

Applications Note AN024

Rev 2 Date 19/1/09

Tibbo Ethernet Terminal Server Device Setup

Revision	Date	Change
2	19/1/09	Extra network details

This document details the setting up of a Tibbo terminal server, as used with SHM data loggers with internal Ethernet modules.

Network requirements

SHM recommends you use fixed IP addresses for our loggers – your local network administrator should be able to give you a suitable address. This address will then be needed for the configuration of the energy management software.

If the Tibbo is to be accessed from outside of your Local Network, the Gateway address must be configured into the Tibbo, AND the firewall of your Gateway device must open the port to be used for the Tibbo communications. By default, SHM ships the Tibbo with the data Port set to 4001

Logger settings

The logger should be configured at the SHM factory for the Tibbo Terminal server.

The settings required for the logger are:

Option A = 32 Option B = 0

These may be viewed or set up with the SHM utility UCOMM

PC software required

Changing the network settings for the Tibbo terminal server requires use of the Tibbo DS manager utility.

The utility may be downloaded from the SHM web site – Click on Technical Support, Downloads, or: http://www.shmcomms.co.uk/tech_support/downloads.htm

Currently there are 2 versions.

- For Windows XP, or 200x, download and install TDST_3-9-82.exe
- For Windows Vista, download and install TDST_5_00_03_beta_x86.exe

Installing DS in XP, 200x

Run the downloaded application (TDST version 3), accept all defaults except:

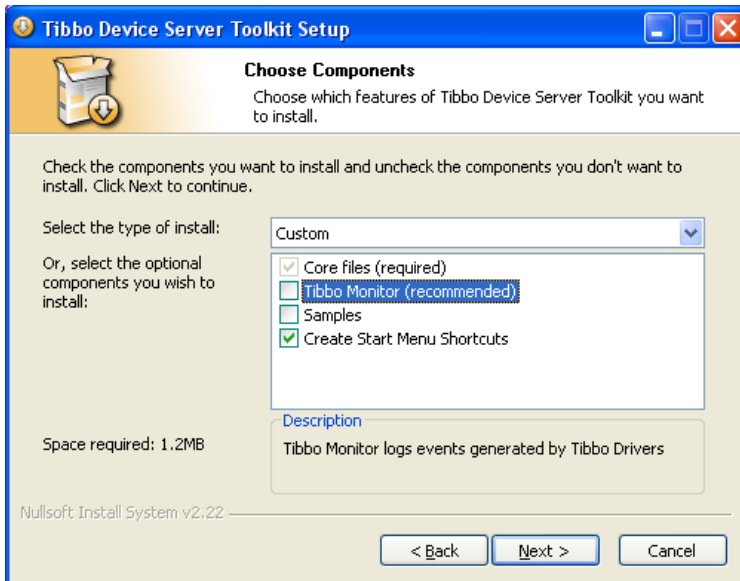
- **Do not** install the 'Connection Wizard', and the 'Virtual Serial Ports'
- Help files are optional



Installing DS in Vista

Run the downloaded application (TDST version 5), accept all defaults except:

- Do not install 'Tibbo Monitor', and the 'Samples'



Device settings in Tibbo

Prepare to use DS Manager to Configure Tibbo Device

DS Manager is used to configure the Tibbo device – All configuration is through the Ethernet port, not the serial connection.

By default SHM ships the device with the Ethernet address of 192.168.127.254/255.255.255.0 (SHM can pre-configure the device if you wish – for this send IP address, Subnet mask, Gateway address).

- PC Ethernet address for configuration - you must connect to the Tibbo with a PC using an Ethernet address in the same subnet address. We suggest the PC address 192.168.127.99/255.255.255.0 is used.
- PC must use a fixed IP address
- Firewalls on the PC can prevent connection – if you have problems you should disable all firewalls on the PC as a temporary measure then try again.
- Cable – either use a crossover Ethernet cable from PC to Tibbo, OR, use a hub between, and 2 normal leads. A more complex network may prevent connectivity.

Running DS Manager

DS Manager searches for devices on the Ethernet, on startup – note the notes above. If it does not see the device, ensure you have status LEDs on the Tibbo, and check Ethernet settings and Firewall on your PC.

DS should show details of all Tibbo devices on the network. Select the appropriate device and click the [Settings] button. The settings are divided into groups, selected by clicking the appropriate "Tab" at the top. The following settings are required to ensure optimum performance when used with SHM Loggers.

Network Tab

The network settings (IP address etc.) are dependant on the network that the Tibbo will plug in to.

Network administrator should supply suitable TCP/IP settings.

IP address – SHM recommends fixed IP address

Data Port – SHM recommends 4001 – contact SHM if you feel you need to change it

Subnet mask – must match the other devices on this segment of the address

Gateway address – necessary only if this device must connect to devices outside this Local Address Network segment

Owner and Device names - You can set them to anything useful, such as "SHM" and "tibbo1". They are shown on the DS Manager, but do not affect the operation of the device.

Connection Tab

The following settings are recommended: -

Connection Timeout	5 minutes
Transport Protocol	TCP

The other settings should all be zero.

Serial Port Tab

The following settings are recommended: -

Serial Interface	Full Duplex
RTC/CTS Flow Control	Disabled
DTR Mode	Idle or Remote
Baud Rate	9600
Parity	Even
Data Bits	7
On-the-fly commands	Enabled

The other settings should all be zero.

Outbound Packets Tab

The following settings are recommended: -

Max Packet length	255
Max interchar delay	5 (ms)
Start on any char	Yes

The other settings should all be zero.

Click [OK] to write settings to the Tibbo.

Click [Save] to save settings to a file.