



# **ISY994 Series Advanced Configuration Guide**

## Table of Contents

<b>1.</b>	<b>ADMINISTRATIVE COMMUNICATIONS WITH ISY .....</b>	<b>4</b>
1.1.	ACCESSING ISY SHELL THROUGH WINDOWS COM PORT.....	5
1.1.1.	<i>Hardware Setup</i> .....	5
1.1.2.	<i>HyperTerminal Setup</i> .....	5
1.2.	ACCESSING ISY THROUGH TELNET.....	9
1.2.1.	<i>Finding the ISY's current IP address in My Network Places</i> .....	9
1.2.2.	<i>Finding the ISY's current IP address in HypterTerminal</i> .....	10
1.2.3.	<i>Starting an ISY Telnet Session</i> .....	11
<b>2.</b>	<b>ISY SHELL (COMMAND INTERPRETER) .....</b>	<b>12</b>
2.1.	CT – CONFIGURE TCP/IP.....	13
2.1.1.	<i>Assigning Static IP Address</i> .....	13
2.1.2.	<i>Requesting for DHCP Assigned IP Address</i> .....	13
2.2.	CL – CONFIGURE MAXIMUM LOG SIZE.....	13
2.3.	LS – LIST ALL FILES & DIRECTORIES .....	13
2.4.	SU – SHOW EXTERNAL URL.....	13
2.5.	SM – SHOW MEMORY UTILIZATION .....	14
2.6.	ST – SHOW SYSTEM TIME .....	14
2.7.	ET – ENABLE TELNET ACCESS.....	14
2.8.	DT – DISABLE TELNET ACCESS .....	14
2.9.	EI – ENABLE INTERNET ACCESS.....	14
2.10.	DI – DISABLE INTERNET ACCESS .....	14
2.11.	XS – EXIT THE SHELL .....	14
2.12.	RS – REBOOT THE SYSTEM .....	14
2.13.	RL – RESET LOGIN CREDENTIALS.....	15
2.14.	FR – FACTORY RESET .....	15
2.15.	MN – MENU.....	15
2.16.	VE – DISPLAY VERSION.....	15

## Table of Figures

FIGURE 1 – HYPERTERMINAL DIALOG .....	5
FIGURE 2 – HYPERTERMINAL CONNECT TO DIALOG .....	6
FIGURE 3 – HYPERTERMINAL COMMUNICATION PROPERTIES DIALOG .....	7
FIGURE 4 – HYPERTERMINAL SESSION.....	8
FIGURE 5 – ISY IN MY NETWORK PLACES .....	9
FIGURE 6 – ISY HYPERTERMINAL SHELL .....	10
FIGURE 7 – STARTING AN ISY TELNET SESSION .....	11
FIGURE 8 – ISY SHELL .....	12

## 1. Administrative Communications with ISY

ISY comes equipped with a minimal but sophisticated shell through which administrative functions as well as configurations may be performed. The shell commands complement those of the GUI by adding security sensitive functions which are not supported by the GUI (such as hot-reboot, factory reset, etc.).

**Note:** To log into the shell, you will need to enter the initial Username and Passwords which are **admin** and **admin** respectively.

The shell can be accessed in one of the following two methods:

1. COM Port using Windows HyperTerminal
2. Telnet

**Note:** Telnet is enabled by default. To disable telnet access, you will need to access the ISY shell through either telnet or HyperTerminal and issue the telnet disablement command.

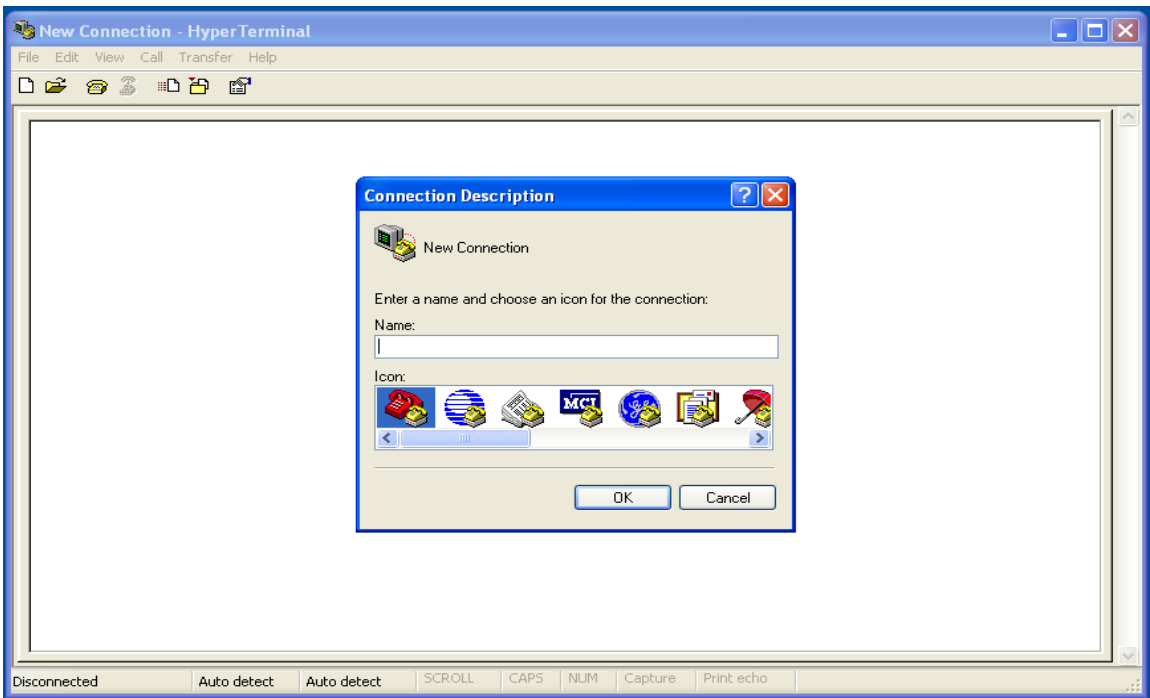
## 1.1. Accessing ISY Shell through Windows COM Port

### 1.1.1. Hardware Setup

Use the provided DB9 cable to connect one of the COM Ports on your computer to **Port B** on the ISY.

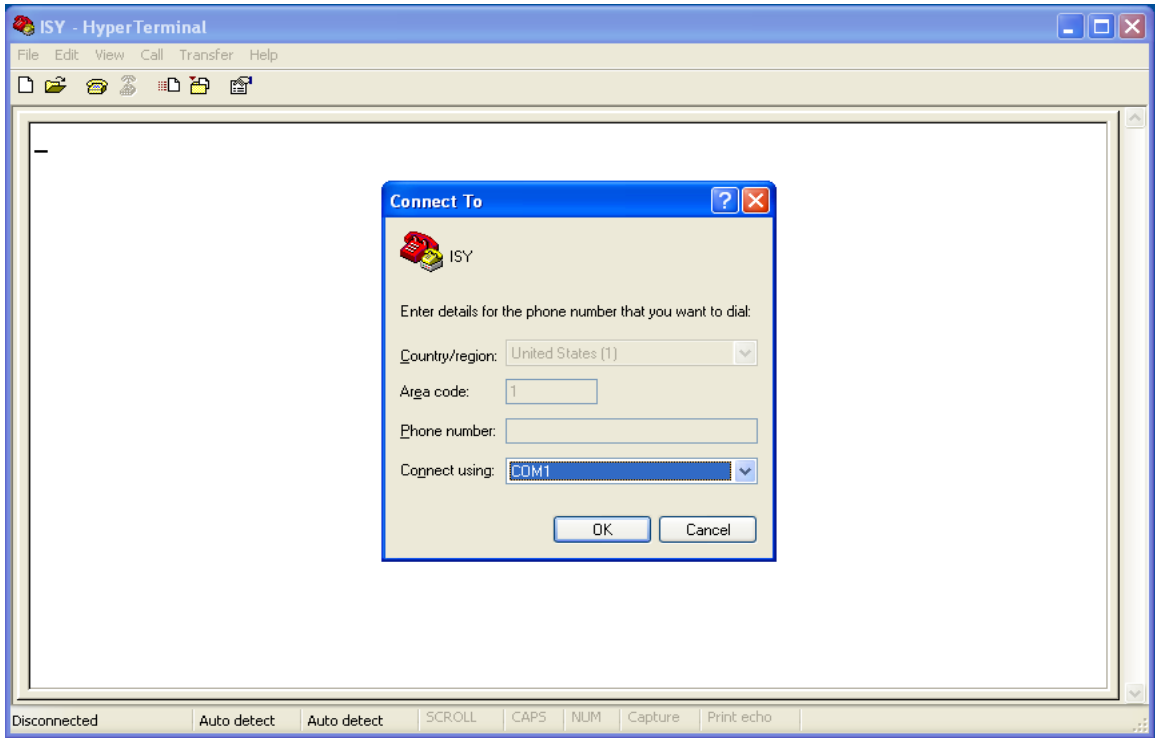
### 1.1.2. HyperTerminal Setup

Click on Start->All Programs->Accessories->Communications->HyperTerminal. In the HyperTerminal dialog (see Figure 2), enter a meaningful name for your connection and then click on “Ok”.



**Figure 1 – HyperTerminal Dialog**

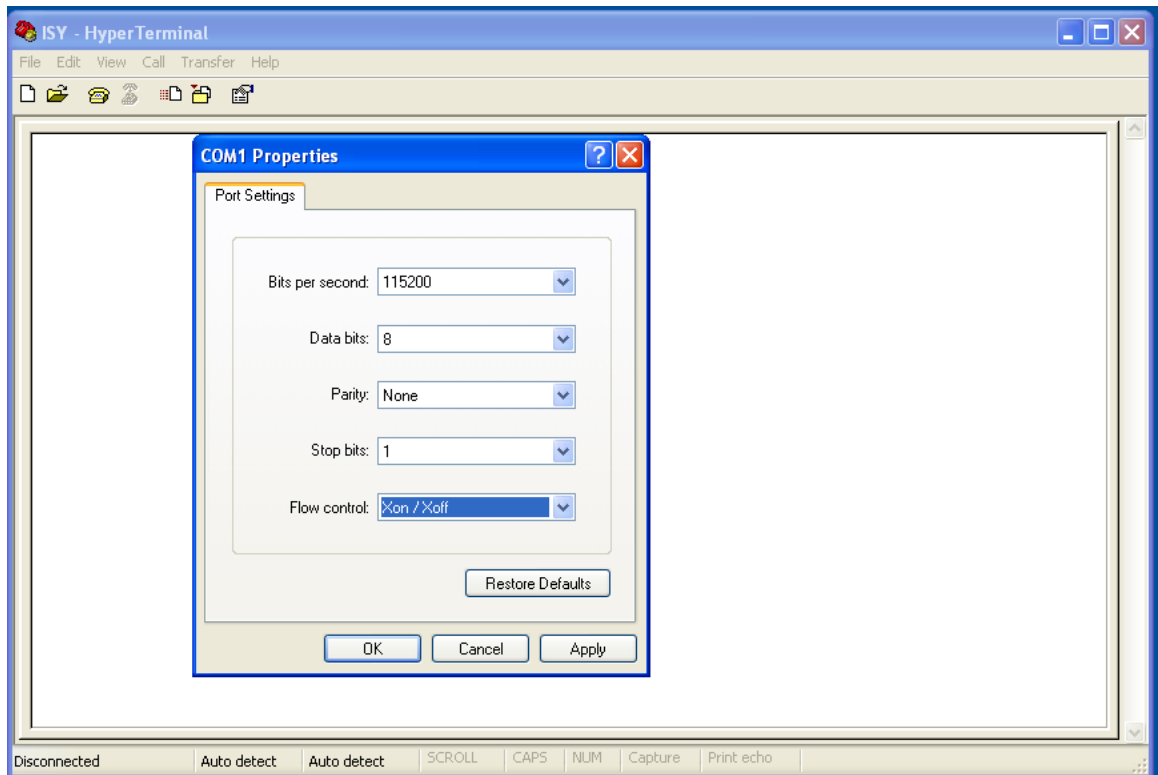
1) In the HyperTerminal’s “Connect To” dialog (see Figure 3), choose the COM port which is connected to the ISY and then click on “Ok”.



**Figure 2 – HyperTerminal Connect To Dialog**

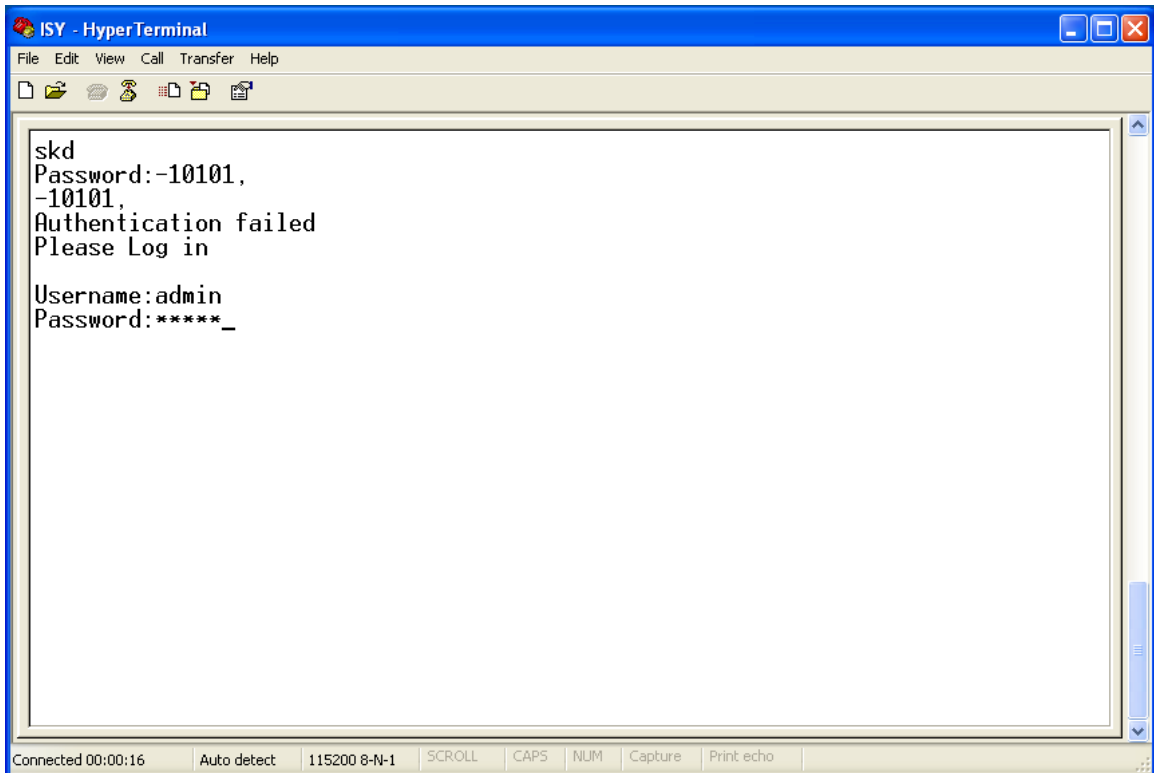
2) In the HyperTerminal's "Communication Properties" dialog (see Figure 4), select the following values and then click on "Ok":

- a. Bits per second = 115200
- b. Data bits = 8
- c. Parity = None
- d. Stop bits = 1
- e. Flow control = Xon / Xoff



**Figure 3 – HyperTerminal Communication Properties Dialog**

- 3) Type in a few characters till you are prompted for Username (see Figure 5). Enter your user name (**initially admin**) and when prompted for password, enter your password (**initially admin**)



**Figure 4 – HyperTerminal Session**



## 1.2. Accessing ISY through Telnet

If enabled (by default telnet is enabled), Telnet provides an easier method of accessing the ISY shell. To access the ISY through Telnet you need to know the current IP address of the ISY. There are two methods of finding the ISY's current IP address:

### 1.2.1. Finding the ISY's current IP address in My Network Places

- 1) Open My Network Places dialog. **Note:** On the left navigation bar, if there's an icon labeled **Show icons for networked UPnP devices**, click on it. This enables UPnP.
- 2) Find the ISY
- 3) Right mouse click on the ISY and choose Properties menu item (see Figure 6)
- 4) In the Properties dialog, the **Device Address** signifies the full path to the ISY in the format <http://a.b.c.d:n/p.html>. The IP address is **a.b.c.d**.

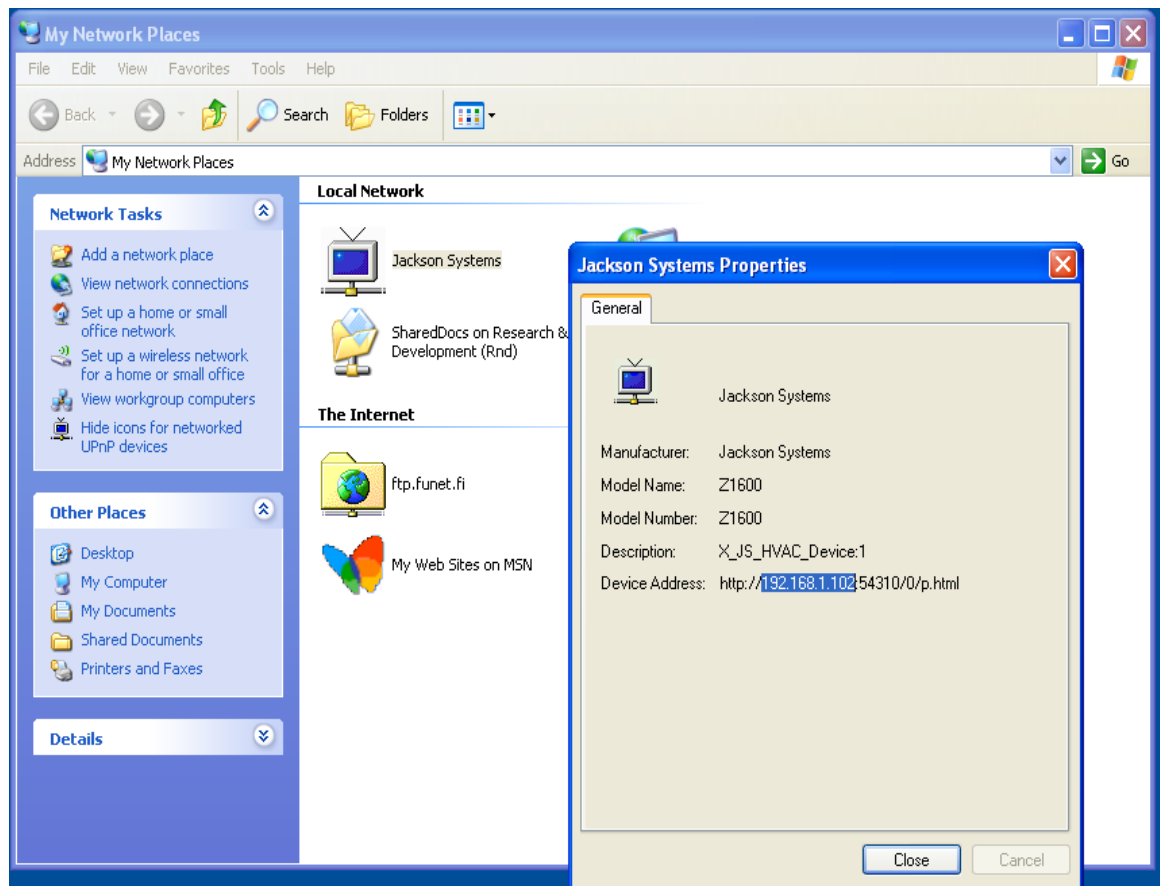


Figure 5 – ISY in My Network Places

### 1.2.2. Finding the ISY's current IP address in HyperTerminal

- 1) Start the configured HyperTerminal Session (see [section 2.1.2](#)) if one is not already started.
- 2) Enter your Username and Password.
- 3) Upon authentication, you will see the ISY shell (see Figure 7)
- 4) The IP address is shown as the ISY shell prompt in the format <http://a.b.c.d/n/> where the IP is **a.b.c.d**.

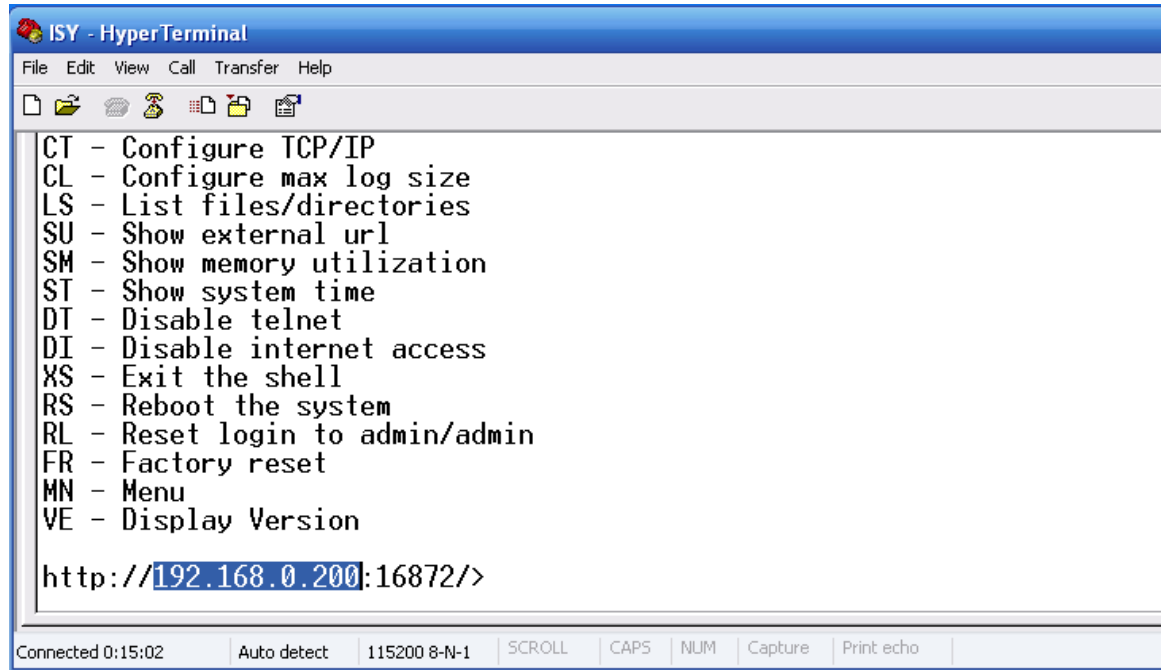


Figure 6 – ISY HyperTerminal Shell

### 1.2.3. Starting an ISY Telnet Session

1. Click on Start->Run
2. In the Run dialog, enter **cmd**
3. In the cmd dialog, enter the following command  
**telnet [ISY's current IP address] 126** (see Figure 8)
4. When prompted, enter the Username and Password

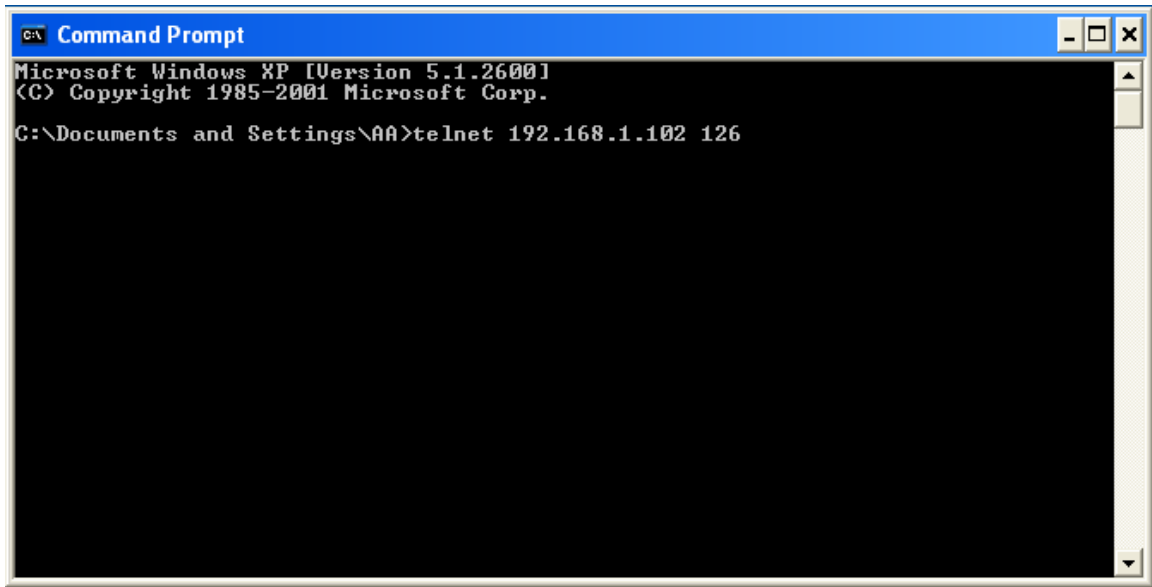


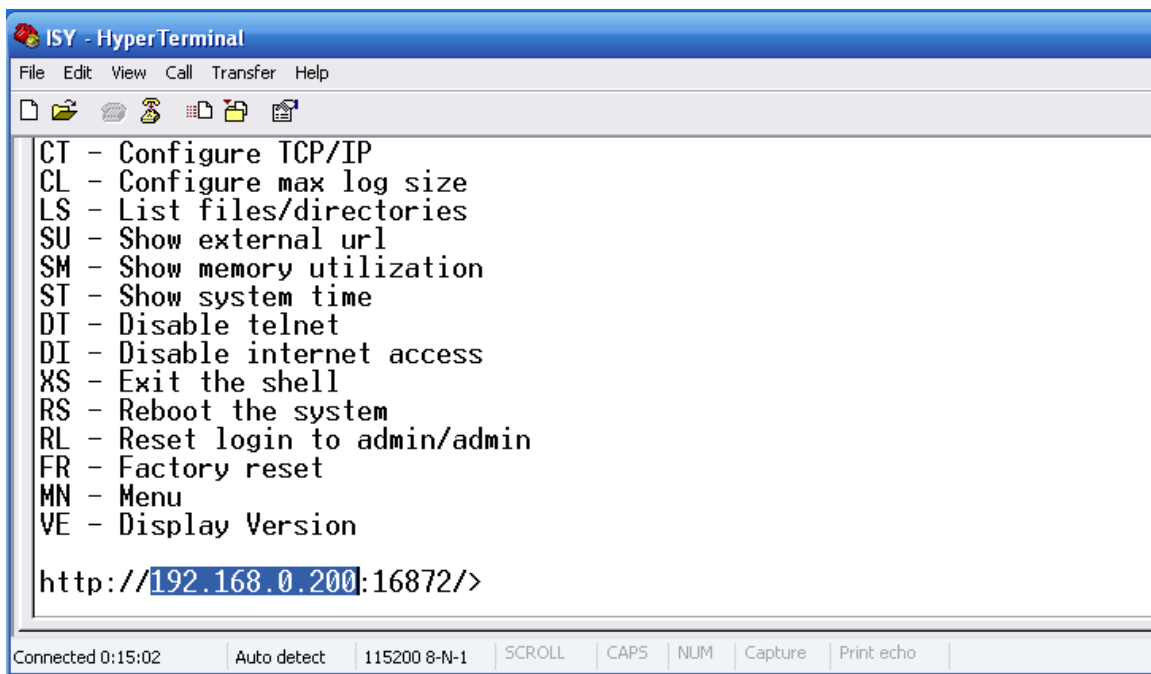
Figure 7 – Starting an ISY Telnet Session

## 2. ISY Shell (Command Interpreter)

ISY's shell enables you to perform administrative and configuration functions which – due to security concerns – are not supported through the GUI. The shell functions are available in their entirety to both HyperTerminal as well as Telnet sessions. Care should be taken when issuing commands that perform factory reset or that format the memory card as they might render the controller inoperable.

Figure 8 depicts the shell which is presented to the user upon successful authentication.

**Note:** All shell commands are **case sensitive** and should be treated as such.



```
ISY - HyperTerminal
File Edit View Call Transfer Help
CT - Configure TCP/IP
CL - Configure max log size
LS - List files/directories
SU - Show external url
SM - Show memory utilization
ST - Show system time
DT - Disable telnet
DI - Disable internet access
XS - Exit the shell
RS - Reboot the system
RL - Reset login to admin/admin
FR - Factory reset
MN - Menu
VE - Display Version

http://192.168.0.200:16872/>
Connected 0:15:02 Auto detect 115200 8-N-1 SCROLL CAPS NUM Capture Print echo
```

Figure 8 – ISY Shell

## **2.1. CT – Configure TCP/IP**

TCP/IP configuration command enables you to either assign static IP address information or instruct the ISY to use DHCP. The default is DHCP. To perform TCP/IP configuration, type TC at the shell prompt.

### **2.1.1. Assigning Static IP Address**

- When prompted for **IP Address**, enter the desired static IP address
- When prompted for **NetMask**, enter the desired subnet mask
- When prompted for **Gateway**, enter the IP address for the gateway
- When prompted for **DNS Server**, enter the IP address for the DNS server

When prompted with **Save Changes**, enter **Y**. The system will reboot using the provided information for TCP/IP configuration.

**Note:** If you enter the wrong Gateway and/or DNS server, some of the notifications and time functions will become inoperable.

### **2.1.2. Requesting for DHCP Assigned IP Address**

- When prompted for **IP Address**, enter the **0.0.0.0**
- When prompted for **NetMask**, ignore
- When prompted for **Gateway**, ignore
- When prompted for **DNS Server**, ignore

When prompted with **Save Changes**, enter **Y**. The system will reboot and attempts to get DHCP assigned TCP/IP information upon system start.

## **2.2. CL – Configure Maximum Log Size**

To change the amount of log space allowed, type LG at the shell prompt. The default is 3 MB and maximum is 16 MB.

## **2.3. LS – List All Files & Directories**

To view the listing of files and directories on the memory card, type LS at the shell prompt.

## **2.4. SU – Show External URL**

If this device has been configured for internet access, you may use the SU command – at the shell prompt – to view the external URL through which this device is accessible on the internet.

## **2.5. SM – Show Memory Utilization**

To view the ISY's memory utilization, type SM at the shell prompt.

## **2.6. ST – Show System Time**

To view the ISY's system time, type ST at the shell prompt.

## **2.7. ET – Enable Telnet Access**

To enable telnet access, type ET at the shell prompt. **By default, Telnet Access is enabled.**

**Note:** If there's already a telnet session open, the session will continue to function until the user exits the shell or if the session times out.

## **2.8. DT – Disable Telnet Access**

To disable telnet access, type DT at the shell prompt.

## **2.9. EI – Enable Internet Access**

To enable access to this device from the internet, type EI at the shell prompt. By default internet access is disabled.

## **2.10. DI – Disable Internet Access**

To disable access to this device from the internet, type DI at the shell prompt.

## **2.11. XS – Exit the Shell**

To exit the shell, type XS on the shell prompt.

## **2.12. RS – Reboot the System**

To reboot the system, type RS on the shell prompt.

### **2.13. RL – Reset Login Credentials**

To reset the login credentials back to the initial state of **admin/admin**, type RL at the shell prompt.

**Note:** If you have forgotten your Username and Password and thus unable to login to the shell, please consult the user guide for the procedure to reset them.

### **2.14. FR – Factory Reset**

To reset the ISY to factory settings, type FR at the shell prompt.

**Note:** By performing a factory reset, the following information shall be lost (irrecoverable) and the Username and Password shall revert back to **admin/admin**:

- All the schedules
- All the notifications settings
- All the alarm settings
- Time zone
- All the discovered devices, their names, their associated scenes
- All scenes
- The network name

### **2.15. MN – Menu**

To show the menu, type MN on the shell prompt. You may also enter any unrecognized command to get the menu to be shown.

### **2.16. VE – Display Version**

To display version information, type VE at the shell prompt.