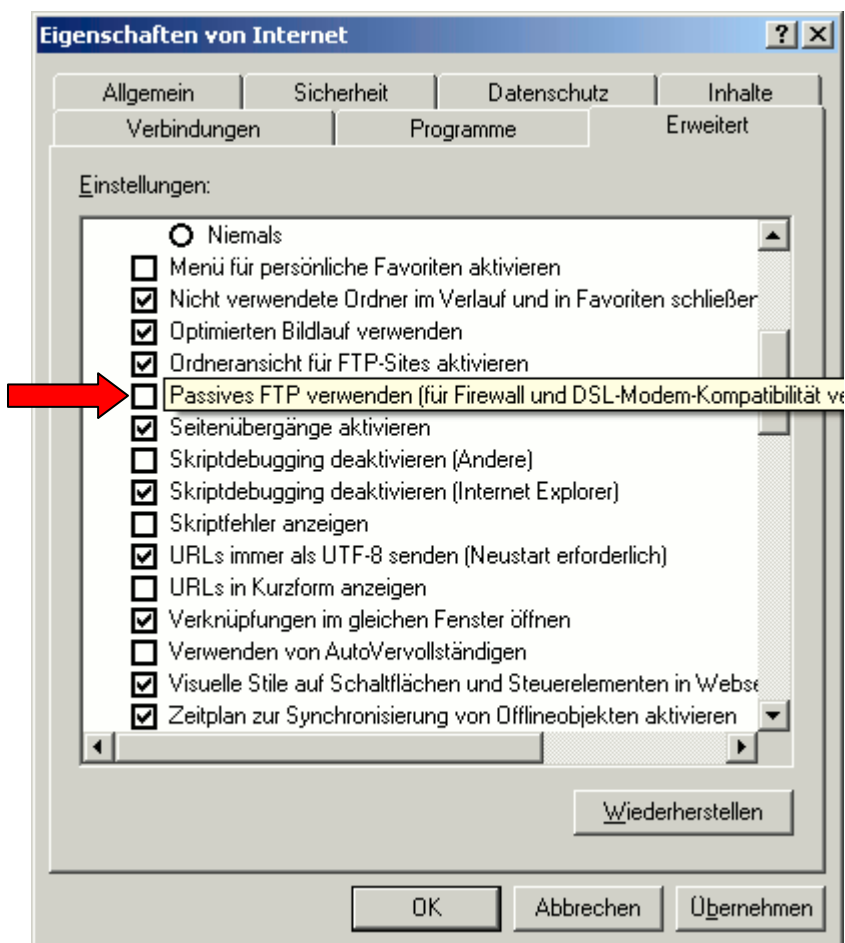


Passive FTP broken in SharePoint Designer 2007

Maybe you got the idea to use SharePoint Designer 2007 for also designing websites which are not related to SharePoint in any way. If those sites are hosted on Linux machines there is the chance that you will run into similar problems like me.

As I was not able to solve these problems in the first place my last resort seemed to be capturing a packet trace to get an idea what is going on under the hood.

If you are not interested in further details you could stop reading here and switch SharePoint Designer to use active FTP mode to fix the problem as follows. Open Internet Options from the Control Panel and uncheck to use passive ftp. This will also disable passive FTP in SharePoint Designer.



If you are interested in further details just take a look at the following screen captures:

The screenshot shows a Wireshark capture of an FTP session. The main pane displays a list of packets with columns for No., Time, Source, Destination, Protocol, and Info. Packet 14 is highlighted in blue, showing an FTP PASV request. Packet 15 is also highlighted, showing the server's response: '227 Entering Passive Mode (192,168,100,24,46,60)'. Packet 16-18 shows a TCP three-way handshake between msfw-s-storage and 11836. The bottom pane shows the details of packet 15, with a red arrow pointing to the 'Passive port: 11836' field.

No.	Time	Source	Destination	Protocol	Info
6	0.029431	192.168.100.24	192.168.100.25	TCP	ftp > msfw-storage [ACK] Seq=21 Ack=12 win=5
7	0.031049	192.168.100.24	192.168.100.25	FTP	Response: 331 Please specify the password.
8	0.031440	192.168.100.25	192.168.100.24	FTP	Request: PASS 12345678
9	0.038347	192.168.100.24	192.168.100.25	TCP	ftp > msfw-storage [ACK] Seq=55 Ack=27 win=5
10	0.042619	192.168.100.24	192.168.100.25	FTP	Response: 230 Login successful.
11	0.044975	192.168.100.25	192.168.100.24	FTP	Request: TYPE I
12	0.045857	192.168.100.24	192.168.100.25	TCP	ftp > msfw-storage [ACK] Seq=78 Ack=35 win=5
13	0.049215	192.168.100.24	192.168.100.25	FTP	Response: 200 Switching to Binary mode.
14	0.050477	192.168.100.25	192.168.100.24	FTP	Request: PASV
15	0.052035	192.168.100.24	192.168.100.25	FTP	Response: 227 Entering Passive Mode (192,168,100,24,46,60)
16	0.052948	192.168.100.25	192.168.100.24	TCP	msfw-s-storage > 11836 [SYN] Seq=0 win=64240
17	0.053593	192.168.100.24	192.168.100.25	TCP	11836 > msfw-s-storage [SYN, ACK] Seq=0 Ack=
18	0.053702	192.168.100.25	192.168.100.24	TCP	msfw-s-storage > 11836 [ACK] Seq=1 Ack=1 win
19	0.054021	192.168.100.25	192.168.100.24	FTP	Request: SIZE generic/acrobat.gif
20	0.058322	192.168.100.24	192.168.100.25	FTP	Response: 213 227
21	0.058681	192.168.100.25	192.168.100.24	FTP	Request: RETR generic/acrobat.gif
22	0.060097	192.168.100.24	192.168.100.25	FTP	Response: 150 Opening BINARY mode data connec

On Packet number 14 you can see that SharePoint Designer requests passive FTP mode and the FTP server (vsftpd here) enters passive FTP mode and advises SharePoint Designer on packet number 15 to use port 11836 for the data connection.

What follows on packet number 16 to 18 is the TCP three-way-handshake where the data connection is successfully initiated.

All seems to work well until here.

When SharePoint Designer requests to receive additional data during the same session it again request passive FTP mode and the FTP server again enters passive FTP mode this time advising SharePoint Designer on packet number **33** to use Port **50734** for the data connection.

On packet number **34** you can see that SharePoint Designer is simply ignoring this and instead tries to establish a data connection on port **11836** which was used for the previous transfer. It goes without saying that the FTP server did not listen for a connection on that port and that the connection is terminated by a TCP RST+ACK on packet number **35**.

The screenshot shows a Wireshark capture of an FTP session. The packet list pane shows the following details:

No.	Time	Source	Destination	Protocol	Info
22	0.060097	192.168.100.24	192.168.100.25	FTP	Response: 150 Opening BINARY mode data connection
23	0.062098	192.168.100.24	192.168.100.25	FTP-DATA	FTP Data: 227 bytes
24	0.062815	192.168.100.24	192.168.100.25	TCP	11836 > msfw-s-storage [FIN, ACK] Seq=228 Ac
25	0.064500	192.168.100.25	192.168.100.24	TCP	msfw-s-storage > 11836 [ACK] Seq=1 Ack=229 w
26	0.065831	192.168.100.25	192.168.100.24	TCP	msfw-s-storage > 11836 [FIN, ACK] Seq=1 Ack=
27	0.069449	192.168.100.24	192.168.100.25	TCP	11836 > msfw-s-storage [ACK] Seq=229 Ack=2 w
28	0.074873	192.168.100.24	192.168.100.25	FTP	Response: 226 File send OK.
29	0.075094	192.168.100.25	192.168.100.24	TCP	msfw-storage > ftp [ACK] Seq=93 Ack=266 win=
30	0.078295	192.168.100.25	192.168.100.24	FTP	Request: TYPE A
31	0.079660	192.168.100.24	192.168.100.25	FTP	Response: 200 Switching to ASCII mode.
32	0.080393	192.168.100.25	192.168.100.24	FTP	Request: PASV
33	0.081656	192.168.100.24	192.168.100.25	FTP	Response: 227 Entering Passive Mode (192,168
34	0.082096	192.168.100.25	192.168.100.24	TCP	msfw-replica > 11836 [SYN] Seq=0 win=64240 L
35	0.082804	192.168.100.24	192.168.100.25	TCP	11836 > msfw-replica [RST, ACK] Seq=1 Ack=1
36	0.240071	192.168.100.25	192.168.100.24	TCP	msfw-storage > ftp [ACK] Seq=107 Ack=348 win
37	0.568427	192.168.100.25	192.168.100.24	TCP	msfw-replica > 11836 [SYN] Seq=0 win=64240 L
38	0.588536	192.168.100.24	192.168.100.25	TCP	11836 > msfw-replica [RST, ACK] Seq=1 Ack=1

The packet details pane for packet 33 shows the following structure:

- Frame 33 (106 bytes on wire, 106 bytes captured)
- Ethernet II, Src: vmware_f4:3f:e9 (00:0c:29:f4:3f:e9), Dst: vmware_f2:3b:d3 (00:0c:29:f2:3b:d3)
- Internet Protocol, Src: 192.168.100.24 (192.168.100.24), Dst: 192.168.100.25 (192.168.100.25)
- Transmission Control Protocol, Src Port: ftp (21), Dst Port: msfw-storage (2171), Seq: 296, Ack: 107, Len: 52
- File Transfer Protocol (FTP)
 - 227 Entering Passive Mode (192,168,100,24,198,46).\r\n
 - Response code: Entering Passive Mode (227)
 - Response arg: Entering Passive Mode (192,168,100,24,198,46).
 - Passive IP address: 192.168.100.24 (192.168.100.24)
 - Passive port: 50734