Winlinx Pro

Thin Client Terminal for Windows NT

Hardware Installation Guide

Document Number : 600010103039 Z00
1st Edition, October' 98
Printed in INDIA

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INTRODUCTION

OVERVIEW

Congratulations!

You have made the right decision of purchasing VXL's Thin Client Winlinx Pro – Terminal for Windows NT™ and UNIX.

The Thin Clients are essentially terminal devices that connect onto multi-user application servers operating under the Citrix MetaFrame™, Citrix WinFrame™ and Windows NT operating system. They communicate with the application server via the ICA 3 protocol developed by Citrix Systems Inc.

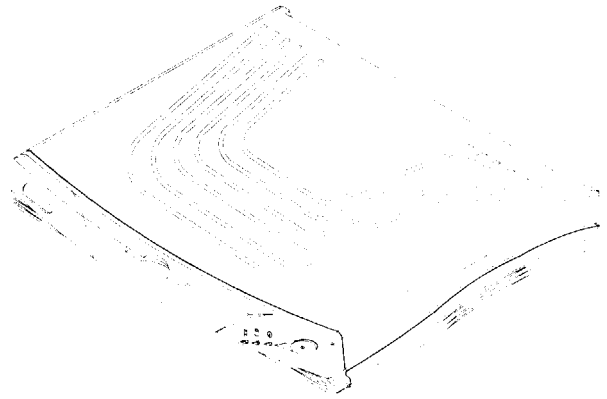


Figure 1 Winlinx Pro Thin Client Terminal

The Winlinx Pro is a smart, sleek, aesthetically and ergonomically designed ultra-thin desktop, providing simultaneous full screen connectivity to Windows NT™ and UNIX application servers – a powerful business alternative to users migration to Win32 application while containing access to legacy UNIX applications.

The Thin Client is equipped with a 10/100Base-T Ethernet port which gives an instant connection to a multi-user Windows NT™ application server. Also provided are serial, parallel, video display ports allowing the quick setup and usage of the client.

FEATURES

The Winlinx Pro Thin Client terminal:

- utilizes an industry standard 200MHz Cyrix MediaGXm MMX high speed processor with 16MB DIMM memory (expandable to 128MB)
- is 100% ICA 3 protocol compliant.
- offers high speed windows performance.
- provides secure access to network resources.
- provides extremely low administration costs.
- supports high resolution up to 1280x1024, 256 colours.
- has a 10/100Base-T Ethernet port.
- has dual high-speed serial ports and a parallel port.
- 16 bit Stereo Line output
- microphone input
- expandable PCI/ISA slots.
- can be directly connected to any server equipped with Microsoft NT Server – TSE, Citrix™ MetaFrame™ Enterprise, Citrix™ MetaFrame™ Terminals, Citrix™ WinFrame™ Enterprise, Citrix™ WinFrame™ Terminals, Insignia™ Solutions NTrigue™, NCD WinCenter Pro, Tektronix™ WinDD™ or any other server supporting the ICA 3™ protocol.

Optional Features[1]

- Composite Video and S-Video outputs
- Integrated Smart Card reader
- External wireless modem connectivity
- 3.5" Hard Disk drive
- Token Ring interface

Note: In an endeavor to provide a better product to you, the customer, our Company pursues continuous development of software and hardware features. As a result the product you received may have features additional to those contained and described within this guide. For the latest information visit our web site at www.vxl.co.uk

[1] Some of the options are mutually exclusive. Only certain combinations of the optional features are possible.

Chapter-2

INSTALLATION

The Thin Client carton would contain:

- Thin Client unit
- Power cord
- Mouse
- Hardware Installation Guide (which you are currently reading)
- Software User's Guide

Note: Trans-shipment should be done in original packing to avoid damage during transit. Please retain the original carton and packaging material for future use.

SITE REQUIREMENTS

- A regulated and earthed 100~240 VAC/5A power outlet.
- A table or desk of suitable size for placing the Thin Client.
- Suitable place for the Thin Client, such that it
  - can be kept nearest to the power outlet, to provide user easy accessibility to the outlet in case of emergencies.
  - is well ventilated with clean, dry and dust free air to maintain proper operating temperature.

PRECAUTIONS & SAFETY REQUIREMENTS

- Always provide minimum space of 4 inches (10cm) around the Thin Client for convection cooling.
- Always switch off the Thin Client before removing or attaching the power cord or cables.
- Ensure that the AC outlet has a **reliable** earth connection. A floating chassis can give a shock to the operator.

WALL MOUNTING

The Thin Client can be mounted on the wall. This provision helps in cabling of the network and better utilization of space. When the unit is to be wall mounted, the rubber bush on the bottom side has to be removed, shown as dotted line in the figure below.

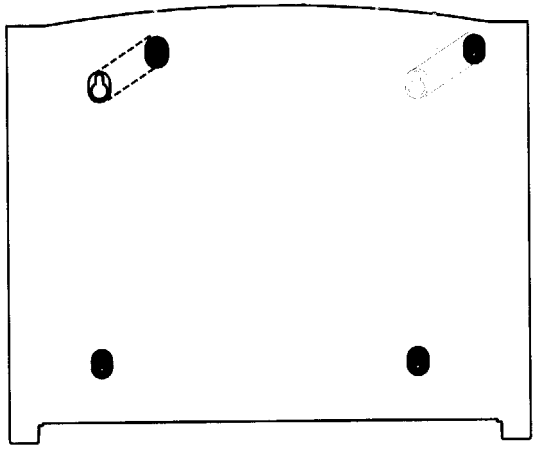


Figure 2 Bottom View of the Thin Client

CONNECTING THE THIN CLIENT

Ensure that the power switch located on the front panel is in OFF position.

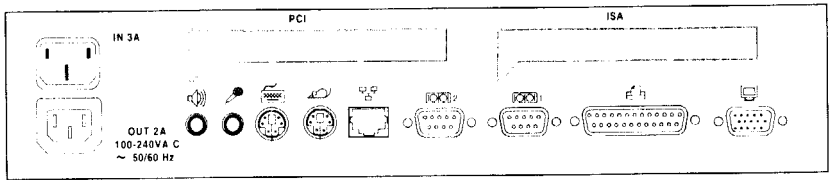


Figure 3 Rear Panel of the Thin Client with 16 Bit Stereo output

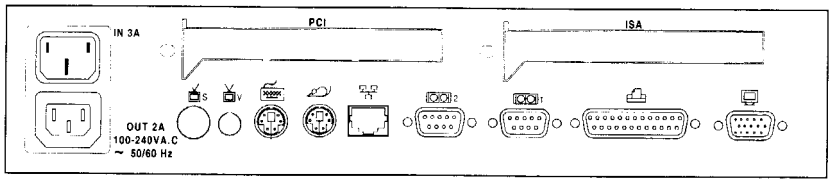


Figure 4 Rear Panel of the Thin Client with TV output (optional)

Rear Panel Overview

The following table gives the connector symbols printed on the back panel and corresponding external cable connection.

Connector Symbol	Connection Cable
IN power socket	AC Power cord
OUT power socket	Monitor Power cord
	Monitor Video
	PS/2 Keyboard
	PS/2 Mouse
	10/100Base-T
 1	Serial COM1
 2	Serial COM2

Connector Symbol	Connection Cable
	Parallel Printer
	16 Bit Stereo line output
	Microphone input
 S	S-Video output (optional)
 V	Composite Video output (optional)

Refer to "Appendix-B, Connectors & Cabling Information" for more details about the connectors and cables.

TYPICAL INSTALLATIONS

The Thin Client communicates with the WinFrame application server using the ICA 3 protocol.

It can be linked to the server by

- LAN connection through TCP/IP
- Direct connection through RS232
- Dial-In remote connection through modem

Note : After proper connection of the Thin Client in any of the network topologies as discussed above, refer to the Thin Client Software User's Guide for the configuration of different options and parameters.

The following section illustrates how to install Thin Client in different network topologies.

- If LAN connection through TCP/IP is desired, connect 10/100BASE-T cable from  network outlet to a hub (Figure 5).

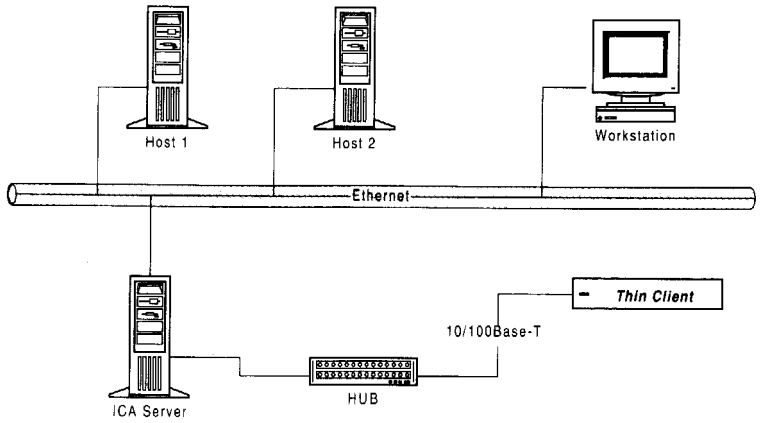


Figure 5 LAN Connection through TCP/IP

- If Direct Connection through RS232 is desired, connect RS232 cross cable from a Thin Client serial port to a Server serial port (See Figure 6).

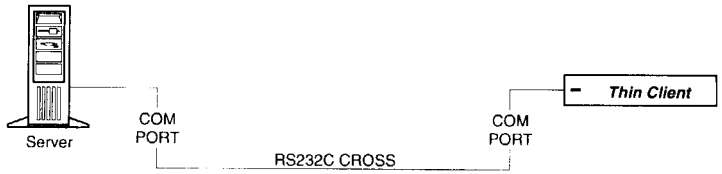


Figure 6 Direct Connection through RS232

- If Dial-In Remote Connection through modem is desired, connect RS232 straight cable from a Thin Client serial port to a supported modem which is in turn connected to a telephone line (See Figure 7).

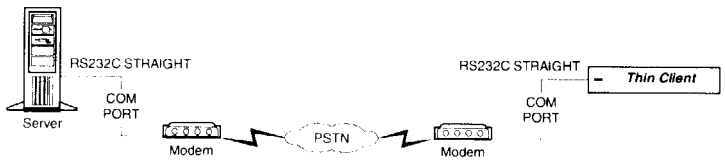


Figure 7 Dial-In Remote Connection through Modem

TROUBLE SHOOTING

The following is a list of general problems and their solutions.

1) When switched on, Power LED does not glow
   - Ensure that the power cord is properly plugged.
   - Ensure that the fuse in the plug, if fitted, is working.
2) Power LED glows but no display
   - Check whether the monitor video cable is properly plugged.
3) Mouse (or Keyboard) is not working
   - Check whether the mouse (or keyboard) connector is properly plugged.
   - Ensure that the keyboard and mouse connectors are not interchanged.

Appendix-A

SPECIFICATIONS

HARDWARE

Processor	Cyrix Media GX MMX 200MHz
VGA Memory	Shared Video Memory upto 2.5MB display RAM
Flash	2MB / 8MB on board flash
RAM	***16MB***, Expandable upto 128MB
Expandability	One ISA and one PCI expansion (½ size card) slot available
Power Management	VESA display power management

ICA 3 or RDP client support

Internal Smart Card reader (optional)

MECHANICAL

Height	70 mm
Width	348 mm
Depth	328 mm
Weight	4.5 Kg (max)

Provision for wall mounting

ENVIRONMENTAL

Operating Temperature	+ 5° C to +40° C
Storage Temperature	- 20° C to +65° C
Humidity	10% to 90% RH non condensing

ELECTRICAL

Line Voltage	100 V to 240 V A.C (+6 , -10 %)
Line Frequency	50 / 60 Hz
Power	58 W max
Power Inlet	3A, 3 pin power socket (IEC 320)
Power Outlet	2A, 3 pin power socket

INTERFACE

COM1/COM2 Serial Ports

- RS232C compatible operating at 115.2K baud maximum

10/100Base-T Port

- LAN interface

Printer Port (Parallel)

- Centronics compatible, 25 pin D-type female

Mouse / Keyboard Port

- PS/2 compatible

Video Port

- SVGA compatible supporting 1024 x 768, 800x600, 640x480 resolutions, 256 colors.

Audio Port

- SB16 compatible stereo sound
- Microphone input

TV Port (optional)

- S-video ouput
- Composite video output

Appendix-B

CONNECTORS & CABLING INFORMATION

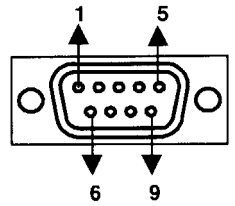
CONNECTORS

The following tables provide pin details for the Thin Client connectors. Refer to the chapter INSTALLATION for the location of the connectors on the back panel.

COM1 / COM2 Ports

9 Pin D-Type Male Connector

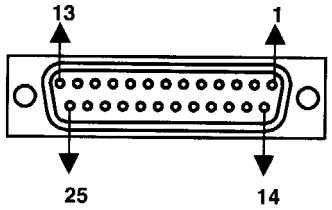
Pin	Signal	Description
1	DCD	Data Carrier Detect
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Data Terminal Ready
5	GND	Signal Ground
6	DSR	Data Set Ready
7	RTS	Request To Send
8	CTS	Clear To Send
9	NC	Not Connected



Printer Port (Parallel)

25 Pin D-type Female connector.

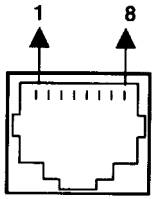
Pin	Signal
1	STROBE
2 - 9	DATA 0 - 7
10	ACKNOWLEDGE
11	BUSY
12	PAPER END
15	ERROR
18 - 25	GROUND



10/100BASE-T LAN Interface

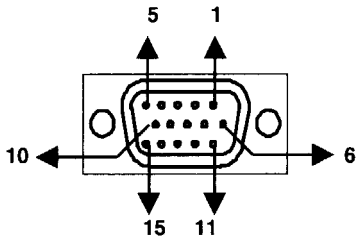
RJ-45 Modular 8 pin jack

Pin	Signal
1	TXD+
2	TXD-
3	RXD+
6	RXD-



Video Port

15 Pin D-type Female Connector



Pin	Signal
1	Red
2	Green
3	Blue
4	No Connection
5	GND

Pin	Signal
6	Red return GND
7	Green return GND
8	Blue return GND
9	No Connection
10	No Connection

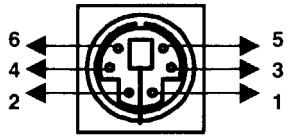
Pin	Signal
11	No Connection
12	No Connection
13	Horizontal Sync
14	Vertical Sync
15	No Connection

Mouse / Keyboard Port

PS/2 Mouse / Keyboard Connector

Pin	Signal
1	Mouse / KBD data
2	NC
3	GND

Pin	Signal
4	VCC
5	Mouse / KBD Clock
6	NC



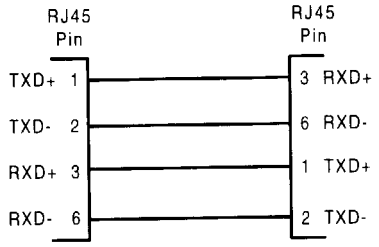
Audio / Microphone Port

Standard Audio jacks.

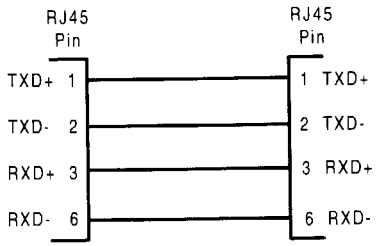
CABLING REQUIREMENTS

10/100BASE-T Cabling

Cross Connection - (Without Hub)



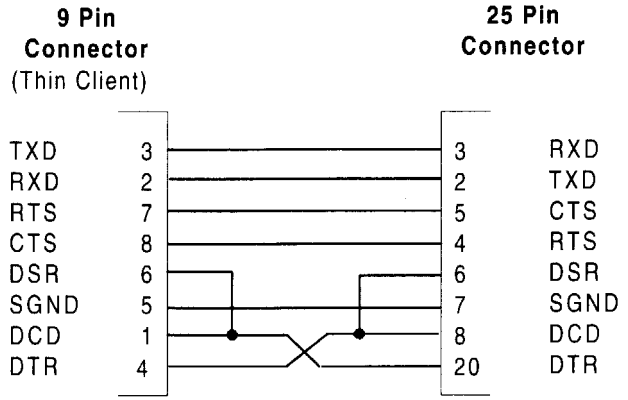
Straight Connection - (With Hub)



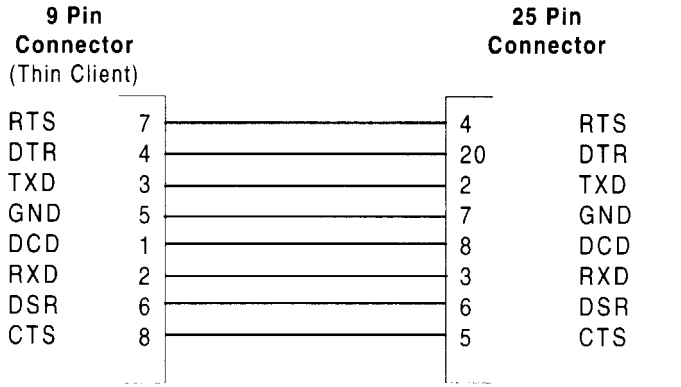
COM1/COM2 (Serial Port) Cabling

Serial devices like modems and printers use 25 pin D-type connector for RS232 connections. In order to connect RS232 device with 25 pin connector, 9 pin connector signals are to be converted to 25 pin connector. The diagram below shows their respective connections.

9 Pin to 25 Pin Cross Connection

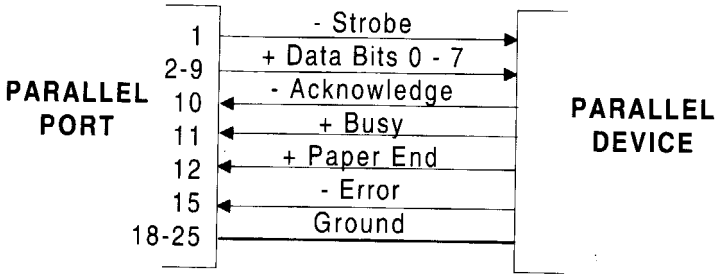


9 Pin to 25 Pin Straight Connection



Printer Cabling

The table below gives the pin connections of the Standard Centronics parallel cable. Since some manufacturers have changed pin functions or polarity on their printers, custom cables may be necessary. Refer to your printer manual for interfacing details.



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