FourthRack©
System Management

User Guide

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Communications answers for the World Market

1 FourthRack management

Management functionality is implemented as an option on the plug in Power Supply modules. One or two Management enabled modules may be plugged into the rack. The left hand (slot 1) module defaults as the active management module. The modules are equipped with a serial asynchronous console interface, a 10BASE-T Ethernet interface and an alarm interface.

1.1 Types of connection

Connection can be made to a Command Line Interface via the serial port or via a telnet session on the Ethernet port. Note: A telnet session takes precedent over a serial connection.

2 Initial set up

The initial set up of the FourthRack Management System is performed using the ASYNC console interface (CON) via the management cable provided. It is assumed that users will connect the management cable to a PC and use a terminal emulation program.

The communication settings defaults are: 8 data bits, no parity, 1 stop bit. Speed 9,600bps.

On connecting the terminal emulation program to the FourthRack Management System, and power cycling the FourthRack, the user will see the following sign on message.

```
                         Fourthtrack      _
                         Systems    _    | |
                                _  |  |  |  |
                          _   |  |  |  |  |  |
                         |  |  |  |  |  |  |  |
                        _|  |_|  |_|  |_|  |_

            FOURTHTRACK MANAGMENT SYSTEM
                    xxx/xxx N.Nx

> Slot In Use: 01
> Slot In Use: 03
> Slot In Use: 04
> Slot In Use: 05
> Slot In Use: 06
> Slot In Use: 07
> Slot In Use: 08
> Slot In Use: 11
> Slot In Use: 12
> Slot In Use: 13
> Slot In Use: 14
> Slot In Use: 15
```

Where xxx/xxx is the factory reference number for the revision level of the management code that is running in the system, and the N.Nx is the revision level.

If a slot is in use it will be displayed as such. If a slot is empty it will not appear in the sign-on list.

3 Alarms and Logs

There are two alarm relays on the management card, one for minor alarms and one for major alarms.

The insertion and removal of a card can cause an alarm, as can any change in an I/O card Indication Status.

Any change that can cause an alarm has a setting for the type of alarm to be triggered. The alarm settings are set for each I/O card type. This setting will be one of:

No action is taken.
The event is logged, but no alarm is triggered.
The event is logged and a minor alarm triggered.
The event is logged and a major alarm triggered.

Once an alarm relay is set it will not be unset until all events that have caused an alarm of that type have been cleared from the alarm log.

Once a change has caused an alarm another alarm for the same change will not be recorded as an alarm until the previous alarm has been cleared from the alarm log, but all changes will be recorded in the log of events.

Alarms and the event log can be viewed either as all entries or on a per slot basis.

The log file lists the 100 most recent events for the system.

4 Using the FourthRack Management System

4.1 Direct commands at the management card prompt

4.1.1 Status:

Displays the full list of slots (1 to 16) and their current status. i.e. "Empty" or type of Line Card fitted.

```
> status
01: FourthRack Managed PSU 502/720
02: Slot Empty
03: FourthRack G.703 X.21 502/570
04: FourthRack G.703 X.21 502/570
05: FourthRack G.703 X.21 502/570
06: FourthRack G.703 X.21 502/570
07: FourthRack G.703 X.21 502/570
08: FourthRack G.703 X.21 502/570
09: Slot Empty
10: Slot Empty
11: FourthRack G.704 X.21 502/640
12: FourthRack G.703 X.21 502/570
13: FourthRack G.703 X.21 502/570
14: FourthRack G.703 X.21 502/570
15: FourthRack G.703 X.21 502/570
16: Slot Empty
```

4.1.2 cli nn

Connect the Command Line Interface to slot number nn. Connects the user to the CLI of the card in slot number nn. (see 4.20

CTRL-Z to return back to the management card prompt

4.1.3 Help

Produces a list of commands with help

4.1.4 Ver

Reports the software version of the management card

4.1.5 alarm1

Turns **minor** alarm relay on or off independent of the actual alarm status.

Syntax: <alarm1> ,<on> (or <off>)

4.1.6 alarm2

Turns **major** alarm relay on or off independent of the actual alarm status.

Syntax: <alarm2> ,<on> (or <off>)

4.1.7 alarm show

Displays all the conditions that have caused an alarm for the complete system or for a specific slot. Each alarm is displayed next to an alarm number.

4.1.8 alarm clear

Clear individual or all alarms

Syntax: <alarm clear 1> or ,alarm clear all>

4.1.9 log clear

Clear the log file

Syntax: <log clear all>

4.1.10 log show

Displays the events that have been logged. Either all or for a specified slot.

Syntax: <log show all> or <log show n> where n is the slot id (1 to 16)

Commands required to set up the Ethernet interface

4.1.11 netip

Sets IP address and netmask.

Syntax: <nnn.nnn.nnn.nnn mmm.mmm.mmm.mmm>

4.1.12 netshow

Displays the IP address, netmask, gateway address and Ethernet MAC address.

4.2 Line-card specific Commands

Each type of line-card has its own specific management commands that are accessible following the "cli nn" command (4.1.2).

Please refer to the relevant line-card Management Guide for a full list of the available functions.