REMOTE POWER SWITCHES

HARDWARE

TPC uses three remote power switches installed on the platform which are used to power cycle various devices. The switches are Western Telematic Model NPS-115. Each switch has 8 individually addressable 110V AC outlets. The switch is accessible via ethernet. Here are the locations of the three switches and the devices that are plugged into them:

Rack	Name	IP address	Switches and plug No
2A4	rps1.starp.bnl.gov	130.199.60.26	Wavetek - 5, TPC TEMP Readout Box – 8 Video PC (Alexei) – Plug 1
2A3	rps2.starp.bnl.gov	130.199.60.205	Glassman Cathode HV - 1
2A6	rps3.starp.bnl.gov	130.199.60.206	Inner Anode Lecroy - 1, Outer Anode – 5, Non Canbus VME Crate in Rack 2A7 (Interlock and TPC Temp) – Plug 4

The switches are set up such that the above plugs are “on” after the switch powers up.

SOFTWARE

The switches can be controlled and configured by logging into each vis telnet. Thus, from SC3 (or SC5):

>telnet rps1.starp.bnl.gov

The switch has a password, but no username – it will prompt for the password only. All three switches have the same password, listed elsewhere.

After logging in, the following screen is displayed:

Network Power Switch v2.04 Site: (undefined)

Plug	Name	Status	Boot Delay	Password	Default
1	videopc	ON	5 sec	(undefined)	ON
2	(undefined)	OFF	5 sec	(undefined)	OFF
3	(undefined)	OFF	5 sec	(undefined)	OFF
4	(undefined)	OFF	5 sec	(undefined)	OFF
5	Wavetek	ON	5 sec	(undefined)	ON
6	(undefined)	OFF	5 sec	(undefined)	OFF
7	(undefined)	OFF	5 sec	(undefined)	OFF
8	TPCTEMP	ON	5 sec	(undefined)	ON

Communication Settings: 38400,N,8,1
Modem Init. String: ATE0M0Q1&C1&D2S0=1
Modem Disc. String: (undefined)
Disconnect Timeout: 30 Min
Command Echo: On
Command Confirmation: On

"/H" for help.

NPS>

Typing /h at the NPS prompt brings up the help screen:

Network Power Switch v2.04 Site: (undefined)

Commands:

Display
/H Display this help screen
/S[P] Display Plug Status, [P] with passwords

Configuration
/G View/Set General Parameters
/P [n] View/Set Plug Parameters
/N View/Set Network Parameters
/DL Download configuration to file

Control
/D Set Plugs to default setting
/Boot <n> Boot Plug n
/On <n> Turn On Plug n
/Off <n> Turn Off Plug
/T Reset Network Interface
/R Relogin as different user
/X Exit/Disconnect

+----------------------------------+
| [n] = optional plug name or number |
| <n> = required plug name or number |
| n+n = plug n and plug n |
| n:n = plug n through plug n |
| * = all plugs with access |
+----------------------------------+

Using these commands one can turn a plug on or off or change the defaults. One can also set up the unused plugs for any new devices. When finished, type /x at the prompt to exit. After a confirmation, you will be returned to the slow controls prompt.

KNOWN PROBLEMS

In 2005 all three RPS kept dropping off the network. See pages 140-141 in Notebook 1. Wayne investigated, but no obvious problem/solution was found. One possibility was security scans by ITD, but this was not proved. Since that episode the RPS have been stable. Any future problems, contact Wayne!