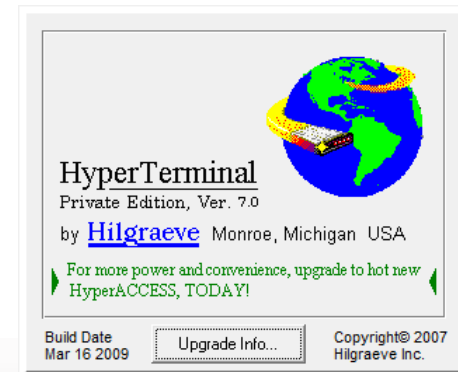


Troubleshooting: Using HyperTerminal



Introduction

1. HyperTerminal is a tool to help determine Trackster and/or Controller problems
2. Useful for communication (Modem & TCP/IP) troubleshooting
3. Useful for troubleshooting weird errors that occur in Trackster
4. Quickly narrows down a problem to either a Trackster issue or a Controller issue

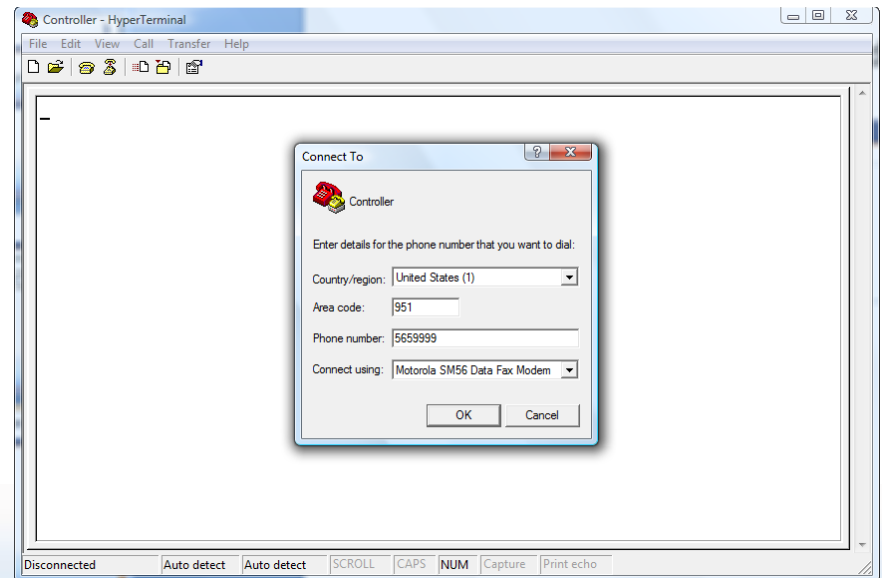
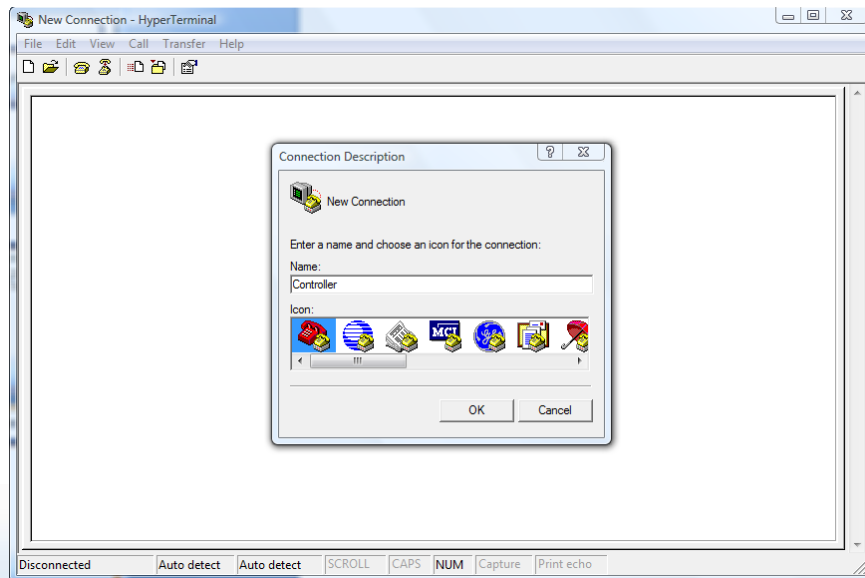
Installing HyperTerminal

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1. Download from <ftp://lib.aquatrac.com/Programs/HyperTerminal>
2. Run the htpe5.exe installer and follow the onscreen instructions

Connect to a Controller via Modem

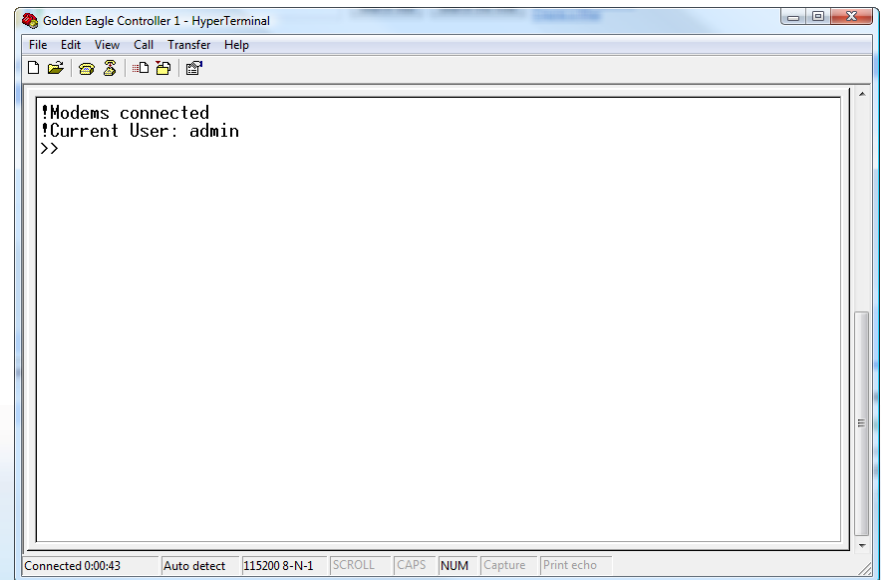
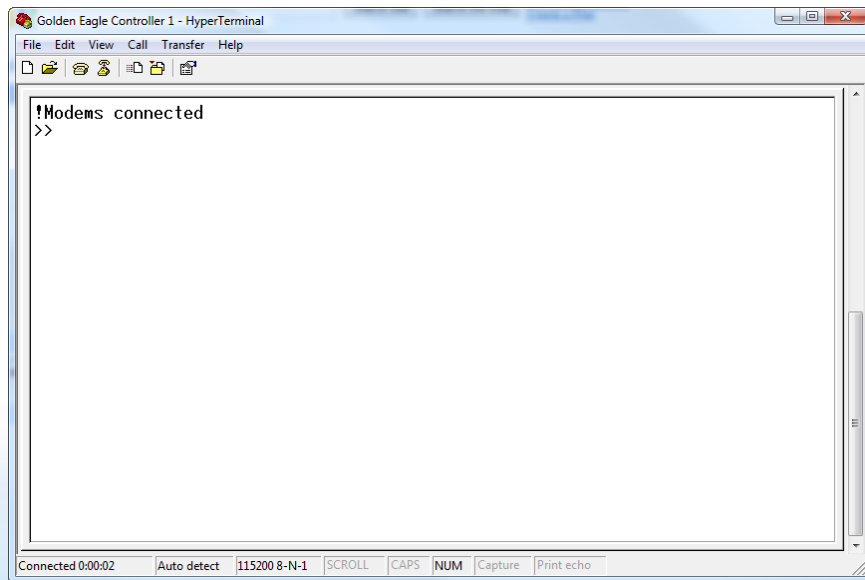
1. Open HyperTerminal
2. Enter a Name (the Name is an arbitrary value)
3. In “Connect Using”, select the modem
4. Enter the phone number of the controller, then click OK



Connect to a Controller via Modem

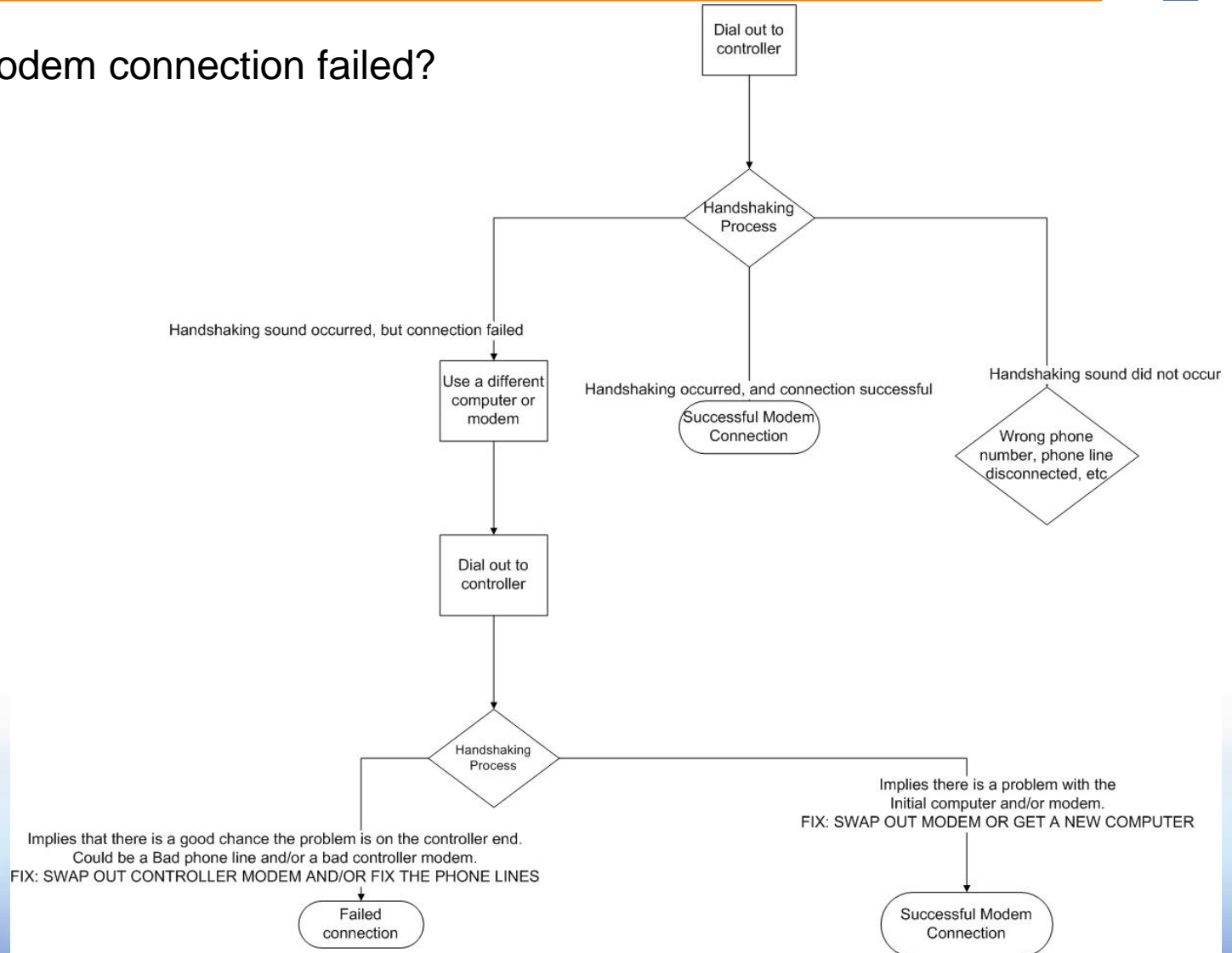
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1. Open HyperTerminal
2. Enter a Name (the Name is an arbitrary value)
3. In “Connect Using”, select the modem
4. Enter the phone number of the controller, then click OK
5. At the “!Modems connected” prompt, enter the admin Password



Connect to a Controller via Modem

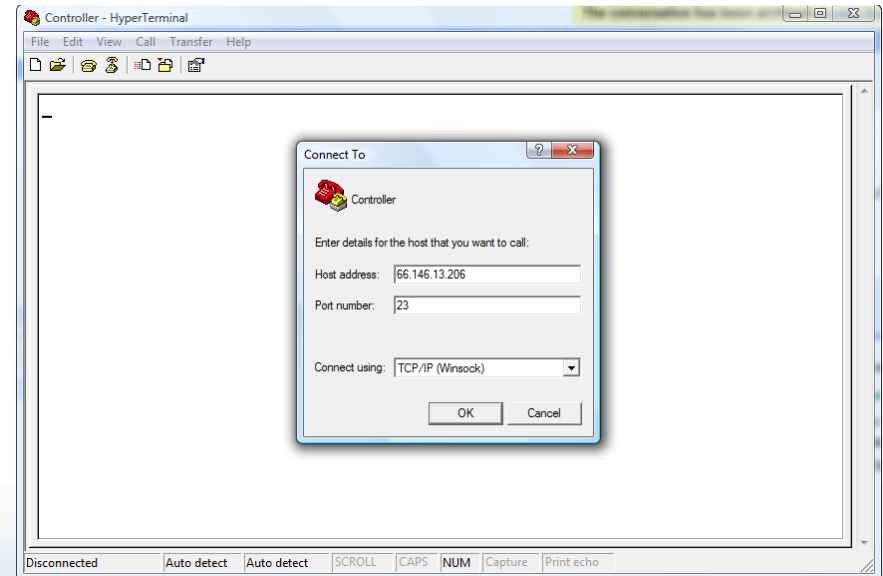
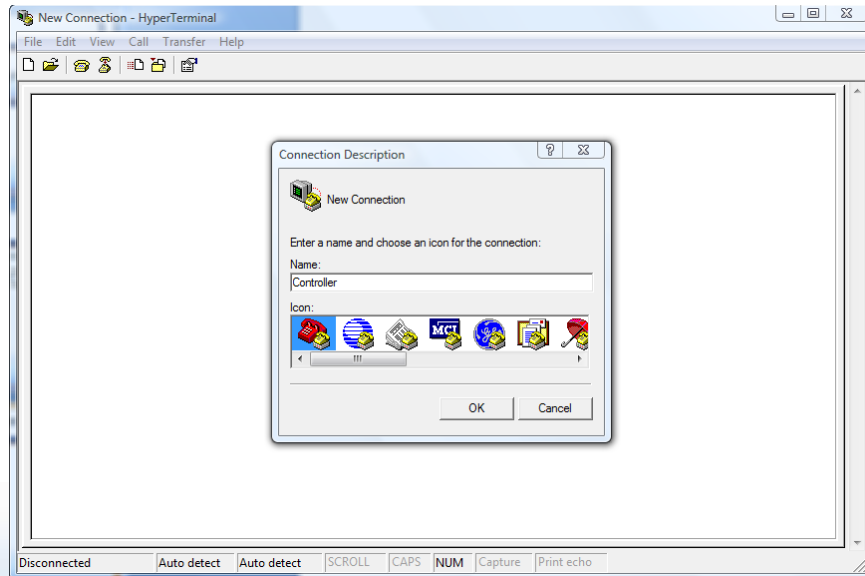
What if the modem connection failed?



Connect to a Controller via TCP/IP (WAN)

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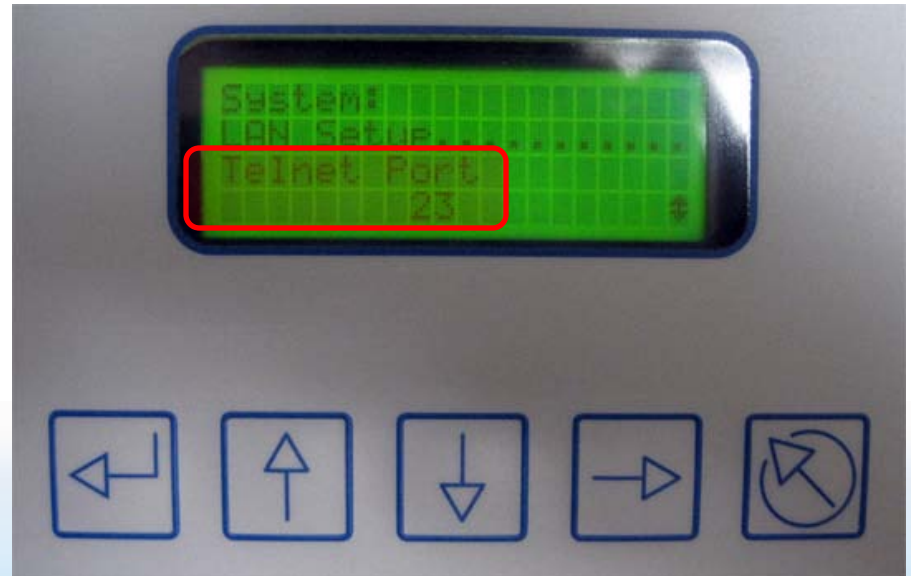
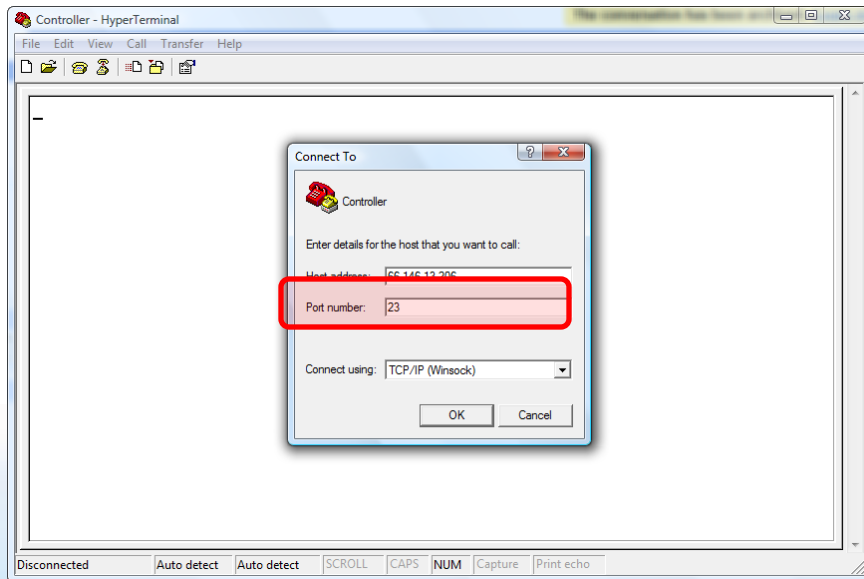
1. Open HyperTerminal
2. Enter a Name (the Name is an arbitrary value)
3. In “Connect Using”, select “TCP/IP (Winsock)”
4. In the “Host address” box, enter the IP Address of the controller



Connect to a Controller via TCP/IP (WAN)

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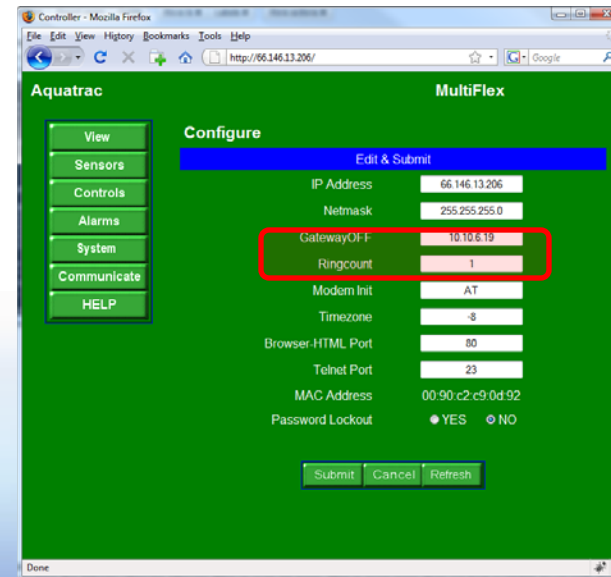
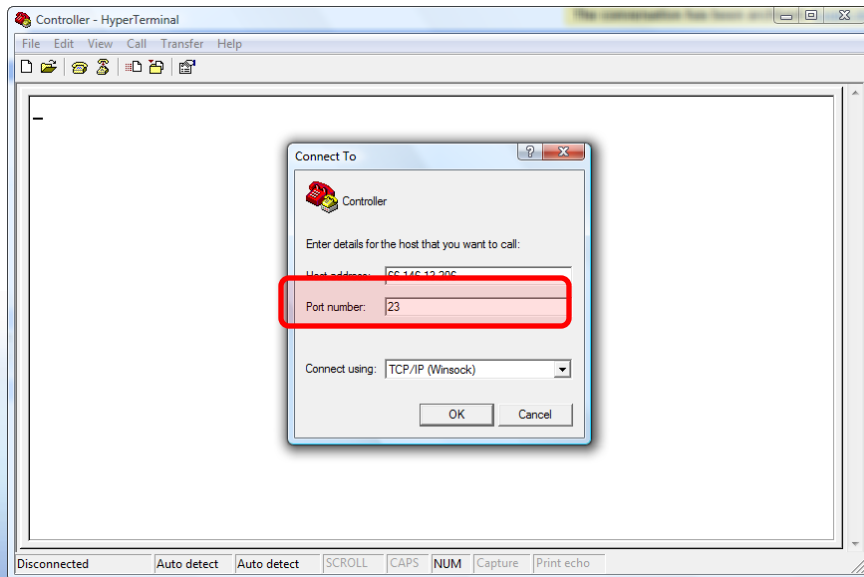
1. Open HyperTerminal
2. Enter a Name (the Name is an arbitrary value)
3. In “Connect Using”, select “TCP/IP (Winsock)”
4. In the “Host address” box, enter the IP Address of the controller
5. In the “Port number” box, enter the “Telnet Port” of the controller



Connect to a Controller via TCP/IP (WAN)

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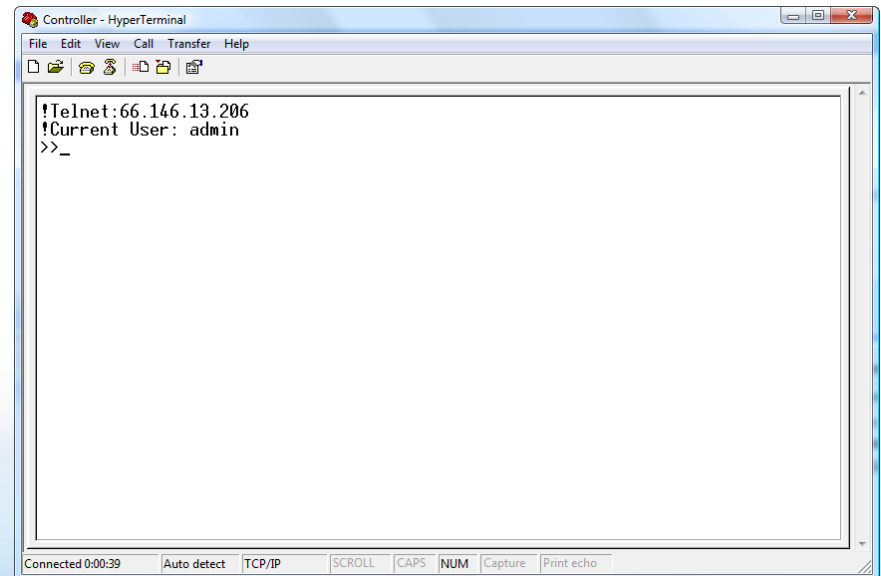
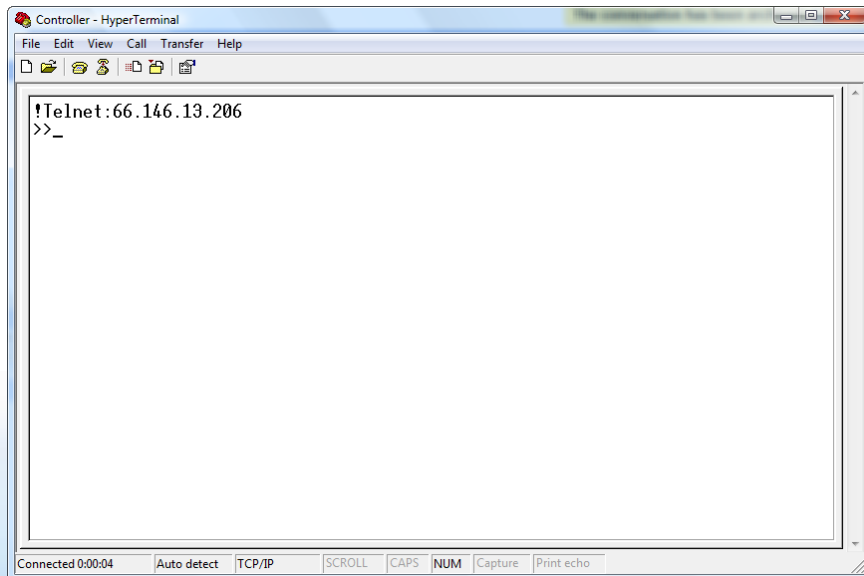
1. Open HyperTerminal
2. Enter a Name (the Name is an arbitrary value)
3. In “Connect Using”, select “TCP/IP (Winsock)”
4. In the “Host address” box, enter the IP Address of the controller
5. In the “Port number” box, enter the “Telnet Port” of the controller. Then click OK. On a successful connection, the Telnet screen will display “!Telnet:[IP Address]”



Connect to a Controller via TCP/IP (WAN)

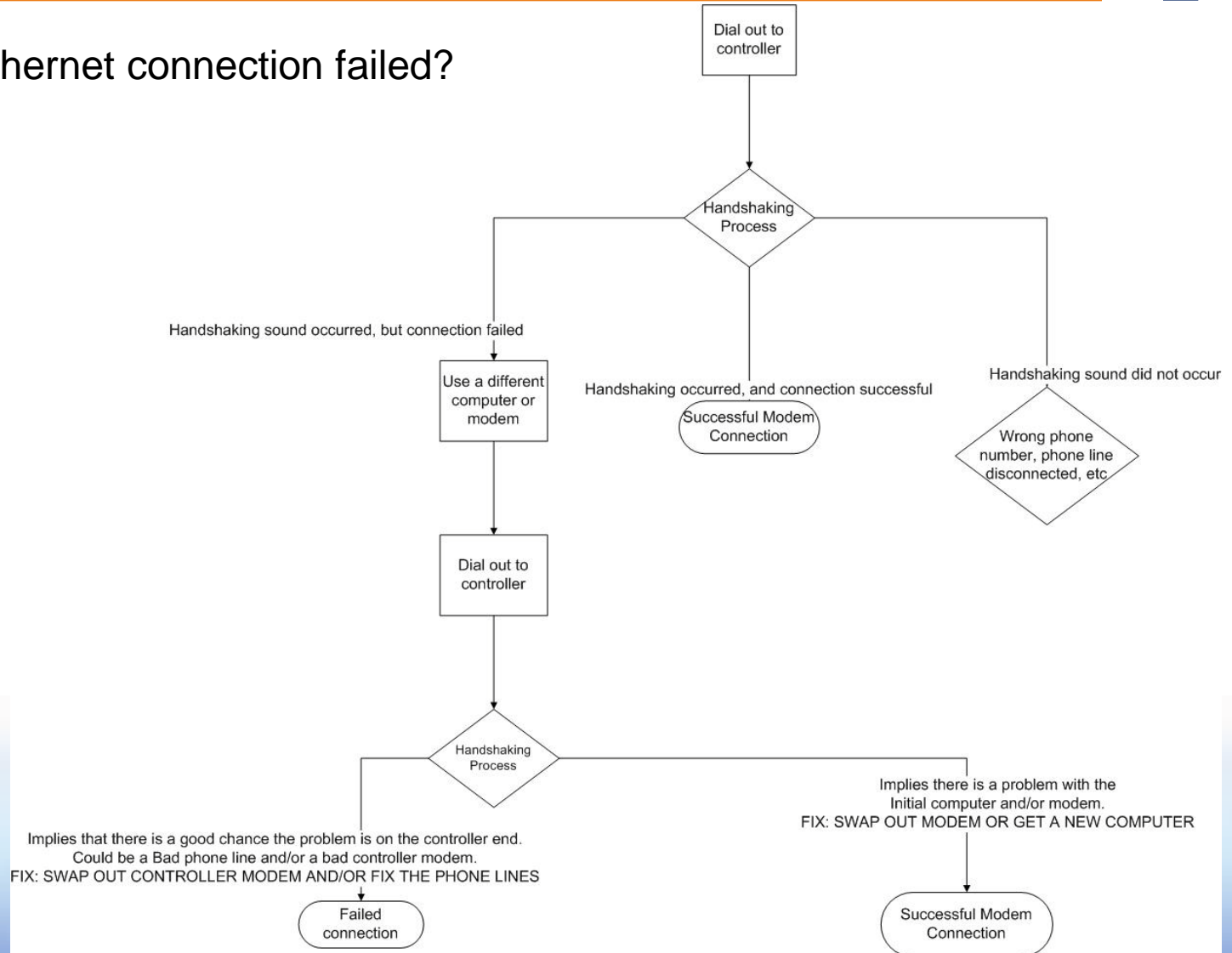
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1. Open HyperTerminal
2. Enter a Name (the Name is an arbitrary value)
3. In “Connect Using”, select “TCP/IP (Winsock)”
4. In the “Host address” box, enter the IP Address of the controller
5. In the “Port number” box, enter the “Telnet Port” of the controller
6. At the “!Telnet:” prompt, enter the admin password



Connect to a Controller via TCP/IP (WAN)

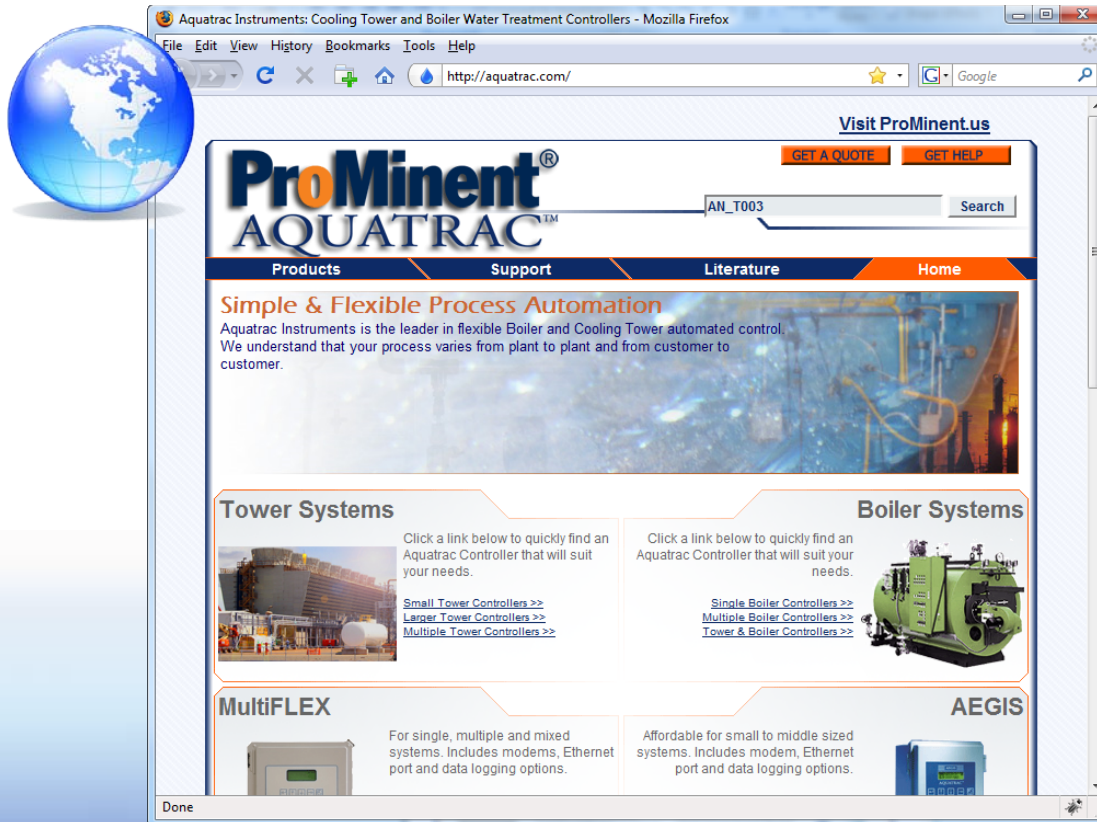
What if the Ethernet connection failed?



Execute Multiflex Commands

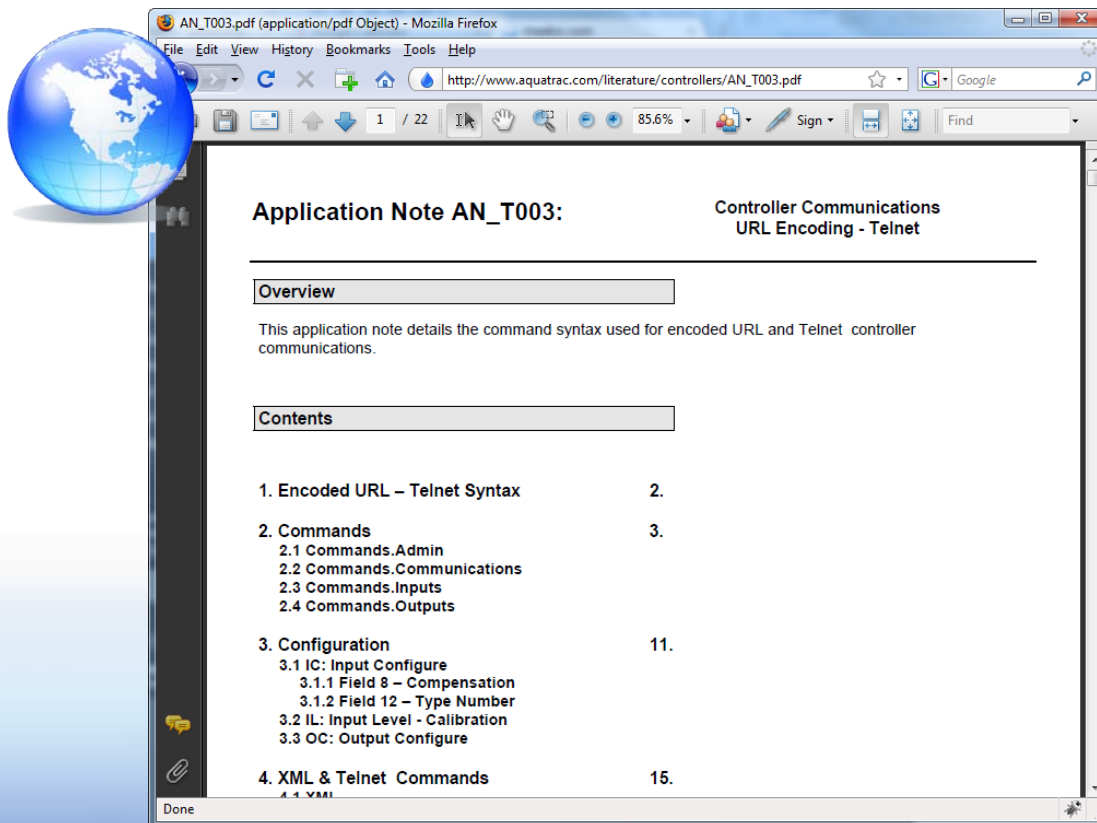
Experts in Chem-Feed and Water Treatment

Multiflex commands and command syntax can be downloaded at
http://www.aquatrac.com/literature/controllers/AN_T003.pdf



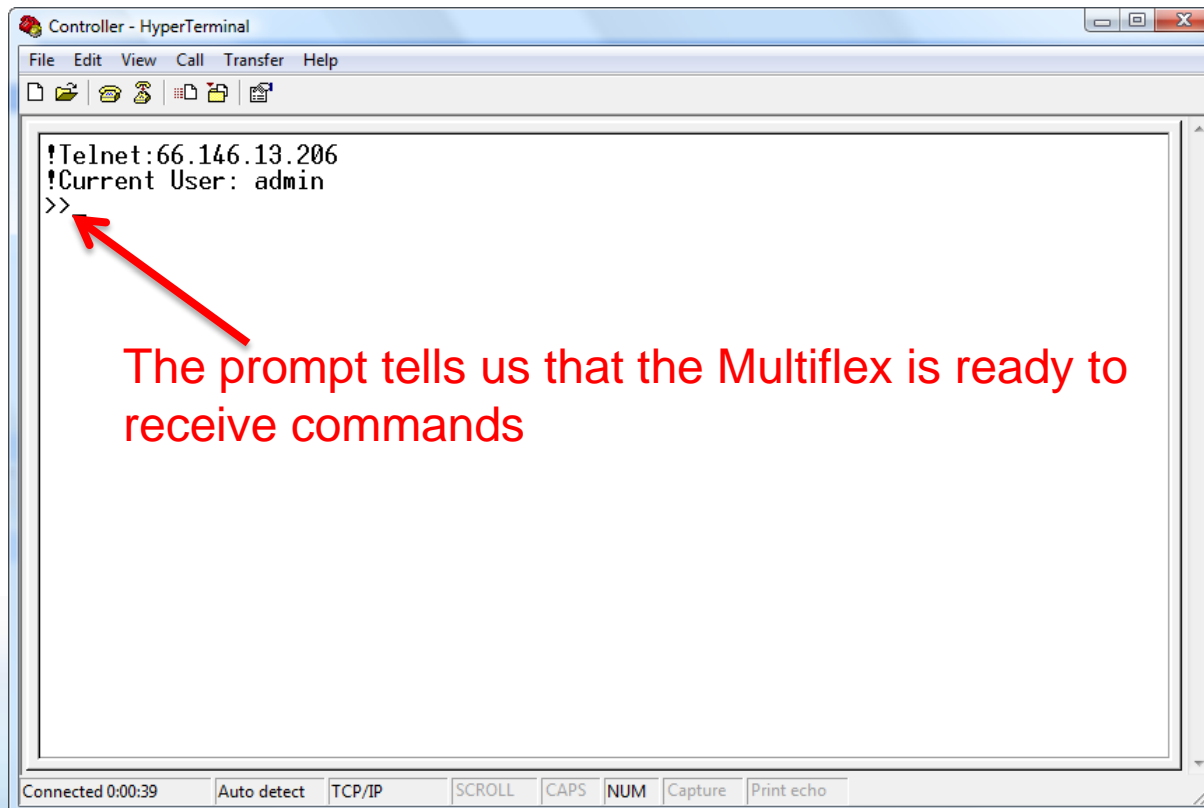
Execute Multiflex Commands

Multiflex commands and command syntax can be downloaded at
http://www.aquatrac.com/literature/controllers/AN_T003.pdf



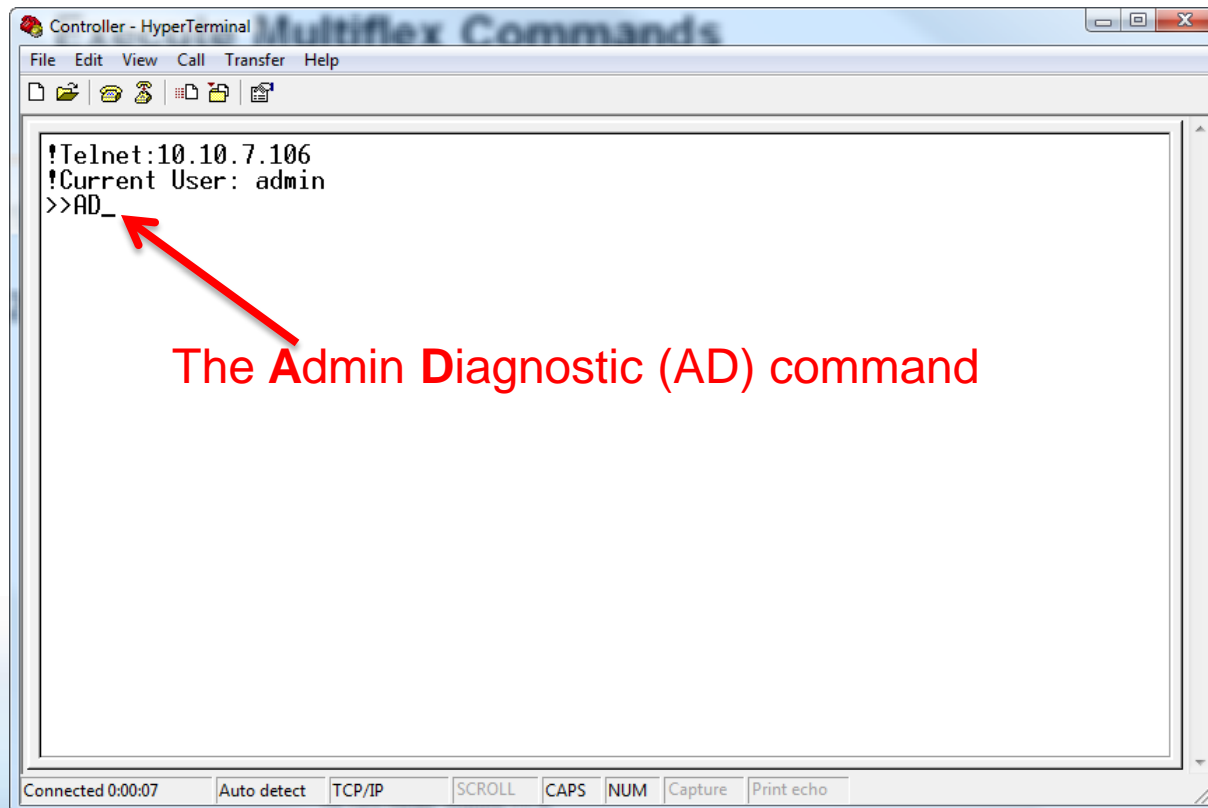
Execute Multiflex Commands

Command Prompt means that we are ready to send command to the controller (in this case we are doing Multiflex commands)



Execute Multiflex Commands

The Multiflex support two-letter commands. Here we see the **AD** command....



Execute Multiflex Commands

Experts in Chem-Feed and Water Treatment

Controller - HyperTerminal

File Edit View Call Transfer Help

!Telnet:10.10.7.106
!Current User: admin
>>AD_

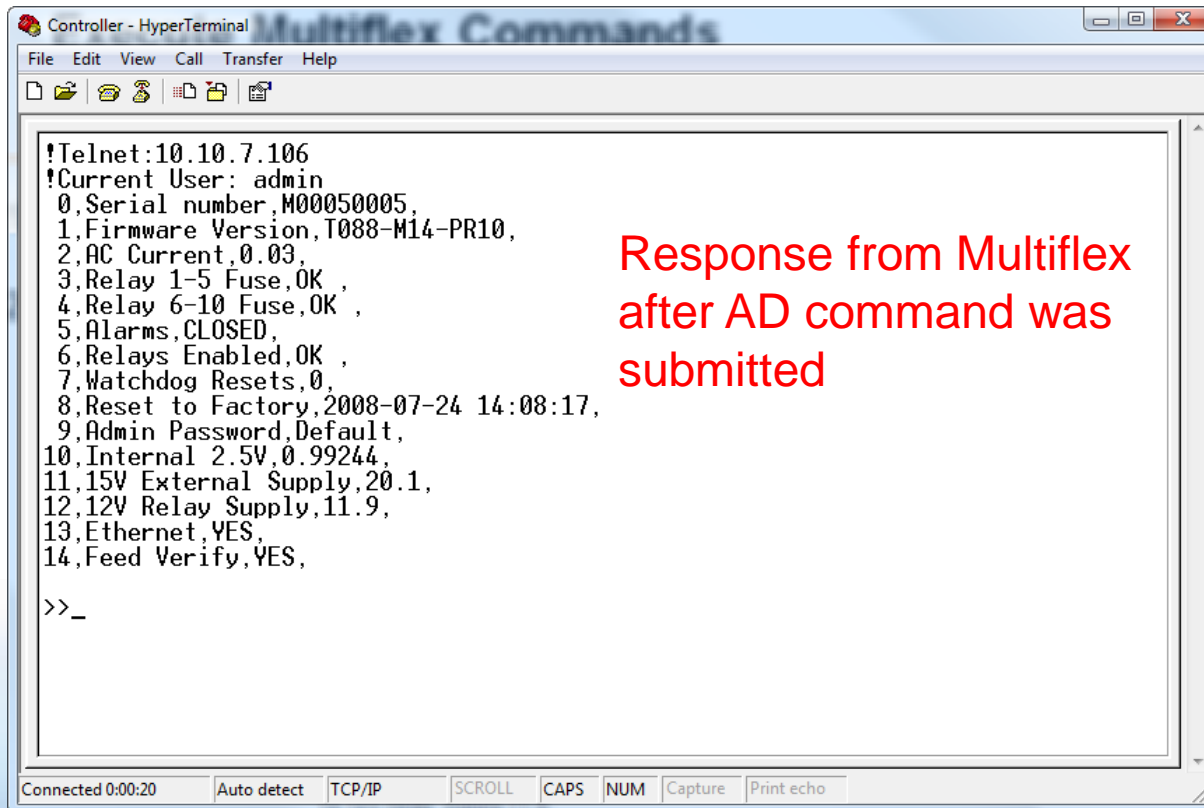
AN_T003 excerpt

AD	2: Admin Diagnostic: public F0 AD	System level diagnostic, current system state Current state table, varies with configuration
AE	3: Admin Enable: operator F0 F1 F2 AE [Input A..Z] [Output 0..17]	Disable function in IC & OS Enable selected I/O.

Connected 0:00:07 Auto detect TCP/IP SCROLL CAPS NUM Capture Print echo

Execute Multiflex Commands

Command Prompt means that we are ready to send command to the controller (in this case we are doing Multiflex commands)



```
!Telnet:10.10.7.106
!Current User: admin
0,Serial number,M00050005,
1,Firmware Version,T088-M14-PR10,
2,AC Current,0.03,
3,Relay 1-5 Fuse,OK ,
4,Relay 6-10 Fuse,OK ,
5,Alarms,CLOSED,
6,Relays Enabled,OK ,
7,Watchdog Resets,0,
8,Reset to Factory,2008-07-24 14:08:17,
9,Admin Password,Default,
10,Internal 2.5V,0.99244,
11,15V External Supply,20.1,
12,12V Relay Supply,11.9,
13,Ethernet,YES,
14,Feed Verify,YES,

>>_
```

Response from Multiflex
after AD command was
submitted