Establishing a PPP connection under Windows 7

To establish a PPP connection between a Trimble receiver (the server) and a computer (the client) that is running the Windows7 operating system, you need to install the direct cable connection as a modem device using the modem setup procedure:

- 1. On the computer, click Start / Control Panel / Phone and Modem. The Phone and Modem dialog appears.
- 2. Select the *Modems* tab and then click Add.

Note - You will need administrator's rights to do this.

ight Phone and Modem	— ×
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem	Attached To
Communications cable between two comp	COM1
Conexant HDA D330 MDC V.92 Modem	COM4
Add	Properties
ОК	Cancel Apply

The Add Hardware wizard appears.

3. Select the Don't detect my modem. I will select it from a list. check box and then click Next.



4. Select the *Communications cable between two computers* option and then click **Next**.

Add Hardware Wizard
Install New Modem
Select the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Manufacturer Models (Standard Modem Types) Communications cable between two computers Parallel cable between two computers Standard - 300 bps Modem Standard 1200 bps Modem Standard 1200 bps Modem
This driver is digitally signed. Tell me why driver signing is important

5. Select the *Selected ports* option and then select the serial com port (COM 1). Click **Next**.

Note – A null cable is required for this connection.

Add Hardware Wizard Install New Modem Select the port(s) you	want to install the modem on.
	You have selected the following modem:
	Communications cable between two computers
	On which ports do you want to install it?
	O All ports
	 Selected ports
	COM1
	COM2
	COM9
	COM11
	1
	< Back Next > Cancel

6. Click Finish.



7. In the *Modems* tab of the *Phone and Modem* dialog, select the new COM1 connection and then click **Properties**.

🍛 Phone and Modem 📃 💌	
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem Attached To	
Communications cable between two comp COM1	
Conexant HEALI330 MDE V 92 Modern COM4	
Maa Properties	/
OK Cancel Apply	

8. In the *Properties* dialog for the connection, select the *Modem* and then change the *Maximum Port Speed* field to 38400. Click **OK**.

Communications cable between two computers Properties	×
General Modem Dagnostics Advanced Driver Details	_
Port: COM1	
Speaker volume	
Low High	
Maximum Port Speed	
38400	
- Dial Control	
Wait for dial tone before dialing	
OK Cancel	

9. Select the Advanced tab and then click Change Default Preferences.



10. In the *Flow control* field, select *None* and then click **OK**.

Communications cable between two compu
General Advanced
Call preferences
Disconnect a call if idle for more than mins
Cancel the call if not connected within secs
Data Connection Preferences
Port speed: 38400
Data Protocol:
Compression:
Flow control: None
OK Cancel

- 11. Click **OK** to close the *Properties* dialog for the connection.
- 12. In the *Modems* tab of the *Phone and Modem* dialog, click **OK** to save your changes.

i Phone and Modem	×	
Dialing Rules Modems Advanced		
The following modems are installed:		
Modem	Attached To	
Communications cable between two comp	COM1	
Conexant HDA D330 MDC V.92 Modem	COM4	
Remove Properties		
OK Cancel Apply		

13. On the computer, click Start / Control Panel / Network and Sharing Center and then select Set up a new connection or network.

View you	r active networks	Connect or disconnect	
	Trimblecorp.net Domain network	Access type: Internet Connections: 🏺 Local Area Connection	
+	Systems2 Public network	Access type: Internet Connections: III Wireless Network Connection (Systems2)	
Change	our networking settings		
٢	Set up a new connection or network Set up a wireless, broadband, dial-up, ae hoc, o	r VPN connection; or set up a router or access point.	
2	Connect to a network Connect or reconnect to a wireless, wired, dial-up, or VPN network connection.		
•	Choose homegroup and sharing options Access files and printers located on other netwo	ork computers, or change sharing settings.	
	Troubleshoot problems Diagnose and repair network problems, or get t	roubleshooting information.	

14. Select the *Set up a dial-up connection* option and then click **Next**.

Set Up a Connection or Network	
Choose a connection option	
Connect to the Internet Set up a wireless, broadband, or dial-up connection to the Internet.	^
Set up a new network Configure a new router or access point.	E
Manually connect to a wireless network Connect to a hidden network or create a new wireless profile.	
Connect to a workplace Set up a dial-up or VPN connection to your workplace.	
Set up a dial-up connection Connect to the Internet using a dial-up connection.	-
	Next Cancel

15. If you have created more than one modem device on your computer, you are prompted to select the modem to use. Select the *Communications cable between two computers* modem.

🚱 🧮 Create a Dial-up Connection	
Which modem do you want to use?	
Communications cable between two computers	
Conexant HDA D330 MDC V.92 Modem	
Help me decide	
	Cancel

16. Enter the appropriate information from your ISP. You must enter a phone number, so if necessary enter a fictitious one. In the *Connection name* field, enter a unique name so that you can easily identify your new PPP connection. Click **Connect**.

🚱 🧾 Create a Dial-up Connection		
Type the information fror	n your Internet service provider (ISF	2)
Dial-up phone number:	123-456-7890	Dialing Rules
User name:	[Name your ISP gave you]	
Password:	[Password your ISP gave you]	
	Show characters	
	Remember this password	
Connection name:	BD9xx PPP Serial	
Allow other people to use	this connection	
This option allows anyon	e with access to this computer to use this conr	ection.
I don't have an ISP		
	_	
		Connect Cancel

17. To skip the connection test, click **Skip**.

Geo 🔚 Create a Dial-up Connection	
Connecting to Dial-up Connection	
i	
Dialing 123-456-7890	
Skij	p Cancel

18. A message confirms that the connection is ready for use. Click **Close**.

🚱 🔚 Create a Dial-up Connection	
The connection is ready for use	
N	
Connect now	
	Close

19. On the computer, click *Start / Control Panel / Network and Sharing Center* and then select *Connect to a network*.

Vi	ew your	Connect or disconnect				
		Trimblecorp.net Domain network	Access type: Internet Connections: I Local Area Connection			
	ŧ	Systems2 Public network	Access type: Internet Connections: all Wireless Network Connection (Systems2)			
C	hange y	our networking settings				
	1	Set up a new connection or network Set up a wireless, broadband, dial-up, ad hoc, o	or VPN connection; or set up a router or access point.			
\langle	*	Connect to a network Connect or reconnect to a wireless, wired, dial-up, or VPN network connection.				
	بر ې	Choose homegroup and sharing options Access files and printers located on other network computers, or change sharing settings.				
		Troubleshoot problems				

Diagnose and repair network problems, or get troubleshooting information.

20. A list of available connections appears on the computer. Select the PPP connection you created and then click **Connect**.



21. The Connect dialog appears. Click Properties.

🐓 Connect BD9xx PPP Serial	83
User name: Password:	
Save this user name and password for the follow	ving users:
😵 🔿 Anyone who uses this computer	
Dial: 123-456-7890	•
Dial Cancel Properties	Help

22. In the *Properties* dialog, select the *General* tab and then click **Configure**.

🛄 BD9xx PPP Seria	l Properties			8
General Options	Security Netw	orking	Sharing	
Connect using:				
Communicati	ons cable betwee	en two o	computers	(COM1)
				Configure
Phone number				
Area code:	Phone number	:		
	123-456-7890			Alternates
Country/region	code:			
				T
🔲 Use dialing	rules		Di	aling Rules
See our online <u>privacy statement</u> for data collection and use information.				
			ОК	Cancel

23. In the *Modem Configuration* dialog, change the value in the *Maximum speed* field to 38400. Make sure the *Enable* hardware flow control check box is *clear* and then click **OK**.

Modem Configuration	×
Communications cable between two computers (COM1)	
Maximum speed (bps): 38400 Modem protocol	•
Hardware features Enable hardware flow control Enable modem error control Enable modem compression	
Enable modem speaker OK Canc	el

- 24. Return to the *Properties* dialog and select the *Networking* tab.
- 25. Clear the *Internet Protocol Version 6* check box and select the *Internet Protocol Version 4* check box. Click **Properties**.

BD9xx PPP Serial Properties			
General Options Security Networking Sharing			
This connection uses the following items:			
Internet Protocol Version 6 (TCP/IPv6) ✓ Internet Protocol Version 4 (TCP/IPv4)			
File and Printer Sharing for Microsoft Networks			
Install Uninstall Properties			
Description			
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication			
across diverse interconnected networks.			
OK Cancel			

26. In the Internet Protocol Version 4 dialog, click Advanced.

Internet Protocol Version 4 (TCP/IPv4)	Properties				
General					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
Obtain an IP address automatically	y III				
OUse the following IP address:					
IP address:					
Obtain DNS server address autom Use the following DNS server address	natically resses:				
Preferred DNS server:	· · · ·				
Alternate DNS server:	and a second				
	Advanced				
	OK Cancel				

27. In the *IP Settings* tab, clear the *Use default gateway on remote network* check box. Click **OK**.

Advanced TCP/IP Settings	? <mark>×</mark>
IP Settings DNS WINS	
This checkbox only applies when you are connected to a local network and a dial-up network simultaneously. When checked, of that cannot be sent on the local network is forwarded to the dial-un network.	jata Jp
 Use default gateway on remote network Disable class based route addition 	
Automatic metric Interface metric:	
PPP link Use IP header compression	
ОК	Cancel

- 28. Click **OK** to return to the *Properties* dialog for the PPP connection.
- 29. Connect the receiver to the computer's COM1 port using a null modem serial cable. You do not need to enter a user name and password. Click **Dial**.

🐓 Connect B	D9xx PPP Serial	23
User name: Password:		
Save this	user name and password for the following (users:
😗 🔿 Anyon	e who uses this computer	
Dial:	123-456-7890	•
Dial	Cancel Properties	Help

A dialing message appears.

If you receive a connection error similar to the one shown the issue may be a Microsoft driver issue:

💐 Error	Connecting to BD9xx PPP Serial
	Dialing 123-456-7890
	Error 777: The connection attempt failed because the modem (or other connecting device) on the remote computer is out of order.
lf a	you continue to receive error messages, you can enable logging for nalysis.
٩	Enable logging For logging options, see <u>diagnostics</u>
	Logging options can also be accessed by clicking the Remote Access Preferences menu item under the Advanced menu of the Network Connection Folder.
(Redial = 42 Close

30. If this message does not appear, skip to step 33. If this message appears, do the following:

- 1. click Close .
- 2. Restart the computer.
- 3. Once restarted, try the connection again. To do this, return to the *Network and Sharing Center* in the computer's *Control Panel* and click *Connect to a network*.
- 31. From the connections list on the computer, select the PPP connection and then select Connect.



32. Connect the receiver to the computer at COM1 using a null modem serial cable. Click **Dial**. (No user name and password is required.)

Connect B	D9xx PPP Serial
User name: Password:	
Save this	user name and password for the following users:
Anvon	e who uses this computer
Curden.	
Dial:	123-456-7890 👻

- A connection window appears, showing Dialing.
- 33. Once connected, return In the View Active Networks area. Your PPP connection appears:

D	trimblecorp.net	Access type:	Internet
	Domain network	Connections: 🏺	Local Area Connection
	Systems2 Public network	Access type: Connections: at	Internet Wireless Network Connection (Systems2)
	R8-3 PPP Serial	Access type:	No network access
	Public network	Connections: 🔋	R8-3 PPP Serial
Change your	networking settings		

Set up a new connection or network

Set up a wireless, broadband, dial-up, ad hoc, or VPN connection; or set up a router or access point.



Connect to a network

Connect or reconnect to a wireless, wired, dial-up, or VPN network connection.

Choose homegroup and sharing options

Access files and printers located on other network computers, or change sharing settings.



Troubleshoot problems

Diagnose and repair network problems, or get troubleshooting information.

34. To verify the connection is active, click the *Connections* link for the PPP connection:



35. In the *Status* window, check the time duration and then select the *Details* tab.

🛄 R8-3 PPP Serial State	us		×
General Details			
IPv4 Connectivity:		No network a	ccess
IPv6 Connectivity:		No network a	ccess
Media State:		Cont	rected
Duration:		00:	17:35
Speed:		38.4	1 Kbpe
Details			
Activity			
	Sent — 💄	Rec	eived
Bytes:	10,992		587
Compression:	0 %		0 %
Errors:	0	1	0
Properties	Disconnect	Diagnose	
-			Close

36. In the *Details* tab, note down the information in the *Server IPv4 address* field:

🛄 R8-3 PPP Serial Status	— ×-
General Details	
Property	Value
Device Name	Communications cable between tw
Device Type	modem
Authentication	(unknown)
Compression	(none)
PPP multilink framing	Off
Client IPv4 address	192,168,100,121
Server IPv4 address	192.168.100.120
NAP State	Not NAP-capable
Origin address	(unknown)
Destination address	(unknown)
	Close

37. Open an Internet browser window and enter the Server IP address in the address line:



38. A Windows Security dialog appears. Enter the following information:

user name: Admin

password: password

Windows Security			
The server 192.168.100.120 at Trimble requires a username and password.			
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).			
admin Remember my credentials			
OK Cancel			

Once connected successfully, a web page similar to the one below appears:

