



LM-6488

LM-6488 Thin Twinax Terminal

Installation and Setup Manual



July 2006

Copyright Ringdale, Inc.

Manual part number: 62-34880000

TABLE OF CONTENTS

LM-6488 Personalities	3
Hardware Setup.....	3
Twinax Connector.....	3
Parallel Printer Port.....	3
Mains Power Connector.....	3
Ethernet Port.....	3
Keyboard.....	3
Mouse.....	3
USB.....	3
Monitor.....	3
Serial Port.....	3
Quick Configuration: Twinax Display Session	4
Connection Manager	4
Detailed Configuration: Twinax Display Session.....	5
Twinax Printer Session Configuration	9
Configuration Security	10
Management.....	12
Management Overview	12
Installing eProManager	12
eProManager Main Window	12
Using eProManager.....	12
Ethernet Configuration Options	13
Basic Trouble-Shooting:	14
Technical Support	14

Thank you for choosing this LM-6488 Thin Twinax Terminal from Ringdale.

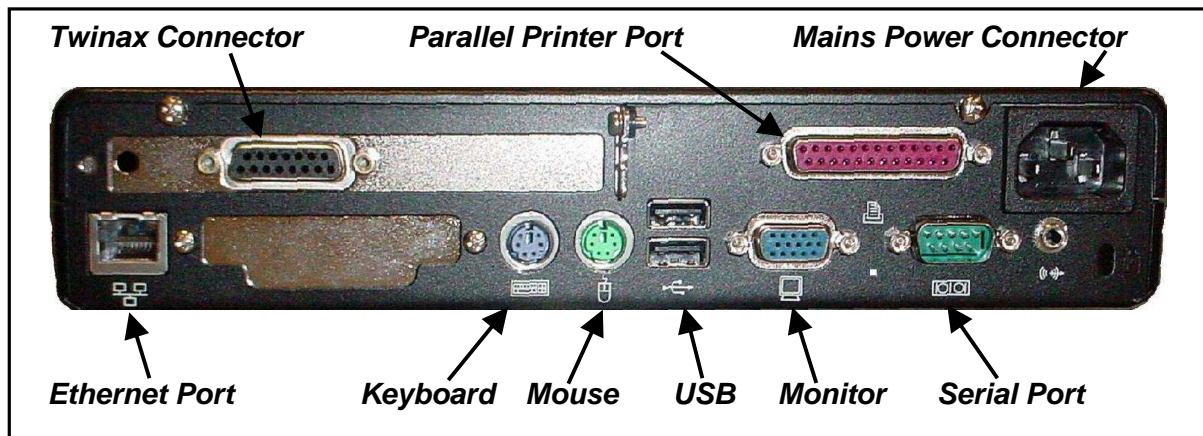
LM-6488 Personalities

The LM-6488 product has two very distinct personalities, as follows:

1. An IBM-compatible Twinax terminal capable of accessing any IBM server that supports Twinax cable connections. (S/3X, AS/36, AS/400, iSeries, etc)
2. A Thin Client / Ethernet Terminal capable of connecting to a multitude of data resources via both Twinax and Ethernet connections, including access to the Internet via Microsoft Internet Explorer.

This document focuses on the installation and configuration of the Twinax Terminal personality as described in (1) above.

Hardware Setup.



1. Connect a Ringdale 122-key keyboard or any PC-style keyboard to the appropriate PS/2 mini-DIN connector on the back of the LM-6488.
2. Connect the supplied black mouse to the appropriate PS/2 mini-DIN connector on the back of the LM-6488.
3. Connect the supplied Twinax T-Connector via the two thumbscrews to the DB15 Female connector on the back of the LM-6488.
4. To one of the Twinax connectors on the T-Connector, attach either a Twinax cable or an N Lynx Gemini twinax balun and appropriate UTP cabling.
5. Attach a monitor to the SVGA connector on the back of the LM-6488.
6. Plug one end of the supplied power cord into the rear of the LM-6488 and the other end into a standard wall outlet. The LM-6488 has an auto-sensing and auto-adjusting power supply that will safely accept 110-250 VAC, 50-60Hz power.
7. Power-on the LM-6488 unit and wait for the terminal desktop to appear.

This completes the hardware installation process; now configure the software.

Quick Configuration: Twinax Display Session

When you power-on the LM-6488 for the very first time, the *WBT Setup Wizard* will appear. Follow and answer the prompts on this wizard and it will never appear again.

Connection Manager



Now click on the **Connection Manager** icon at the top left-hand corner of the desktop of the LM-6488 and this will bring-up the Connection Manager.

From the **Connection Manager** select the “Configure” tab and then click on “Add” at the bottom left-hand corner. From the “New Selections” panel scroll through the options and select “**NLynx Twinax Emulation**” and then click “OK”.

NOTE: DO NOT select “NLynx Telnet Emulation” as this is for connections via Ethernet.

The Twinax “**Configure Connection**” dialog box will now be displayed and it is from here that you can configure the connection (display or printer) to the IBM host, as well as the personality parameters for the twinax terminal.

To quickly test the LM-6488 and the attached twinax cabling for a connection to the IBM host, there are just four simple parameters that you need to initially configure.

1. **Connection Name:** A unique session-identification name that is used to identify the session in the Connection Manager. For this example we have typed in “**Test1**”.
2. **Display or Printer:** Display is the default.
3. **Display Model:** Select from the available choices, or leave as the default of “**3197-C**”.
4. **Host Address:** The unique 0 through 6 twinax cable identifier.

You have now completed the main configuration parameters for the LM-6488. Click “**OK**” at the top right of the Connection Manager screen.

Staying with the “**Connection Manager**”, select the “**Connections**” tab, highlight the name of the session that you have just configured (**Test1**) and click on “**Connect**”.

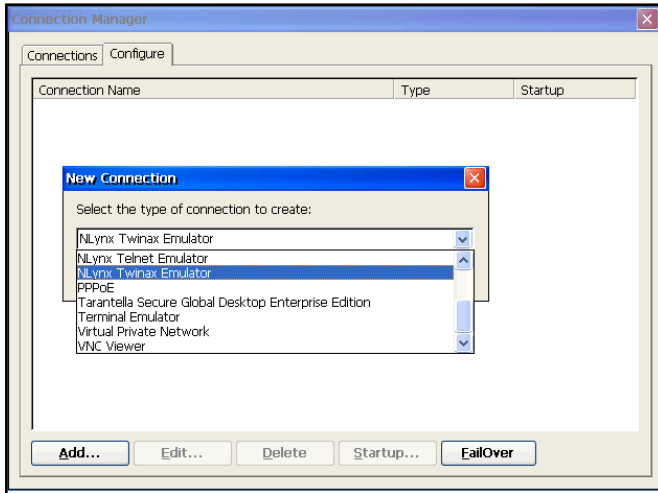
The twinax session screen should momentarily display with a black background and the cursor in the upper-right corner of this session screen.

If the LM-6488 is physically connecting to the IBM host, the cursor will then move to the upper-left corner of the session screen. And if the configuration and cabling parameters are acceptable to the IBM host, the host SignOn screen should appear momentarily.

Congratulations, the LM-6488 configuration process is that simple!

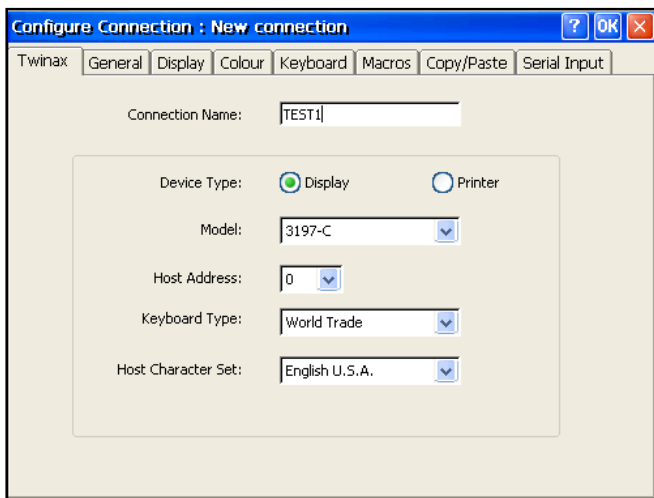
Detailed Configuration: Twinax Display Session

The Connection Manager has two tabs, “**Connections**” and “**Configure**”. You first need to “**Configure**” the display and / or printer sessions before selecting the “**Connections**” tab to activate or deactivate sessions.



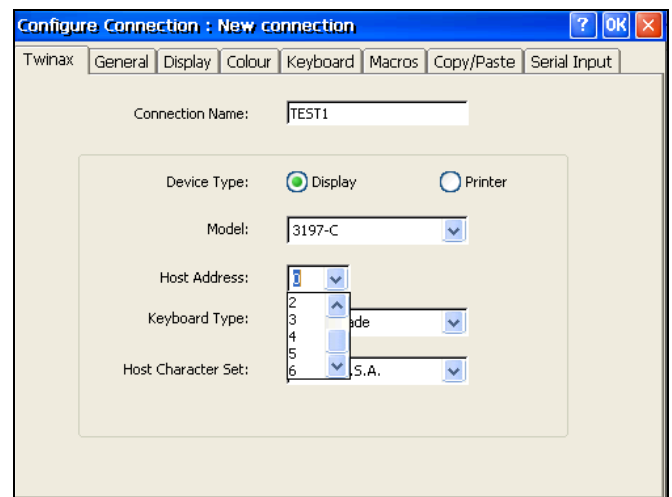
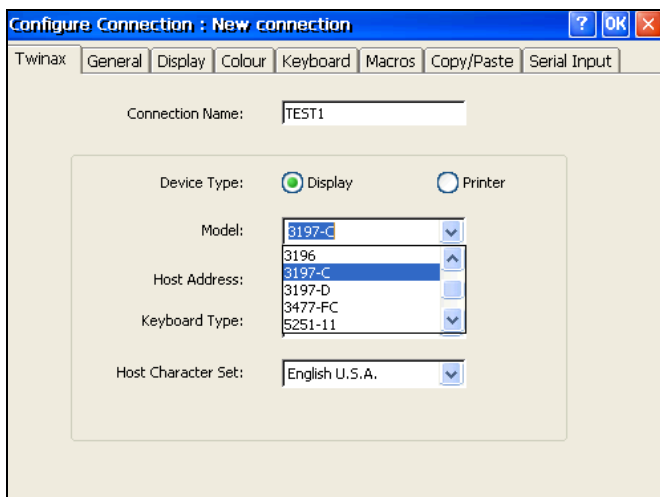
Select “**Configure**”, then “**Add**” and the New Connection menu will appear. Scroll through the various options until you come to the selection “**NLYnx Twinax Emulation**”, highlight it and click on “**OK**” and the “**Configure Connection**” panel will be displayed. The **Configure Connection** panel has several tabs that are used to configure all of the features and options of the Twinax display and printer session. As described earlier, the first task is to configure the Twinax connection from the Twinax tab.

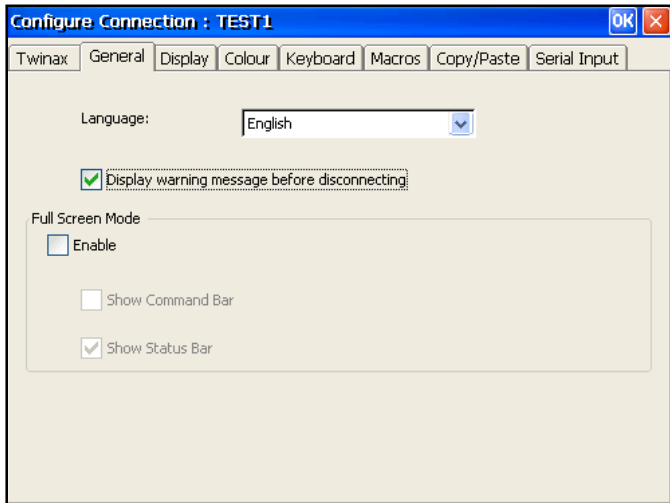
NOTE: at this time **DO NOT** select the “NLYnx Telnet Emulator” as this selection is for configuring an Ethernet (Telnet) connection to an IBM host.



In this example we have used “TEST1” as the connection name. This unique name is used in the Connection Manager to differentiate one session from another. By default, Display and 3197-C are highlighted, although there are many other display emulations to choose from that best suit your IBM host, as listed in the next panel.

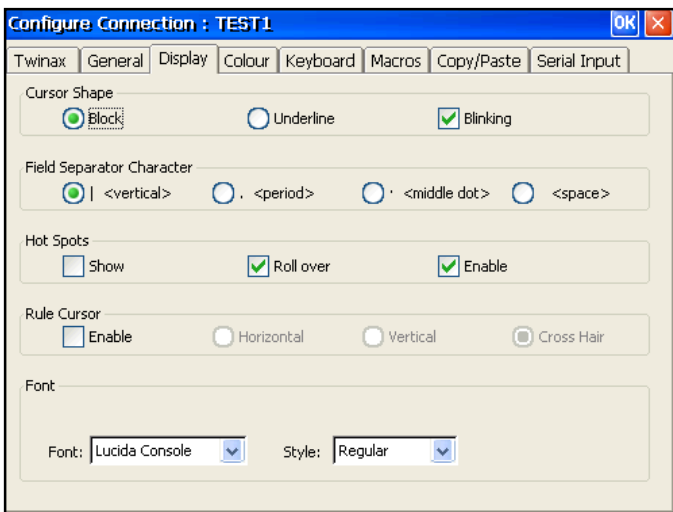
As shown below, you can scroll through the Model options until you find the IBM terminal emulation that best suits your personal preferences or the IBM host application. And it is important to select a unique Host Address (0 through 6) for each of the display and printer sessions that you configure that is not used by any other device on the same Twinax port at the IBM host.





The “**General**” tab is where you select the display language (English is the only selection at present). It is strongly recommended that the selection “**Display warning message**” is enabled, as this ensures that you are asked to confirm each time you select to disconnect a session. If you want the session to be displayed as a full screen (as opposed to tiled or windowed), enable “**Full Screen Mode**”.

This selection will also activate the buttons so that you can select none; one or both **Status** bars to be displayed at the bottom of the twinax session screen.



The “**Display**” tab includes all of the following options:

Cursor: Block, Underline, Blink.

Field Separator: Vertical Line, Period, Middle Dot, Space.

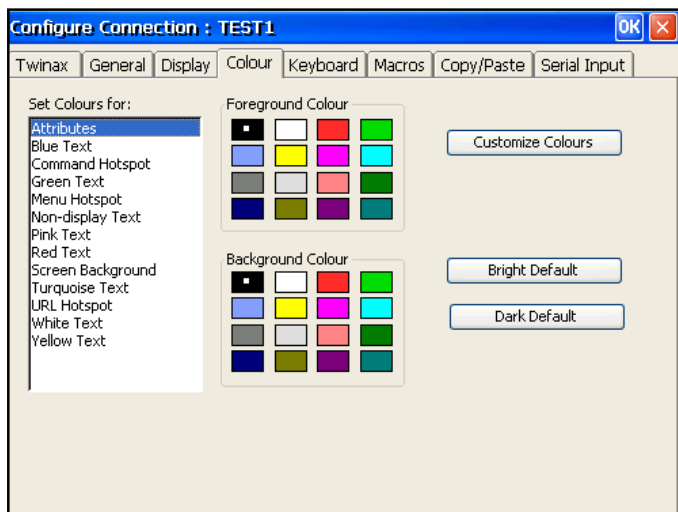
Hot Spots: Show, Roll Over, Enable/Disable

Rule Cursor: Enable/Disable; Horizontal, Vertical, Cross-Hair.

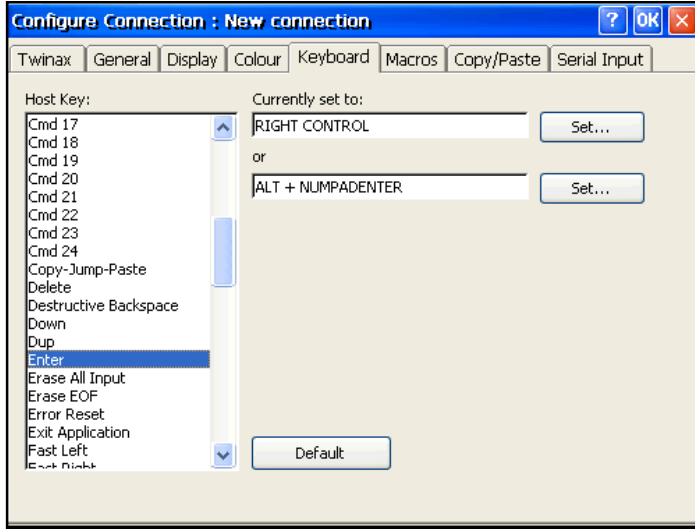
Font Options: Lucinda, Courier New, Host Connect Grafix.

Style: Regular, Bold, Italic, Bold Italic

You can select or deselect your preferences by clicking on the appropriate buttons.

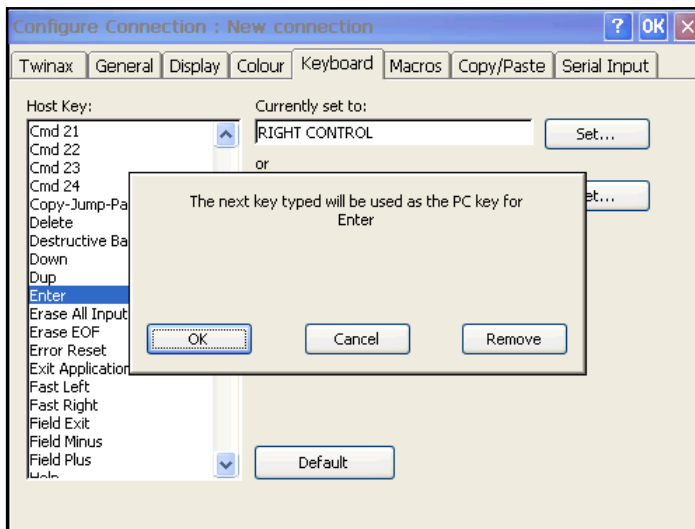


If a color monitor is attached to the LM-6488, you can use the features under the “**Color**” tab to customize the presentation of data, background and foreground colors. This utility is self-explanatory and the “**Default**” button is an ideal way to reset the colors back to the factory defaults after experimenting with the various combinations.



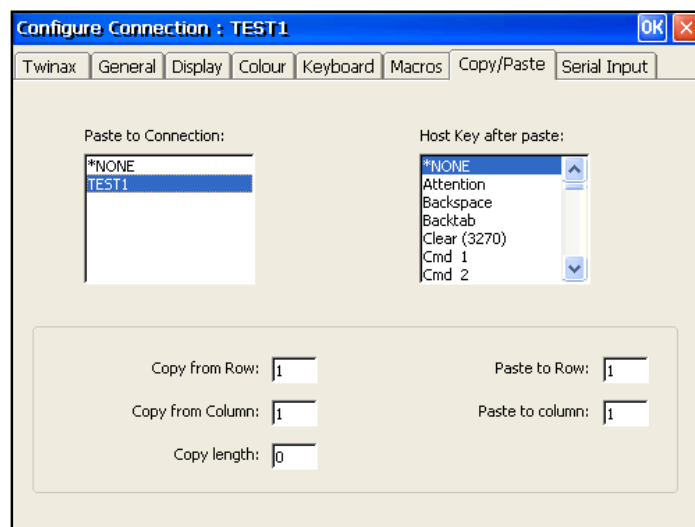
The “**Keyboard**” tab allows you to review and reconfigure the position of most **Host Key** functions on your keyboard. A comprehensive list of the various Host Keys is available and you can use the scroll buttons to review the complete list in alphabetical order.

When you place the cursor over a certain Host Key (“**Enter**” for example), the current settings for that function are displayed (RIGHT CONTROL, or ALT+NUM PAD ENTER, for example). If you want to modify either of the settings for any of the available Host Keys, click on “**Set**” alongside the ALT+NUMPADENTER field and a new pop-up screen will appear, see the example below.

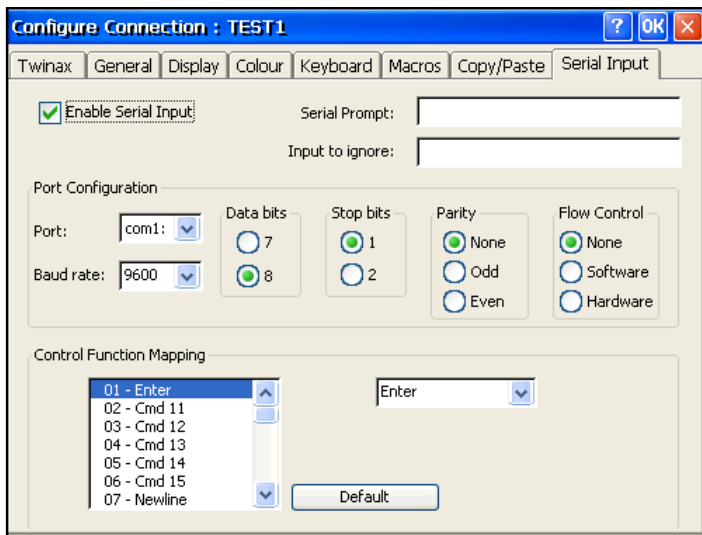


This pop-up will advise you that the very next key you type will be used as the new alternate key for “**Enter**”. You will be warned if your chosen key has already been assigned to a Host Key function, at which time you can either **Cancel** or **OK** your selection.

This utility will also advise you of any unused key or key combinations that you may want to consider using. The “**Default**” button is always a useful safety net when experimenting with this feature.



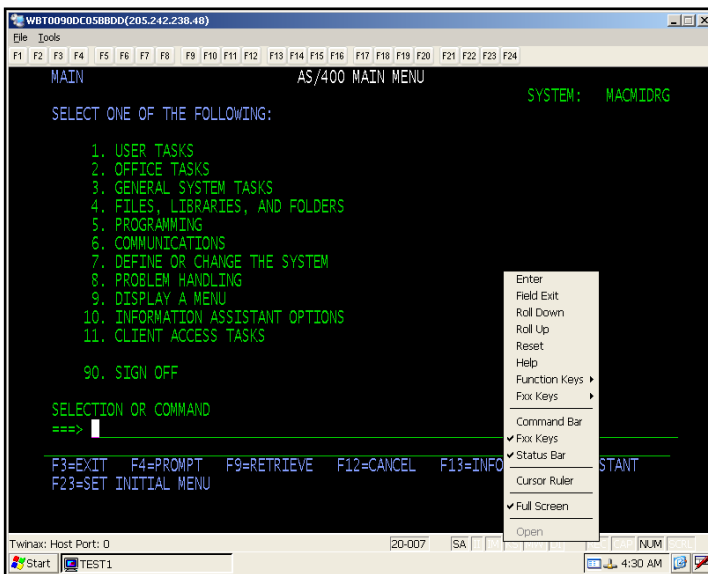
The **Macros** tab enables the recording of repetitive information (today’s date, company address; virtually any repetitive key sequence) and replaying them upon demand. The **Copy/Paste** feature includes all the options to allow you to define the row/column position of data in one session for copying and pasting automatically into that same or a different session, including the number of characters to be copied. This can be used to copy the account number from one session (an IBM AS/400 for example) into another session (a Unix VT-220), without having to retype each time. You can even configure a Host Key to be executed after the paste (an Enter, or F12, for example).



The LM-6488 terminal includes both a parallel port and a serial port. The parallel port supports directly-attached printers via a parallel printer cable, see the Printer section for more details.

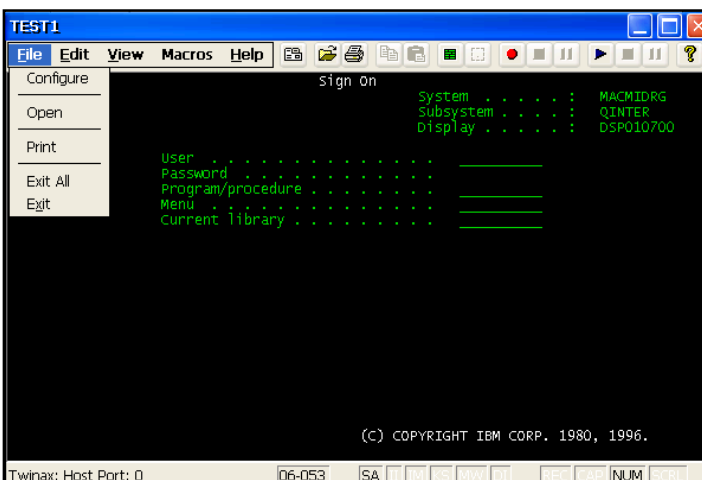
The **Serial Input** tab is where you enable and configure the parameters of the serial port to exactly match the attached serial input device, refer to the configuration options in this panel.

The Serial port can be used to support either output devices (printers, cash drawers, etc.) or input devices such as serial scanners, keyboards, weigh scales, etc.



The LM-6488 has a feature that provides some very useful productivity tools. When you are in a twinax session, you can right-click your mouse button, or use the key sequence “**Alt+V**” from your keyboard, and a pop-up menu as shown to the left will appear. You can then navigate and select accordingly any one of the available options via the mouse or cursor keys. Any of the following host keys can be selected in this way:

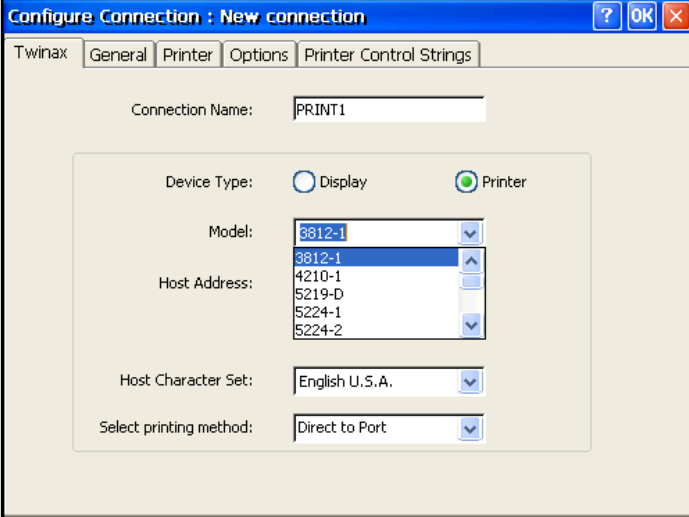
Enter	Reset
Field Exit	Help
Roll Down	Function Keys
Roll Up	Fxx Keys
Cursor Rule	Full Screen presentation
Command Bar	Tiled presentation
F Keypad	Status Bar



When you are in a Twinax session, it is also possible to check the configuration options, or change certain options of the session by clicking on the “**File**” button at the top left corner of the session screen. A drop-down panel will appear and when you select “**Configure**” the “**Configure Connection**” master panel appears for that session.

You can then browse the session’s settings or change those that do not affect the host connection. The crucial on-line settings are grayed-out to prevent you from inadvertently losing your IBM host session.

Twinax Printer Session Configuration

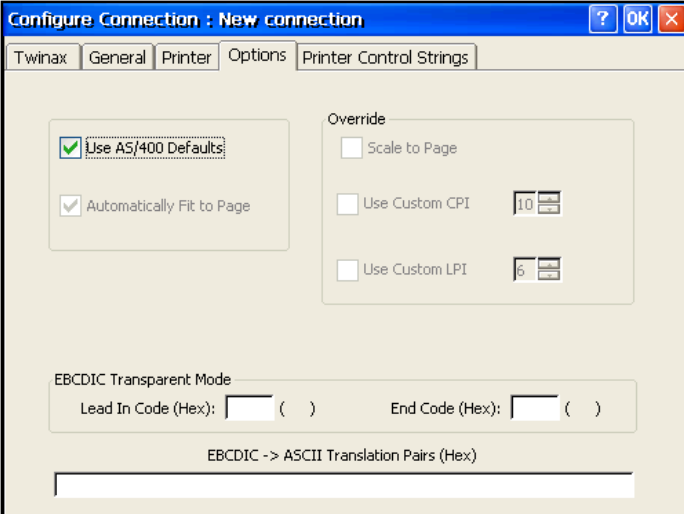


To configure a twinax printer session, follow the initial configuration steps as discussed earlier in this document (**Connection Manager, - Configure, - Add, - N Lynx Twinax Emulator**) and then at the “**Twinax**” tab type in a Connection Name for the printer (PRINT1 for example), click on the “**Printer**” button and then select the appropriate printer emulation from the available supported printer emulations, as follows:

3812-01	5224-1, -2
4210-01	5225-1, -2, -3, -4
5219-D	5226-1, -2, -3

Select a unique **IBM Host Address**, remembering that the IBM Twinax line supports seven station addresses (from 0 to 6) and if you duplicate an address that another device is already using, you will not be able to connect to the IBM host and you may even bring the whole Twinax line down. Select the appropriate “**Host Character Set**” and “**Printing Method**” (Direct to Printer Port is default).

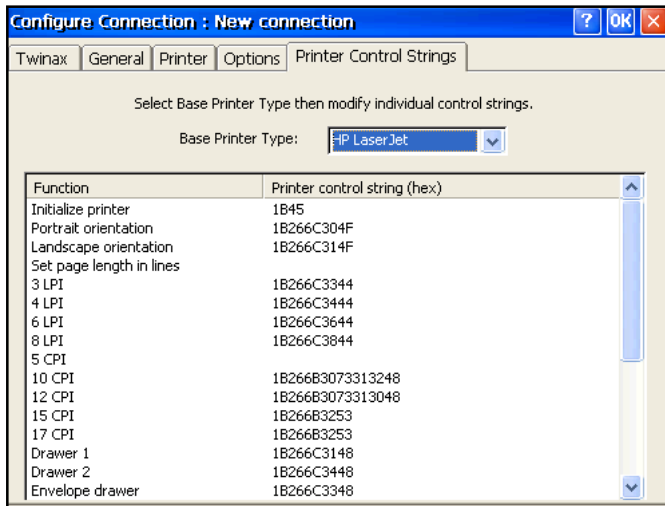
The “**General**” and “**Printer**” tabs are self-explanatory so we will move on to the “**Options**” tab:



From the “**Options**” tab you can elect to use the AS/400 printer setup defaults, or deselect “**Defaults**” and custom configure the CPI, LPI and Page Scaling options.

From this tab you can also configure “**EBCDIC Transparent Mode**” and “**EBCDIC to ASCII Translation Pairs**”.

Since these two options are dependant upon how the printer application is configured at the IBM Twinax host, you will need to refer to your appropriate IBM administrator for advice and guidance on the relevance of these options to your terminal.



The last printer configuration tab is “**Printer Control Strings**” where you can select from one of four printer types:

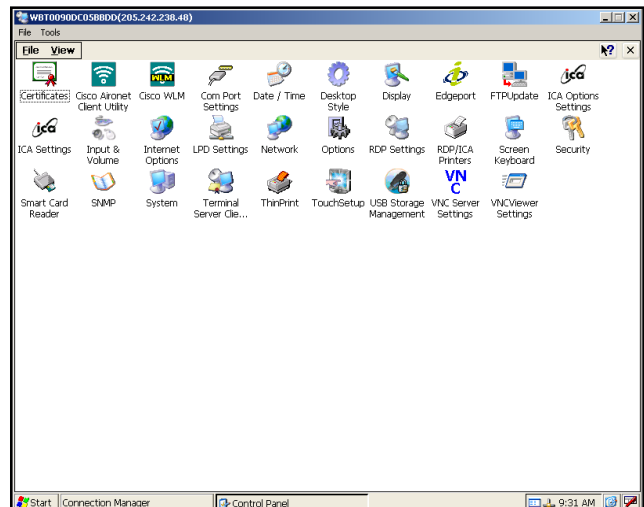
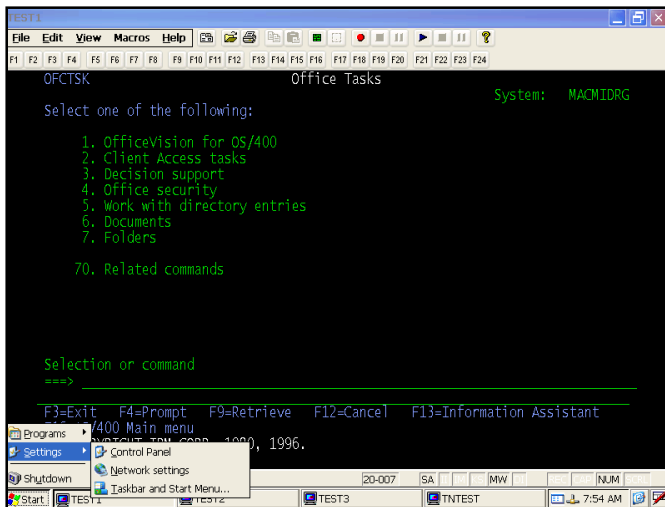
1. HP LaserJet
2. Generic Text
3. IBM ProPrinter
4. Epson

Please refer to Ringdale Technical Support for more details on Printer Control Strings, or visit www.ringdale.com/support, and then select “Knowledge Base”.

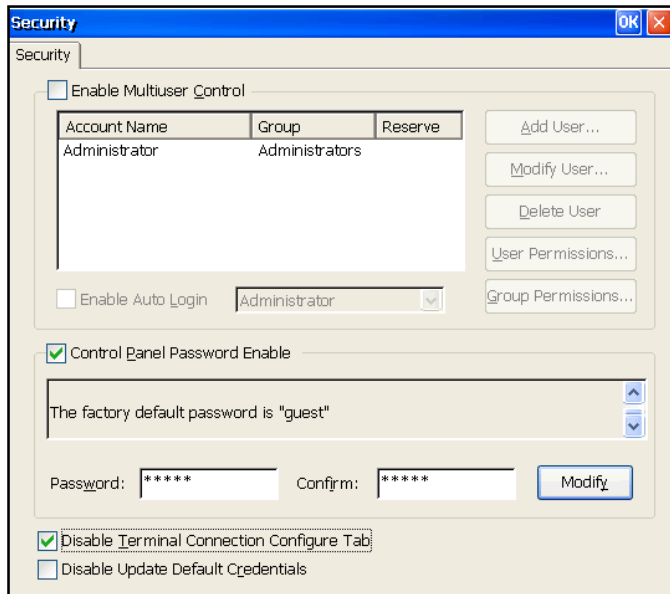
Configuration Security

In environments where there is a need to restrict access to some or all of the configuration parameters and features of the LM-6488, there is an optional password feature that can be used to protect these settings. The password can be enabled for accessing and changing all of the setup parameters of the terminal and you can also disable Internet Explorer, essentially locking-down all setup parameters and preventing access to the Internet. The security capabilities are set-up from the Control Panel.

Click on the “**Start**” button at the bottom-left corner of the screen. Select “**Settings**” and “**Control Panel**”. From the Control Panel, double-click on the “**Security**” icon (two keys) and the “**Security**” panel will be displayed.



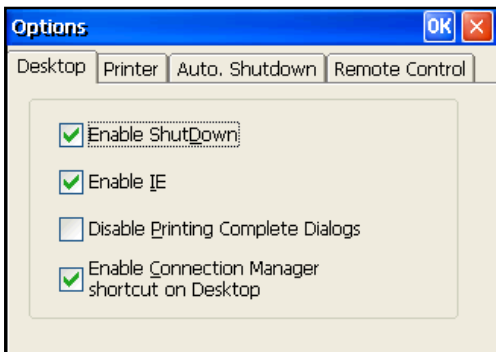
CAUTION: Please be advised that it is important that any changes made to the default password of “**guest**” be noted somewhere safe. Once the password has been enabled or changed, the only way to get back into either the Control Panel or Connection Manager to add, modify or delete sessions and connections is via this password.



To password-protect the settings of the LM-6488, from this **Security** panel enable “**Control Panel Password Enable**” which will make all access to the Control Panel via a password.

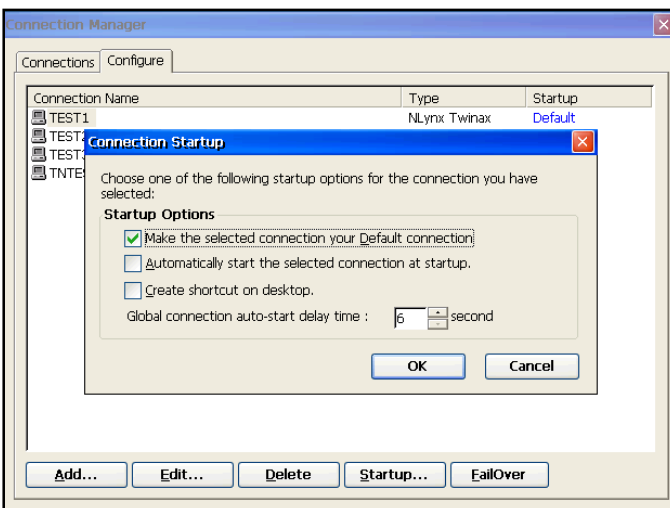
Also enable the “**Disable Terminal Connection Configure Tab**”, which will remove the “**Configure**” tab from the Connection Manager, preventing both the modifying of existing sessions and the adding of new sessions and connections.

At this time, you can also “**Modify**” the default password simply by following the on-screen prompts, remembering to make a careful note of the new password. And while you are still in the Control Panel, you may want to also consider disabling Internet Explorer and the Connection Manager icon, as follows:



From the Control Panel, click on “**Options**” (the icon that looks like a gear) and this panel and its default settings will be displayed. If you want to prevent the user from accessing the Internet, you can disable IE (Internet Explorer) and you can even remove the “**Connection Manager**” icon from the desktop.

IMPORTANT: If you are going to remove the Connection Manager from the desktop, you must first ensure that you have configured each and every session to automatically start when the LM-6488 is powered-on, as follows:



From the “**Configure**” tab of the Connection Manager, highlight a session name (by the mouse, or the cursor keys) and then click on “**Startup...**” at the bottom of the screen and the panel to the left will appear.

By selecting “**Automatically start the selected connection at startup**”, the highlighted session(s) will indeed start automatically each time you power-on the LM-6488.

Management

The ability to remotely manage, configure and reconfigure a network of IBM-compatible Twinax Terminals is a very powerful concept and is unique to the LM-6488 Twinax Terminal.

Management Overview

LM-6488 terminals can be remotely managed across an Ethernet network by eProManager, a copy of which is included with the enclosed CD. eProManager can manage and control an infinite number of LM-6488 terminals (and other N Lynx Thin Clients) from a single centralized computer. It can be implemented in your system in a matter of minutes through a quick and easy installation process. With the help of eProManager, Administrators have a multitude of possibilities when it comes to managing a network of LM-6488 terminals: organizing devices by name, department, or even by room number. Additional tools such as code updates and scheduling allow Administrators to update device software and settings at any time of the day.

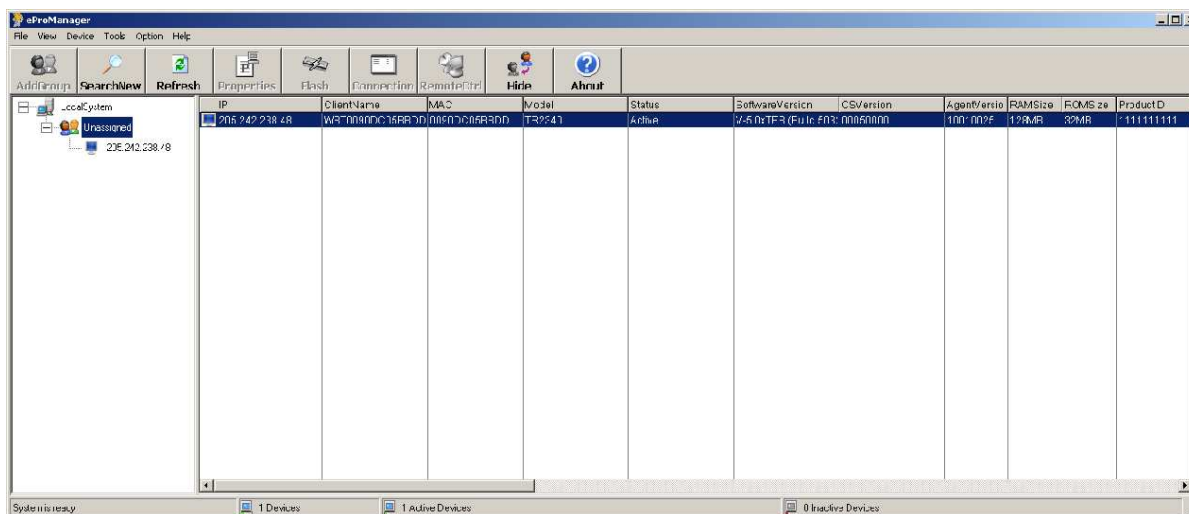
The only requirement is that each LM-6488 needs to be attached to an Ethernet network.

Installing eProManager

1. Insert the eProManager software CD into the CD ROM drive.
2. Click on **My Computer** and select the CD ROM drive.
3. Locate the install program (eProManagerV1.xx.exe) in the root directory of the CD and double click to run it.
4. Follow the installation instructions provided in each window.
5. Choose **Typical** when asked which type of installation method to choose.
6. Click finish when the last window appears to complete the installation process.

After you have completed installing eProManager, the link to run the manager program can be found from the **Start** menu under **Programs > eProManager**.

eProManager Main Window



Using eProManager

Please reference the file "ManagingyourWBTs.htm" on the eProManager CD for detailed information on how to use eProManager.

Ethernet Configuration Options

If you need assistance on configuring the Ethernet capability and functionality of the LM-6488, please contact Ringdale Technical Support.

Basic Trouble-Shooting:

Symptom	Possible Solution
Cursor remains in the upper-right corner of the session and then just stays there, no sign-on screen.	<p>This normally means that there is no physical connection to the IBM host. Check that all wiring connections are secure and snug. Check for bad connections or broken wires in the Twinax or UTP cabling.</p> <p>If UTP cabling is used, check that the two baluns are a matching pair relative polarity and twisted pairs used.</p>
Cursor moves to the upper left corner of the session and then just stays there, no sign-on screen.	<p>This usually means that the LM-6488 is talking to the IBM host at a base level, but there is something wrong in the configuration parameters. Check that the Host Address you used (0 through 6) is unique and that it is not a duplicate used on another device attached to the IBM Host. Check with your AS/400 administrator to determine the status of this session at the IBM host.</p>
Please reference the Ringdale Knowledge Base for additional help topics	<p>www.ringdale.com/support, and then select "Knowledge Base".</p>

NOTE:

Please do not reset the LM-6488 back to factory defaults or you will lose the Twinax configurator. If for whatever reason, somebody resets the unit to factory defaults, please note the following recovery procedure:

- Start-up Internet Explorer.
- At the address line, type in **hard disk** (this is two words) and hit enter.
- Several file names will now appear, just double-click on "**NLConfig**".
- This should then display a dialog box "**Error - No command line**", just click **OK** and this action will set-up the twinax configurator again.
- Now reboot the LM-6488, go to the Connection Manager, select the "**Configure**" tab and then click on "**Add**" at the bottom left-hand corner. From the "**New Selections**" panel scroll through the options and the selection "**NLynx Twinax Emulation**" should be there. You are now good to go again.

Technical Support

If you need to contact Ringdale Technical Support, please contact us at www.Ringdale.com/support or call 1-888-288-9080.

Ringdale Inc
101 Halmar Cove
Georgetown, Texas 78628
USA

Freephone: 888 288 9080
Tel: +1 512 288 9080
Fax: +1 512 288 7210

Ringdale Ltd
56 Victoria Road
Burgess Hill
West Sussex
RH15 9LR
United Kingdom

Freephone: 0800 214503
Tel: +44 (0) 1444 871349
Fax: +44 (0) 1444 870228

Ringdale GmbH
Fabrikstationsstraße 43 A
D-68163 Mannheim
Germany

Freephone: 0800-825-1880
Tel: +49 (0) 621 7186-0
Fax: +49 (0) 621 7186-20

Website: <http://www.ringdale.com>