TECHNICAL NOTE # 210A

Subject: **Monitoring INTREPID or MICRONET over a LAN**
RE: **Lantronix UDS-10**
Date: **January 25, 2001**

Southwest Microwave has confirmed the communication and operation of the INTREPID and MICRONET systems from a Windows NT 4.0 workstation over a NT Base Network running on TCP/IP with the Lantronix Model UDS-10 Device Server. Contact Lantronix at (949) 453-3990 or by fax at (949) 453 3995 or at www.lantronix.com for compatibility to your network, programming and purchase of the UDS-10 Device Server.

Your network administrator will be responsible for programming of the UDS-10 Device Server, assigning the IP address, and installing the Lantronix Comm Port Redirector software on the workstation(s). The network administrator may also be responsible for installing the INTREPID or MICRONET software on the workstation(s).

The INTREPID or MICRONET's NIM or Adapter serial port is connected to a Lantronix Model UDS-10 Device Server. This device converts the INTREPID or MICRONET serial data into network format and establishes a network port with an IP address. The monitoring workstation(s) is loaded with Lantronix Comm Port Redirector software. The Comm Port Redirector intercepts INTREPID or MICRONET software communications to the PC's specified COM port and redirects it to the PC's network port and over the network to the UDS-10. The UDS-10 reconverts it to serial data. This enables the PC to connect to the INTREPID or MICRONET system over the network just as if the system were connected directly to one of the PC's physical ports. Note that only one workstation may be connected to the UDS-10 at any time. If additional workstations need to communicate to the system, additional UDS-10 Device Servers will be required.

With this configuration any workstation(s) loaded with the Lantronix Comm Port Redirector software and INTREPID or MICRONET software would be able to communicate to INTREPID or MICRONET system(s) over the network.
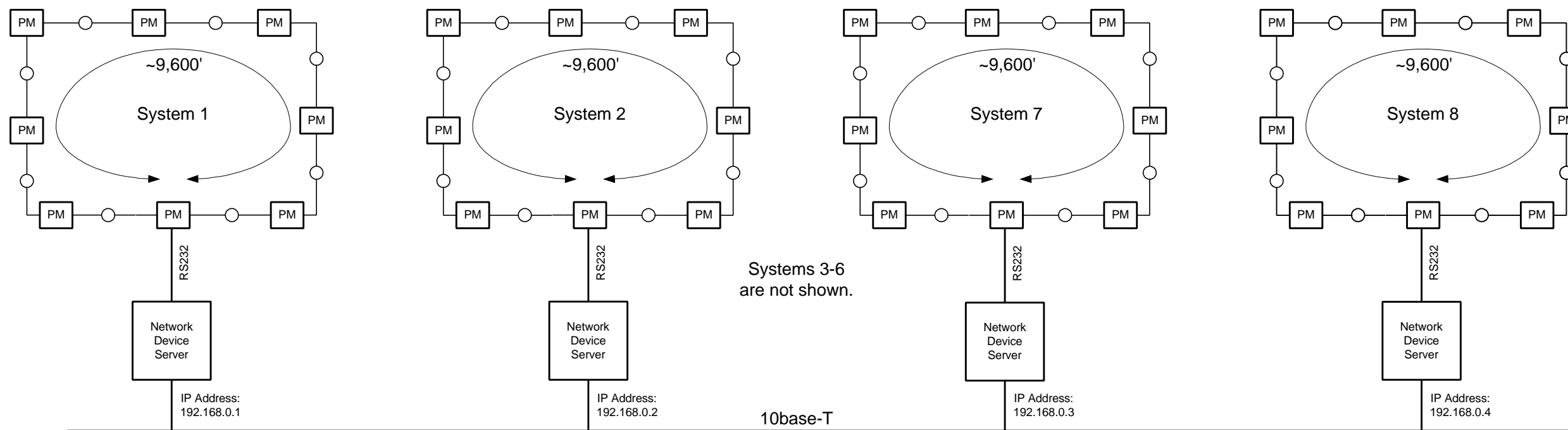
Before configuring the workstation(s), the Lantronics UDS-10 must be programmed and an IP address assigned. You will not be able to communicate to the INTREPID or MICRONET system until your LAN system can find the UDS-10 module.

In order to communicate with your INTREPID/MICRONET system over the LAN, the Lantronix Comm Port Redirector application and INTREPID or MICRONET software must be installed on the workstation(s). Because each PC is configured differently, your PC may need additional configuration or the network administrator may have to load the software. The Comm Port Redirector intercepts communications to specified COM ports and sends them over an IP network connection to the USD-10's serial port. This enables the PC to use the UDS-10's serial port as if it were one of the PC's COM ports.

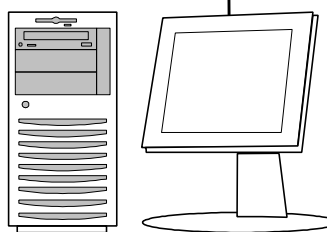Follow these steps to load and configure the Comm Port Redirector application (Windows NT 4.0 workstation):

1. Install the Redirector software. The software and installation instructions are included on the distribution CD.
2. Once installed launch the Redirectors configuration program (Start>Programs>Lantronix Redirector>Configuration).
3. You will need to configure a communication port that is not currently being used on your machine (typically number 3 to 12). To select a port click on the Com Setup button and select the port you would like to use.
4. In the Port Configuration Redirect box make sure that the same port is selected. If it is not click on Com Setup and select the correct port.
5. Click on the ADD IP button.
6. In the Host box, type the IP address supplied by your network administrator.
7. In the TCP Port box, type the port setting assigned to the UDS-10 Device Server.
8. Click on OK and then on SAVE to accept the parameters.

Now that the software has been loaded and configured you should be able to open any of the INTREPID or MICRONET monitoring programs, change the connection port to match the redirect port and connect to the system through the UDS-10. The connection from the UDS-10 to the INTREPID/MICRONET system is the same as shown for the computer connection in Figure 14:21 of the Installation and Operations Manual.

System 1 — ~9,600'
System 2 — ~9,600'
System 7 — ~9,600'
System 8 — ~9,600'

Systems 3-6 are not shown.

RS232

Network Device Server

IP Address: 192.168.0.1
IP Address: 192.168.0.2
IP Address: 192.168.0.3
IP Address: 192.168.0.4

10base-T

Personal Computer with Network Interface Card, Properly Configured Port Redirector Software, and Multi-Map Monitor Software

Communication Port Redirection is a function of the Lantronix Port Redirector software. Proper software configuration is crucial for correct operation. Please refer to the Lantronix Manual for Port Redirection configuration questions.

PORT REDIRECT TABLE - EXAMPLE ONLY

COM PORT #	IP ADDRESS
SOFTWARE COM3	192.168.0.1
SOFTWARE COM4	192.168.0.2
SOFTWARE COM5	192.168.0.3
SOFTWARE COM6	192.168.0.4

NOTES:

1) Network Device Server is Lantronix model UDS-10 (Operating Temperature 5 to 50°C (41 to 122°F)).

2) IP addresses are user selectable. Addresses above are examples only. Actual IP Addresses will need to be determined by customers IS department.

3) All Lantronix device programming/troubleshooting to be preformed by customers IS department. Southwest Microwave is not responsible for configuration or troubleshooting of LAN devices.

4) A limit of eight (8) Intrepid systems my be monitored by a single, properly equipped, PC over a network.

5) Each Lantronix Device Server may be accessed by only one PC at a time.

6) The standards for RS232 limit the line length to 50-feet (15m) or less over copper wire. If the application requires, RS422 may be used as the interface protocol between the Lantronix UDS-10 and the Intrepid System (additional equipment may be required for RS422 communication, contact the factory for information).