ES/Server

ES/Server Adapter Card
and
Gateway Software

Quick Install Guide

This guide describes how to configure the ES/Server adapter card and install it in your PC. It also describes how to install the ES/Server software.

Complete Midrange Solutions

P/N 402-9602-01 ***Rev. C***

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Chapter 1
INTRODUCTION

ES/Server is a hardware/software package that connects your PC to IBM Midrange computers and provides sharing of a single physical connection allowing up to 28 users over either a Token Ring or Ethernet LAN. The ES/Server uses a twinax connection to the host through a Gateway Server PC.

The hardware component is the ES/Server adapter, which plugs into an ISA expansion slot in the back of your PC. The ES/Server adapter supports standard twinax cable connections through an on-board D-connector and T-connector, both included in this package.

The software portion of ES/Server is the gateway program. The software is included on the enclosed disks.

This Quick Install Guide describes:

- how to configure the ES/Server adapter
- how to install it on your PC
- how to install the ES/Server software

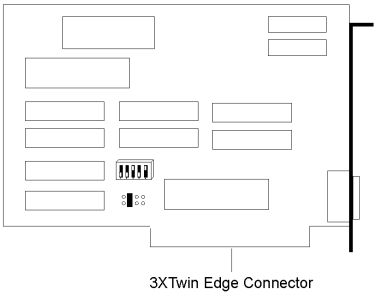


Figure 1-1: The ES/Server Adapter

ES/Server Features

- Supports 7 sessions using 7 addresses
- 9 display station models and 13 printer models from which to choose to emulate
- Communicates with IBM S/36, S/38, Advanced Series 36, and AS/400
- Configurable I/O address setting using on-board DIP switch
- **Memory segments and IRQs are not needed.**

PC Requirements (minimum)

Gateway Server

- IBM PC (or compatible) with 486, or Pentium processor
- Windows 95/98/NT
- One floppy disk drive
- One ISA expansion slot
- LAN adapter (for Client connections)
- Minimum of 4 Mb of memory (8 Mb recommended)

ES/Server Technical Specifications

Power Requirements..... +5 @ volts
Emulation ..... Twinax
Signal Strength..... 5000 feet
I/O Addresses ..... 200X-3E0X hex

Chapter 2

INSTALLING THE ES/SERVER ADAPTER

There are 3 steps to successfully installing the ES/Server adapter card when used together with the ES/Server software from NLynx Systems:

- Verify the I/O address on the ES/Server adapter card (and change it, if necessary)
- Install the ES/Server adapter card in your PC
- Attach the Pigtail and twinax cables to the ES/Server adapter card

Each of the above steps is described below.

> **NOTE:** Adapter cards are extremely sensitive to static electric charges. Be sure to discharge static electricity from your body by touching a grounded surface before handling an adapter.

Verifying the I/O Address

I/O addresses identify the signals that pass between an adapter card and it's supporting software. The I/O addresses for adapters that use them must be unique. That is, the I/O address for the ES/Server adapter card cannot be the same as the I/O address for another adapter. The ES/Server adapter card is preset to I/O address 340.

To verify an I/O address for other adapter cards, consult the documentation accompanying those adapter cards. If you cannot determine the addresses, keep the ES/Server adapter card at the default address of 340. If you find that another adapter does conflict, change the I/O address on the ES/Server adapter card.

Changing I/O Addresses

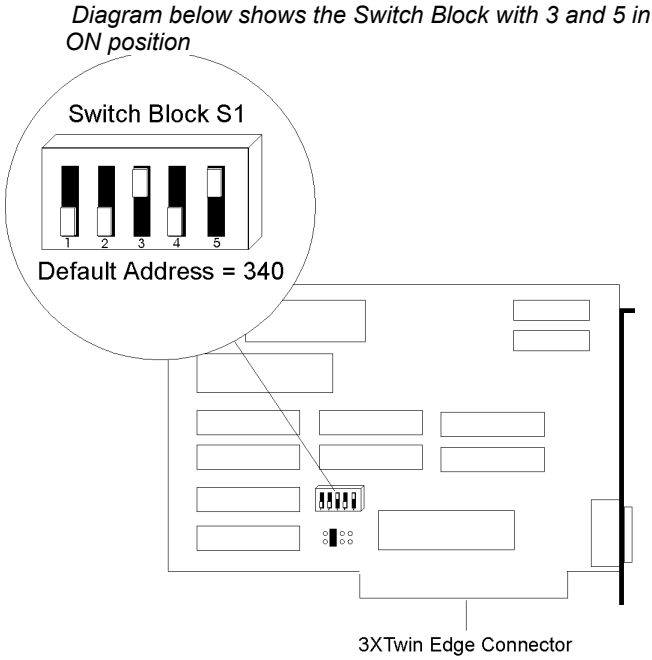
On the ES/Server adapter card, I/O addresses are set with five switches on switch block S1 (Figure 2-2). The five switches correspond to binary digits as shown in Table 2-1.

To change the I/O address:

1. Locate the I/O switch on the adapter (see Figure 2-2).
2. Select a new I/O address from the table of I/O addresses.

3. Reset the switches to match the new I/O address.

Figure 2-2: The ES/Server I/O Address Switch Block



NOTE: Adapter cards are extremely sensitive to static electric charges. Be sure to discharge static electricity from your body by touching a grounded surface before handling an adapter.

The ES/Server software must be set to the same base I/O address as the adapter card. Record any changed base I/O addresses when you configure the ES/Server software (Chapter 3).

Table 2-1

Sample Base I/O Address Settings

I/O Address	Switches 12345	
200	01111	
220	01110	
240	01101	
260	01100	
280	01011	
2A0	01010	
2C0	01001	
2E0	01000	
300	00111	
320	00110	
340	00101	**DEFAULT I/O Address**
360	00100	
380	00011	
3A0	00010	
3C0	00001	
3E0	00000	

Note that for the switch settings, 0=off and 1=on.

Installing the Adapter

Once you have verified the I/O address you are ready to install the adapter card, as described below.

1. Switch off all computer system components, unplug the computer, and remove the computer cover.
2. Work in a static-free area and touch the computer chassis often to equalize static charges.
3. Insert the ES/Server adapter card into a free expansion slot. The 15-pin D-connector should protrude through the rear of the PC chassis.
4. Align the adapter and retaining bracket and tighten the screws to the retaining bracket.

5. Replace the cover on the PC.
6. Connect the T-connector and twinax cables to the adapter, as described below.

Connecting the Pigtail and Twinax Cables

The following instructions assume that a twinax cable has been cabled-through from the previous terminal on the line or directly from a port on the host system.

In order to attach your PC to the host, you need 2 cables: an existing host twinax cable and the self-terminating pigtail cable included in your ES/Server package.

The pigtail cable has two ends: the 15-pin end, called the D-connector, which connects to the adapter card, and the dual-branch end, called the T-connector, which connects to the host twinax cable.

1. Plug the 15-pin D-connector securely into the back of the ES/Server adapter card.

   To ensure proper grounding, fasten the D-connector's mounting screws, making certain the connector is firmly attached to the ES/Server adapter card.

2. Attach the host twinax cable to either of the T-connector branches.

   If you are cabled-through to another terminal farther down the line, attach that next terminal to the remaining T-connector branch.

Since this is a self-terminating pigtail cable, you do not need a cap for the open end of the T-connector.

> **NOTE:** If you are installing multiple ES/Server adapter cards, repeat steps 1 and 2 for each adapter installed.

3. Power on the PC and its peripheral devices.

Chapter 3

INSTALLING THE ES/SERVER SOFTWARE

The ES/Server installer program will install the software it needs.

To install software:

1. After installing the ES/Server adapter card(s) into the PC, insert the ES/Server Setup disk into the floppy disk drive.
2. Under Start, select RUN. If a:\setup.exe is not listed, click the BROWSE button and select “Setup.exe”.
3. Click OK. This will start the setup program. Follow the screens.
4. After the “Setup Succeeded” message appears, click OK.
5. Double-click on the DISPLAY EMULATOR icon.
6. It is recommended at this time to click NO to the question of “Do you want to specify the password now?” You can assign an administrative password later.
7. When the message of “There are no device drivers installed...” appears, click OK to install the ES/Server drivers.
8. Insert the Driver disk into floppy drive. Select Add Driver.
9. In the field of disk drivers, it should be A:\drivers.tvi. Click OK; if not, click the Browse button and select “Drivers.tvi”.
10. Select “3xTwin Adapter Driver” and click OK, then follow the screens.
11. For Win 95 and 98 users only: Click OK to the message of “Unable to find board’s virtual device driver." It will find and load it when the PC is rebooted.
12. Verify that the IRQ is set to “none”, which is the default.
13. If you changed the I/O address on the card, then you need to change it here. 340 is the default value. Click OK.
14. You must configure at least one display session at this time.
15. Type in a display name. We use DSP00, for example. However, this can be any name you choose.
16. Select the device type (display or printer), model type, host address (0-6) and keyboard type. “Allow Remote Connection” is not selectable at this time. This will become selectable after reboot. Click OK.
17. If you are installing only one twinax adapter, the when the message of “To complete this operation you must restart Windows" appears, click OK. Remove the diskette before rebooting. If you have additional adapters to install, then click Cancel, and go to the next step.

18. In the New Connection Method dialog box, highlight “3xtwin Adapter Driver”, and then click on Add Card.
19. Change the I/O address to match the dip switch settings for the next adapter. Remember that I/O addresses must be unique for each adapter.
20. Repeat steps 17-19 for the remaining adapters.
21. When finished, restart windows.

Configuration of Devices:

1. After the PC restarts, go to Start, Programs, ES32, and Display Emulation.
2. Under File, select Configure.
3. Highlight 3xTwin Board: 3xTwin0. If you have more than one adapter installed, you must configure sessions for each card one-by-one.
4. Click on New Device.
5. Type in a display name. This can be any name you choose.
6. Select the device type (display or printer), model type, host address (0-6) and keyboard type.
7. Be sure to select “Allow remote connections” so the ES/Client PCs will have access to the session. Click OK.
8. When the message of “Do you want to open this configuration now?” appears, select NO. If you want to check the connection, then select YES.
9. Repeat step 4-9 until all devices are configured.
10. When done, click Close in the Configure Connection Methods and Devices window.
11. Before you install the software for the ES/Clients, check the connections for ALL of the sessions configured on the ES/Server PC.
12. Go to File>Open Display for the first session, then Session>Connect. If a sign-on screen does not appear, then recheck your configurations on both the PC and the host system.
13. To check the other sessions, go to File>Open Another Display, then Session>Connect, until all session connections have been confirmed on the ES/Server PC.
14. You must close each session by going to Session>Disconnect for each session, then File>Exit All. Exit ES32.
15. If you choose to run an emulation session from the ES/Server PC, that session will not be available to the ES/Clients.

Starting the ES/Server

1. Select Start, Programs, ES32, and ES/Server. This will start the server.
2. Before the remote PC can connect, the ES/Server **MUST BE RUNNING** and stay running.
3. Under Server, select Protocol. Write down the Protocol Type you will be using and the information in the Address field. This will be needed to configure the client PC. Click OK.
4. You may want to have the ES/Server automatically start on boot up. Putting the ES/Server program in your Startup folder can do this.

Chapter 4

SALES and TECHNICAL SUPPORT

NLynx Limited
4th Floor, The Grafton's
Stamford New Road
Altrincham, Cheshire
Great Britain WA14 1DQ
Tel: +44 (0) 161 928 7014
Fax: +44 (0) 161 928 7015
http://www.nlynx.co.uk

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