Advanced Tracker Technologies Inc
Configuring Clocks

Overview
This document is intended to show how to configure the communication settings for the Control Module (CMI) 2016 clock and the Recognition Systems Hand Punch (RSI) clock.

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Operations

CMI Serial / Comport

CMI clocks don't care what comport they are on, this setting is only important in the ATG application. Go into ATG Setup, select the clock in the drop down and click Edit. You will be able to change the com port of the clock. If you are not sure of the com port address to use, try them all one after another until you see green and blue bars on the right.

CMI Ethernet

The clocks need to know their IP Address and will need a static IP Address. Open the clock see you can see the LINC module. Find a switch that says Offline / Online, put the switch in Offline mode. This will change the display of the clock. Use the down arrow until you see Utilities. Press 'E'. Use the down arrow again until you see Ethernet Utilities, hit 'E' again. You can now configure the IP Address. Once set, hit 'E' and set the Terminal Port to 3001. The remainder of the prompts do not concern us so keep hitting 'E' until you are back to the setup mode screen.

Next you will need to update the ATG software. Go into the ATG Setup mode, select the clock in the drop down and click Edit. Change the IP Address here and set the port to 3001. Click save.

RSI Serial / Comport

RSI clocks don't care what comport they are on, this setting is only important in the ATG application. Go into ATG Setup, select the clock in the drop down and click Edit. You will be able to change the com port of the clock. If you are not sure of the com port address to use, try them all one after another until you see green and blue bars on the right.

RSI Ethernet

RSI Clocks will use a Lantronix device, we will need to change the IP Address on the Lantronix device. To do this, see the document called **Lantronix.doc** (Also included at the end of this document)

Next you will need to update the ATG software. Go into the ATG Setup mode, select the clock in the drop down and click Edit. Change the IP Address here and set the port to 3001. Click save.

Required Parts List

1 – Lantronix UDS-10 Serial Bridge
1 – Power supply for Lantronix Bridge
1 – DB-25 Male to RJ 45 Female adapter
1 - RJ-45 interconnect cable (between Clock and DB-25 adapter)
2 – (minimum) RJ45 ends (if needed to make an Ethernet cable)

Setup Instructions

1. Select location for clock and for Lantronix UDS-10. (In certain environments it may be desirable to have Lantronix UDS-10 hidden from view. This can be done by insertion in a switch box or above a drop ceiling.)
2. Connect DB-25 adapter to Lantronix UDS-10 and screw down connections.
3. Plug power supply into wall and connect to Lantronix UDS-10.
4. Connect ethernet interconnect cable (using cable supplied or one made up on-site if longer length required) from the Printer port on the rear of the clock to the RJ-45 plug on the adapter noted in step #2.
5. Connect unit to LAN by inserting ethernet cable into **10BASE-T** plug on the Lantronix UDS-10

Installation Instructions

1. Obtain the address to be assigned to the device from the user. (If the user is uncertain as to which address will be permanently assigned, PING an address, or addresses within the Scope until you obtain one that is unused. Once obtained use this as a temporary address to complete setup.)
2. Obtain MAC Address from LANTRONIX UDS-10. Usually located on bar-coded sticker on the bottom of the device.
3. Select a computer on the customer LAN. Initiate a Command Prompt.
4. You will need to confirm or build an ARP (Address Resolution Protocol) table. To do so complete the following:

a) Ping the IP address of another computer on the LAN. This will ensure there is at least one entry in the ARP table.

b) At the Command Prompt type in the following command to display the ARP table: arp –a

5. At the Command Prompt type the following command to ARP an IP address to the UDS-10.

arp –s ###.###.###.### 00-20-4a-xx-xx-xx
###.###.###.### being the IP address to be assigned

6. From the Command Prompt (or the RUN command) open a Telnet connection to port 1. This connection will fail quickly, but the UDS-10 will temporarily change its IP address to the one designated by this step.

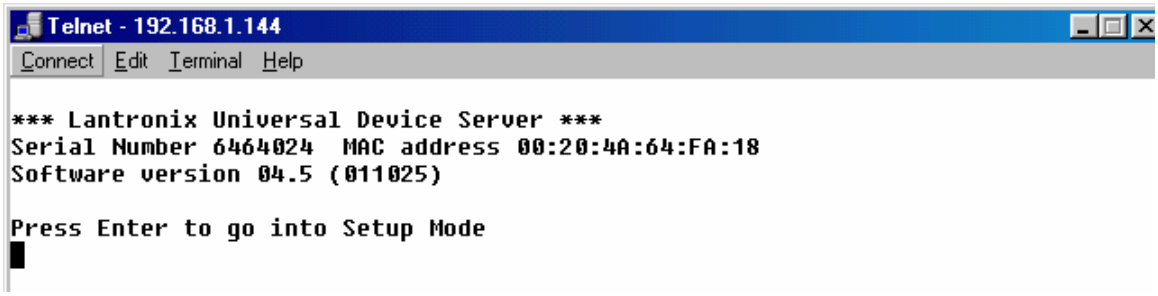
telnet ###.###.###.### 1
###.###.### being the IP address assigned to the UDS-10 with the ARP

7. From the Command Prompt (or the RUN command) open a Telnet connection to port 9999 and set all required parameters.

telnet ###.###.###.### 9999
###.###.### being the IP address assigned to the UDS-10 with the ARP command noted above.

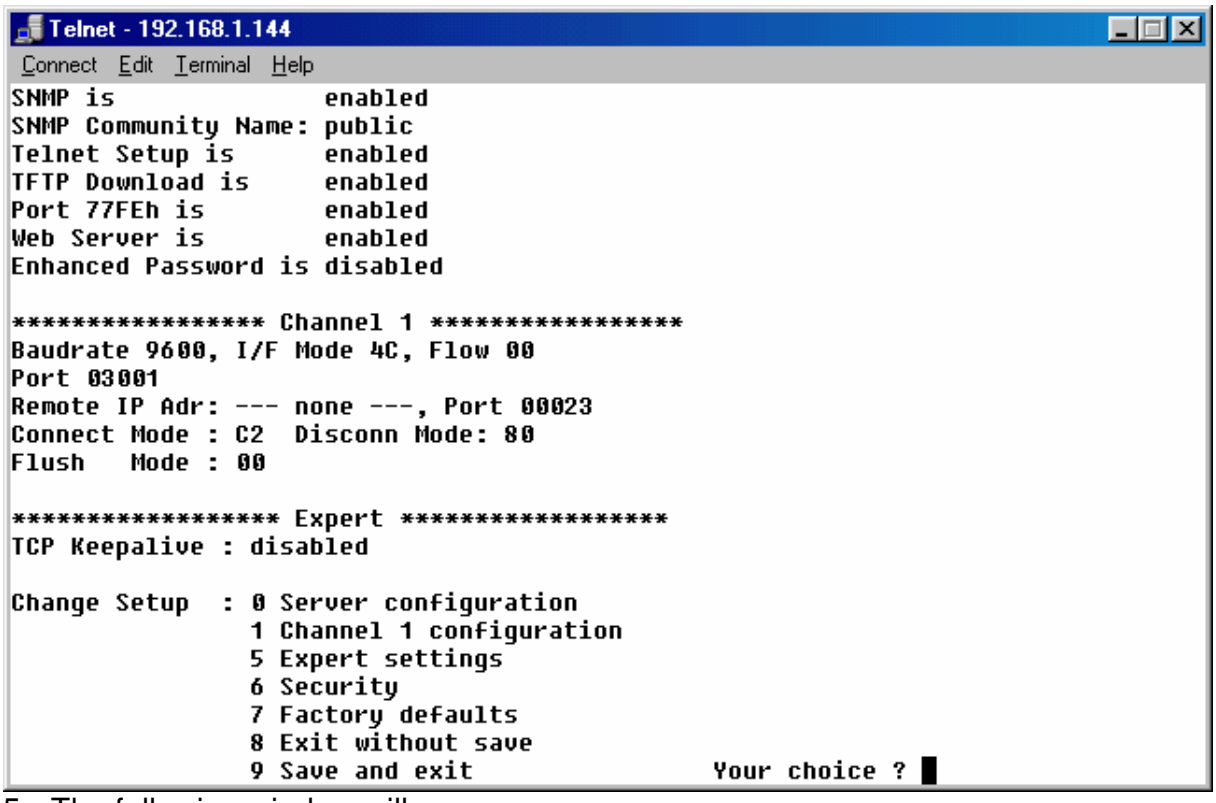
Connecting to RSI Clocks

1. Connect Ethernet cable from UDS-10 to **"Printer or Host PC"** port on the RSI Clock
2. Ensure that the RSI clock is set up for RS-232 connectivity and set to **"Host"**. See Configure the HandPunch on page 8.



3. Open the Telnet connection to the clock as noted in step 7 above. The following window will open.

4. Press Enter.



5. The following window will open:

CHANNEL 1 CONFIGURATION

Set the listed options as follows (the values already set will appear next to the option header, if the values to be set are the same as those already set, just press ENTER):

a) **Baud Rate:** 9600
b) **I/F Mode:** 4C (RS-232c, 8 bit, 1 Stop bit)
c) **Flow Control:** 00 (No flow control)
d) **Port No:** 03001
e) **ConnectMode:** C2 (Accept unconditional, with active DTR)
f) **Remote IP Address:** ###.###.###.### (being the IP address of the UDS-10 as noted above)
(At this prompt press Enter – (000) will appear enter the first octet. Press enter. A second (000) will appear. Enter the next octet. Press enter and input subsequent octets entering after each.)
g) **Remote Port:** 00023
h) **DisConnMode:** 80 (Disconnect with DTR drop)
i) **FlushMode:** 00 (Input & Output Buffer [Serial to Network], Alternate Packing Algorithm)
j) **DisConnTime:** 00:00
k) **SendChar 1:** 00
l) **SendChar 2:** 00

CHANNEL 0 CONFIGURATION

Set the listed options as follows:

m) **IP Address:** ###.###.###.### (being the IP address of the UDS-10 as noted above)
(At this prompt press Enter - The program will display the address it currently has on record one octet per Enter. To change the IP address enter each new octet after the system displays the current entry.)
n) **Set Gateway IP Address:** N
o) **Netmask:** Press Enter
p) **Change telnet config password:** N

6. On completion you will be returned to the default menu. Press 9 – "**Save and exit"**

NOTE:

Once the IP address has been set using the ARP command to port 9999 the settings can also be changed utilizing a graphical display through Internet Explorer by typing in the IP address of the UDS-10 in the Web browser's URL (Universal Resource Location) field.

Configure the HandPunch

HP3000 (new style)

Configure the HandPunch unit to communicate via the serial port at 9600 baud:

1. At the ENTER ID prompt, press CLEAR and ENTER together.
2. Enter a supervisor badge # and press ENTER. Scan the supervisor's hand.
3. At the PASSWORD prompt, press 2 and press ENTER.
4. Press *NO until the SET SERIAL prompt appears.
5. At the SET SERIAL prompt, press #YES.
6. At the SET RS-485/422? prompt, press #YES.
7. At the 9600 BAUD prompt, press #YES.
8. At the SET RS232 prompt, press #YES.
9. At the 9600 BAUD prompt, press #YES.
10. At the USE RS232 FOR prompt, press 1.
11. At the SET SERIAL prompt, press CLEAR to go back to normal data collection mode.