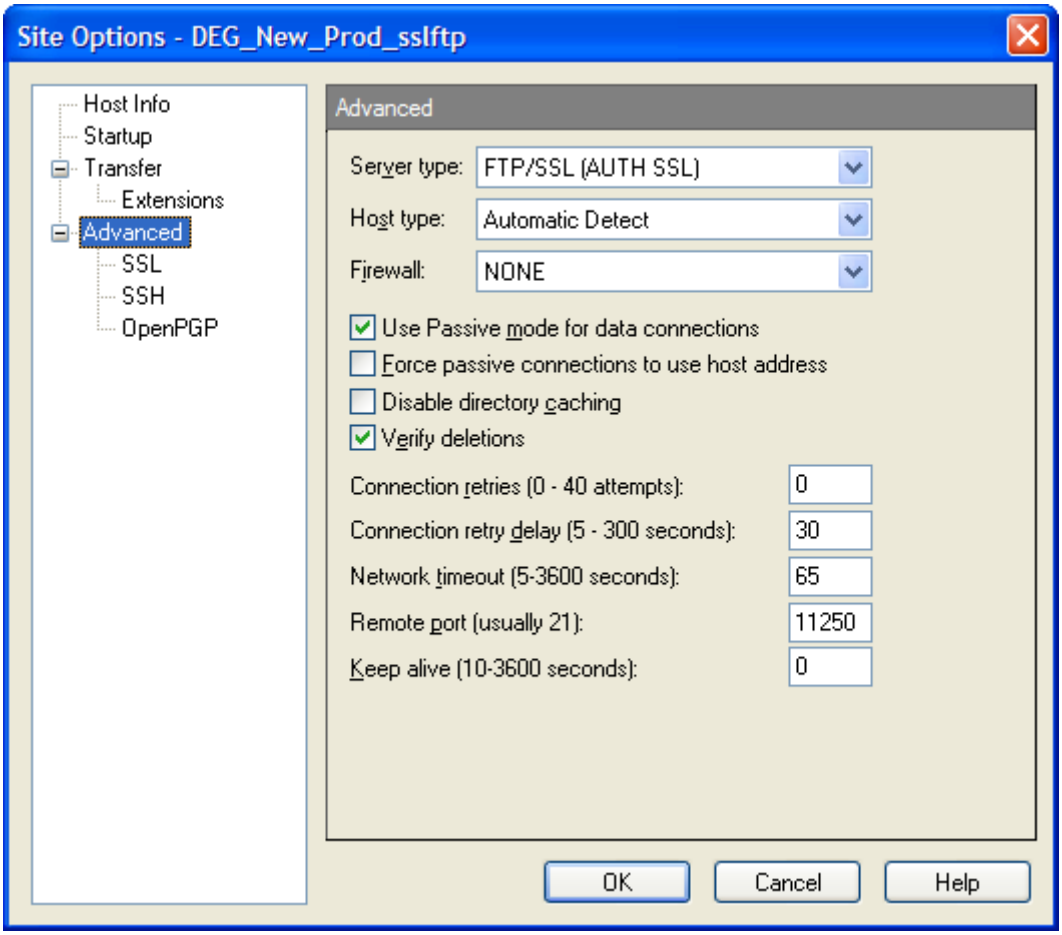
WsFTP Professional Version 2007

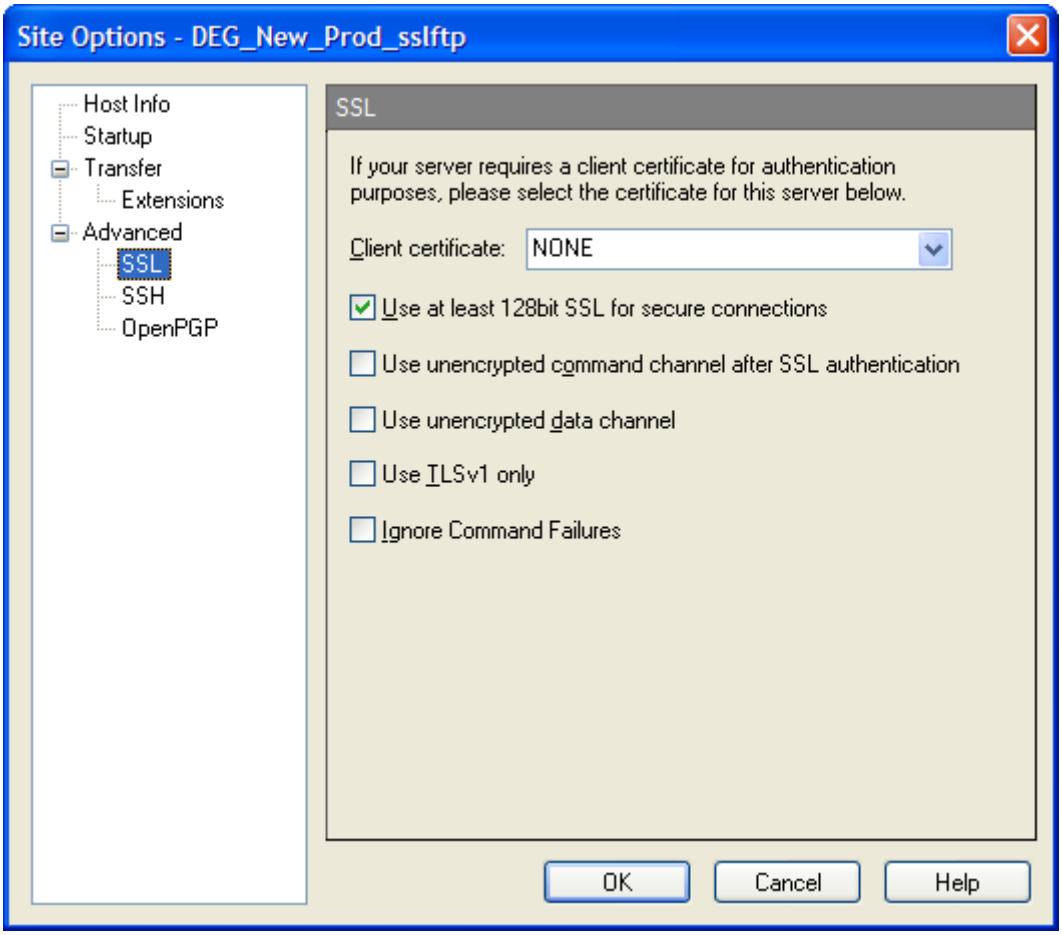



Site Options - DEG_New_Prod_sslftp
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
Startup
Remote site folder:
Local folder:
Initialize command: (use ';' to separate multiple commands)
Disable the FEAT command
Remote file mask:
Local file mask:
Tab color:
Default Color
Startup transfer mode
ASCII
Binary
Auto detect
Time Offset
Default offset in hours:
0
Attempt to auto-discover time offset
Read/Write directory
/
OK
Cancel
Help


Site Options - DEG_New_Prod_sslftp
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
Transfer
Prompt for destination file names
Convert extensions
Force lowercase remote names
Receive unique
Send unique
Update folders after transfer
Preserve filetime on upload (MDTM support required)
Preserve filetime on downloads
Skip unmodified files
Check Transfer Integrity
Maximum transfer connections:
0
OK
Cancel
Help

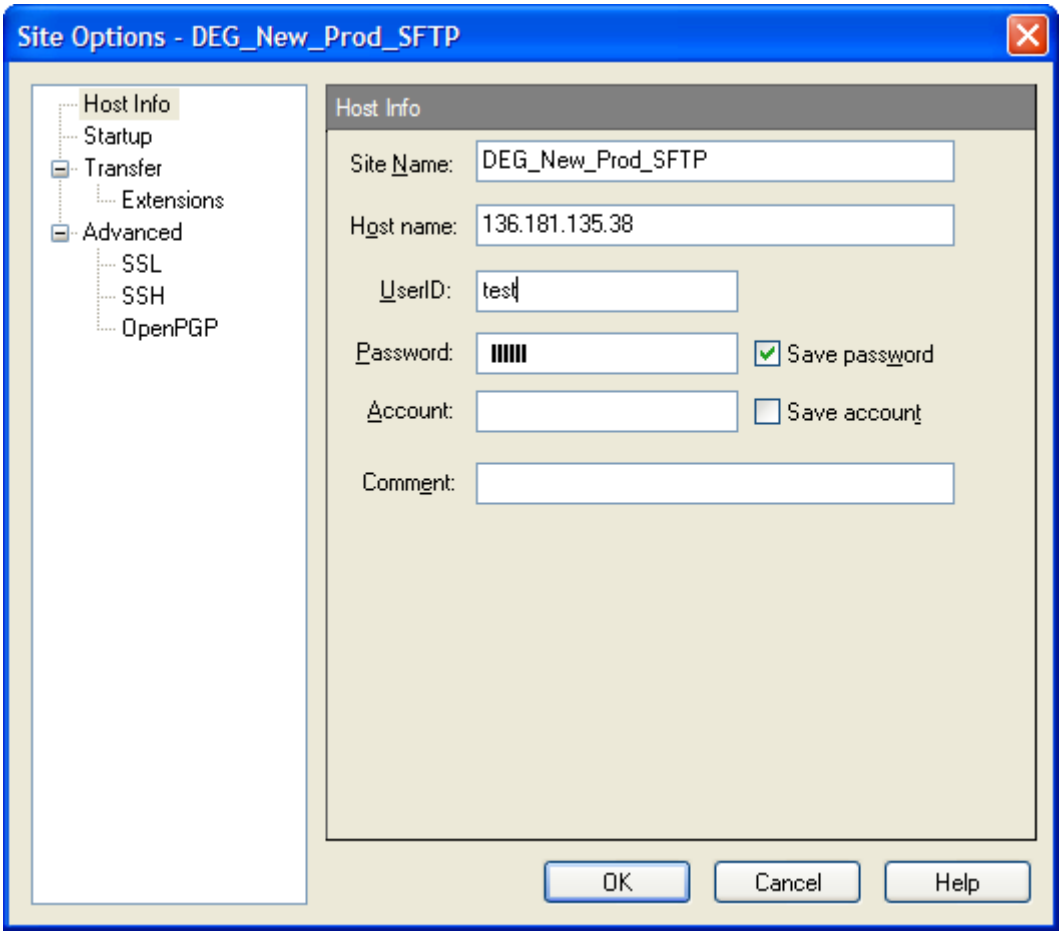

Site Options - DEG_New_Prod_sslftp
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
Extensions
Local
Conversion
Remote
Add...
Edit...
Remove
NOTE: This works in conjunction with the "Convert extensions" option in the Transfer page located in the Site Options.
OK
Cancel
Help

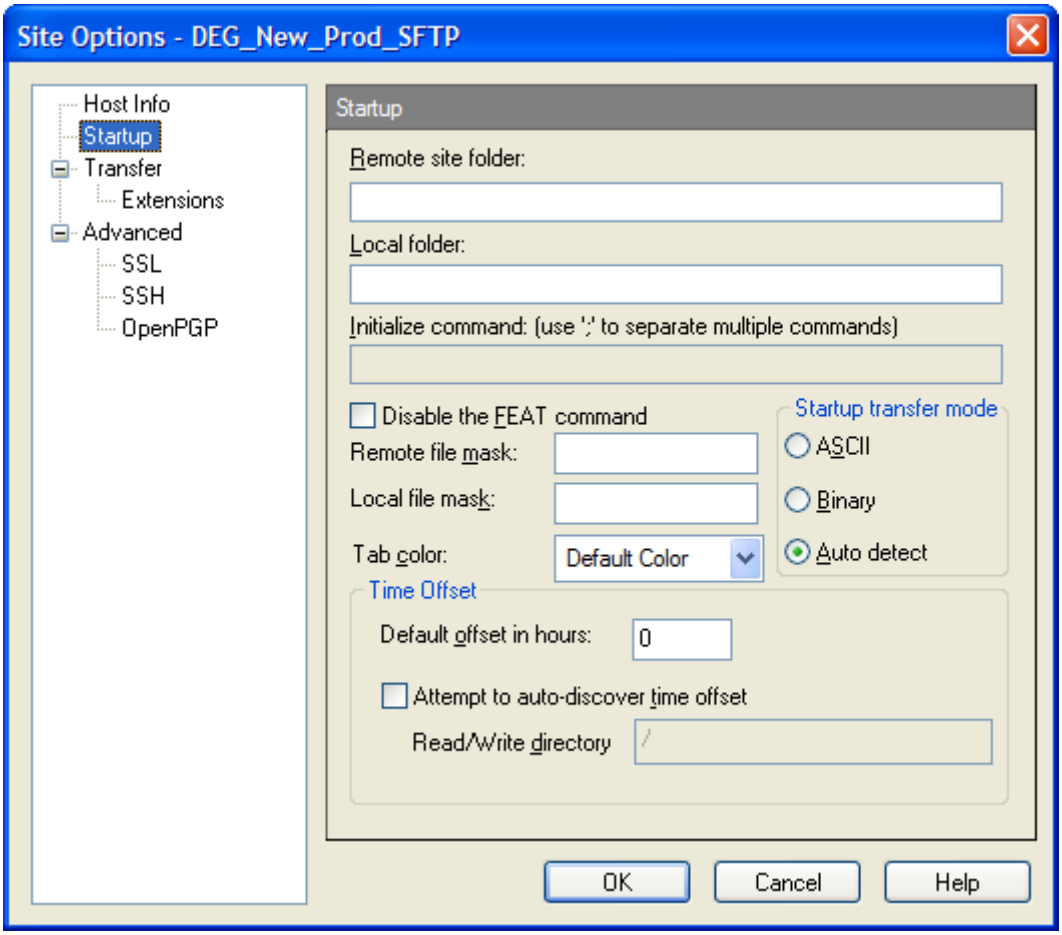

Site Options - DEG_New_Prod_sslftp
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
Advanced
Server type:
FTP/SSL (AUTH SSL)
Host type:
Automatic Detect
Firewall:
NONE
Use Passive mode for data connections
Force passive connections to use host address
Disable directory caching
Verify deletions
Connection retries (0 - 40 attempts):
0
Connection retry delay (5 - 300 seconds):
30
Network timeout (5-3600 seconds):
65
Remote port (usually 21):
11250
Keep alive (10-3600 seconds):
0
OK
Cancel
Help

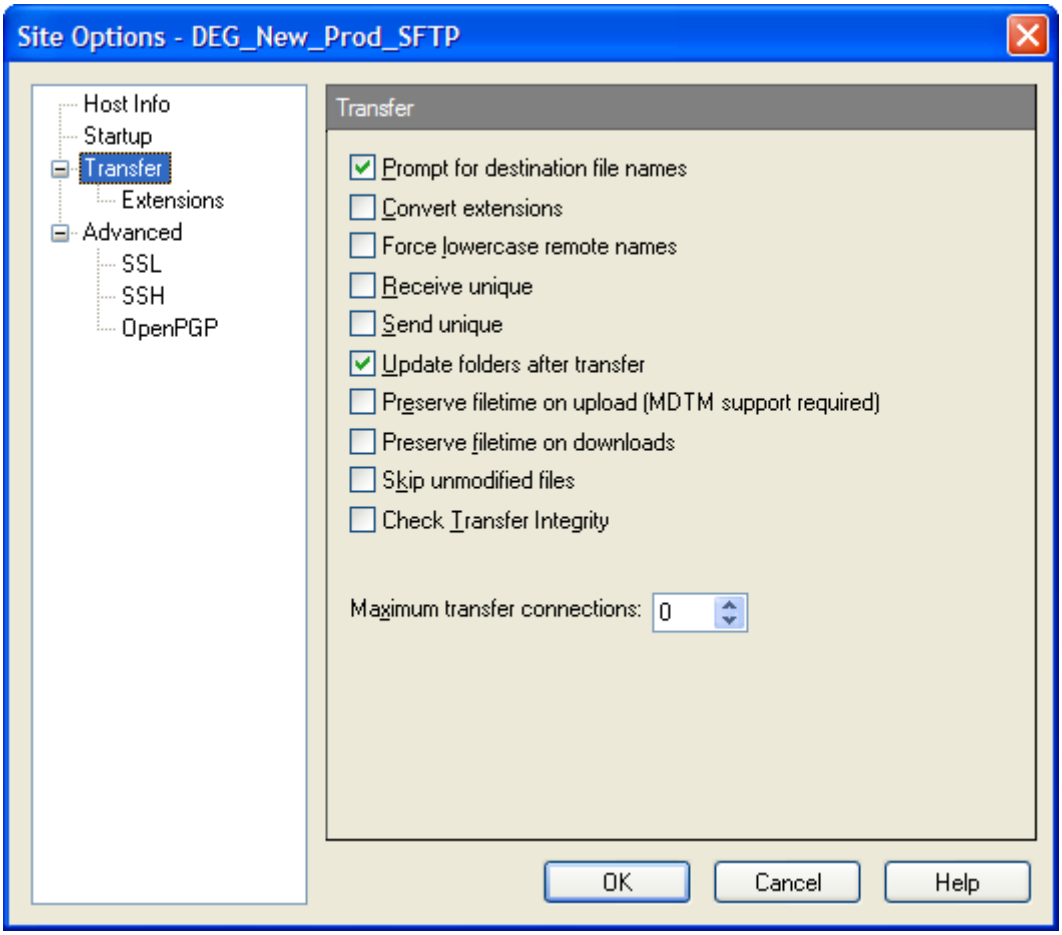

Site Options - DEG_New_Prod_sslftp
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
SSL
If your server requires a client certificate for authentication purposes, please select the certificate for this server below.
Client certificate:
NONE
Use at least 128bit SSL for secure connections
Use unencrypted command channel after SSL authentication
Use unencrypted data channel
Use TLSv1 only
Ignore Command Failures
OK
Cancel
Help

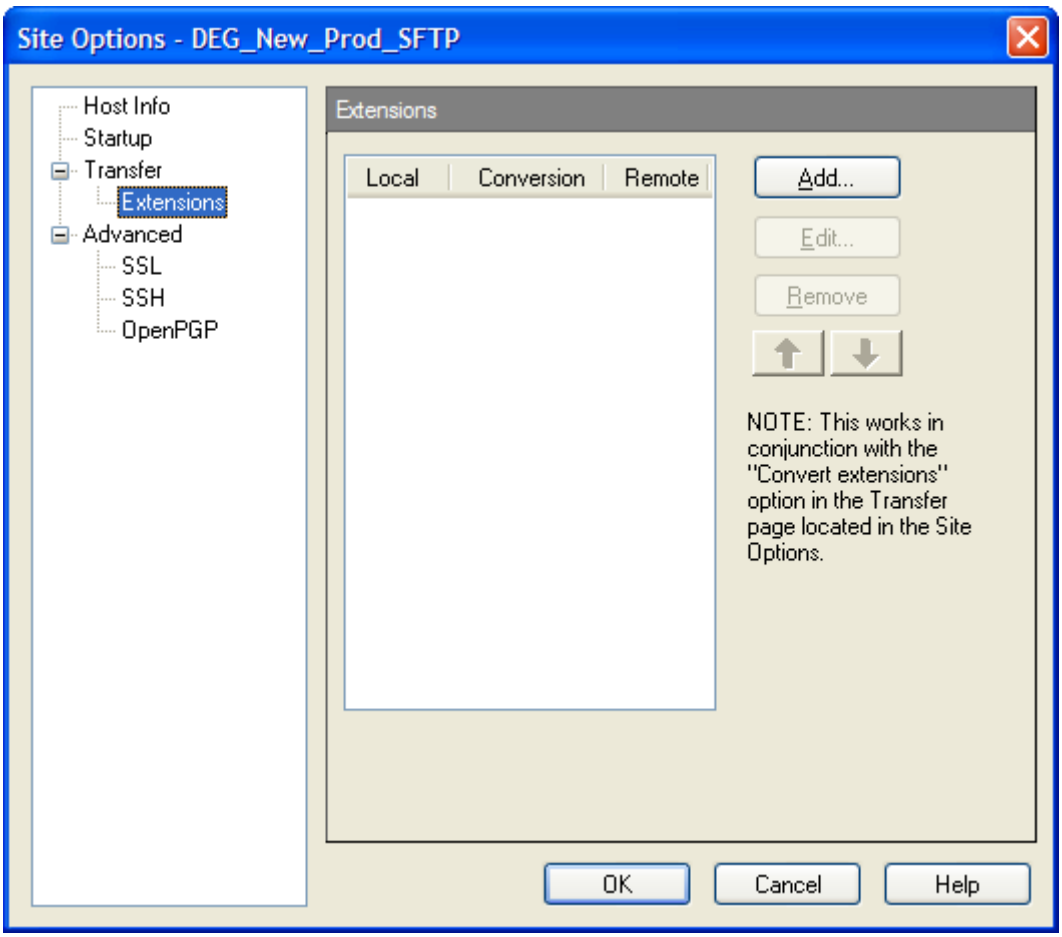
EXAMPLE OF SITE SETUP for SFTP

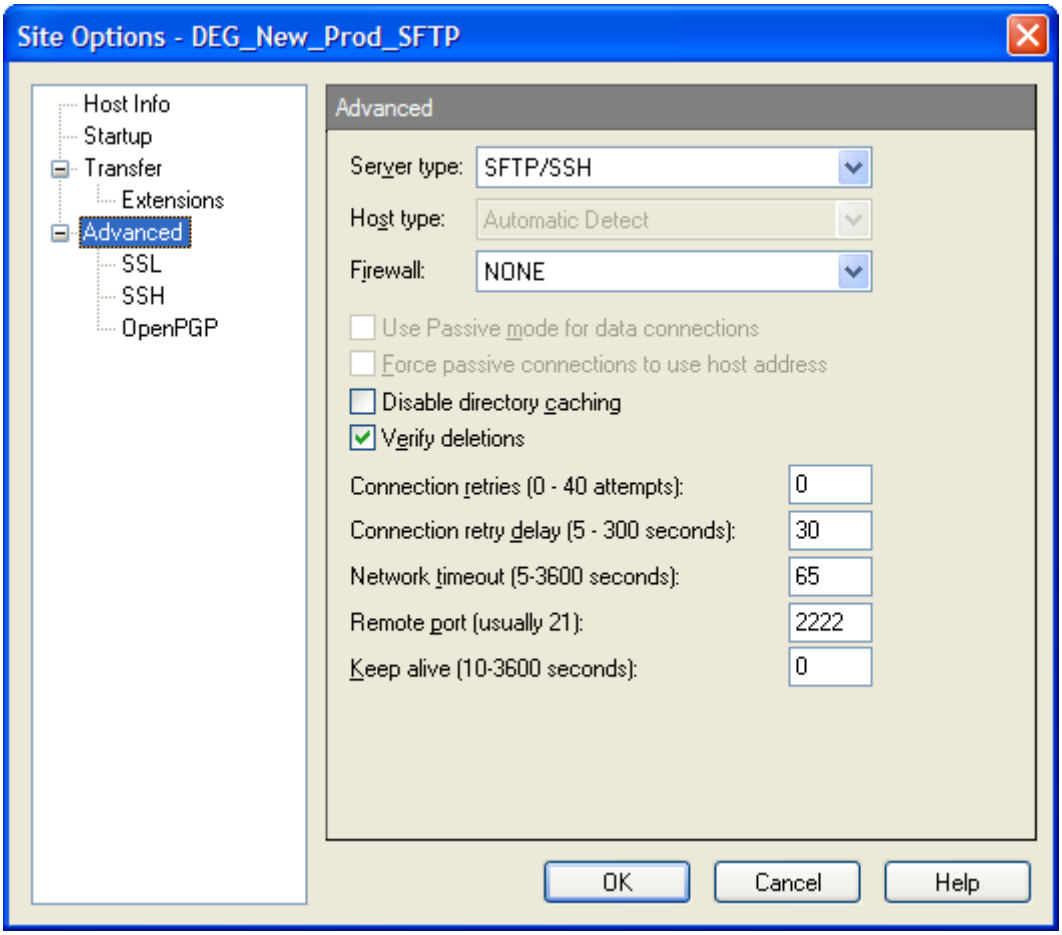
WsFTP Professional Version 2007

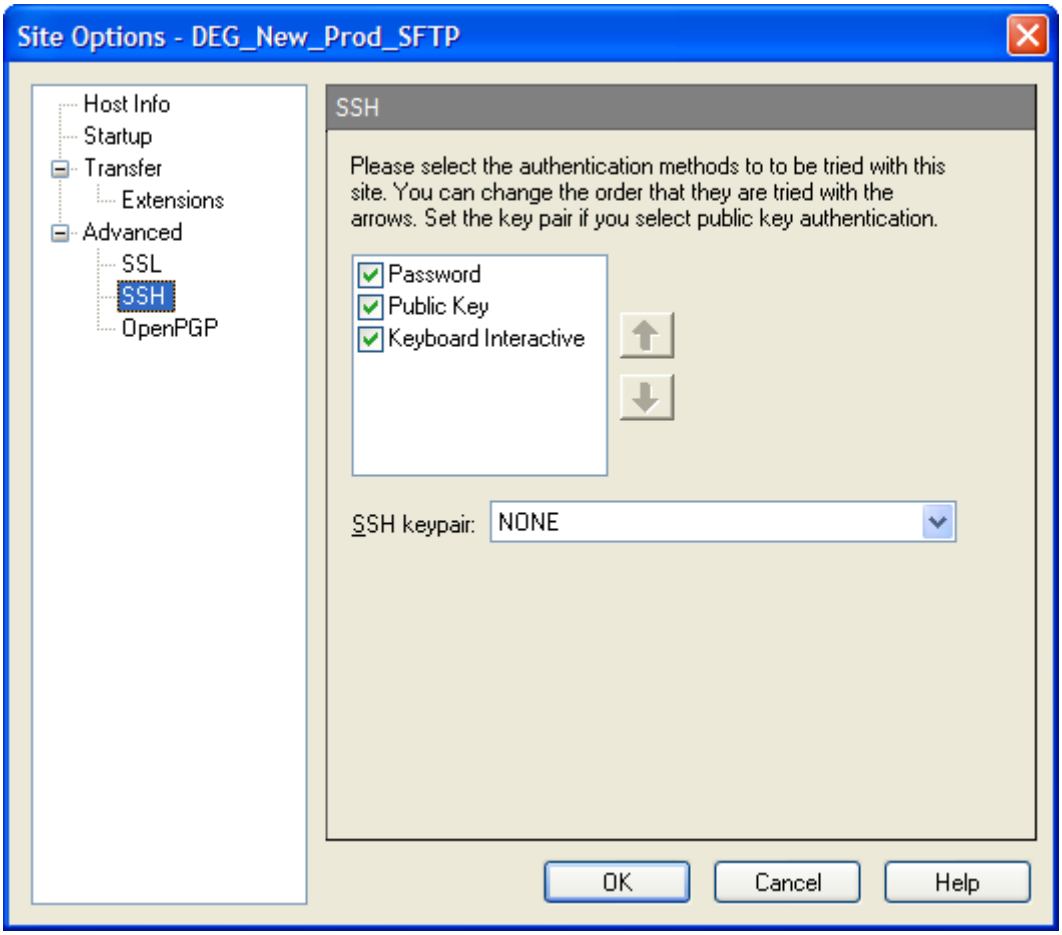



Site Options - DEG_New_Prod_SFTP
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
Startup
Remote site folder:
Local folder:
Initialize command: (use ';' to separate multiple commands)
Disable the FEAT command
Remote file mask:
Local file mask:
Tab color:
Default Color
Startup transfer mode
ASCII
Binary
Auto detect
Time Offset
Default offset in hours:
0
Attempt to auto-discover time offset
Read/Write directory
/
OK
Cancel
Help

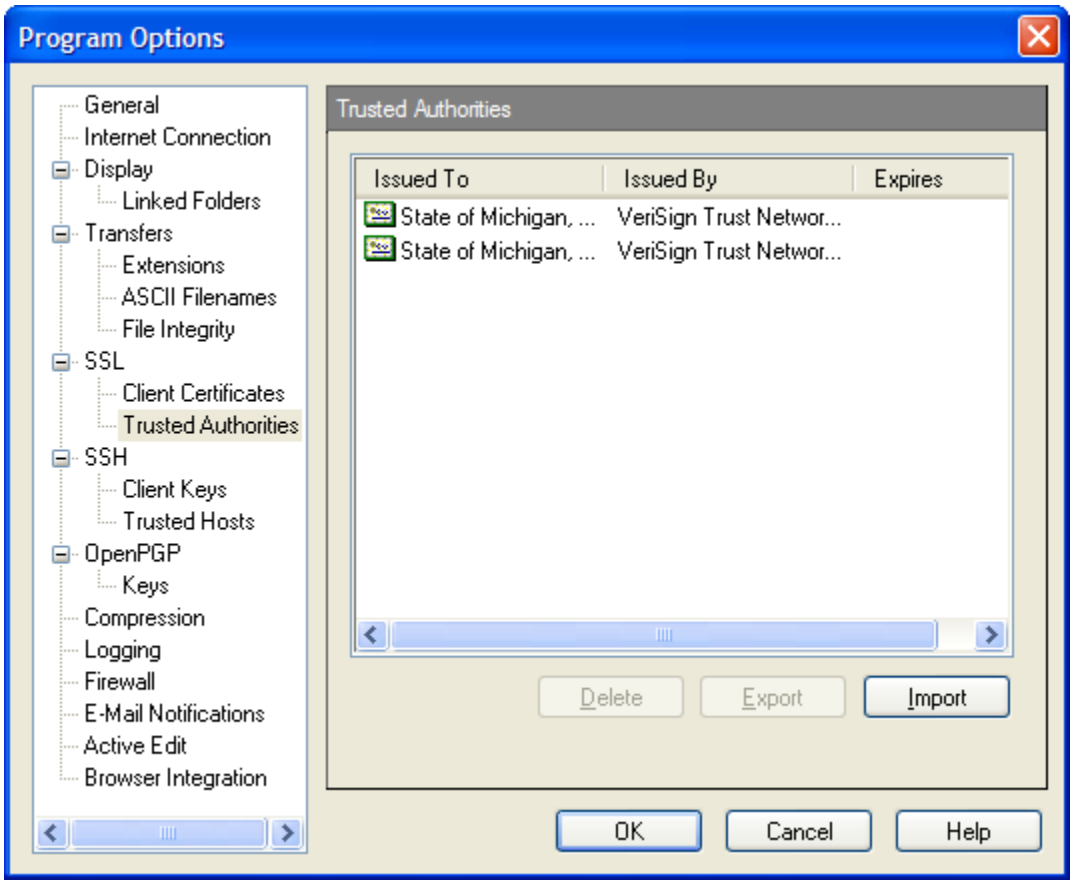

Site Options - DEG_New_Prod_SFTP
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
Transfer
Prompt for destination file names
Convert extensions
Force lowercase remote names
Receive unique
Send unique
Update folders after transfer
Preserve filetime on upload (MDTM support required)
Preserve filetime on downloads
Skip unmodified files
Check Transfer Integrity
Maximum transfer connections:
0
OK
Cancel
Help


Site Options - DEG_New_Prod_SFTP
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
Extensions
Local
Conversion
Remote
Add...
Edit...
Remove
NOTE: This works in conjunction with the "Convert extensions" option in the Transfer page located in the Site Options.
OK
Cancel
Help


Site Options - DEG_New_Prod_SFTP
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
Advanced
Server type:
SFTP/SSH
Host type:
Automatic Detect
Firewall:
NONE
Use Passive mode for data connections
Force passive connections to use host address
Disable directory caching
Verify deletions
Connection retries (0 - 40 attempts):
0
Connection retry delay (5 - 300 seconds):
30
Network timeout (5-3600 seconds):
65
Remote port (usually 21):
2222
Keep alive (10-3600 seconds):
0
OK
Cancel
Help


Site Options - DEG_New_Prod_SFTP
Host Info
Startup
Transfer
Extensions
Advanced
SSL
SSH
OpenPGP
SSH
Please select the authentication methods to to be tried with this site. You can change the order that they are tried with the arrows. Set the key pair if you select public key authentication.
Password
Public Key
Keyboard Interactive
SSH keypair:
NONE
OK
Cancel
Help

CERTIFICATE SCREEN Version 2007



Version WsFTP Pro 2007 ENTRY IN SITE PROFILE ---

On Windows 2000 and Windows XP:
c:\documents and settings\username\application data\Ipswitch\Ws_ftp\Sites\ ws_ftp.ini

[_config_]
mailaddr=test@michigan.gov
URLHistory=urlhistory.ini
dir0=c:\Data
[DEG_New_Prod_sslftp]
CONNTYPE=5
HOST="136.181.135.38"
UID="test"
PWD="_W+J7jLDGxIrwcZY+6xr0ZYOmlP1TYiKRl3Ktd6R8="
TABCOLOR="default"
AutoTimeOffsetPath="/"
1033ConvertDirListFrom=0
1033ConvertASCIIDownloadFrom=0
1033ConvertASCIIUploadTo=0
Use128bitSSLAtLeast=1
ClearCommandChannel=0
ClearDataChannel=0
RETRIES=0
PORT=11250
PROMPT=1
PGPENCODETYPE=0
firename="NONE"
dir0=/ftpst2a
dir1=/tmpuser
[DEG_New_Prod_SFTP]
CONNTYPE=4
HOST="136.181.135.38"
UID="test"
PWD="_lNLDQlYXxrFUYeG142fG1V gLMeAw"
TABCOLOR="default"
AutoTimeOffsetPath="/"
1033ConvertDirListFrom=0
1033ConvertASCIIDownloadFrom=0
1033ConvertASCIIUploadTo=0
firename="NONE"
RETRIES=0
PORT=2222
PASVMODE=0
PROMPT=1
PGPENCODETYPE=1
dir0=/ftpst2a
Use128bitSSLAtLeast=1
ClearCommandChannel=0
ClearDataChannel=0
TIMEOFFSET=0
UseAutoTimeOffset=0
TYPE=6000
UploadStatPeriod=0
DownloadStatPeriod=0
aborseq=0
TIMEOUT=65
CommandTimeout=60
AborTimeout=10
RETRYDELAY=30
RBP=0
SBP=0
KEEPALIVE=0
PREASKPASS=0
NOCACHEAUTH=0
NOCACHEDIRS=0
AUTORECONNECT=1
PRESERVETIMEUP=0
PRESERVETIMEDOWN=0
nofeat=0
TRANSFERCONN=0

DATAPORT=0
AMODE=1
MODE=73
CONVEXT=0
DOUPDATE=1
FORCLOW=0
NOTRANSLATEDATAIP=0
STOU=0
RECU=0
VRFYDEL=1
ENABLEPGPMODE=0
ENABLECOMPRESSION=0
CHECKTRANSFERINTEGRITY=0
FORCEPASVTOHOST=0
TRANSFERBATCH=0
TRANSFERMULTIPART=0
TRANSFERAPEND=0

EXAMPLE OF GOOD TRANSFER LOG

SSLFTP

Connecting to 136.181.135.38:11250
Connected to 136.181.135.38:11250 in 0.000000 seconds, Waiting for Server Response
Initializing SSL Session ...
220 DEG FTPS. WARNING: UNAUTHORIZED USE PROHIBITED. ALL USERS ARE LEGALLY ACCOUNTABLE FOR THEIR ACTIONS. BY USING THIS SYSTEM, YOU CONSENT TO HAVING YOUR ACTIONS LOGGED.
AUTH TLS
234 AUTH: securing command channel
SSL session NOT set for reuse
SSL Session Started.
Host type (1): Automatic Detect
USER test
331 Password Required
PASS (hidden)
230 Logon Accepted
SYST
215 UNIX Type:L8
Host type (2): Unix (Standard)
PBSZ 0
200 PBSZ: set for streaming mode
PROT P
200 PROT: data channel in PROTECTED mode
Sending "FEAT" command to determine what features this server supports.
FEAT
211-Extensions supported
211- AUTH TLS|SSL
211- CCC
211- PBSZ 0
211   PROT P|C
Finished interpreting "FEAT" response.
Sending the FEAT command is optional. You can disable it in the site options of the profile.
PWD
257 "/ftpst2a"
TYPE A200 Transfer Mode: ASCII
PASV
227 Entering PASV Mode (136.181.135.38,43,193)
connecting data channel to 136.181.135.38:43,193(11201)
data channel connected to 136.181.135.38:43,193(11201)
LIST
150 Connecting Data Port...
transferred 1040 bytes in 0.078 seconds, 106.496 kbps (13.312 kBps), transfer succeeded.
226 Listing Complete

```
Starting request
Sending "REST" command to determine if the server supports restarts.
REST 1024
502 REST: Command Not Implemented
This server does not appear to support restarts.
 -- Resuming of interrupted transfers disabled.
 -- Multipart downloads disabled.
Finished checking for "REST" command support.
TYPE I
200 Transfer Mode: BINARY
PASV
227 Entering PASV Mode (136.181.135.38,43,194)
connecting data channel to 136.181.135.38:43,194(11202)
data channel connected to 136.181.135.38:43,194(11202)
STOR test45
150 Connecting Data Port...
226 Stored Message: [200903311002330013rs] Size: [1131781] bytes
transferred 1131781 bytes in 0.813 seconds, 11143.690 kbps ( 1392.961 kBps), transfer succeeded.
Transfer request completed with status: Finished
TYPE A
200 Transfer Mode: ASCII
PASV
227 Entering PASV Mode (136.181.135.38,43,195)
connecting data channel to 136.181.135.38:43,195(11203)
data channel connected to 136.181.135.38:43,195(11203)
LIST
150 Connecting Data Port...
transferred 1117 bytes in 0.078 seconds, 114.381 kbps ( 14.298 kBps), transfer succeeded.
226 Listing Complete
```

SFTP

```
Connecting to 136.181.135.38:2222
Connected to 136.181.135.38:2222 in 0.000000 seconds, Waiting for Server Response
Server Welcome: SSH-2.0-OpenSSH_4.3
Client Version: SSH-2.0-WS_FTP-2007.1-2007.11.12
DSS Signature Verified
Session Keys Created
Ciphers Created
New Client->Server ciphers in place.
New Client->Server ciphers in place.
Completed SSH Key Exchange.  New Keys in place.
Trying authentication method: "password"
User Authenticated OK!
Completed SSH User Authentication.
Started subsystem "sftp" on channel 0760a2ce
SFTP Protocol Version 3 OK
sftp protocol initialized
Getting Dirlistingtransferred 2187 bytes in 0.016 seconds, 1119.737 kbps ( 139.967 kBps), transfer succeeded.
Starting request
Opening remote file "/ftpst2a/test45" for writing
Uploading local file "c:\Data\test45"
transferred 1131781 bytes in 1.391 seconds, 6510.878 kbps ( 813.860 kBps), transfer succeeded.
Transfer request completed with status: Finished
Getting Dirlisting
transferred 2337 bytes in < 0.001 seconds, 18696.000 kbps ( 2337.000 kBps), transfer succeeded.
```

Connecting Issues:

1. If you can’t logon with SSLFTP, make sure you have the right port number11250 and advance – server type select – FTP/SSL (AUTH SSL) or with SFTP, make sure you have the right port number 2222 and advanced – server type select – SFTP/SSH.
2. If you are getting a logon OK , but don’t get a directory back from your mailbox, you are having a problem with the return data port 11200. First try turning on **PASSIVE MODE**, if that doesn’t work you may have a problem with your firewall.
3. If you get an error and you try automatically again. You might want to edit you site profile and make **AUTOCONNECT = 0** and **RETRIES = 0**. See above in document.