BCH COMMANDS

Main Menu: Enter command or menu >

BOot- Continues booting from the specified path-

BOot   Boot from primary path (default)
BOot [PRI | HAA | ALTernate]   Boot from the specified path
BOot LAN [INSTALL]   Boot from HP-UX Install server
BOot LAN[.<lan path>][.retries]   Boot from LAN
BOot <path>[.<lan path>] [retries] Boot from specified module

PAth- Displays or sets the PRI, HAA or ALT boot paths-

PAth   Display the path settings
PAth <path type>   Display the specified path settings
PAth <path type> <path>   Set the specified path to <path>
 <path type> = PRImary, HAAlternate, ALTernate
 <path> *is in I/O notation: Cell/Sba/Lba/Device/Func.target.lun*

SEArch- Searches for boot devices-

SEArch   Search for potential boot device attached to the core cell.
SEArch <cell> Search for boot devices attached to the cell.
SEArch <path> Search the specified path for boot devices
SEArch ALL Search for boot devices within the parttion.

ScRoll - Displays or sets the scroll mode- Pauses every 24 lines.
 Turn OFF before using Error Log or PIM commands.

Display- Displays the current menu- Di, ls or l works also.

HElp - HElp [<menu> | <command>]

REBOOT - Reboots the partition. Same as GSP(MP)> RS

RECONFIGRESET - Reset to Reconfig Complex Profile

Same as GSP(MP)> RR Sets "BIB". *Use after CPU/Cell config!*

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Configuration: Enter command >

BootID - Display/set Monarch cpu <cell> <cpu> <bootid>

BootTimer - Display/set Boot timer <xxx> = 0 - 200 sec

CEllConfig - Config/Deconfig cell <cell> [ON] [OFF]

COreCell - Display/set the core cell <choice> <cell>

CPUconfig – Config/Deconfig cpu [<cell>[<cpu>]] [ON] [OFF]

DataPrefetch -Display/set DataPrefetch [ENABLE | DISABLE]

DEfault- Set the PD to default values Run *Configuration*
 Menu: Enter command >He De for details

FastBoot- Display/set FB <test> = <pdh |early| late> [skip] [run]

KGMemory- Display/set KGM mem <value> = [32 - 255MB]

PathFlags- Display/set Boot PF <path> = [PRI | HAA | ALT]
 <value> = [0|1|2|3] 0 = BCH, 1 = boot this path -> BCH, 2 = boot
 this path -> next path, 3 = skip -> next path

PD - Displays/sets partition name <value> = 64 Ascii characters
see also hpux command: parmodify -p# -p option.

ResTart - Restart Partition [on | off] Determines action in case
 pdc cannot xfer to os hpmc handler. ON=restart OFF=BIB

TIme - Display/set the real time clock cn:yr:mo:dy:hr:mn:ss

BOot - Boots the partition [PRI | HAA | ALT] <path>]

MAin - Return to *Main Menu: Enter command or menu >*

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Information: Enter command >

ALL- Display all of the information. [<cell>] Displays processor, PDC,
 Chip revision, Boot information, I/O information and Memory.

BootINfo - Displays boot-related information. Shows Path's, SWID, SW
 Capability and Boot Timer value.

CACHE - Displays cache information. <cell> [0 - 15]

ChipRevision - Displays the revision information of the major ASICS in
 the partition. <cell> = [0 - 15]

ComplexID - Displays complex identification information that is stored in
 the complex profile and non-volatile memory.

FabricInfo - Displays information about the configuration and state of the
 crossbar chips (XBC's) that make up the fabric, visible from the partition.

FRU - Used to display the FRU information for the CPUs and DIMMs.
 FRU <cell> [CPU | MEM]

FwrVersion - Displays the firmware version of the various firmware mod-
 ules in the partition. <cell>

IO - Displays I/O information about the HIOBs present within the partition.
 Superdome HIOB location rule: (*Bay0 - front 1,3) and (Bay 1 - rear 1,3)*
Superdome slots: 11 10 9 8 **7 6 5 4** 3 2 1 0
                 ropes: 8 9 10 11 **12 14 6 4** 3 2 1 0
                 Note: numbers in bold indicate 4x capable slots
                        Cell 0   **Cell 1**
RP8400/7410 slots: **1 2 3** 4 5 6 7 8   **1 2 3** 4 5 6 7 8
                 ropes: **8 10 12 14 6 4 2** 1   **8 10 12 14 6 4 2** 1
                 Note: Rope 0 is on the backplane and is dedicated for system use
Empty on 7410 -> Dvd/Dat - 0/0/0/2/1.x   HDD - 0/0/0/2/0.6   HDD - 0/0/0/3/0.6
                 Dvd/Dat - 1/0/0/2/1.x   HDD - 1/0/0/2/0.6   HDD - 1/0/0/3/0.6

MEmory - Displays memory partition information- Shows physical,
 deconfigured, available and Dimm loading. <cell> = [0 - 15]

PRocessor - Displays processor information within the partition.
 <cell> = [0-63] States can be the following: Active, Idle, Stopped:Deconfig-
 ured, Stopped:NonResponding, Stopped:Failed or Unknown.

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ISL Commands

ISL> *hpux ll (Shows directory listing of /stand on pri path)*

ISL> *hpux show autofile (Shows contents of autofile)*

ISL> *hpux [lq | lm]* (*boots quorum or lvm maintenance mode*)

ISL> *hpux -a [S | D] cell/sba/lba/dev/func.t.l/path (adds swapordump)*

ISL> *hpux /stand/vpmon* (*boots vpar vpmon*)

ISL> *ode ->* mapper2 -> run (*offline diag tool showing scsi targets*)

ISL> *exit* returns back to *"Main Menu: Enter command or menu>"*

Just Commands
Caution!! Just must not be executed while HPUX is running
/opt/scansw/bin/scan_setup creates /opt/scansw/data/cplx.ini
/opt/scansw/cmd creates *../cplx_priv-#, node_#.cfg* and *complex.cfg*
        cmd errors reside in /opt/scansw/data/cmd.log
just -s priv-# (# = unique /etc/host entry of GSP lan1) (*Starts Just*)
just>> [idv | d | cable] (*The cable test checks IOX Reo cables*)

Scan on the fly Commands
/usr/bin/tsm (cntrl "w" then 1, 2, or 3 to select a session)
 ***Session 1: just -s priv-# -daemon -jp 2222** (Sotf mode)*
 Session 2: /opt/scansw/scripts/arch_0020/togo_status > filename
 ^T to select the menu then tab over to "quit"

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Service Menu: Enter command >

BAttery - Display battery status on the cell board <cell> = [0 - 15]

CLEARPIM - Clears individual cell or partition PIM info.

DimmDealloc - Display or deallocate a dimm on a cell- displays the
 configuration status of the memory DIMMs. (requires reboot)
 <cell> <[0A,0B,0C,0D,...,7A,7B,7C,7D]> <[ON | OFF]>

ErrorLog - Displays the error logs for the ASICs in the partition.
 <cell> <[FABRIC | CELL | IO | MEMORY]> *(Other 1/2 of ts99 file)*

LAnaddress - Used to display the LAN station address for the active
 core I/O card in the partition. (useful for /etc/bootptab entries)

MemRead - Used to read memory and I/O locations in a partition.
 <address> <len> where len = 0 - 64 words

**PDT - Used to display and clear the contents of the page dealloca-
 tion table.** <cell> CLEAR *(50 entries per cell, 3200 per partition)*

PIM - Displays the PIM logged on the first, most severe occurrence
 <cell> <cpu> <[HPMC | LPMC | TOC]> *(Pim is 1/2 of the ts99 file)*

SCSI - Displays/sets the SCSI controller parameters.
 SCSI [<path> [INIT|RATE|TERM|WIDTH|DEFAULT [<id>]]]
 <cell> is an integer in the range 0..63
 <path> is in I/O notation, such as 1/0/2/3/4
 <id> is an integer in the range 0..15   Default: 7
 <rate>=Slow,Fast,Ultra,Ultra2,Ultra160,Ultra320 or Nolimit
 <width> is either 0, 8, or 16 (where 0 = max)   Default: max
 <term> is either ON, OFF, or DEFAULT   Default: ON
 All parameters are kept in Cell Nvram - not complex profile

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HPux Commands

View memory SBE & PDT cstm -> scl type memory -> info -> il
 q -> SaveAs -> /tmp/meminfo.txt -> Done -> quit -> ok

View system events: cstm -> ru logtool -> sr *(accept default)* ->
 Done -> fl *(accept default)* -> q -> SaveAs -> /tmp/sysinfo.txt -> Done
 -> quit -> ok -> exit -> ok

Stm startup problems: cstm ^c, uial, dacl, lsal, sal and ml for clues

View chassis logs: cclogview -k /var/stm/logs/os/ccerrlog >cclogs.txt

Ems: monconfig is config tool**.** Logs: /var/opt/resmon/log/event.log

Tombstones: /usr/sbin/diag/contrib/mca -d /tmp (analyzes ts99 file)

Rad commands: rad -q, -s susp/-r res, -i on/-o off (cab-bay-chas-slot)
 Use rad -o to power off slot before adding card!

Parstatus commands: -X shows product and serial number.
 -w = shows *partition #* then -V -p # shows details about *partition #*
 -V [-b *cabinet #* | -c *cell #*] shows details on cabinet or cells
 -P show all complex partitions, -B shows cabinet information.

Parmodify: {*-p # -a cell#:base:y:ri (adds a cell)* use shutdown -R}
 {**-p # -d cell#** (deletes)},{**-p # -P name** (renames partition)}

Vpars: Cntrl-a *(selects vpar consoles)*, vparstatus -w *(vpar name)*
 vparstatus -A *(available resources)*, vparstatus -v *(vpar details)*
 mpsched -s *(shows cpu count)*
 cpu:x/y (*bound cpu where x=cell y=10-13*), cpu::# (*total cpus*)
 cpu:::a:b (*a=min b=max cpu's*), vparcreate io pathing: *(cell/sba/lba)*

Complex serial number: /usr/bin/getconf MACHINE_SERIAL

Set ignore lvm quorum: mkboot -a "hpux -lq" /dev/rdsk/c#t#d#

View Lif header: lifcp /dev/rdsk/c#t#d#:AUTO -

GSP(MP):CM> COMMANDS

Single PD User - Commands unique to user *Serv*

BO - Boot Protection Domain-This command ensures that all the cells assigned to the target partition have valid complex profiles and then releases Boot-Is-Blocked (BIB).

CP - Cells Assigned by Partition-The CP command will display a table of cells assigned to partitions and arranged by cabinets.

DE - Display Entity Status- This command displays the specified entity's status: C-CLU, D-CIO, G-GSP, P-PM, S-PDHC. *RP8400*: B-BPS, U-CLU, A-CIO, G-MP, P-PM, H-PDHC *(DE N/A on RP7410)*

DF - Display FRUID- Displays the FRUID data of the specified FRU: A-ALL, B-HCPB, C-CIO, D-DIMM, G-UGUY, H-SBCH,IHIOB O-HIOPB, P-HBPB, R-HL(R)SB, S-SBC, W-(H)CCB, X-BPS, U-CPU *RP8400/7410*: S-BACKPLANE, G-MP/CIO, P-PCI BACKPLANE, M-MASS STORAGE BACKPLANE, I-PCI POWER MODULE, B-BPS, C-CELL, D-DIMM, H-PDHC, U-CPU

DU - Display USB Topology- A "*" indicates communication with GSP - Usb or MP - I2C Bus. Cells must past IODISC for a "*" to appear in the GSP *Core IOs* or MP *PCI Domain* field.

ER - Enable Remote Console Access- Enable or Disable remote modem port access. GSP - Secure led, MP - Remote led

HE - Display Available Commands- Lists all commands available to the user level: Admin, Oper or Serv - if defined

ID - Change Stable Complex Profile- Configures the complex profile information. A valid golden profile must exist first.

LS - Display LAN Status- Displays connection status of the GSP Customer and Private lan or the MP's customer lan.

MA - Return to Main menu- Takes the specific user from the GSP:CM> prompt back to the GSP> prompt. MP:CM> and MP> for RP8400/7410.

PS - Power Status- Displays hardware status: B-CABINET, C-CELL, G-GSP, I-CIO. *8400/7410:* T-CABINET, S-SYSTEM BACK-PLANE, G-MP/CIO, P-PCI DOMAIN, C-CELL (cabinet option shows present, available, and power status of all entities)

RR - Reset a Partition for Reconfiguration- Resets the specified partition but does not automatically boot it. Sets BIB flag.

RS - Reset a Partiton- The utility system resets each cell that is a member of the specified partition. Once all cells have completed rendezvous, the partition is booted.

TC - Sends a TOC Signal to a Partition- Transfers the control (TOC) of the specified partition. The SINC on each cell in the specified partition asserts the sys_init signal to Dillon.

FW - RP8400 Firmware Update- Use MP> he fw for details.

OSP - Online Scan Programming Utility- *(RP7410only)* Use MP> he osp for details (enhanced RP8400 FW utility)

SYSREV - System Revisions- Report revs of programmable devices (only RP8400/7410) and F/W. Use *MP>he sysrev* for details.

PWRGRD - RP8400/7410 Pwr Grid- 1 = Grid A, 2 = Grid B, 3 = Grids A+B *(7410: 4=A0+B0, 5=A1+B1)* **Rear View**: B1 A1 B0 A0

Chassis Code format: *(Cabinet,Cell,Cpu)*

Alert > 2 = Error Log, Alert < 2 = Activity Log, Alert > 3 = Front Led

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TE - Broadcast a Message to all Users at GSP(MP):CM> Up to 80 characters can be typed in and the message is broadcast to the other users in the command menu. Users in the main menu are not shown the message.

VM - Margin the Voltage in a Cabinet- Adjusts the voltage of all marginable supplies within a range of +/- 5%. *Not available on RP8400/7410.*

WHO - Display GSP Connected Users- Displays the login name of the connected console client user and the port on which they are connected. For LAN console clients the remote IP address is displayed.

MR - Modem Reset- This command sends an AT-Z to the system modem connected to the remote port. Any modem connections will be lost.

MS - Modem Status- The MS command displays the state of the modem lines connected to the remote/modem serial port. Status signals DCD, CTS, DSR, RI and startup signals DTR, RTS are displayed

IO - IO Chassis/Cell Connectivity- Displays connectivity between Cells and I/O chassis'. Extremely useful on Superdome.

IF - Display Network Information- This command displays information about the network interfaces on the GSP or customer interface on the Keystone *Sbc = priv lan = gsp1, SBCH = customer lan = gsp0*

OPER - Commands unique to *Oper* - includes *Serv* commands

CA - Configure Asynchronous & Modem Parameters- The CA command allows the user to set the communications parameters of the local and remote RS232 port.

CC - Complex Configuration- Genesis profile will select the lowest cell # that is connected to CIO, Cell must be at BIB. Last profile retrieves the last profile - could retrieve garbage though.

DI - Disconnect Remote or LAN Console- This command disconnects the remote/modem or LAN users from the GSP(MP)

IT - Modify Command Inactivity Timeout- This timeout prevents a user from inadvertently keeping the GSP or MP command menu locked in a GSP command. Default is 3 minutes, adjustable (3 - 1440)

PD - Partition Number Default for Login Session- The PD command sets the default partition number used by commands which require a partition number (e.g. RS).

Navigation Commands

Use *q* to cancel or exit any command
ma will return user from GSP(MP):CM> to GSP(MP)>
^e c f (control e, then c then f keys) forces console
^b will escape console mode and return to main menu

Help Commands

GSP(MP)> *he NOTEs* to view latest release notes online
GSP(MP)> *he OVerview* to view GSP overview infomation
GSP(MP)> *he TOPics* to view available GSP topics
GSP(MP)> *he LIst* to view available GSP commands

PE - Power Entities On or Off- Turns power on/off to the specified entity: B-CABINET, C-CELL, I-HIOB *RP8400/7410:* T-CABINET, C-CELL, P-PCI DOMAIN (0=Front Right, 1=Front Left)

RE - Reset Entity- Resets the specified entity: C-CELL, I-HIOB, M-MAIN BACKPLANE. *RP8400/7410:* C-CELL, P-PCI DOMAIN, S-SYSTEM BACKPLANE. Not recommended - use RS

RL - Rekey Complex Profile Lock- The RL command rekeys the complex profile lock. This command should only be used to recover from an error where the holder of the lock terminates before releasing the lock. Rarely used.

XD - GSP(MP) Diagnostics and Reset- Diagnostics and/or Reset of GSP(MP). 1=Parameter Chksum, 2=Ping, R=Reset, *RP8400/7410:* 1 and 2 same as Superdome, 3=Soft Reset Master MP, 4=Soft Reset Slave MP, 5=Hard Reset Slave MP Note: bottom button on MP is reset. Holding button longer than 5 sec resets LC and SO parameters.

ADMIN - Commands unique to *Admin* - includes *Serv* & *Oper*

AR - Enable/Disable Automatic Restart- ASR is triggered by timeout of a watchdog timer and resets the partition . Set by Alert level 13. Disabled by default

DATE - Sets Date and Time- Changes the value of the RTC on the GSP(MP). This controls chassis log timestamps.

DC - Reset Parameters to Default Configuration- The DC command can reset all or a subset of the following parameters: CA, EL, ER, IT, LC and SO. Details see GSP(MP)>he command.

DL - Disable LAN Access- The DL command disables telnet to GSP LANs or the MP LAN. Use ND to disable diag access.

EL - Enable LAN Access- Enables telnet access to both GSP LANs or to the MP LAN.

LC- Configure LAN Connections- Modifies the LAN configuration for both GSP LAN ports or the MP LAN The user can set the IP address, network name, subnet mask, and gateway.

ND - Enable/Disable Network Diagnostics- Enable on Superdome to allow JUST and FWUU to operate. *8400/7410* - N/A

SO - Security Options and Access Control- Modifies security options and access control to the GSP(MP): 1=GSP(MP) Wide Parameters 2=User Edit, Add or Delete Parameters

MFG - Enter Manufacturing Level Command Mode- This command is reserved for HP manufacturing and is available for internal use only.

ALERT Levels

0 - No failure, forward progress	8 - Boot possible, performance impaired
1 - GSP alert, no failure	9 - Reserved
2 - Non urgent, operator attn. required	10 - Boot possible, functionality lost
3 - System blocked, waiting for input	11 - Reserved
4 - Unexpected config detected	12 - Software Failure
5 - Boot possible, eviro. condition exists	13 - System hang detected via timer
6 - Boot possible, error exists, action req.	14 - Fatal power or environmental
7 - HPMC detected	15 - Fatal hardware or config problem