MERIDIAN 1 TIPS

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OPTION 11C WHERE IT APPEARS THAT LOOP 0 IS A PRI LOOP AND AN XCT LOOP

```
LD 22
REQ PRT
TYPE CEQU
CEQU
  MPED 8D
  SUPL  000  004  008  012
        016  032  036  040
        044  048  064  068
        072
  XCT   000
  CONF  029  030  031  062
        094  095
  DLOP  NUM DCH FRM LCMT YALM T1TE TRSH
   PRI  0/- 24  ESF B8S  FDL  0    15
        001 23  ESF B8S  FDL  0    15
        002 24  ESF B8S  FDL  -    15
        003 23  ESF B8S  FDL  0    15
  MISP

Superloops->        0                4                8               12
Loops->        1 0      3 2      5 4      7 6      9 8     11 10    13 12   15 14
000095F1 : 00000D0D 00000D0D 00000D0D 00000D0A 00000D0D 00000D0D 00000D0D 00000D0D
                                Change 95f4 to D0D

                                   pri loops
                  16           2   1       3
              17 16    19 18    21 20    23 22    25 24     27 26   29 28    31 30
000095F9 : 00000D0D 00000D0D 00000A0A 0000050A 00000505 00000505 00000205 00000202
```

OPTION 11C LOOP TO CARD SLOT MAPPING FOR MAIN CABINET IS AS FOLLOWS:

LOOP	CARD SLOT
20	1
21	2
22	3
23	4
24	5
25	6
26	7
27	8
28	9

By Allen Russell

OPTION 11C WHERE TTY 0 WAS OUTED IN LD 17 AND CANNOT BE REBUILT YOU RECEIVE SCH5508
(MP12778 IS WHERE I FOUND THIS WORKAROUND)
WORKAROUND: TO REBUILD TTY 0 ON AN OPTION 11C, ALL "PTY" TYPE TTY'S MUST BE REMOVED FIRST. ONCE THE PTY'S ARE REMOVED THEN BUILD TTY 0, THEN BUILD THE PTY'S BACK.

```
REQ  prt
TYPE adan tty
<--------------------tty 0 is gone
ADAN     TTY 1
  TTY_TYPE SDI
  CAB 00
  CARD 00
  PORT 1
  DES  ACD
  BPS  1200
  BITL 7
  STOP 1
  PARY EVEN
  FLOW NO
  USER ACD
  CUST 00
  SSUP NO
  APRT YES
ADAN     TTY 2
  TTY_TYPE SDI
  CAB 00
  CARD 00
  PORT 2
  DES  CDR
  BPS  2400
  BITL 7
  STOP 1
  PARY EVEN
  FLOW NO
  USER CTY
ADAN     TTY 3
  TTY_TYPE PTY
  PORT 3
  DES  otm
  FLOW NO
  USER SCH
  TTYLOG       0
  BANR YES
ADAN     TTY 4
  TTY_TYPE SDI
  CAB 01  FIBR
  DES  SCH
  FLOW NO
  USER MTC SCH BUG
  TTYLOG       0
  BANR YES

REQ  ****

ld 17
CFN000
MEM AVAIL: (U/P): 1182893    USED U P: 129222 64140    TOT: 1376255
SCH5066
```

```
TMDI D-CHANNELS AVAIL:     0    USED:     1    TOT:     1
DCH  AVAIL:    80    USED:     0    TOT:    80
AML  AVAIL:    15    USED:     1    TOT:    16
REQ  chg
TYPE adan
ADAN new tty 0
TTY_TYPE sdi
CAB  0
CDNO 0
PORT 0

SCH5508<----symptom

CDNO ****

>err sch5508


SCH5508
Same card and port number has been used.

Severity:  Info



pdt>p a4d2 <----LOG_IO_PTR @ 00A4D2


0000A4D2 : 0006E79C
pdt>p 6e79c 5
                       DCH     CSL      SDI
0006E79C : 00000005 0006E994 0006E82A 0006E7A1 00000000
pdt>p 6e7a1 b
                     TTY0      TTY1    TTY2     TTY3     TTY4
0006E7A1 : 00000011 00000000 0006E7B2 0006E7D0 0006E7EE 0006E80C 00000000 00000000
0006E7A9 : 00000000 00000000 00000000

TTY 0 HAS NO POINTER


TTY 1
pdt>p 6e7b2 1e

0006E7B2 : 0000001E 00000447 00002001 00000000 00000000 000643D9 001AE64B 00000000
0006E7BA : 00008100 00000000 00000000 00000000 00000007 0000C3C1 000000C4 00000000
0006E7C2 : 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
0006E7CA : 00000000 00000000 00000000 00000000 00000000 00000000

TTY 2
pdt>p 6e7d0 1e

0006E7D0 : 0000001E 00000547 00004002 00000000 00000000 000643E1 001AE626 00000000
0006E7D8 : 00008200 00000000 00000000 00000000 00000007 0000C4C3 000000D2 00000000
0006E7E0 : 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
0006E7E8 : 00000000 00000000 00000000 00000000 00000000 00000000

TTY 3
pdt>p 6e7ee 1e

0006E7EE : 0000001E 00000000 00006003 00000000 00000000 000643E9 001AE5F2 00000000
0006E7F6 : 00000000 00000000 00000000 00000000 00000007 0000F4EF 000000ED 00000000
```

```
0006E7FE : 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
0006E806 : 00000000 00000000 00000000 00000000 00000000 00000000

pdt>sl1input

>ld 22
PT2000

REQ  prt
TYPE adan tty 3

ADAN     TTY 3
  TTY_TYPE PTY
  PORT 3
  DES  otm
  FLOW NO
  USER SCH
  TTYLOG       0
  BANR YES

REQ  ****
OVL000
>ld 37
IOD000
.stat tty 3

TTY  3 : DSBL   DES: otm

.****
OVL000
>ld 17
CFN000
MEM AVAIL: (U/P): 1182893    USED U P: 129222 64140    TOT: 1376255
SCH5066

TMDI D-CHANNELS AVAIL:     0    USED:     1    TOT:     1
DCH  AVAIL:    80    USED:     0    TOT:    80
AML  AVAIL:    15    USED:     1    TOT:    16
REQ  chg
TYPE adan
ADAN out tty 3

MEM AVAIL: (U/P): 1182984    USED U P: 129170 64101    TOT: 1376255
SCH5066

TMDI D-CHANNELS AVAIL:     0    USED:     1    TOT:     1
DCH  AVAIL:    80    USED:     0    TOT:    80
AML  AVAIL:    15    USED:     1    TOT:    16

ADAN DATA REMOVED
ADAN new tty 0
TTY_TYPE sdi
CAB  0
CDNO 0
PORT 0
DES  tty 0
FLOW
ENL
USER mtc sch bug
TTYLOG
BANR
```

```
MEM AVAIL: (U/P): 1182893    USED U P: 129222 64140    TOT: 1376255
SCH5066

TMDI D-CHANNELS AVAIL:     0    USED:     1    TOT:     1
DCH  AVAIL:    80    USED:     0    TOT:    80
AML  AVAIL:    15    USED:     1    TOT:    16

ADAN DATA SAVED
ADAN end

>****
OVL000
>ld 22
PT2000

REQ  prt
TYPE adan tty

ADAN     TTY 0
  TTY_TYPE SDI
  CAB 00
  CARD 00
  PORT 0
  DES  tty0
  FLOW NO
  USER MTC SCH BUG
  TTYLOG       0
  BANR YES
ADAN     TTY 1
  TTY_TYPE SDI
  CAB 00
  CARD 00
  PORT 1
  DES  ACD
  BPS  1200
  BITL 7
  STOP 1
  PARY EVEN
  FLOW NO
  USER ACD
  CUST 00
  SSUP NO
  APRT YES
ADAN     TTY 2
  TTY_TYPE SDI
  CAB 00
  CARD 00
  PORT 2
  DES  CDR
  BPS  2400
  BITL 7
  STOP 1
  PARY EVEN
  FLOW NO
  USER CTY
ADAN     TTY 4
  TTY_TYPE SDI
  CAB 01  FIBR
  DES  SCH
  FLOW NO
```

```
  USER MTC SCH BUG
  TTYLOG       0
  BANR YES

REQ ****
OVL000
>ld 17
CFN000
MEM AVAIL: (U/P): 1182893    USED U P: 129222 64140    TOT: 1376255
SCH5066

TMDI D-CHANNELS AVAIL:     0    USED:     1    TOT:     1
DCH  AVAIL:    80    USED:     0    TOT:    80
AML  AVAIL:    15    USED:     1    TOT:    16
REQ  chg
TYPE adan
ADAN new tty 3
TTY_TYPE pty
PORT 3
DES  otm
FLOW
USER sch
TTYLOG
BANR

MEM AVAIL: (U/P): 1182802    USED U P: 129274 64179    TOT: 1376255
SCH5066

TMDI D-CHANNELS AVAIL:     0    USED:     1    TOT:     1
DCH  AVAIL:    80    USED:     0    TOT:    80
AML  AVAIL:    15    USED:     1    TOT:    16

ADAN DATA SAVED
ADAN end


pdt>p 6e7a1 b

                     TTY0     TTY1     TTY2     TTY3     TTY4
0006E7A1 : 00000011 000643D9 0006E7B2 0006E7D0 0006E7EE 0006E80C 00000000 00000000
0006E7A9 : 00000000 00000000 00000000
pdt>sl1input

ld 22
PT2000

REQ  prt
TYPE adan tty

ADAN     TTY 0
  TTY_TYPE SDI
  CAB 00
  CARD 00
  PORT 0
  DES  tty0
  FLOW NO
  USER MTC SCH BUG
  TTYLOG       0
  BANR YES
ADAN     TTY 1
  TTY_TYPE SDI
```

```
  CAB 00
  CARD 00
  PORT 1
  DES  ACD
  BPS  1200
  BITL 7
  STOP 1
  PARY EVEN
  FLOW NO
  USER ACD
  CUST 00
  SSUP NO
  APRT YES
ADAN     TTY 2
  TTY_TYPE SDI
  CAB 00
  CARD 00
  PORT 2
  DES  CDR
  BPS  2400
  BITL 7
  STOP 1
  PARY EVEN
  FLOW NO
  USER CTY
ADAN     TTY 3
  TTY_TYPE PTY
  PORT 3
  DES  otm
  FLOW NO
  USER SCH
  TTYLOG       0
  BANR YES
ADAN     TTY 4
  TTY_TYPE SDI
  CAB 01  FIBR
  DES  SCH
  FLOW NO
  USER MTC SCH BUG
  TTYLOG       0
  BANR YES

REQ  ****
OVL000
>ld 37
IOD000
.stat

TTY  0 : ENBL   DES: tty0
TTY  1 : ENBL   DES: ACD
TTY  2 : ENBL   DES: CDR
TTY  3 : DSBL   DES: otm
TTY  4 : ENBL ( FIBR 1 )  DES: SCH


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```

IGS to IGS cross-reference

Loops 0-39				Loops 40-79			
source loop	source igs	dest loop	dest igs	source loop	source igs	dest loop	dest igs
128-159	16	0	0	128-159	16	40	4
128-159	17	1	1	128-159	17	41	5
128-159	18	2	2	128-159	18	42	6
128-159	19	3	3	128-159	19	43	7
128-159	16	4	0	128-159	16	44	4
128-159	17	5	1	128-159	17	45	5
128-159	18	6	2	128-159	18	46	6
128-159	19	7	3	128-159	19	47	7
32-63	4	8	0	64-95	8	48	4
32-63	5	9	1	64-95	9	49	5
32-63	6	10	2	64-95	10	50	6
32-63	7	11	3	64-95	11	51	7
32-63	4	12	0	64-95	8	52	4
32-63	5	13	1	64-95	9	53	5
32-63	6	14	2	64-95	10	54	6
32-63	7	15	3	64-95	11	55	7
64-95	8	16	0	96-127	12	56	4
64-95	9	17	1	96-127	13	57	5
64-95	10	18	2	96-127	14	58	6
64-95	11	19	3	96-127	15	59	7
64-95	8	20	0	96-127	12	60	4
64-95	9	21	1	96-127	13	61	5
64-95	10	22	2	96-127	14	62	6
64-95	11	23	3	96-127	15	63	7
96-127	12	24	0	0-31	0	64	8
96-127	13	25	1	0-31	1	65	9
96-127	14	26	2	0-31	2	66	10
96-127	15	27	3	0-31	3	67	11
96-127	12	28	0	0-31	0	68	8
96-127	13	29	1	0-31	1	69	9
96-127	14	30	2	0-31	2	70	10
96-127	15	31	3	0-31	3	71	11
0-31	0	32	4	32-63	4	72	8
0-31	1	33	5	32-63	5	73	9
0-31	2	34	6	32-63	6	74	10
0-31	3	35	7	32-63	7	75	11
0-31	0	36	4	32-63	4	76	8
0-31	1	37	5	32-63	5	77	9
0-31	2	38	6	32-63	6	78	10
0-31	3	39	7	32-63	7	79	11

Loops 80-119				Loops 120-159			
source loop	source igs	dest loop	dest igs	source loop	source igs	dest loop	dest igs
128-159	16	80	8	128-159	16	120	12
128-159	17	81	9	128-159	17	121	13
128-159	18	82	10	128-159	18	122	14
128-159	19	83	11	128-159	19	123	15
128-159	16	84	8	128-159	16	124	12
128-159	17	85	9	128-159	17	125	13
128-159	18	86	10	128-159	18	126	14
128-159	19	87	11	128-159	19	127	15
96-127	12	88	8	0-31	0	128	16
96-127	13	89	9	0-31	1	129	17
96-127	14	90	10	0-31	2	130	18
96-127	15	91	11	0-31	3	131	19
96-127	12	92	8	0-31	0	132	16
96-127	13	93	9	0-31	1	133	17
96-127	14	94	10	0-31	2	134	18
96-127	15	95	11	0-31	3	135	19
0-31	0	96	12	32-63	4	136	16
0-31	1	97	13	32-63	5	137	17
0-31	2	98	14	32-63	6	138	18
0-31	3	99	15	32-63	7	139	19
0-31	0	100	12	32-63	4	140	16
0-31	1	101	13	32-63	5	141	17
0-31	2	102	14	32-63	6	142	18
0-31	3	103	15	32-63	7	143	19
32-63	4	104	12	64-95	8	144	16
32-63	5	105	13	64-95	9	145	17
32-63	6	106	14	64-95	10	146	18
32-63	7	107	15	64-95	11	147	19
32-63	4	108	12	64-95	8	148	16
32-63	5	109	13	64-95	9	149	17
32-63	6	110	14	64-95	10	150	18
32-63	7	111	15	64-95	11	151	19
64-95	8	112	12	96-127	12	152	16
64-95	9	113	13	96-127	13	153	17
64-95	10	114	14	96-127	14	154	18
64-95	11	115	15	96-127	15	155	19
64-95	8	116	12	96-127	12	156	16
64-95	9	117	13	96-127	13	157	17
64-95	10	118	14	96-127	14	158	18
64-95	11	119	15	96-127	15	159	19

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SL-1 /Thor Address Range Summary

(addresses in HEXDECIMAL unless otherwise noted)

Card Type	Address Range				SL-1	Thor 0x13Gzzzzz
SDI (QPC139)**,** **DCHI,** **ESDI,** **MSPS** (NTND02)		**TTY #**	**SDI switch**	**Port**		
	from	0	0	0	0x3000	0x0C000
		1	0	1	0x3010	0x0C040
		2	1	0	0x3020	0x0C080
		3	1	1	0x3030	0x0C0C0
		4	2	0	0x3040	0x0C100
		5	2	1	0x3050	0x0C140
		6	3	0	0x3060	0x0C180
		7	3	1	0x3070	0x0C1C0
		8	4	0	0x3080	0x0C200
		9	4	1	0x3090	0x0C240
		10	5	0	0x30A0	0x0C280
		11	5	1	0x30B0	0x0C2C0
		12	6	0	0x30C0	0x0C300
		13	6	1	0x30D0	0x0C340
		14	7	0	0x30E0	0x0C380
	to	15	7	1	0x30F0	0x0C3C0
MSDL (NT6D80) register format: 0011 1sss ssss rrrr 0011 0 s6 s5 s4 s3 s2 s1 s0 r3 r2 r1 r0 where r3 thru r0 are registers on the MSDL and s6 thru s0 are the MSDL decimal switch settings - max.=decimal 99=0x63 DNUM is the LD17 reference to the card number actually in use. Card starts at a value of 1, DNUM starts at a 0.		**CARD**	**/ DNUM**	**PORT**		
	from	1	0	0	**0x3000**	**0x0C000**
		1	0	1	0x3020	0x0C080
		1	0	2	0x3040	0x0C100
		1	0	3	0x3060	0x0C180
		2	1	0	**0x3080**	**0x0C200**
		2	1	1	0x30A0	0x0C280
		2	1	2	0x30C0	0x0C300
		2	1	3	0x30E0	0x0C380
		3	2	0	**0x3100**	**0x0C400**
		3	2	1	0x3120	0x0C480
		3	2	2	0x3140	0x0C500
		3	2	3	0x3160	0x0C580
		4	3	0	**0x3180**	**0x0C600**
		4	3	1	0x31A0	0x0C680
		4	3	2	0x31C0	0x0C700
		4	3	3	0x31E0	0x0C780
		5	4	0	**0x3200**	**0x0C800**
		5	4	1	0x3220	0x0C880
		5	4	2	0x3240	0x0C900
		5	4	3	0x3260	0x0C980
		6	5	0	**0x3280**	**0x0CA00**
		6	5	1	0x32A0	0x0CA80
		6	5	2	0x32C0	0x0CB00
		6	5	3	0x32E0	0x0CB80
		7	6	0	**0x3300**	**0x0CC00**
		7	6	1	0x3320	0x0CC80
		7	6	2	0x3340	0x0CD00
		7	6	3	0x3360	0x0CD80
		8	7	0	**0x3380**	**0x0CE00**

Cards 9 through 16, inclusive, are addressed in the same format as were cards 1 through 16. Each port on an MSDL card has a range of: SL-1 Thor H.1F H.7F therefore, each card has a range of: H.7F H.1FF	8 7 1 8 7 2 8 7 3 9 8 0 : : : 10 9 0 : : : 11 10 0 : : : 12 11 0 : : : 13 12 0 : : : 14 13 0 : : : 15 14 0 : : : 16 15 0 : : : to	0x33A0 0x33C0 0x33E0 **0x3400** : **0x3480** : **0x3500** : **0x3580** : **0x3600** : **0x3680** : **0x3700** : **0x3780** : 0x37FF	0x0CE80 0x0CF00 0x0CF80 **0x0D000** : **0x0D200** : **0x0D400** : **0x0D600** : **0x0D800** : **0x0DA00** : **0x0DC00** : **0x0DE00** : 0x0DFFF
3PE	from Grp **0** Shelf (side) 0 & 1 Grp **1** Shelf (side) 0 & 1 Grp **2** Shelf (side) 0 & 1 Grp **3** Shelf (side) 0 & 1 Grp **4** Shelf (side) 0 & 1 Grp **5** Shelf (side) 0 & 1 Grp **6** Shelf (side) 0 & 1 Grp **7** Shelf (side) 0 & 1 to (for groups 0-5) For older SBE card (QPC215), base address is the same as 3PE except, Thor address bit 5 (0x20) or SL-1 address bit 3 (0x8) is set to 0. near and far 3PE disabled, both LED's on near 3PE enabled LED off, far 3PE disabled LED on both 3PE disabled, but both LED's off both 3PE enabled, both LED's off	0x6008 0x6009 0x600A 0x600B 0x600C 0x600D 0x600E 0x600F 0x63FD 0x6000 0x6001 0x6002 0x6003 0x6004 0x6005 ------ ------ ------ ------	0x18020 0x18024 0x18028 0x1802C 0x18030 0x18034 0x18038 0x1803C 0x18FF4 0x18000 0x18004 0x18008 0x1800C 0x18010 0x18014 0xFFFFFFFC 0xFFFFFFFD 0xFFFFFFFE 0xFFFFFFFF
CLOCK (CPIO) **(Opt.81)** (QPC775 / 471) (Multigroup)	from to Function Shelf (side) (Same as CPU) BASE 0 LED off 0 LED on 0 BASE 1 LED off 1	0x600E 0x63FF 0x600E 0x602E	0x18038 0x18FFC 0x18038 0x58038 0x5803C 0x180B8 0x580B8

	LED on 1		0x580BC
Clock - Opt.81 Address format	**S** = Shelf (side) 0110 00xx xx**S**x 111x On a read of the clock base address, the data is: xxxx xxx0 00[**E2**][**E1**] [**E0**][**ST1**][**ST0**][**C**] where x=don't care **E2-E0** = Error = 000 = no error 001 = Ref. clock problem (PLL, freerun or holdover) 010 = Tracking error (PLL in freerun or holdover 011 = UART fault (can't track to twin) 100 = VCO is nearing end of control range 111 = Self test error (RAM error) **ST1-ST0** = Status = 00 = Freerun 01 = Tracking on Primary (connector J2) 10 = Tracking on Secondary (connector J1) 11 = Error - see error bits (above) **C** = 0 = This clock inactive (not providing system clock) 1 = This clock is active On a write of the clock base address, the data is: xxxx xxx[**S2**] [**S1**][**S0**][**P2**][**P1**] [**P0**][**ST1**][**ST0**][**C**] where x=don't care **S2-S0** or **P2-P0** (Primary & Secondary Reference Clock Frequencies) 000 = 1.544 MHz (PRI) 001 = 8 KHz 010 = 48 KHz 011 = 56 KHz 100 =2.048 MHz (PRI2) 101 = 1.000 MHz 110 = 2.56 MHz (BRI) 111 = Reserved **ST1-ST0** = Status = 00 = Do not change tracking mode 01 = Lock to Primary Reference (connector J2) 10 = Lock to Secondary Reference (connector J1) 11 = Freerun (do not change reference clock frequency) **C** =		

	0 = Turn clock off (inactive; not providing system clock) (Write C=0 to active clock to make it inactive and force a clock switchover) 1 = Turn clock on (active)		
NETWORK **(CONF** QPC444**,** **ENET** QPC414**,** **MISP ,** **TDS** QPC197 / 251 / etc.**,** **XCT** NT8D17**,** **XNET** NT8D04**)**	from to (for groups 0-4) See next 10 rows in table below for individual loop addresses. Each card slot is dual loop: (5-0/1; 6-2/3; 7-4/5; 8-6/7; 9-8/9; 10-10/11; 11-12/13; 12-14/15)	0x8000 0xA7FF	0x20000 0x29FFC

Network: Grp 0 Shelf 0	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd	Un	**SL-1**	**Thor**
	5	5| 6	J5	J1	0	0	0	0x8000	0x20000
							0 1		1
							0 2		2
							0 3		3
							0 4	- - - 1	4
							0 5		5
							0 6		6
							0 7		7
							0 8	- - - 2	8
							0 9		9
							0 10		A
							0 11		B
							0 12	- - - 3	C
							0 13		D
							0 14		E
							0 15		F
							01	04	10
							02	08	20
							03	0C	30
							04	10	40
							05	14	50
							06	18	60
							07	1C	70
							08	20	80
							09	24	90
							10	28	A0
							11	2C	B0
							12	30	C0
							13	34	D0
							14	38	E0
							15	3C	F0
	5	5| 6	J18	J22	1			0x8040	0x20100
	6	5| 6	J10	J6	2			0x8080	0x20200
	6	5| 6	J13	J17	3			0x80C0	0x20300
	7	7| 8	J5	J1	4			0x8100	0x20400
	7	7| 8	J18	J22	5			0x8140	0x20500
	8	7| 8	J10	J6	6			0x8180	0x20600
	8	7| 8	J13	J17	7			0x81C0	0x20700

	9	9|10	J2	J1	8			0x8200	0x20800
	9	9|10	J21	J22	9			0x8240	0x20900
	10	9|10	J7	J6	10			0x8280	0x20A00
	10	9|10	J16	J17	11			0x82C0	0x20B00
	11	11|12	J2	J1	12			0x8300	0x20C00
	11	11|12	J21	J22	13			0x8340	0x20D00
	12	11|12	J7	J6	14			0x8380	0x20E00
	12	11|12	J16	J17	15			0x83C0	0x20F00
Network: Grp 0 Shelf 1	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd	Un	**SL-1**	**Thor**
	5	5| 6	J3	J1	16	0	0	0x8400	0x21000
						0	1		1
						0	2		2
						0	3		3
						0	4	- - - 1	4
						0	5		5
						0	6		6
						0	7		7
						0	8	- - - 2	8
						0	9		9
						0	10		A
						0	11		B
						0	12	- - - 3	C
						0	13		D
						0	14		E
						0	15		F
						01		04	10
						02		08	20
						03		0C	30
						04		10	40
						05		14	50
						06		18	60
						07		1C	70
						08		20	80
						09		24	90
						10		28	A0
						11		2C	B0
						12		30	C0
						13		34	D0
						14		38	E0
						15		3C	F0
	5	5| 6	J20	J22	17			0x8440	0x21100
	6	5| 6	J8	J6	18			0x8480	0x21200
	6	5| 6	J15	J17	19			0x84C0	0x21300
	7	7| 8	J3	J1	20			0x8500	0x21400
	7	7| 8	J20	J22	21			0x8540	0x21500
	8	7| 8	J8	J6	22			0x8580	0x21600
	8	7| 8	J15	J17	23			0x85C0	0x21700
	9	9|10	J4	J1	24			0x8600	0x21800
	9	9|10	J19	J22	25			0x8640	0x21900
	10	9|10	J9	J6	26			0x8680	0x21A00
	10	9|10	J14	J17	27			0x86C0	0x21B00
	11	11|12	J4	J1	28			0x8700	0x21C00

	11	11|12	J19	J22	29			0x8740	0x21D00
	12	11|12	J9	J6	30			0x8780	0x21E00
	12	11|12	J14	J17	31			0x87C0	0x21F00
Network: Grp 1 Shelf 0	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd	Un	**SL-1**	**Thor**
	5	5| 6	J1	J2	32	0	0	0x8800	0x22000
						0	1		1
						0	2		2
						0	3		3
						0	4	- - - 1	4
						0	5		5
						0	6		6
						0	7		7
						0	8	- - - 2	8
						0	9		9
						0	10		A
						0	11		B
						0	12	- - - 3	C
						0	13		D
						0	14		E
						0	15		F
						01		04	10
						02		08	20
						03		0C	30
						04		10	40
						05		14	50
						06		18	60
						07		1C	70
						08		20	80
						09		24	90
						10		28	A0
						11		2C	B0
						12		30	C0
						13		34	D0
						14		38	E0
						15		3C	F0
	5	5| 6	J22	J21	33			0x8840	0x22100
	6	5| 6	J6	J7	34			0x8880	0x22200
	6	5| 6	J17	J16	35			0x88C0	0x22300
	7	7| 8	J1	J2	36			0x8900	0x22400
	7	7| 8	J22	J21	37			0x8940	0x22500
	8	7| 8	J6	J7	38			0x8980	0x22600
	8	7| 8	J17	J16	39			0x89C0	0x22700
	9	9|10	J5	J2	40			0x8A00	0x22800
	9	9|10	J18	J21	41			0x8A40	0x22900
	10	9|10	J10	J7	42			0x8A80	0x22A00
	10	9|10	J13	J16	43			0x8AC0	0x22B00
	11	11|12	J5	J2	44			0x8B00	0x22C00
	11	11|12	J18	J21	45			0x8B40	0x22D00
	12	11|12	J10	J7	46			0x8B80	0x22E00
	12	11|12	J13	J16	47			0x8BC0	0x22F00

Network: Grp 1 Shelf 1	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd	Un	**SL-1**	**Thor**
	5	5| 6	J3	J2	48	0	0	0x8C00	0x23000
						0	1		1
						0	2		2
						0	3		3
						0	4	- - - 1	4
						0	5		5
						0	6		6
						0	7		7
						0	8	- - - 2	8
						0	9		9
						0	10		A
						0	11		B
						0	12	- - - 3	C
						0	13		D
						0	14		E
						0	15		F
						01		04	10
						02		08	20
						03		0C	30
						04		10	40
						05		14	50
						06		18	60
						07		1C	70
						08		20	80
						09		24	90
						10		28	A0
						11		2C	B0
						12		30	C0
						13		34	D0
						14		38	E0
						15		3C	F0
	5	5| 6	J20	J21	49			0x8C40	0x23100
	6	5| 6	J8	J7	50			0x8C80	0x23200
	6	5| 6	J15	J16	51			0x8CC0	0x23300
	7	7| 8	J3	J2	52			0x8D00	0x23400
	7	7| 8	J20	J21	53			0x8D40	0x23500
	8	7| 8	J8	J7	54			0x8D80	0x23600
	8	7| 8	J15	J16	55			0x8DC0	0x23700
	9	9|10	J4	J2	56			0x8E00	0x23800
	9	9|10	J19	J21	57			0x8E40	0x23900
	10	9|10	J9	J7	58			0x8E80	0x23A00
	10	9|10	J14	J16	59			0x8EC0	0x23B00
	11	11|12	J4	J2	60			0x8F00	0x23C00
	11	11|12	J19	J21	61			0x8F40	0x23D00
	12	11|12	J9	J7	62			0x8F80	0x23E00
	12	11|12	J14	J16	63			0x8FC0	0x23F00

Network: Grp 2 Shelf 0	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd	Un	**SL-1**	**Thor**
	5	5| 6	J1	J3	64	0	0	0x9000	0x24000
						0	1		1
						0	2		2

					0	3		3
					0	4	- - - 1	4
					0	5		5
					0	6		6
					0	7		7
					0	8	- - - 2	8
					0	9		9
					0	10		A
					0	11		B
					0	12	- - - 3	C
					0	13		D
					0	14		E
					0	15		F
					01		04	10
					02		08	20
					03		0C	30
					04		10	40
					05		14	50
					06		18	60
					07		1C	70
					08		20	80
					09		24	90
					10		28	A0
					11		2C	B0
					12		30	C0
					13		34	D0
					14		38	E0
					15		3C	F0
5	5| 6	J22	J20	65		0x9040	0x24100
6	5| 6	J6	J8	66		0x9080	0x24200
6	5| 6	J17	J15	67		0x90C0	0x24300
7	7| 8	J1	J3	68		0x9100	0x24400
7	7| 8	J22	J20	69		0x9140	0x24500
8	7| 8	J6	J8	70		0x9180	0x24600
8	7| 8	J17	J15	71		0x91C0	0x24700
9	9|10	J2	J3	72		0x9200	0x24800
9	9|10	J21	J20	73		0x9240	0x24900
10	9|10	J6	J8	74		0x9280	0x24A00
10	9|10	J17	J15	75		0x92C0	0x24B00
11	11|12	J2	J3	76		0x9300	0x24C00
11	11|12	J21	J20	77		0x9340	0x24D00
12	11|12	J6	J8	78		0x9380	0x24E00
12	11|12	J17	J15	79		0x93C0	0x24F00
Network: Grp 2 Shelf 1	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd	Un	**SL-1**	**Thor**
	5	5| 6	J5	J3	80	0	0	0x9400	0x25000
						0	1		1
						0	2		2
						0	3		3
						0	4	- - - 1	4
						0	5		5
						0	6		6
						0	7		7

						0	8	- - - 2	8
						0	9		9
						0	10		A
						0	11		B
						0	12	- - - 3	C
						0	13		D
						0	14		E
						0	15		F
						01		04	10
						02		08	20
						03		0C	30
						04		10	40
						05		14	50
						06		18	60
						07		1C	70
						08		20	80
						09		24	90
						10		28	A0
						11		2C	B0
						12		30	C0
						13		34	D0
						14		38	E0
						15		3C	F0
	5	5| 6	J18	J20	81			0x9440	0x25100
	6	5| 6	J10	J8	82			0x9480	0x25200
	6	5| 6	J13	J15	83			0x94C0	0x25300
	7	7| 8	J5	J3	84			0x9500	0x25400
	7	7| 8	J18	J20	85			0x9540	0x25500
	8	7| 8	J10	J8	86			0x9580	0x25600
	8	7| 8	J13	J15	87			0x95C0	0x25700
	9	9|10	J4	J3	88			0x9600	0x25800
	9	9|10	J19	J20	89			0x9640	0x25900
	10	9|10	J9	J8	90			0x9680	0x25A00
	10	9|10	J14	J15	91			0x96C0	0x25B00
	11	11|12	J4	J3	92			0x9700	0x25C00
	11	11|12	J19	J20	93			0x9740	0x25D00
	12	11|12	J9	J8	94			0x9780	0x25E00
	12	11|12	J14	J15	95			0x97C0	0x25F00
Network: Grp 3 Shelf 0	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd	Un	**SL-1**	**Thor**
	5	5| 6	J1	J4	96	0	0	0x9800	0x26000
						0	1		1
						0	2		2
						0	3		3
						0	4	- - - 1	4
						0	5		5
						0	6		6
						0	7		7
						0	8	- - - 2	8
						0	9		9
						0	10		A
						0	11		B
						0	12	- - - 3	C

						0	13		D
						0	14		E
						0	15		F
						01		04	10
						02		08	20
						03		0C	30
						04		10	40
						05		14	50
						06		18	60
						07		1C	70
						08		20	80
						09		24	90
						10		28	A0
						11		2C	B0
						12		30	C0
						13		34	D0
						14		38	E0
						15		3C	F0
	5	5| 6	J22	J19	97			0x9840	0x26100
	6	5| 6	J6	J9	98			0x9880	0x26200
	6	5| 6	J17	J14	99			0x98C0	0x26300
	7	7| 8	J1	J4	100			0x9900	0x26400
	7	7| 8	J22	J19	101			0x9940	0x26500
	8	7| 8	J6	J9	102			0x9980	0x26600
	8	7| 8	J17	J14	103			0x99C0	0x26700
	9	9|10	J2	J4	104			0x9A00	0x26800
	9	9|10	J21	J19	105			0x9A40	0x26900
	10	9|10	J7	J9	106			0x9A80	0x26A00
	10	9|10	J16	J14	107			0x9AC0	0x26B00
	11	11|12	J2	J4	108			0x9B00	0x26C00
	11	11|12	J21	J19	109			0x9B40	0x26D00
	12	11|12	J7	J9	110			0x9B80	0x26E00
	12	11|12	J16	J14	111			0x9BC0	0x26F00
Network: Grp 3 Shelf 1	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd	Un	**SL-1**	**Thor**
	5	5| 6	J3	J4	112	0	0	0x9C00	0x27000
						0	1		1
						0	2		2
						0	3		3
						0	4	- - - 1	4
						0	5		5
						0	6		6
						0	7		7
						0	8	- - - 2	8
						0	9		9
						0	10		A
						0	11		B
						0	12	- - - 3	C
						0	13		D
						0	14		E
						0	15		F
						01		04	10
						02		08	20

						03	0C	30
						04	10	40
						05	14	50
						06	18	60
						07	1C	70
						08	20	80
						09	24	90
						10	28	A0
						11	2C	B0
						12	30	C0
						13	34	D0
						14	38	E0
						15	3C	F0
	5	5| 6	J20	J19	113		0x9C40	0x27100
	6	5| 6	J8	J9	114		0x9C80	0x27200
	6	5| 6	J15	J14	115		0x9CC0	0x27300
	7	7| 8	J3	J4	116		0x9D00	0x27400
	7	7| 8	J20	J19	117		0x9D40	0x27500
	8	7| 8	J8	J9	118		0x9D80	0x27600
	8	7| 8	J15	J14	119		0x9DC0	0x27700
	9	9|10	J5	J4	120		0x9E00	0x27800
	9	9|10	J18	J19	121		0x9E40	0x27900
	10	9|10	J10	J9	122		0x9E80	0x27A00
	10	9|10	J13	J14	123		0x9EC0	0x27B00
	11	11|12	J5	J4	124		0x9F00	0x27C00
	11	11|12	J18	J19	125		0x9F40	0x27D00
	12	11|12	J10	J9	126		0x9F80	0x27E00
	12	11|12	J13	J14	127		0x9FC0	0x27F00
Network: Grp 4 Shelf 0	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd Un	**SL-1**	**Thor**
	5	5| 6	J1	J5	128	0 0	0xA000	0x28000
						0 1		1
						0 2		2
						0 3		3
						0 4	- - - 1	4
						0 5		5
						0 6		6
						0 7		7
						0 8	- - - 2	8
						0 9		9
						0 10		A
						0 11		B
						0 12	- - - 3	C
						0 13		D
						0 14		E
						0 15		F
						01	04	10
						02	08	20
						03	0C	30
						04	10	40
						05	14	50
						06	18	60
						07	1C	70

							08	20	80
							09	24	90
							10	28	A0
							11	2C	B0
							12	30	C0
							13	34	D0
							14	38	E0
							15	3C	F0
	5	5| 6	J22	J18	129			0xA040	0x28100
	6	5| 6	J6	J10	130			0xA080	0x28200
	6	5| 6	J17	J13	131			0xA0C0	0x28300
	7	7| 8	J1	J5	132			0xA000	0x28400
	7	7| 8	J22	J18	133			0xA040	0x28500
	8	7| 8	J6	J10	134			0xA080	0x28600
	8	7| 8	J17	J13	135			0xA0C0	0x28700
	9	9|10	J2	J5	136			0xA000	0x28800
	9	9|10	J21	J18	137			0xA040	0x28900
	10	9|10	J7	J10	138			0xA080	0x28A00
	10	9|10	J16	J13	139			0xA0C0	0x28B00
	11	11|12	J2	J5	140			0xA000	0x28C00
	11	11|12	J21	J18	141			0xA040	0x28D00
	12	11|12	J7	J10	142			0xA080	0x28E00
	12	11|12	J16	J13	143			0xA0C0	0x28F00
Network: Grp 4 Shelf 1	ENET slot	XNET slot	JUNC. in	JUNC. out	LOOP #	Cd	Un	**SL-1**	**Thor**
	5	5| 6	J3	J5	144	0	0	0xA400	0x29000
						0	1		1
						0	2		2
						0	3		3
						0	4	- - - 1	4
						0	5		5
						0	6		6
						0	7		7
						0	8	- - - 2	8
						0	9		9
						0	10		A
						0	11		B
						0	12	- - - 3	C
						0	13		D
						0	14		E
						0	15		F
						01		04	10
						02		08	20
						03		0C	30
						04		10	40
						05		14	50
						06		18	60
						07		1C	70
						08		20	80
						09		24	90
						10		28	A0
						11		2C	B0
						12		30	C0

					13	34	D0
					14	38	E0
					15	3C	F0
	5	5| 6	J20	J18	145	0xA440	0x29100
	6	5| 6	J8	J10	146	0xA480	0x29200
	6	5| 6	J15	J13	147	0xA4C0	0x29300
	7	7| 8	J3	J5	148	0xA500	0x29400
	7	7| 8	J20	J18	149	0xA540	0x29500
	8	7| 8	J8	J10	150	0xA580	0x29600
	8	7| 8	J15	J13	151	0xA5C0	0x29700
	9	9|10	J4	J5	152	0xA600	0x29800
	9	9|10	J19	J18	153	0xA640	0x29900
	10	9|10	J9	J10	154	0xA680	0x29A00
	10	9|10	J14	J13	155	0xA6C0	0x29B00
	11	11|12	J4	J5	156	0xA700	0x29C00
	11	11|12	J19	J18	157	0xA740	0x29D00
	12	11|12	J9	J10	158	0xA780	0x29E00
	12	11|12	J14	J13	159	0xA7C0	0x29F00

PS (QPC43), **MSPS** (NTND02)	from to (for groups 0-4)		0xC000 0xD3FF	0x30000 0x34FFC
PS #	**Group**	**Shelf** (side)		
0	0	0	0xC000	0x30000
1	0	1	0xC200	0x30800
2	1	0	0xC400	0x31000
3	1	1	0xC600	0x31800
4	2	0	0xC800	0x32000
5	2	1	0xCA00	0x32800
6	3	0	0xCC00	0x33000
7	3	1	0xCE00	0x33800
8	4	0	0xD000	0x34000
9	4	1	0xD200	0x34800

General PS address format
PS# = g2 g1 g0 s

110[g2] [g1][g0][s]x xxxx x[fn1][fn0][r]
where fn1 fn0 = function control register locations
r = -READY interrupt enable
(=1 on writes to MESSOUT register)
(=0 to disable future -READY interrupts)
* Data inverted when writing/reading.
* Invert before interpreting.
[ie: The "L" bit will be 0 (=1,(ie: active), after inverting) during a read if a -LINT interrupt is pending]

Register Read	**fn1**	**fn0**	**r**	**Register Data**
LOOPIDI	0	0	x	L R O S xxxx[x] g2g1g0 [L]LLLL where L=-LINT interrupt pending (cleared by reading the MESSIN register) R=-READY interrupt (cleared by writing to MESSOUT register) O=Output status of PS S=Stuck if perpetual PS input
MESSIN	0	1	x	xxxx ss cccc uu ttttt

(peripheral pack) (or terminal) TERMINAL RTC **Register Write** LOOPIDO MESSOUT	where s = 2 bits for shelf c = 4 bits for card u = 2 bits for unit t = 5 bits for timeslot Data (11 bits) Register (2 bits) Chip (3 bits) 1 0 x L R O S xxxx Term(8 bits) 1 1 1 xxxx xxxx xxxx Time(4 bits) 0 0 x R/W S/L xxxx xxxx x[x] [L]LLL 0 1 x Xxx Shelf(2) Card(4) Unit(2) TS(5) or if S/L=1 written toLOOPIDO Data(11) Register(2) Chip(3)		
IGS	from to (for groups 0-4)	0xE0000 0xE9FF	0x38000 0x3A7FC
CLOCK **(OMEGA & CPNET)** **(Opt.51/61 & 51C/61C)** (single group) Clock- Opt.51/61/51c/61c address format	from to Function Shelf (side) (Same as CPU) BASE 0 LED off 0 LED on 0 BASE 1 LED off 1 LED on 1 **S** = Shelf (side) 1110 xxxx xx**S**x xxxx See previous clock address format section for decoding of reads/writes to clock base address	0xE000 0xEFFF 0xE000 0xE020	0x38000 0x3BFFC 0x38000 0x78000 0x78004 0x38080 0x78080 0x78084
CLOCK (CPNET) **(Opt.81ci)** (multigroup) ***(require -H vintage Clock Controller)*** Clock-H Opt.81ci (future) address format	from to Function Shelf (side) (Same as CPU) BASE 0 LED off 0 LED on 0 BASE 1 LED off 1 LED on 1 **S** = Shelf (side) 1111 xxxx xx**S**x xxxx See previous clock address format section for	0xF000 0xFFFF 0xF000 0xF020	0x3C000 0x3FFFC 0x3C000 0x7C000 0x7C004 0x3C080 0x7C080 0x7C084

	decoding of reads/writes to clock base address		
CNI / Network **(from CP)**	from to	- - - - - - - -	0x13000000 0x135FFFFF
	Typical **CPIO** [NT6D68] location		
CNI-3PE Group	Slot Port 4x15 IPB cable connector		
0	8 1 8D, 8F	- - - -	0x13000000
1	9 0 9A, 9C	- - - -	0x13100000
2	9 1 9D, 9F	- - - -	0x13200000
3	10 0 10A, 10C	- - - -	0x13300000
4	10 1 10D, 10F	- - - -	0x13400000
5	8 0 8A, 8C	- - - -	0x13500000
	Typical **CPNET** [NT9D11] location		
CNI-3PE Group	Slot Port 4x15 IPB cable connector		
0	12 0 12A, 12C	- - - -	0x13000000
1	12 1 12D, 12F	- - - -	0x13100000
2	13 0 13A, 13C	- - - -	0x13200000
3	13 1 13D, 13F	- - - -	0x13300000
4	14 0 14A, 14C	- - - -	0x13400000
(Slots 8 to 14)	BIC CSR from BIC CSR to	- - - - - - - -	0xFF [E/F] 08000 0xFF [E/F] 0EFFF
CP **(from CP)**	CP EEPROM from CP EEPROM to (512Kb)	- - - - - - - -	0x00000000 0x0007FFFF
(BIC, CMB, SRA)	SRAM (256Kb)	- - - -	Used as cache
	BIC (local) CMB SRA RS-232 base	- - - - - - - - - - - - - - - -	0x00100000 0x00110000 0x00120000 0x001200C0
	CP ASICs from CP ASICs to	- - - - - - - -	0x00100000 0x0012FFFF
	DRAM from DRAM to (to 96Mb max.)	- - - - - - - - - - - -	0x04000000 0x057FFFFF 0x09FFFFFF
	CSR (from) CSR (to) (2Mb max.)	- - - - - - - -	0xFFE00000 0xFFFFFFFF
CPII **(from CPII)**	CPII Flash EEPROM from (mirror 0x04000000) CPII Flash EEPROM to (1Mb)	- - - - - - - -	0x00000000 0x000FFFFF
(BIC, CMB, SRA)	CPII ASICs from BIC (local) CMB SRA RS-232 base CPII ASICs to	- -	0x00100000 0x00100000 0x00110000 0x00120000 0x001200C0 0x0012FFFF

	SRAM Reserved from				- - - -	0x02000000
	SRAM Reserved to (2Mb max.)				- - - -	0x021FFFFF
	and Flash EEPROM from				- - - -	*0x04000000*
	Flash EEPROM to				- - - -	*0x07FFFFFF*
	DRAM from				- - - -	0x08000000
	DRAM to				- - - -	0x0FFFFFFF
		Shelf	**Side**	**Slot *(decimal)***		
IPB CSR [backplanes	CSR (from)	0	0	0	- - - -	0xFFE00000
CPIO: NT6D68		0	0	8		0xFFE08000
CPNET: NT9D11		0	0	9		0xFFE09000
		0	0	10		0xFFE0A000
		0	0	11		0xFFE0B000
		0	0	12		0xFFE0C000
		0	0	13		0xFFE0D000
		0	0	14		0xFFE0E000
		0	0	15		0xFFE0F000
		0	0	16		0xFFE10000
		0	0	17		0xFFE11000
		0	1	0		0xFFF00000
		0	1	8		0xFFF08000
		0	1	9		0xFFF09000
		0	1	10		0xFFF0A000
		0	1	11		0xFFF0B000
		0	1	12		0xFFF0C000
		0	1	13		0xFFF0D000
		0	1	14		0xFFF0E000
		0	1	15		0xFFF0F000
		0	1	16		0xFFF10000
		0	1	17		0xFFF11000
		1	0	0		0xFFE20000
		1	1	0		0xFFF20000
		2	0	0		0xFFE40000
		2	1	0		0xFFF40000
		3	0	0		0xFFE60000
		3	1	0		0xFFF60000
		4	0	0		0xFFE80000
		4	1	0		0xFFF80000
		5	0	0		0xFFEA0000
		5	1	0		0xFFFA0000
		6	0	0		0xFFEC0000
		6	1	0		0xFFFC0000
		7	0	0		0xFFEE0000
	CSR (to)	7	1	0		0xFFFE0000
					- - - -	0xFFFFFFFF
IOP	Full Range - from				- - - -	0x10000000
(from CP)	Full Range - to				- - - -	0X1027FFFF
[NT6D63] ***(Slot 16)***						
	EEPROM (from)				- - - -	0x10000000
	EEPROM (to)				- - - -	0x1001FFFF
	BIC CSR from				- - - -	0xFF [E/F] 10000
	BIC CSR to				- - - -	0xFF [E/F] 10FFF
	IOP CNTL				- - - -	0x10140000

	Program Timer	- - - -	0x10150000
	Data Cartridge	- - - -	0x10160000
	RS-232	- - - -	0x10170000
	SCSI	- - - -	0x10180000
	Ethernet Control	- - - -	0x101A0000
	Ethernet SRAM	- - - -	0x101B0000
	SRAM (from)	- - - -	0x10200000
	SRAM (to) (512Kb)	- - - -	0x1027FFFF

CANNOT SWITCH CORES IN LD 135
HWI404-SWO 1: Switchover denied, other side deemed "not better"

```
pdt>rdtail 33
...rd : showing 33 records up to the newest record (rec 422)
  390 : (1/8/02 12:13:41.810) BUG6247 EvtColl: AAL file access error.
  391 : (1/8/02 12:15:03.245) OVL436 B-tree read failed for language 0, rrn = 2
  392 : (1/8/02 12:15:03.251) OVL448 System message lookup is temporarily unavailable.
        Wait 30 seconds and repeat request.
  393 : (1/8/02 12:18:55.090) HWI533 CMB: Synchronization of memories completed
  394 : (1/8/02 12:21:21.578) CCED760 SWO 0: Graceful switch-over to side 1 requested
  395 : (1/8/02 12:21:21.020) HWI003 HI Init: Graceful SWO Start continues on side 1
  396 : (1/8/02 12:21:21.027) HWI004 HI Init: Phase 5("objects link") begins
  397 : (1/8/02 12:21:21.066) HWI004 HI Init: Phase 7("objects enable") begins
  398 : (1/8/02 12:21:21.168) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  399 : (1/8/02 12:21:21.174) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
       ** Warning: Attached group will be Out of Service **
  400 : (1/8/02 12:21:21.183) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  401 : (1/8/02 12:21:22.942) COM000 Ethernet driver: device unit 0 is initialized OK.
  402 : (1/8/02 12:21:23.138) HWI007 HI Init: SWO  Start complete at side 1 in 2 seconds
  403 : (1/8/02 12:21:23.144) CCED762 SWO 1: Graceful switch-over to side 1 completed
         Previous Graceful SWO: at 30/7/02 16:59:53
  404 : (1/8/02 12:22:44.001) CCED760 SWO 1: Graceful switch-over to side 0 requested
  405 : (1/8/02 12:22:44.020) HWI003 HI Init: Graceful SWO Start continues on side 0
  406 : (1/8/02 12:22:44.027) HWI004 HI Init: Phase 5("objects link") begins
  407 : (1/8/02 12:22:44.063) HWI004 HI Init: Phase 7("objects enable") begins
  408 : (1/8/02 12:22:44.164) CNI012 CNIP 0 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  409 : (1/8/02 12:22:44.170) CNI012 CNIP 0 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  410 : (1/8/02 12:22:44.179) CNI012 CNIP 0 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  411 : (1/8/02 12:22:47.942) COM000 Ethernet driver: device unit 0 is initialized OK.
  412 : (1/8/02 12:22:47.007) HWI007 HI Init: SWO  Start complete at side 0 in 2 seconds
  413 : (1/8/02 12:22:47.647) HWI003 HI Init: Graceful SWO Start continues on side 1
  414 : (1/8/02 12:22:47.003) HWI004 HI Init: Phase 5("objects link") begins
  415 : (1/8/02 12:22:47.043) HWI004 HI Init: Phase 7("objects enable") begins
  416 : (1/8/02 12:22:47.144) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  417 : (1/8/02 12:22:47.150) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  418 : (1/8/02 12:22:47.159) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  419 : (1/8/02 12:22:49.924) COM000 Ethernet driver: device unit 0 is initialized OK.
  420 : (1/8/02 12:22:49.979) HWI007 HI Init: SWO  Start complete at side 1 in 2 seconds
  421 : (1/8/02 12:22:49.983) HWI404 SWO 1: Switchover denied, other side deemed "not better"
  422 : (1/8/02 12:29:24.066) BUG7200 HI: Assert failed
value = 0 = 0x0
pdt>
pdt>sl1input

OVL111 IDLE   0
OVL111  TTY 01      0
>loii
PASS?
```

```
 WARNING: THE PROGRAMS AND DATA STORED ON THIS SYSTEM ARE LICENSED TO
 OR ARE THE PROPERTY OF NT/BNR AND ARE LAWFULLY AVAILABLE ONLY TO
 AUTHORIZED USERS FOR APPROVED PURPOSES. UNAUTHORIZED ACCESS TO ANY
 PROGRAM OR DATA ON SYSTEM IS NOT PERMITTED. THIS SYSTEM MAY BE
 MONITORED AT ANY TIME FOR OPERATIONAL REASONS. THEREFORE, IF YOU
 ARE NOT AN AUTHORIZED USER, DO NOT ATTEMPT TO LOGIN.

OVL111 IDLE   0
OVL111  TTY 01      0
TTY #03 LOGGED IN 12:32   1/8/2002

>ld 135
CCED000
.test ipb
CCED013 Performing diagnostics. Wait for test completion before continuing.
HWI534 CMB: Synchronization of memories begun: CP 1 master

OK
.
HWI533 CMB: Synchronization of memories completed

CCED000
.stat cpu
cp 1 15 PASS NORMAL ENBL

simm 1 0 ENBL
simm 1 1 ENBL
simm 1 2 ENBL
simm 1 3 ENBL
simm 1 4 ENBL
simm 1 5 ENBL

cp 0 15 PASS NORMAL STDBY

simm 0 0 ENBL
simm 0 1 ENBL
simm 0 2 ENBL
simm 0 3 ENBL
simm 0 4 ENBL
simm 0 5 ENBL
.dspl all
.cdsp
OK
.stat cni
cni 1 12 0: remote = group 0 ENBL
cni 1 12 1: remote = NONE

cni 0 12 0: remote = group 0 ENBL
cni 0 12 1: remote = NONE
.test cni 0 12 0
CCED013 Performing diagnostics. Wait for test completion before continuing.
HWI534 CMB: Synchronization of memories begun: CP 1 master

pdt>ll

Directory of '/p/etc':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Jul-27-2002  21:57:14   .                         <DIR>
```

```
       512   Jul-27-2002  21:57:14   ..                          <DIR>
       179   Jul-27-2002  22:19:22   DEBUG
        24   Jul-27-2002  22:19:24   NETSTART
       285   Jul-27-2002  22:19:24   NOSL1
       123   Jul-27-2002  22:19:26   TOOLS

pdt>cd /u/db
pdt>ll

Directory of '/u/db':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:41:40   .                           <DIR>
       512   Feb-03-1993  16:41:40   ..                          <DIR>
       512   Feb-03-1993  16:42:48   HI                          <DIR>
       512   Feb-03-1993  16:43:06   HI_BAK                      <DIR>
       512   Feb-03-1993  16:43:14   HI_TMP                      <DIR>
        11   Aug-01-2002  00:04:52   LASTARC.STT
    144384   Jul-31-2002  00:04:20   DATABASE.BAK
    144384   Aug-01-2002  00:04:20   DATABASE.REC
      1024   Jul-31-2002  00:04:20   CONFIG.BAK
       214   Jul-27-2002  22:49:46   HDBAK.OK
      1024   Aug-01-2002  00:04:20   CONFIG.REC

pdt>cd ..
pdt>ll

Directory of '/u':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:41:40   DB                          <DIR>
       512   Feb-03-1993  16:42:00   PATCH                       <DIR>
       512   Feb-03-1993  16:42:14   RPT                         <DIR>
       512   Sep-29-1997  16:44:54   SMP_DB                      <DIR>

pdt>cd smp_db
pdt>ll

Directory of '/u/smp_db':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Sep-29-1997  16:44:54   .                           <DIR>
       512   Sep-29-1997  16:44:54   ..                          <DIR>
       467   Aug-01-2002  12:10:58   VIEWCFG.TMP
    333008   Aug-01-2002  12:12:30   AAL.DAT
         6   Jul-31-2002  00:04:18   SMPCONF.BAK
        31   Aug-01-2002  00:04:20   EPTFLAG.DB
         0   Aug-01-2002  00:04:20   EPTDELTA.DB
         0   Jul-31-2002  00:04:20   SMPSERV.BAK
         6   Aug-01-2002  00:04:18   SMPCONF.DB
         0   Aug-01-2002  00:04:18   SMPSERV.DB

pdt>rdtail 50

...rdError: failed to seek to the header of "/u/rpt/rpt.log"
value = -1 = 0xFFFFFFFF

pdt>rdopen
```

```
... rdOpen: failed to close file: "/u/rpt/rpt.log" (fp = 0x4328cb0) ...
... rdOpen: continue anyway ...

...rd : 26 new reports arrived since last command

           Work file :  "/u/rpt/rpt.log"
         File status :  full(old reports are replaced by new ones)
       File capacity :  738
          oldest rec :  449 (21/ 5/02 00:00:06)
         current rec :  448 ( 1/ 8/02 12:41:54)
          newest rec :  448 ( 1/ 8/02 12:41:54)
        display size :  -33 ( 1/ 8/02 12:46:46)

value = 0 = 0x0

pdt>rdtail 50
...rd : showing 50 records up to the newest record (rec 448)
  399 : (1/8/02 12:21:21.174) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  400 : (1/8/02 12:21:21.183) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  401 : (1/8/02 12:21:22.942) COM000 Ethernet driver: device unit 0 is initialized OK.
  402 : (1/8/02 12:21:23.138) HWI007 HI Init: SWO  Start complete at side 1 in 2 seconds
  403 : (1/8/02 12:21:23.144) CCED762 SWO 1: Graceful switch-over to side 1 completed
         Previous Graceful SWO: at 30/7/02 16:59:53
  404 : (1/8/02 12:22:44.001) CCED760 SWO 1: Graceful switch-over to side 0 requested
  405 : (1/8/02 12:22:44.020) HWI003 HI Init: Graceful SWO Start continues on side 0
  406 : (1/8/02 12:22:44.027) HWI004 HI Init: Phase 5("objects link") begins
  407 : (1/8/02 12:22:44.063) HWI004 HI Init: Phase 7("objects enable") begins
  408 : (1/8/02 12:22:44.164) CNI012 CNIP 0 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  409 : (1/8/02 12:22:44.170) CNI012 CNIP 0 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  410 : (1/8/02 12:22:44.179) CNI012 CNIP 0 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  411 : (1/8/02 12:22:47.942) COM000 Ethernet driver: device unit 0 is initialized OK.
  412 : (1/8/02 12:22:47.007) HWI007 HI Init: SWO  Start complete at side 0 in 2 seconds
  413 : (1/8/02 12:22:47.647) HWI003 HI Init: Graceful SWO Start continues on side 1
  414 : (1/8/02 12:22:47.003) HWI004 HI Init: Phase 5("objects link") begins
  415 : (1/8/02 12:22:47.043) HWI004 HI Init: Phase 7("objects enable") begins
  416 : (1/8/02 12:22:47.144) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  417 : (1/8/02 12:22:47.150) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  418 : (1/8/02 12:22:47.159) CNI012 CNIP 1 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  419 : (1/8/02 12:22:49.924) COM000 Ethernet driver: device unit 0 is initialized OK.
  420 : (1/8/02 12:22:49.979) HWI007 HI Init: SWO  Start complete at side 1 in 2 seconds
  421 : (1/8/02 12:22:49.983) HWI404 SWO 1: Switchover denied, other side deemed "not better"
  422 : (1/8/02 12:29:24.066) BUG7200 HI: Assert failed
value = 0 = 0x0
```

```
pdt>cd /u/rpt
pdt>ll

Directory of '/u/rpt':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
                                          <---no (.) and (..) means directory is corrupted
      1580   Aug-01-2002  12:27:10   ACCESS.LOG
    499576   Aug-01-2002  12:47:22   RPT.LOG

pdt>cd /u

pdt>ll

Directory of '/u/db':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:41:40   .                         <DIR>
       512   Feb-03-1993  16:41:40   ..                        <DIR><---should look like this
       512   Feb-03-1993  16:42:48   HI                        <DIR>
       512   Feb-03-1993  16:43:06   HI_BAK                    <DIR>
       512   Feb-03-1993  16:43:14   HI_TMP                    <DIR>
        11   Aug-01-2002  00:04:52   LASTARC.STT
    144384   Jul-31-2002  00:04:20   DATABASE.BAK
    144384   Aug-01-2002  00:04:20   DATABASE.REC
      1024   Jul-31-2002  00:04:20   CONFIG.BAK
       214   Jul-27-2002  22:49:46   HDBAK.OK
      1024   Aug-01-2002  00:04:20   CONFIG.REC


pdt>rename /u/rpt /u/arr
pdt>ll

Directory of '/u':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:41:40   DB                        <DIR>
       512   Feb-03-1993  16:42:00   PATCH                     <DIR>
       512   Feb-03-1993  16:42:14   ARR                       <DIR>
       512   Sep-29-1997  16:44:54   SMP_DB                    <DIR>

pdt>mkdir rpt
pdt>ll

Directory of '/u':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:41:40   DB                        <DIR>
       512   Feb-03-1993  16:42:00   PATCH                     <DIR>
       512   Feb-03-1993  16:42:14   ARR                       <DIR>
       512   Sep-29-1997  16:44:54   SMP_DB                    <DIR>
       512   Aug-01-2002  12:53:08   RPT                       <DIR>

pdt>cd rpt
```

```
pdt>ll

Directory of '/u/rpt':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Aug-01-2002  12:53:08   .                          <DIR>
       512   Aug-01-2002  12:53:08   ..                         <DIR>



pdt>
pdt>reboot -1

SYS700 02 - ROM created on Thu Nov 12 15:06:48 PST 1998
SYS702 48 - DRAM size (in megs) - Banks 123456   populated
SYS700 04 - Booting ROM OS

Meridian 1 X11 ROM System Software
Release     : x112355
Created     : Thu Nov 12 15:06:16 PST 1998

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U.S. Government users subject to "Restricted Rights" under FAR & DFAR.

Starting at 0x4040000...

Meridian 1 X11 System Software
Release     : x112355
Created     : Thu Nov 12 15:07:11 PST 1998
Loaded      : 1/8/02 13:00:09 from '/p/os/diskos'

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(ROM OS)                SRPT4507 CP SINGLE MODE: both switches = MAINT
         Check that one or both CP Norm/Maint switches are in Norm Mode (Up)
(ROM OS)                SRPT720 ROM OS 0: Cold Start. Running on CP 0

PDT Ready!

Loading SL1 .(ROM OS)                SRPT726 ROM OS 0: Loading 'diskos' from /p/
os/diskos
.....................(1/8/02 13:00:15.605) BUG6236 System fails to resolve the
IP address conflict Both Primary and Secondary addresses are being used
........(1/8/02 13:00:15.611) BUG7497 OS: Ethernet Init failed Check ethernet address

(1/8/02 13:00:19.477) SRPT730 OS 0: Cold Start
         Release:  x112355
         Created:  Thu Nov 12 15:07:11 PST 1998

SYS000 000400 000000 000000 000000 CPU 0
SYSDB RLS/ISS: 2355 DATE/TIME: 1/8/2002 00:04:04 RECS: 142 SEQNO: 2242
SYSLOAD RELEASE 23.55
DONE
```

```
INI000 00000000 13 01 22 00000000 00000000 00000000 00000000 0 ? 00000000
SRPT752 INI 0: INI completed in 79 seconds

XMI101 4

XMI101 8

XMI101 12

XMI101 4

XMI101 8

XMI101 12

DSET000 DOWN LOAD 0 0 0 0 0 0 0 164053

INI014 000000E0 000000E8

INI002 0000008F 0000008A 00000080 00000081 00000084 00000085 00000086 00000087 0
0000088

INI002 00000089

ERR225 0 5

OVL111 IDLE   0
>

PDT:  login on /sio/1
Password:
PDT in Progress. Please Wait....

Done!

pdt>cd /u/rpt
pdt>ll

Directory of '/u/rpt':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Aug-01-2002  12:53:08   .                        <DIR><--looks good now
       512   Aug-01-2002  12:53:08   ..                       <DIR>
     29756   Aug-01-2002  13:02:38   RPT.LOG
        80   Aug-01-2002  13:02:52   ACCESS.LOG



pdt>sl1input
>ld 135
CCED000
.cdsp
OK
.stat cpu
cp 0 15 PASS NORMAL ENBL

simm 0 0 ENBL
simm 0 1 ENBL
simm 0 2 ENBL
simm 0 3 ENBL
```

```
simm 0 4 ENBL
simm 0 5 ENBL

cp 1 15 PASS NORMAL STDBY

simm 1 0 ENBL
simm 1 1 ENBL
simm 1 2 ENBL
simm 1 3 ENBL
simm 1 4 ENBL
simm 1 5 ENBL
.stat cni
cni 0 12 0: remote = group 0 ENBL
cni 0 12 1: remote = NONE

cni 1 12 0: remote = group 0 ENBL
cni 1 12 1: remote = NONE
.scpu
OK
CCED762 SWO 1: Graceful switch-over to side 1 completed
         Previous Graceful SWO: at 0/0/00 0:00:00
.stat cpu
cp 1 15 PASS NORMAL ENBL

simm 1 0 ENBL
simm 1 1 ENBL
simm 1 2 ENBL
simm 1 3 ENBL
simm 1 4 ENBL
simm 1 5 ENBL

cp 0 15 PASS NORMAL STDBY

simm 0 0 ENBL
simm 0 1 ENBL
simm 0 2 ENBL
simm 0 3 ENBL
simm 0 4 ENBL
simm 0 5 ENBL
.stat cni
cni 1 12 0: remote = group 0 ENBL
cni 1 12 1: remote = NONE

cni 0 12 0: remote = group 0 ENBL
cni 0 12 1: remote = NONE
.scpu
OK

CCED762 SWO 0: Graceful switch-over to side 0 completed
         Previous Graceful SWO: at 0/0/00 0:00:00

CCED000
.stat cpu
cp 0 15 PASS NORMAL ENBL

simm 0 0 ENBL
simm 0 1 ENBL
simm 0 2 ENBL
simm 0 3 ENBL
simm 0 4 ENBL
simm 0 5 ENBL
```

```
cp 1 15 PASS NORMAL STDBY

simm 1 0 ENBL
simm 1 1 ENBL
simm 1 2 ENBL
simm 1 3 ENBL
simm 1 4 ENBL
simm 1 5 ENBL
.stat cni
cni 0 12 0: remote = group 0 ENBL
cni 0 12 1: remote = NONE

cni 1 12 0: remote = group 0 ENBL
cni 1 12 1: remote = NONE
.
CCED000
.scpu
OK
.
CCED000

CCED762 SWO 1: Graceful switch-over to side 1 completed
         Previous Graceful SWO: at 1/8/02 13:20:09

.stat cpu
cp 1 15 PASS NORMAL ENBL

simm 1 0 ENBL
simm 1 1 ENBL
simm 1 2 ENBL
simm 1 3 ENBL
simm 1 4 ENBL
simm 1 5 ENBL

cp 0 15 PASS NORMAL STDBY

simm 0 0 ENBL
simm 0 1 ENBL
simm 0 2 ENBL
simm 0 3 ENBL
simm 0 4 ENBL
simm 0 5 ENBL
.
.stat cni
cni 1 12 0: remote = group 0 ENBL
cni 1 12 1: remote = NONE

cni 0 12 0: remote = group 0 ENBL
cni 0 12 1: remote = NONE

.scpu
OK
.
CCED000
CCED762 SWO 0: Graceful switch-over to side 0 completed
         Previous Graceful SWO: at 1/8/02 13:20:41
.stat cpu
cp 0 15 PASS NORMAL ENBL

simm 0 0 ENBL
```

```
simm 0 1 ENBL
simm 0 2 ENBL
simm 0 3 ENBL
simm 0 4 ENBL
simm 0 5 ENBL

cp 1 15 PASS NORMAL STDBY

simm 1 0 ENBL
simm 1 1 ENBL
simm 1 2 ENBL
simm 1 3 ENBL
simm 1 4 ENBL
simm 1 5 ENBL
.stat cni
cni 0 12 0: remote = group 0 ENBL
cni 0 12 1: remote = NONE

cni 1 12 0: remote = group 0 ENBL
cni 1 12 1: remote = NONE
.
.cdsp
OK
.
pdt>rdopen
           Work file :  "/u/rpt/rpt.log"

... rdTodGet: record 0 without time_stamp (ROM Report)
         File status :  partially-full
       File capacity :  738
          oldest rec :    0 ( 0/ 0/00 00:00:00)
         current rec :  124 ( 1/ 8/02 13:21:01)
          newest rec :  124 ( 1/ 8/02 13:21:01)
        display size :   16 ( 1/ 8/02 13:21:57)

value = 0 = 0x0
pdt>rdtail 5
...rd : showing 5 records up to the newest record (rec 124)
  120 : (1/8/02 13:20:59.172) CNI012 CNIP 0 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  121 : (1/8/02 13:20:59.180) CNI012 CNIP 0 12 1: Putting Port into Disabled Mode
        ** Warning: Attached group will be Out of Service **
  122 : (1/8/02 13:21:01.942) COM000 Ethernet driver: device unit 0 is initialized OK.
  123 : (1/8/02 13:21:01.997) HWI007 HI Init: SWO  Start complete at side 0 in 2 seconds
  124 : (1/8/02 13:21:01.003) CCED762 SWO 0: Graceful switch-over to side 0 completed
        Previous Graceful SWO: at 1/8/02 13:20:41
value = 0 = 0x0
>
```

By Allen Russell

CPP Machine on 25.30

```
pdt>sl1PkgSl1Version
SL1: Date = Nov 17 2000, Time = 16:40:30, Base = x112530
X11 Version: 3311
Active Ethernet: PRIMARY_ENET 137.135.128.253
Subnet Mask: 255.255.255.0
Local PPP: LOCAL_PPP_IF 137.135.192.4
PPP Enabled
value = 0 = 0x0

pdt>nortelVersion
SYSTEM is running : X112530
Made at : Nov 17 2000, 16:59:42
value = 32 = 0x20

pdt>secShowDevice

NT Corporate ID               :  18110000
NT SDID                       :  10181958
SDID                          :  A55E7000D6219089
Security Device Type          :  NT_STD
System Serial Number          :  Z03724
value = 0 = 0x0

pdt>kcm_dir_ism_show

     ISM Limits:
        [114] Loop Limit               :  61184
        [117] Sys TNs Limit            :  32
        [118] ACD Agents Limit         :  61184
        [119] ACD DNs Limit            :  313
        [160] AST Limit                :  2632
        [166] DSL Limit                :  61184
        [167] LTID Limit               :  565
        [168] DCH Limit                :  47240
        [169] AML Limit                :  32
        [170] MPH DSL Limit            :  61184
        [171] RAN CON Limit            :  558
        [172] RAN RTE Limit            :  3784
        [173] MUS CON Limit            :  32
        [177] Brand Index              :  32
        [174] Wireless Telephones Limit :  61184
        [178] Digital Telephones Limit  :  61184
        [179] Analogue Telephones Limit :  481
        [181] ITG ISDN Trunks Limit     :  32
        [183] Traditional Trunks Limit  :  313
        [184] Data Ports Limit          :  47288
        [185] Phantom Ports Limit       :  32
        [186] CLASS Telephones Limit    :  61184
        [187] Attendant Consoles Limit  :  558
        [190] Ethersets Limit           :  61184
value = 49 = 0x31

pdt>kcm_dir_pkg_show

     Feature Packages:
        0-2 4 12-20 22-39 44 49
        51 54-56 58-63 65 67-68 72-73
        75-76 78 80-84 86-103 108 113-114
```

```
        118-119 121-128 130 132 136-137 139-140
        142 144-148 150-167 172 177-178 182-183
        185-194 196-198 204-212 214-231 236 241
        243 246-248 250-258 262 268-276 278-295
        300 305 307 310-312 314-322 324
        328-330 334 336-340 342-359 364 368
        372 374-376 378-387 390 392 398-404
        406-423 428 433-436 441-450 453 455
        460-468 470-487 492 497 499 502-504
        506-511

value = 1 = 0x1

pdt>kcm_dir_show
     System ID      :
     Machine Type   :  61184
     S/W Version    :  313

     Feature Packages:
        0-2 4 12-20 22-39 44 49
        51 54-56 58-63 65 67-68 72-73
        75-76 78 80-84 86-103 108 113-114
        118-119 121-128 130 132 136-137 139-140
        142 144-148 150-167 172 177-178 182-183
        185-194 196-198 204-212 214-231 236 241
        243 246-248 250-258 262 268-276 278-295
        300 305 307 310-312 314-322 324
        328-330 334 336-340 342-359 364 368
        372 374-376 378-387 390 392 398-404
        406-423 428 433-436 441-450 453 455
        460-468 470-487 492 497 499 502-504
        506-511


     ISM Limits:
        [114] Loop Limit               :  61184
        [117] Sys TNs Limit            :  32
        [118] ACD Agents Limit         :  61184
        [119] ACD DNs Limit            :  313
        [160] AST Limit                :  2632
        [166] DSL Limit                :  61184
        [167] LTID Limit               :  565
        [168] DCH Limit                :  47240
        [169] AML Limit                :  32
        [170] MPH DSL Limit            :  61184
        [171] RAN CON Limit            :  558
        [172] RAN RTE Limit            :  3784
        [173] MUS CON Limit            :  32
        [177] Brand Index              :  32
        [174] Wireless Telephones Limit :  61184
        [178] Digital Telephones Limit  :  61184
        [179] Analogue Telephones Limit :  481
        [181] ITG ISDN Trunks Limit     :  32
        [183] Traditional Trunks Limit  :  313
        [184] Data Ports Limit          :  47288
        [185] Phantom Ports Limit       :  32
        [186] CLASS Telephones Limit    :  61184
        [187] Attendant Consoles Limit  :  558
        [190] Ethersets Limit           :  61184
value = 0 = 0x0
```

```
pdt>hiMainShow 8
--- HI classes and objects ---
number of classes = 14:
class = "sio8", Id = 0x178950c
    number of objects = 4:
    object = "sio8 0 16 1", Id = 0x179a608
    object = "sio8 0 16 2", Id = 0x179b3e8
    object = "sio8 1 16 1", Id = 0x179c288
    object = "sio8 1 16 2", Id = 0x179c2e8
class = "sutl", Id = 0x1789a70
    number of objects = 2:
    object = "sutl 0 15", Id = 0x17970e8
    object = "sutl 1 15", Id = 0x1799ca8
class = "strn", Id = 0x1789ffc
    number of objects = 2:
    object = "strn 0 15", Id = 0x1794bb8
    object = "strn 1 15", Id = 0x1796a58
class = "disp", Id = 0x178a560
    number of objects = 2:
    object = "disp 0 15 1", Id = 0x1790554
    object = "disp 1 15 1", Id = 0x1792348
class = "xsmp", Id = 0x178aac4
    number of objects = 2:
    object = "xsmp 0 15 1", Id = 0x178e178
    object = "xsmp 1 15 1", Id = 0x178ff6c
class = "sio2", Id = 0x178b028
    number of objects = 2:
    object = "sio2 0 15 1", Id = 0x1792930
    object = "sio2 1 15 1", Id = 0x1794608
class = "cp", Id = 0x178b58c
    number of objects = 2:
    object = "cp 0 16", Id = 0x17a0c4c
    object = "cp 1 16", Id = 0x17a2e48
class = "ipb", Id = 0x178bb1c
    number of objects = 2:
    object = "ipb 1", Id = 0x17a32d0
    object = "ipb 0", Id = 0x17a3570
class = "cnib", Id = 0x178c0b0
    number of objects = 2:
    object = "cnib 0 9", Id = 0x17b4864
    object = "cnib 1 9", Id = 0x17b6704
class = "cnip", Id = 0x178c648
    number of objects = 4:
    object = "cnip 0 9 0", Id = 0x17b8978
    object = "cnip 0 9 1", Id = 0x17b8a28
    object = "cnip 1 9 0", Id = 0x17ba4f8
    object = "cnip 1 9 1", Id = 0x17ba5a8
class = "ncb", Id = 0x178cbd4
    number of objects = 8:
    object = "ncb 0", Id = 0x17bc3e8
    object = "ncb 1", Id = 0x17bc450
    object = "ncb 2", Id = 0x17bc4b8
    object = "ncb 3", Id = 0x17bc520
    object = "ncb 4", Id = 0x17bc588
    object = "ncb 5", Id = 0x17bc5f0
    object = "ncb 6", Id = 0x17bc658
    object = "ncb 7", Id = 0x17bc6c0
class = "cmdu", Id = 0x178d138
    number of objects = 2:
    object = "cmdu 0 16 1", Id = 0x179c5e8
```

```
    object = "cmdu 1 16 1", Id = 0x179e4c8
class = "eth", Id = 0x178d6ac
    number of objects = 2:
    object = "eth 0 16 0", Id = 0x179e870
    object = "eth 1 16 0", Id = 0x17a0814
class = "con", Id = 0x178dc14
    number of objects = 22:
    object = "con 0", Id = 0x17b11f0
    object = "con 1", Id = 0x17b1294
    object = "con 2", Id = 0x17b1338
    object = "con 3", Id = 0x17b13dc
    object = "con 4", Id = 0x17b1480
    object = "con 5", Id = 0x17b1524
    object = "con 6", Id = 0x17b15c8
    object = "con 7", Id = 0x17b166c
    object = "con 8", Id = 0x17b1710
    object = "con 9", Id = 0x17b17b4
    object = "con 10", Id = 0x17b1858
    object = "con 11", Id = 0x17b18fc
    object = "con 12", Id = 0x17b19a0
    object = "con 13", Id = 0x17b1a44
    object = "con 14", Id = 0x17b1ae8
    object = "con 15", Id = 0x17b1b8c
    object = "con 16", Id = 0x17b1c30
    object = "con 17", Id = 0x17b1cd4
    object = "con 18", Id = 0x17b1d78
    object = "con 19", Id = 0x17b1e1c
    object = "con 20", Id = 0x17b1ec0
    object = "con 21", Id = 0x17b1f64
value = 0 = 0x0

pdt>hiPJobShow
number of periodic HI jobs = 10

   job  name    : hifmon
   job  id      : 0x22e4028
   job  cycle   : 15 (secs)
   job  state   : RUNNING
   task id      : 0x4710f48
   swd  id      : 0x22e3fe8
   swd  t-out   : 47 (secs)

   job  name    : xsmpCblMon
   job  id      : 0x22e3e68
   job  cycle   : 2 (secs)
   job  state   : STOPPED
   task id      : 0x4638ec0
   swd  id      : 0x22e3da8
   swd  t-out   : 8 (secs)

   job  name    : xsmpMajMon
   job  id      : 0x22e3e28
   job  cycle   : 2 (secs)
   job  state   : STOPPED
   task id      : 0x4636510
   swd  id      : 0x22e3d68
   swd  t-out   : 8 (secs)

   job  name    : dispLedMon
   job  id      : 0x22e3de8
   job  cycle   : 3 (secs)
```

```
   job  state   : STOPPED
   task id      : 0x4633b60
   swd  id      : 0x22e3d28
   swd  t-out   : 11 (secs)

   job  name    : strnConnMon
   job  id      : 0x22e3ce8
   job  cycle   : 2 (secs)
   job  state   : STOPPED
   task id      : 0x46311b0
   swd  id      : 0x22e3ba8
   swd  t-out   : 8 (secs)

   job  name    : sutlFpMon
   job  id      : 0x22e3ca8
   job  cycle   : 1 (secs)
   job  state   : STOPPED
   task id      : 0x462e800
   swd  id      : 0x22e3b68
   swd  t-out   : 5 (secs)

   job  name    : sutlSubMon
   job  id      : 0x22e3c68
   job  cycle   : 5 (secs)
   job  state   : RUNNING
   task id      : 0x462be50
   swd  id      : 0x22e3aa8
   swd  t-out   : 17 (secs)

   job  name    : cnipMon
   job  id      : 0x22e3c28
   job  cycle   : 2 (secs)
   job  state   : RUNNING
   task id      : 0x46294a0
   swd  id      : 0x22e3b28
   swd  t-out   : 8 (secs)

   job  name    : ipbMoni
   job  id      : 0x22e3be8
   job  cycle   : 20 (secs)
   job  state   : RUNNING
   task id      : 0x4626af0
   swd  id      : 0x22e3ae8
   swd  t-out   : 62 (secs)

   job  name    : tLS
   job  id      : 0x22e3a68
   job  cycle   : 5 (secs)
   job  state   : RUNNING
   task id      : 0x4622130
   swd  id      : 0x22e3a28
   swd  t-out   : 17 (secs)
value = 0 = 0x0



pdt>printPatcherVersion
 XDS (null) version 0.11
 (C) 1998-1999 XDS Ltd. Build: Nov 17 2000 16:48:43

value = 78 = 0x4E
```

```
pdt>showAPatchStatus
patchStatusListHead [0x17894b8] = [0x4bfa4d8]

patch status block [addr = 0x4bfa4d8]
   patchHandle     = [0]
   state           = [IN SERVICE]
   pHeader         = [0x4bfa44c]
   pInfo           = [0x4bfa324]
   pTextAddr       = [0x4bfa314]
   insDate         = [2002/4/26 9:7:45]
   oosDate         = [0/0/0 0:0:0]
   insInits        = [0]
   activateMemList = [0x4bd1cd4]
   restoreMemList  = [0x4bd1cc4]
   MODULE_ID       = [75478520]
   hasOfile        = [1]
   pObjTextSpace   = [0x4bfa2fc]
   objTextSize;    = [0x10]
   pObjDataSpace   = [0x0]
   objDataSize;    = [0x0]
   next            = [0x4bfa284]
value = 33 = 0x21

pdt>showAPatchFile /u/patch/p15962_1.cpp
patch file has object = [1]
PATCH HEADER INFO:
patchElCount = 1
textStart    = 0x114
textSize     = 0x0
patchRefNum  =
patchName    = MPLR15962
prsNum       = MP16117
engrName     = Adela Tomus
release      = x112530
patchLevel   = 1
skipped creation date..
checkSum     = 0x471
majorVersion = []
minorVersion = [
                ]

PATCH INFO LIST - Element # [0]
patchType    = 2
textOffset   = 0x0
textSize     = 0x0
addrToPatch  = 0x534470
funcName     = _INITIALIZE

size of Ofile = [0x2d211]
a.out header info:
a_magic  = 0x640107
a_text   = 0x15f50
a_data   = 0x70
a_bss    = 0x0
a_syms   = 0x1218c
a_entry  = 0x0
a_trsize = 0x20e0
a_drsize = 0x0
value = 0 = 0x0
```

```
pdt>hiClassShowPtrs
PCore = 0x0, PGeneric = 0x34,
PPrivate = 0x55c, PSize = 20573952
UCore = 0x20a45e

value = 0 = 0x0

pdt>pdtRegsShow

edi    =  1e1bfb0   esi    =  1e1bfe0   ebp    =  384f41c   esp    =  384f404
ebx    =        1   edx    =  1f1cb80   ecx    =  1f1cb81   eax    =        0
eflags =      246   pc     =  1342725
value = 1 = 0x1

pdt>hiFSShow
HI DB Directory       : "/u/db/hi"
HI DB Backup Directory: "/u/db/hi_bak"
HI DB Main File       : "/u/db/hi/hi.db"
HI DB OOS  File       : "/u/db/hi/oos.db"
value = 0 = 0x0


pdt>hiObjShowPtrs
    PPrivate = 0x20a472, UPrivate = 0x20a6ee
value = 0 = 0x0

pdt>lcsStateShow
Local node
redundancy state: LcsRedundant
activity state: LcsActive
hsp state: LcsHspStUp
disk state: R
health: 38
random: 71382
version: Nov 17 2000, 16:59:42
current state: LcsUpdate

Remote node
redundancy state: LcsRedundant
activity state: LcsInactive
hsp state: LcsHspStUp
disk state: R
health: 38
random: 7137252
version: Nov 17 2000, 16:59:42
value = 31 = 0x1F

pdt>pciShowPIRQ
PCI PIRQA----> IRQ# (10) VECTOR (0x150)
PCI PIRQB----> IRQ# (14) VECTOR (0x170)
PCI PIRQC----> IRQ# (12) VECTOR (0x160)
PCI PIRQD----> IRQ# (5) VECTOR (0x128)
IRQ#(0) is vectored to (0x02350fe8)IRQ#(1) is vectored to (0x0139a4e5)IRQ#(2) is vectored to (0x0139a4ea)IRQ#
(3) is vectored to (0x4

pdt>pciShow
Scanning function 0 of PCI device on bus 2
value = 0 = 0x0

pdt>mem OS
```

```
minsize 288 maxWee 256 delta lo/hi 0/0 red 262144
        lo/hi 1d8a294/1d8affc bs lo/hi 0/0
FREE LIST:
   #      addr     size (dec/hex)
 --- ---------- -----------------
   0 0x01d8a294     3432/d68
   1 0x01d8c00c     4080/ff0
   2 0x01d8e00c     4080/ff0
   3 0x01d9000c     4080/ff0
   4 0x01d9200c     4080/ff0
   5 0x01d9400c     4080/ff0
   6 0x01d9600c     4080/ff0
   7 0x01d9800c     4080/ff0
   8 0x01d9a00c     4080/ff0
   9 0x01d9c00c     4080/ff0
  10 0x01d9e00c     4080/ff0
  11 0x01da000c     4080/ff0
  12 0x01da200c     4080/ff0
  13 0x01da400c     4080/ff0
  14 0x01da600c     4080/ff0
  15 0x01da800c     4080/ff0
  16 0x01daa00c     4080/ff0
  17 0x01dac00c     4080/ff0
  18 0x01dae00c     4080/ff0
  19 0x01db000c     4080/ff0
  20 0x01db200c     4080/ff0
  21 0x01db400c     4080/ff0
  22 0x01db600c     4080/ff0
  23 0x01db800c     4080/ff0
  24 0x01dba00c     4080/ff0
  25 0x01dbc00c     4080/ff0
  26 0x01dbe00c     4080/ff0
  27 0x01dc000c     4080/ff0
  28 0x01dc200c     4080/ff0
  29 0x01dc400c     4080/ff0
  30 0x01dc600c     4080/ff0
  31 0x01dc800c     4080/ff0
  32 0x01dca00c     4080/ff0
  33 0x01dcc00c     4080/ff0
  34 0x01dce00c     4080/ff0
  35 0x01dd000c     4080/ff0
  36 0x01dd200c     4080/ff0
  37 0x01dd400c     4080/ff0
  38 0x01dd600c     4080/ff0
  39 0x01dd800c     4080/ff0
  40 0x01dda00c     4080/ff0
  41 0x01ddc00c     4080/ff0
  42 0x01dde00c     4080/ff0
  43 0x01de000c     4080/ff0
  44 0x01de200c     4080/ff0
  45 0x01de400c     4080/ff0
  46 0x01de600c     4080/ff0
  47 0x01de800c     4080/ff0
  48 0x01dea00c     4080/ff0
  49 0x01dec00c     4080/ff0
  50 0x01dee00c     4080/ff0
  51 0x01df000c     4080/ff0
  52 0x01df200c     4080/ff0
  53 0x01df400c     4080/ff0
  54 0x01df600c     4080/ff0
  55 0x01df800c     4080/ff0
```

```
  56 0x01dfa00c     4080/ff0
  57 0x01dfc00c     4080/ff0
  58 0x01dfe00c     4080/ff0
  59 0x01e0000c     4080/ff0
  60 0x01e0200c     4080/ff0
  61 0x01e0400c     4080/ff0
  62 0x01e0600c     4080/ff0
  63 0x01e0800c     4080/ff0
  64 0x01e0e044     4024/fb8
  65 0x02370b14 21852024/14d6f78
  66 0x0385e12c    12720/31b0
  67 0x03864a1c     4960/1360
  68 0x03867d8c     2072/818
  69 0x03869fac     3552/de0
  70 0x0386be84      312/138
  71 0x038cd46c     9368/2498
  72 0x038d2ec4     4744/1288
  73 0x038d779c     2480/9b0

SUMMARY:
sz 16 free 823 alloc 9417 addr/tot/free 0x1e0a010/1024/5 0x39979d0/1024/818 0x398b820/1024/0 0x22f0418/1024/0
0x2364a70/1024/0 0x230
sz 32 free 179 alloc 12109 addr/tot/free 0x22ec3e0/512/63 0x2368aa8/512/116 0x2360a38/512/0 0x235ca00/512/0
0x2354990/512/0 0x233070
sz 48 free 437 alloc 53100 addr/tot/free 0x22e83a8/341/69 0x2350958/341/27 0x236cae0/341/341 0x23448b0/341/0
0x23347d0/341/0 0x23200
sz 64 free 130 alloc 21374 addr/tot/free 0x2328728/256/130 0x22e0338/256/0 0x229ffb8/256/0 0x2293f10/256/0
0x2277d88/256/0 0x226bce0
sz 80 free 143 alloc 7813 addr/tot/free 0x23105d8/204/143 0x2283e30/204/0 0x224fb58/204/0 0x222b960/204/0
0x221b880/204/0 0x21f36500
sz 96 free 20 alloc 2190 addr/tot/free 0x1e28160/170/1 0x223fa78/170/19 0x1e2c198/170/0 0x21ff6f8/170/0
0x217eff8/170/0 0x214ad20/1x
211eab8/170/0 0x2082230/170/0 0x2021cf0/170/0 0x1fdd938/170/0 0x1f6d318/170/0 0x1ef0c50/170/0 0x1e58400/170/0
sz 112 free 129 alloc 455 addr/tot/free 0x2287e68/146/129 0x215ee38/146/0 0x1f551c8/146/0 0x1e543c8/146/0
sz 128 free 50 alloc 78 addr/tot/free 0x1e301d0/128/50
sz 160 free 14 alloc 88 addr/tot/free 0x1e24128/102/14
sz 192 free 54 alloc 881 addr/tot/free 0x234c920/85/54 0x2340878/85/0 0x2338808/85/0 0x232c760/85/0
0x23246f0/85/0 0x2318648/85/0 00
sz 224 free 67 alloc 6 addr/tot/free 0x1e34208/73/67
sz 256 free 55 alloc 9 addr/tot/free 0x1e18080/64/55
 status   bytes    blocks   max block
 ------  -------- -------- ----------
   free  22156728       74  21852024
  alloc  22366104       -         -

pdt>udpstatShow
UDP:
        886921 total packets
        695673 input packets
        191248 output packets
        0 incomplete header
        0 bad data length field
        0 bad checksum
        451182 broadcasts received with no ports
        0 full socket
value = 15 = 0xF

pdt>ttyShow
********** tty information **********
tty Fd              : 0
tty Status Reg Addr : 0xffffffff
```

```
tty Data Reg Addr   : 0xffffffff
SL1 tty log num     : -1
SL1 tty Option      : 0x0
It is a regular SL1 tty
tty is being used by SL1 Task
SL1 tty Flow Control OFF
value = 0 = 0x0


pdt>rlmShow
  TN                HWID                STATUS     HOSTIP          TERMIP       PORT     CAPS
_____ ____________________________________ ______ _______________ _______________ ______ __________

value = 26563052 = 0x19551EC


pdt>ethShowEthAddr
0:1:af:7:8a:1
value = 0 = 0x0

pdt>ethULANStatusShowAll
ETHERNET IN CSA (Local):
Status        : 0
OOSReason     : 0
Stored State  : 0
Side          : 0
Debug Flag    : 0
ETHERNET IN CSA (Remote):
Status        : 0
OOSReason     : 0
Stored State  : 0
Side          : 0
Debug Flag    : 0
ethUFlagShow:
Manual disable  : 0
Swo             : 0
value = 20 = 0x14

pdt>sl1AccessShow

 usage: sl1AccessShow <opt>
   opt: 0 = print usage,
        1 = all but dtsl,
        2 = all including dtsl,
        3 = just network map,
        4 = force nce and dtsl packages (for testing)
value = 0 = 0x0

pdt>sl1AccessShow 3

  SL1 Access Maps: o = ok, B = bad

| loops(x-y)from cpu0     |xxx-yyy| loops(x-y)from cpu1     |
|-------------------------|-------|-------------------------|
| oo oo oo oo oo oo oo oo |  0- 15| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo | 16- 31| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo | 32- 47| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo | 48- 63| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo | 64- 79| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo | 80- 95| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo | 96-111| oo oo oo oo oo oo oo oo |
```

```
| oo oo oo oo oo oo oo oo |112-127| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo |128-143| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo |144-159| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo |160-175| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo |176-191| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo |192-207| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo |208-223| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo |224-239| oo oo oo oo oo oo oo oo |
| oo oo oo oo oo oo oo oo |240-255| oo oo oo oo oo oo oo oo |
value = 3 = 0x3
pdt>

pdt>hiObjShowHelp 1
USAGE: hiObjShow objId, parameter [,verbose]
parameter is one/combination of the following:
  0 - hiObjShow help
  1 - show addresses of main blocks(Core, Generic, Private)
  2 - show generic data
  4 - show private data
  8 - show all upstream elements
use "hiMainShow 8" to get valid object Id

SEE ALSO: hiMainShow, hiClassShow
value = 0 = 0x0

pdt>hiObjShowHelp 1
USAGE: hiObjShow objId, parameter [,verbose]
parameter is one/combination of the following:
  0 - hiObjShow help
  1 - show addresses of main blocks(Core, Generic, Private
  2 - show generic data
  4 - show private data
  8 - show all upstream elements
use "hiMainShow 8" to get valid object Id

SEE ALSO: hiMainShow, hiClassShow
value = 0 = 0x0

pdt>hiMainShow
USAGE: hiMainShow parameter [,verbose]
parameter is one/combination of the following:
  0 - hiMainShow help
  1 - show addresses of main blocks
  2 - show generic data
  4 - show private data
  8 - show all elements

SEE ALSO: hiClassShow, hiObjShow, hiShow, hitShow
value = 0 = 0x0

pdt>excInfoShow
Error Code: 0x0139ee00
value = 23 = 0x17

pdt>itgOslVersionShow
ITG OSL base  last compiled Nov 17 2000 16:51:09
value = 49 = 0x31


pdt>iosDrvShow
drv    create     delete       open      close       read      write      ioctl
```

```
  1   1379764          0    1379764          0     3de1d8     3de21c    137976c
  2         0          0    137e948          0    137e978    137e9b8    137ea6c
  3   1352b00    1352edc    1356244    1351b70    1356714    1357d60    1355a58
  4         0          0     2b02b4     2b0344     2b087c     2b0374     2b0388
  5    4b64b0     4b660c     4b6764     4b68e8     4b6984     4b6a54     4b6b04
  6   13826b8          0    13826b8          0    13826c4    13826d4    13828f0
  7         0          0          0    135b800    135c0f4    135be14    139dd28
  8   135db6c    135dcb0    135dea0    135df60    135eb78    135ecbc    135ee14
  9   1364584    13645bc    13645f4    1364964    13649cc    1364b70    1364d34
 10   136d3bc          0    136d3bc    136d470    138ed50    138ec84    136d4dc
 11   13942b4          0    13942b4    13942c4    13942f8    1394378    13943c0
 12   13942ac          0    13942ac    13942e4    139430c    139438c    13943d4
 13    439020          0     439114     439140     43915c     439188     439030
 14    4d8234     4d823c     4d8234     4d823c     4d8274     4d8494     4d8618
 15    2f75dc          0     2f75dc          0     2f75e4     2f75f8     2f79b4
 16    2f7ecc          0     2f7ecc          0     2f7ed4     2f7ee8     2f7fc4
value = 2528 = 0x9E0

pdt>smShow
    key       win base    win len   object id  stat   side
------------  ---------  ---------  ---------  -----  ----
siodma 0 0           0h  IO TYPE        10h     NULLID  FREE      0
siointc 0 0         20h  IO TYPE         2h     NULLID  FREE      0
siotimer 1 0        40h  IO TYPE         4h     NULLID  FREE      0
siotimer 2 0        48h  IO TYPE         4h     NULLID  FREE      0
kb data 0           60h  IO TYPE         1h     NULLID  FREE      0
nmi sp 0            61h  IO TYPE         1h     NULLID  FREE      0
kb cmd 0            64h  IO TYPE         1h     NULLID  FREE      0
rtc adrs 0          70h  IO TYPE         1h     NULLID  FREE      0
rtc data 0          71h  IO TYPE         1h     NULLID  FREE      0
sio timer 0         78h  IO TYPE         1h     NULLID  FREE      0
siodma p 0          80h  IO TYPE        10h     NULLID  FREE      0
siointc 2 0         a0h  IO TYPE         2h     NULLID  FREE      0
siodma 2 0          c0h  IO TYPE        1fh     NULLID  FREE      0
reseterr 0          f0h  IO TYPE         1h     NULLID  FREE      0
sec ide 0          170h  IO TYPE         8h     NULLID  FREE      0
pri ide 0          1f0h  IO TYPE         8h     NULLID  FREE      0
p port 2 0         278h  IO TYPE         4h     NULLID  FREE      0
sec idec 0         376h  IO TYPE         1h     NULLID  FREE      0
sec ides 0         377h  IO TYPE         1h     NULLID  FREE      0
p port 1 0         378h  IO TYPE         4h     NULLID  FREE      0
p port x 0         3bch  IO TYPE         4h     NULLID  FREE      0
s port 3 0         3e8h  IO TYPE         8h     NULLID  FREE      0
fd chan 1 0        3f0h  IO TYPE         6h     NULLID  FREE      0
pri idec 0         3f6h  IO TYPE         1h     NULLID  FREE      0
pci con en 0       cf8h  IO TYPE         1h     NULLID  FREE      0
deturbo 0          cf9h  IO TYPE         1h     NULLID  FREE      0
pci con d 0        cfch  IO TYPE        40h     NULLID  FREE      0
sio8 0 16 1        3f8h  IO TYPE         8h     NULLID  FREE      0
sio8 1 16 1        3f8h  IO TYPE         8h     NULLID  FREE      1
sio8 0 16 2        2f8h  IO TYPE         8h     NULLID  FREE      0
sio8 1 16 2        2f8h  IO TYPE         8h     NULLID  FREE      1
plx 0 9       11000000h  MEM TYPE       400h  0x17b4864  ALLOC     0
plx 0 10      11000400h  MEM TYPE       400h     NULLID  FREE      0
plx 0 11      11000800h  MEM TYPE       400h     NULLID  FREE      0
plx 0 12      11000c00h  MEM TYPE       400h     NULLID  FREE      0
plx 0 13      11001000h  MEM TYPE       400h     NULLID  FREE      0
plx 0 14      11001400h  MEM TYPE       400h     NULLID  FREE      0
plx 0 15      11001800h  MEM TYPE       400h  0x17970e8  ALLOC     0
plx 1 9       11000000h  MEM TYPE       400h     NULLID  FREE      1
plx 1 10      11000400h  MEM TYPE       400h     NULLID  FREE      1
```

```
plx 1 11      11000800h  MEM TYPE       400h     NULLID  FREE      1
plx 1 12      11000c00h  MEM TYPE       400h     NULLID  FREE      1
plx 1 13      11001000h  MEM TYPE       400h     NULLID  FREE      1
plx 1 14      11001400h  MEM TYPE       400h     NULLID  FREE      1
plx 1 15      11001800h  MEM TYPE       400h     NULLID  FREE      1
sutl 0 15     15000000h  MEM TYPE    a00000h  0x17970e8  ALLOC     0
sutl 1 15     15000000h  MEM TYPE    a00000h     NULLID  FREE      1
hsp 0 13      16000000h  MEM TYPE       400h     NULLID  FREE      0
hsp 1 13      16000000h  MEM TYPE       400h     NULLID  FREE      1
hsp 0 14      16100000h  MEM TYPE       400h     NULLID  FREE      0
hsp 1 14      16100000h  MEM TYPE       400h     NULLID  FREE      1
cnib 0 9      12000000h  MEM TYPE     80000h  0x17b4864  ALLOC     0
cnib 0 10     12400000h  MEM TYPE     80000h     NULLID  FREE      0
cnib 0 11     12800000h  MEM TYPE     80000h     NULLID  FREE      0
cnib 0 12     12c00000h  MEM TYPE     80000h     NULLID  FREE      0
cnib 0 13     13000000h  MEM TYPE     80000h     NULLID  FREE      0
cnib 0 14     13400000h  MEM TYPE     80000h     NULLID  FREE      0
cnib 1 9      12000000h  MEM TYPE     80000h     NULLID  FREE      1
cnib 1 10     12400000h  MEM TYPE     80000h     NULLID  FREE      1
cnib 1 11     12800000h  MEM TYPE     80000h     NULLID  FREE      1
cnib 1 12     12c00000h  MEM TYPE     80000h     NULLID  FREE      1
cnib 1 13     13000000h  MEM TYPE     80000h     NULLID  FREE      1
cnib 1 14     13400000h  MEM TYPE     80000h     NULLID  FREE      1
ncb 0         12080000h  MEM TYPE     80000h  0x17bc3e8  ALLOC  UNIQ
ncb 1         12100000h  MEM TYPE     80000h  0x17bc450  ALLOC  UNIQ
ncb 2         12480000h  MEM TYPE     80000h  0x17bc4b8  ALLOC  UNIQ
ncb 3         12500000h  MEM TYPE     80000h  0x17bc520  ALLOC  UNIQ
ncb 4         12880000h  MEM TYPE     80000h  0x17bc588  ALLOC  UNIQ
ncb 5         12900000h  MEM TYPE     80000h  0x17bc5f0  ALLOC  UNIQ
ncb 6         12c80000h  MEM TYPE     80000h  0x17bc658  ALLOC  UNIQ
ncb 7         12d00000h  MEM TYPE     80000h  0x17bc6c0  ALLOC  UNIQ
value = 0 = 0x0

pdt>hiMainShowPtrs
--- HI main pointers ---
PCore = 0x1788414, UCore = 0x1929ac0
value = 0 = 0x0

pdt>pciHeaderShow
vendor ID =                   0x8086
device ID =                   0x7190
command register =            0x0106
status register =             0x2210
revision ID =                 0x03
class code =                  0x06
sub class code =              0x00
programming interface =       0x00
cache line =                  0x00
latency time =                0x40
header type =                 0x00
BIST =                        0x00
base address 0 =              0xf8000008
base address 1 =              0x00000000
base address 2 =              0x00000000
base address 3 =              0x00000000
base address 4 =              0x00000000
base address 5 =              0x00000000
cardBus CIS pointer =         0x00000000
sub system vendor ID =        0x0000
sub system ID =               0x0000
expansion ROM base address =  0x00000000
```

```
interrupt line =              0x00
interrupt pin =               0x00
min Grant =                   0x00
max Latency =                 0x00
value = 0 = 0x0

pdt>itgMsgQShow

+----------+----------+----------+
|Category  |Cat ID(h) |MsgQ ID(d)|
+----------+----------+----------+
+----------+----------+----------+

Comm Sys not initialized.
value = 26 = 0x1A

pdt>voteShow
VoteShow: Event = VoteShowEvent ; State = VoteIdle
value = 51 = 0x33

pdt>arptabShow
137.135.128.252 at 0:2:b3:9d:bb:fa
10.7.137.252 at 0:1:af:7:89:fc permanent
137.135.128.250 at 0:2:b3:3d:70:7a
137.135.128.254 at 0:1:af:7:89:fc
127.2.0.2 at 0:1:af:7:89:fb
value = 0 = 0x0

pdt>bicShow
Scanning function 0 of PCI device on bus 2
value = 0 = 0x0

pdt>giaIntShow
No   Class  Source     VecNo  Service Routine   Parameter
--   -----  ------     -----  ---------------   ---------
0    EXC    Internal   0      0x139f3c2         NONE
value = 0 = 0x0

pdt>memMapShow
virtualAddr   physicalAddr      size
         0             0        a0000
     a0000         a0000        60000
    100000        100000      7eff000
  11000000      11000000      7000000
  fecff000      fecff000         1000
  fecfe000      fecfe000         1000
  fd400000      fd400000         1000
  fd600000      fd600000         1000
value = 40 = 0x28

pdt>hiShowFDesc

Fault Monitoring Spec:
value = 0 = 0x0

pdt>csMsgQShow

Comm Sys not initialized.
value = 26 = 0x1A

pdt>hiErrShowAll
```

```
====    HI     =====

ERR#  DEVICE         TASK           TIME        PARM  ERROR MESSAGE
  22: HI             pdtShell02183068732          0  Assert failed

====    sio8     =====


====    sutl     =====


====    strn     =====


====    disp     =====


====    xsmp     =====


====    sio2     =====


====    cp     =====


====    ipb     =====

ERR#  DEVICE         TASK           TIME        PARM  ERROR MESSAGE
   1: ipb            tTimer         1360           0  Assert failed

====    cnib     =====


====    cnip     =====


====    ncb     =====


====    cmdu     =====


====    eth     =====


====    con     =====

value = 0 = 0x0

pdt>lptShow
controlReg        = 0xff
statusReg         = 0xff
created           = FALSE
autofeed          = TRUE
inservice         = FALSE
normalInt         = 0
defaultInt        = 3
retryCnt          = 1
busyWait   (loop) = 10000
```

```
strobeWait (loop) = 10000
timeout    (sec)  = 1
intLevel   (IRQ)  = 7
value = 22 = 0x16

pdt>xmErrnoShow 1

total packets                       :   0
number of retries                   :   0
receive timeouts                    :   0
system errors                       :   0
unknown characters                  :   0
transfer cancelled                  :   0
packets received out of sequence    :   0
packets with corrupted sequence     :   0
packets failed checksum/crc check   :   0
incomplete packets                  :   0
duplicate packets                   :   0
value = 42 = 0x2A

pdt>rdbackupShow
rptSave threshold : 24
rptSave resetTime : 2002:1:7:7:11:50:53
rptSave magic  :  1396790853
rptSave overRun  : 0
value = 0 = 0x0

pdt>cpmShowStats
 total received sync msgs : 0
 total large data messages: 24064
value = 0 = 0x0



pdt>ncbVersion
NCB:  Date = Nov 17 2000, Time = 16:45:12, Base = x112530
value = 0 = 0x0

pdt>showActMemList
Print activate mem list...
Rec[0] - addr [0x2dc0ac] memPtr [0x4bd1c64] size [5]
[e9 4b e2 91 04 ]
Rec[1] - addr [0x2dc12c] memPtr [0x4bd1c44] size [5]
[e9 d0 e1 91 04 ]
value = 2 = 0x2

pdt>cmduVersion
CMDU:  Date = Nov 17 2000, Time = 16:45:36, Base = x112530
value = 0 = 0x0

pdt>ipbVersion
IPB:  Date = Nov 17 2000, Time = 16:46:17, Base = x112530
value = 0 = 0x0

pdt>hiErrShow

Usage: hiErrShow ID, level

ID      - any HI Id
level 0 - show the last error
level 1 - show all errors
```

```
Note: special ID (1) is used to show the incoming error buffer

Use also:
hiErrShowCls cid,level  to show errors in class and its objects
hiErrShowAll level      to show errors in HI, its classes and objects
hiErrClear id           to clear errors in class or object
hiErrClearCls cid       to clear errors in the class and its objects
hiErrClearAll           to clear all errors in HI
value = 0 = 0x0

pdt>hiErrShowAll 1

====    HI     =====

ERR#  DEVICE         TASK           TIME        PARM  ERROR MESSAGE
   1: HI             tTimer         1358           0  Assert failed
  23: HI             pdtShell02183068732           0  Assert failed
  24: HI             pdtShell02183072171           0  Assert failed
  25: HI             pdtShell02183081083           0  invalid object id
  26: HI             pdtShell02183081083           0  Assert failed
  27: HI             pdtShell02183190009    0x20a454  invalid object id
  28: HI             pdtShell02183192751           0  Assert failed
  29: HI             pdtShell02183193201           0  Assert failed
  30: HI             pdtShell02183193669           0  Assert failed

====    sio8     =====


====    sutl     =====


====    strn     =====


====    disp     =====


====    xsmp     =====


====    sio2     =====


====    cp     =====


====    ipb     =====

ERR#  DEVICE         TASK           TIME        PARM  ERROR MESSAGE
   1: ipb            tTimer         1360           0  Assert failed
   2: ipb            tTimer         1360           0  Assert failed

====    cnib     =====


====    cnip     =====


====    ncb     =====
```

```
====    cmdu     =====

====    eth     =====

====    con     =====

value = 0 = 0x0

pdt>hiErrShow 1 1
ERR#  DEVICE         TASK           TIME        PARM  ERROR MESSAGE
   1: HI             tTimer         1358           0  Assert failed
   2: HI             tTimer         1358           0  Assert failed
   3: ipb            tTimer         1360           0  Assert failed
   4: ipb            tTimer         1360           0  Assert failed
   5: HI             tTimer         1360           0  Assert failed
   6: HI             tTimer         1441           0  Assert failed
   7: HI             tTimer         1443           0  Assert failed
   8: HI             hiserv0    32314908           0  Assert failed
   9: HI             hiserv0    32314908           0  Assert failed
  10: HI             tLS        45658229           0  Assert failed
  11: HI             tLS        45658229           0  Assert failed
  12: HI             hifmon     45658688           0  Assert failed
  13: HI             pdtShell02182997216           0  invalid object id
  14: HI             pdtShell02182997216           0  Assert failed
  15: HI             pdtShell02183008601           0  Assert failed
  16: HI             pdtShell02183015166           0  invalid object id
  17: HI             pdtShell02183015166           0  Assert failed
  18: HI             pdtShell02183018635           0  invalid object id
  19: HI             pdtShell02183018635           0  Assert failed
  20: HI             pdtShell02183052211           0  Assert failed
  21: HI             pdtShell02183067142           0  invalid object id
  22: HI             pdtShell02183067142           0  Assert failed
  23: HI             pdtShell02183067634         0x1  invalid object id
  24: HI             pdtShell02183067634           0  Assert failed
  25: HI             pdtShell02183068732           0  Assert failed
  26: HI             pdtShell02183072171           0  Assert failed
  27: HI             pdtShell02183081083           0  invalid object id
  28: HI             pdtShell02183081083           0  Assert failed
  29: HI             pdtShell02183190009    0x20a454  invalid object id
  30: HI             pdtShell02183192751           0  Assert failed
  31: HI             pdtShell02183193201           0  Assert failed
  32: HI             pdtShell02183193669           0  Assert failed
ERR#  DEVICE         TASK           TIME        PARM  ERROR MESSAGE
value = 0 = 0x0

By Allen Russell
```

Automatic Patch Retention Tool

NON OMEGA

LD 7 PASSWORD IS RETAIN

OMEGA

$$ TO ENTER DEBUG, THEN EHM TO ENTER PATCH AREA PASSWORD IS RETAIN

COMMAND SUMMARY

COMMAND LIST

A summary of the patch retention specific commands follows. These commands can be accessed only after entering OVL 7 with the correct password(RETAIN), or RESIDENT DEBUG via $$ and the correct password, then EHM and correct password(RETAIN)

- o NEW - To create a new patch. Can only be used to create patches.
- o CHG - To modify an existing patch. Can only be used if the patch is not currently active. Attempted use on a patch which is still in service will result in an error message.
- o OUT - To remove a patch from the machine. Can only be used if the patch is not active. Attempted use on a patch which is still in service will result in an error message.
- o INS - To place a patch in service, I.E. activate it.
- o OOS - To place a patch out of service, I.E. deactivate it.
- o LIS - To list the status and contents of a patch.
- o STT - To display the status of a patch.

GENERAL COMMANDS

Upon loading overlay seven the mnemonic EHM0000 is given followed by a request to enter a password.
The password is up to 6 characters long. At all points, the overlay may be aborted by '****'.
Two stars,'**', may terminate/abort any command sequence and return to the 'REQ' prompt.
When entering values, it is possible to enter more than one parameter, which is assumed as the next value, e.g. giving <global> and <offset> will skip the OFST prompt.

DEBUG COMMANDS

Six commands which are of use to software designers are included in overlay 7 for ease of patch development.
They are ADR, FGN, INI, PRT, MON and HNT and function the same as in overlay 8/9. These commands are only accessible on correct entry of a password.

ADR returns the page and address of a memory location given the global number and (optionally) the offset.

FGN returns a global number and offset given values corresponding to the PAGE and PC register. If only one value is given this is taken as the PC value, and all possible procedures are given.

INI gives information relevant to the most recent initialize.

PRT will return the contents of a given primary location.

MON will audit the contents of a specified location at the end of every timeslice, and print an informational message if a change is detected.

HNT will search a range of addresses for a user specified pattern- a string of hexidecimal digits.

COMMMAND SYNTAX

Patches are stored in the form of data and are thus entered in an interactive manner. As well as the opcode changes, the information fields are updated as part of the patch data.
The following convention has been used in this section to define prompts and expected responses.

UPPER CASE

entered as
shown.
(IN ROUND BRACKETS)
Indicates the output printed by the overlay will be the contents of the field described.
((address))
Indicates that a page and address will be printed by the overlay or that an address will be printed by the
Omega debugger.
<IN ANGLE BRACKETS>
Describes the input required by the user for this field. This must be followed by a <cr> to effect entry.
<cr> Indicates a carriage return should/may be entered.
<sp> Indicates a space should/may be entered.
<<address>>
Indicates that a page and address should be entered in overlay 7 or that an address should be entered in
the Omega debugger.

PATCH MODIFICATION
There are three commands for patch data manipulation:
NEW, CHG, and OUT.

NEW Command
NEW is used to create new patch blocks, the internal system patch number either being specified by the user
or assumed as the lowest available (unused) patch number. This patch number is then used for the primary
reference to this patch, and other header fields assume the role of information/verification fields.

PROMPT	RESPONSE
REQ NEW	<cr>

To request prompts to allow new patch creation.

PAT_# <patch number, 0 to 49> or <cr>
Specify the required internal patch number. If the
number selected by the user is already in use, an error message will be output.

NAME <up to 8 character name> or <cr>
Alpha-numeric name to indicate function of the patch.

PRS/PRTS <up to 8 character PRS/PRTS>
Intended to further define the problem being addressed. A carriage return will not be allowed in response to
this prompt.

REF <up to 5 digit reference number> or <cr>
For use as a definitive reference number for this patch.
If the patch is of CTAS,ETAS or MTV design authority origination then the first digit should be 1,2,or 3;
followed by up to 4 digits as required. Otherwise it should just consist of 4 digits as required.

ENGR <4 characters-engineer name or ID>
A carriage return will not be allowed in response to this prompt.

ENTER NEW This is information only, no response required.

GLOB <global number in hex> or <cr>
The global procedure where the patch/code change is to be entered must be given. In the case where a patch
consists of changes to more than one global they may be entered under the same patch number as this
prompt will be repeated when offset information is ended. If no more global procedures need to be
specified a <cr> is entered to terminate. If 6 was the global number selected, no other globals may be specified.

OVLY <Overlay number, 1-99>
If the response to GLOB was 6, the number of the overlay to patch will be requested next. This is
bypassed if any other global number is specified. Valid response is a decimal number from 1 to 99.

OFST <offset in hex> or <cr>
The offset where the code changes are to start is to be entered. This prompt is repeated when the
oldword/ newword data input is ended so that a new offset and subsequent change may be entered as the
same patch, if required. If no further input is required a <cr> is entered to terminate.

((address)) -
(oldword (for the non overlay case))<newword, <sp>> or <newword, <cr>> or <cr>

(-for overlays:<oldword, <sp>, newword, <sp>, or newword <cr>>or <cr>)
This prompts the user with information about the page,address, and the oldword (existing) contents
of the location specified by the global and offset given. The user should verify that the oldword is
as expected and then enter the newword that is to replace it, followed a space if the next oldword
is required, or a <cr> if this input is to end.
A <cr> can be input instead of oldword, also to end input. If the patch is for an overlay, both the oldword and
the newword must be specified since the old word at((address)) cannot be determined by the system until the
overlay is actually loaded.
SPA <global no.> <offset> <opcode> <<address>> or <cr>
If a patchpoint needs to be set with this patch then this line should be completed. The format is similar to the
debugger command SPA and requires the global, offset, and opcode where the patch point should be set and
the address to where control should be passed. If no patchpoint is required, then a <cr> should be entered.
CHK <checksum value> or <?>
The correct checksum value for the patch must be entered for the patch data to be accepted. If the checksum is
not yet known, typically during development, entering entering <?> will result in the checksum being calculated
and printed. The prompt will be repeated. Entering <**> will abort this patch entry attempt.
SAVE <yes> or <no>
This prompt is requesting information as to whether the patch should be marked as to be saved or not.
A carriage return will not be allowed at this prompt.

CHG Command
The change command is similar to the NEW command and is used to modify patch data previously entered. It can
only be used on a patch which is out of service, otherwise if the number of an active patch is supplied an error
 message will be output and the change aborted.
 PROMPT RESPONSE

REQ CHG <cr>
To request prompts to allow patch data to be changed.
PAT_# <patch number, 0 to 49>
The patch number must be entered. If the number is invalid the prompt will be repeated, or if the patch
is active the change attempt will be aborted. In both cases an error message is output.
NAME (name) <up to 8 character name> or <cr>
The current name of the patch is output for confirmmation. A new name may be entered, or the old name
retained by a <cr>.
PRS/PRTS <up to 8 character PRS/PRTS> or <cr> A new PRS/PRTS may be entered, or the old value retained by <cr>.
REF <up to 5 digit reference number> or <cr> A new reference number may be entered, or the old number
retained by <cr>.
ENGR <4 characters-engineer name or ID> A carriage return will not be acceptted at this prompt.
ENTER CHG This is information only, no response required.
(gl) (off) : <oldword> <newword> or <sp> or <cr> or <DATA> or <'X'>
The response of an <sp> will not make any change to the stored patch data, a <cr> will result in the
termination of changes leaving the current old/new word pair unchanged. Entry of <DATA> will cause the
current old/new word pair to be updated; the new word taking on the value of <data>. If <sp> is used to
delimit this entry, the next old/new word pair will be displayed, where as <cr> will cause the termination of changes.
Entry of <'X'> will cause the old/new word pair to be deleted from the patch. If delimited by an
<SP> the prompting of the next old/new word will result, where as <CR> will cause the termination of
changes.
ENTER NEW This is prompted on completion of the changed section, to inform the user that he may now enter

new data. No response is required.
GLOB <global number in hex> or <cr> This prompt may be responded to as for the NEW command and can be used to enter new patch data. If the patch being changed is for an overlay, this prompt will be
bypassed, and the OFST prompt will be appear instead.
OFST <offset in hex> or <cr> This prompt may be responded to as for the NEW command.
((address)) : (oldword (not displayed for overlays)) <newword, <sp>> or <newword, <cr>> or <cr>
(for overlays: <<oldword, <sp>, newword, <sp> or newword <cr>> or <cr>)
This prompt may be responded to as for the NEW command.
SPA <global no.> <offset> <opcode> <<address>> or <'X'> or <cr>
Entry of <'X'> will eliminate the patchpoint corresponding to this patch. <cr> will retain the patchpoint.
A new patchpoint may be defined as described for the NEW command. The new patchpoint will replace the old one.
CHK <checksum value> or <?>
This prompt may be responded to as for the NEW command.
SAVE <yes> or <no> or <cr> This prompt may be responded to as for the NEW command. A <cr> will retain the old status.

OUT Command
The out command is used to remove patch data blocks. It can only be used on a patch which is out of service, otherwise if the number of an active patch is supplied an error message will be output and the change aborted.
PROMPT RESPONSE

REQ OUT <cr>
To request prompts to allow patch data to be removed.
PAT_# <patch number, 0 to 49>
The number of the patch to be removed must be entered. The number must be valid, or an error message will be
output and the prompt repeated. It must also be inactive or an error message will be output and the 'out' attempt
aborted.
NAME <up to 8 character name>
The name of the patch must be entered correctly as confirmation.

PRS/PRTS <up to 8 character PRS/PRTS>
The PRS/PRTS number must be entered correctly as confirmation.
REF <up to 5 digit reference number> or <cr>
The reference number must be entered correctly as confirmation.

The patch data and associated blocks will now be removed.

PATCH ACTIVATION
Patches are put in and out of service with the two commands INS and OOS. An EHM message will be output to indicate any command failure.

INS Command
The In Service command is used to activate a patch.
Overlay patches are 'activated' when the overlay specified is loaded. If the activation fails an error message will be output, giving the patch reference number. The patch will also be changed to an 'out of service' status so that on any subsequent loading of that overlay, activation will not be re-attempted.
Following a sysload, activation of all previously active patches will be attempted automatically during initialization.

PROMPT RESPONSE

REQ INS <cr>
To request prompts to allow patch to be put in service.
PAT_# <patch number, 0 to 49>
The number of the patch to be put in service must be entered. The number must be valid, or an error
message will be output and the prompt repeated. It must also be inactive or an error message will

be output and the 'ins' attempt aborted.
NAME (name) (YES OR NO?) Y or YES or N or NO or <cr>
The name of the patch must be verified as as the correct patch before it will be placed in service, by entering
'YES' or 'Y'. Default will be 'NO'. Incorrect entry will be treated as default.

OOS COMMAND

The Out Of Service command is used to deactivate a patch.

PROMPT RESPONSE

REQ OOS <cr>
To request prompts to allow patch to be put out of service.
PAT_# <patch number, 0 to 49>
The number of the patch to be taken out of service must be entered. The number must be valid or an
error message will be output and the prompt repeated. It must also be active or an error message will be
output and the 'oos' attempt aborted.
NAME (name)
(YES OR NO?) Y or YES or N or NO or <cr>
The name of the patch must be verified as as the correct patch before it will be placed out of service, by
entering 'YES' or 'Y'. Default will be 'NO'. Incorrect entry will be treated as default.

PATCH VERIFICATION

There are two commands to print out patches, LIS and STT.
STT gives the status information for patches without the program store changes, and is available without having
given the patch rentention password. With both commands, if a patch number is not given, all patch data blocks
are printed out.
4.4.3.1 LIS Command
The list command will output information contained in the patch header block, followed by the code change information.

PROMPT RESPONSE

REQ LIS <cr>
To request output of all patch data.
PAT_# <patch number, 0 to 49> or <cr>
The patch number may be entered. If the number is invalid the prompt will be repeated, or if a <cr>
is entered data for all patches will be output. output: ID (prts) (release/issue)
REF (reference number)
No response required. The patch is identified by the given prts number, the software release and issue number where the patch was entered, and the patch reference number.
NAME (name) ENGR (engr)
No response required. The patch name and engineers ID is output.
STAT (NEW or IN or OUT) (days) (inits)
The patch status is given as new if newly entered and not previously activated, or in/out of service;
followed by the number of days in service and the initialize count for active patches.
(INS or OOS) (date) The date of last activity is given with indication of type.
(gl) (off) :(oldword) (newword)
The patch change data is output in this format for each line of the patch defined.

SPA (gl) (off) (opcode) ((address))
The patchpoint data is output in this format, if defined.
SVE (YES or NO)
The save status of the patch is output.

STT COMMAND

and does not output any of the change information.

PROMPT RESPONSE

REQ SST <cr>
To request output of all patch status information.
PAT_# <patch number, 0 to 49> or <cr>
The patch number may be entered. If the number is nvalid the prompt will be repeated, or if a
<cr>
is entered status information for all patches will be output. OUTPUT is the same format as the
LIS command,
up to but not including the change information. The save option will be output.

ERROR MESSAGES
EHM0000 - Patch retention program identifier
EHM0001 - Invalid input characters
EHM0002 - Invalid or ambiguous command
EHM0003 - Invalid number of parameters
EHM0004 - Parameter out of range
EHM0005 - Patch does not exist
EHM0006 - No patches exist
EHM0007 - Global procedure does not exist
EHM0008 - Patch check value incorrect
EHM0009 - Insert/Remove failed
EHM0011 - Active patch may not be changed or outed
EHM0012 - Patch already exists
EHM0013 - Password required for this command
EHM0014 - Attempt to INS (OOS) a patch which is already in service (out of service)
EHM0015 - Attempt to patch an overlay which is already patched
EHM0016 - Cannot mix overlay and resident procedures
EHM0100 - Warning: maximum patch size reached
EHM0260 - Specified opcode does not match
EHM0261 - Invalid global or offset specified
EHM0262 - All eight breakpoints already in use
EHM0272 - Cannot set breakpoint in global BRKPOINT
EHM0275 - Invalid patch page specified
EHM0280 - Problem clearing patchpoint
EHM0306 - Command is not valid in overlay 7
EHM0301 <Patch ref no.> - Patch not inserted after SYSLOAD
EHM0301 " " - Patch not re-inserted after SYSLOAD
EHM0401 " " - Too many initializes for this patch
EHM0500 " " - Patch deleted - invalid issue/data
EHM0602 " " - Out of protected data store
EHM0999 - Invalid password

711 - MS
811 - N
911 - XN
1011 - ST
1111 - NT
1211 - XT
1411 -OPT11E

PATCHING PRINCIPLES
A patch is a modification of program store in order todiagnose, solve or avoid a problem. A
patch
can vary in complexity from a one byte change to the modification of many procedures,
sometimes
introducing new procedures for which several 'dummy' routines are available. With the patch
retention tool, once the correct changes have been developed, it is a straight-forward task to
enter,
activate and track the patch.

PATCH IDENTIFICATION
Accompanying the executable content of each patch are five informational fields which
facilitate identification and tracking of the patch. These must be entered by the technical
support person upon insertion. These fields consist of the following information:

SYSTEM PATCH NUMBER. A decimal number 0 to 49, indicating the internal system patch number.
PATCH NAME. Stores up to 8 alpha-numeric characters. This is intended for quick identification and
would normally have some sort of cryptic mnemonic, an example being "OURPATCH".
PRS/PRTS NUMBER. This stores up to 8 alpha-numeric characters. This field will not accept a null input.
REFERENCE NUMBER. This will accept a five digit number up to 79999. This is intended as a unique
reference number to identify all patches. The first digit is used in the case of a patch issued by an NT
design authority, and is used to identify which authority. At present up to three development agencies
are supported by this scheme, using numbers in the 1nnnn, 2nnnn, and 3nnnn range respectively.
When the patches are printed, the reference number is output in the form of a four digit number,
0 to 9999 prefixed by a 4 character code assigned to that agency. These may be specified in the code as
CTAS,ETAS,MTV,BVW (and eventually X81). The remaining four digits, nnnn, may be used as the patch
number (up to 9999). Of course, any numbering scheme can be used for this field.
ENGINEERS' NAME. This a 4 character alpha field. Its purpose is to record the technical support
person's name or initials against the entry of the patch.

PATCH CONTENT

Program changes are based on global number and offset, with the old word and new word being stored in
the data block. Specifying the low byte or high byte opcode will reference the same word. Multiple procedure
changes are permissible, the restriction being that the patch data block must not exceed 255 words in length,
giving capacity of sixty words modification per patch. If a patchpoint is to be associated with the patch, the
patch can be no longer than fifty-two words. When using a patchpoint-type patch, the intent is to
use the "dummy" patch globals as a patch area and then use the SPA prompt to link the inline code with the
patch in the patch global. If a required patch is longer than the 60 words allowed by one patch block then the
functionality of the required patch can be segmented in to units of less than 60 words and entered as separate
patches. This assumes the segments can be executed individually without causing system problems,
as activation of each will occur in different timeslices. If global 6 (OVERLAYPROG) is the procedure to be
patched then an overlay number must be associated with the patch's contents. It is also necessary for the
<old-word> to be specified when entering the patch as this may not be determined until the desired overlay
is loaded. Patching of a combination of resident and overlay procedures is not allowed in the same patch as this
creates sticky complications with respect to removal of resident changes upon overlay abort or patch deactiva-
tion. If additional memory is required for an overlay patch, spare memory beyond the exent of the overlay pro-
gram within the overlay area must be used. The overlay loader has been modified to zero out this area after
loading the overlay and before calling the patch procedure. All patches may be printed out along with
activation status and service summary, making it simple to determine what changes have been made to
memory.

TECHNICAL CONTROLS

After loading overlay 7, the user is prompted for an alpha-numeric password. The overlay password is
fixed (nonconfigurable) and will be periodically changed. The displaying of the passwords and the
overlay module will be inhibited on microfiche. It is not possible to load the patch retention overlay
from a tape or disk which has a different release/issue number to the tape stored program control.
At sysload time any patches found on tape which are a different release/issue number to the

tape will
not be loaded into memory. Subsequent dumping will result in the patches on tape being deleted from
tape. An error message will be output at sysload time indicating the patch reference number.
When this feature is being operated from a teletype or such like terminal, input and machine responses
will not be echoed on any other terminal.
A total of fifty patches can be supported including up to eight patchpoint type patches.
Once a patch has been developed, it is inserted into the machine by use of the patch retention overlay
program. After the control information is given, the code changes are specified based on global procedure
number and offset. Both the old and new words are stored for subsequent verification when
activating and deactivating patches. When all code modification data has been entered for the
patch indicated by entering a carriage return, the system will prompt the user for a checksum to verify
the input. The correct checksum (normally stored with the actual patch information) must now be entered.
A carriage return or an incorrect entry will result in the checksum request being reprompted.
For use during patch development a '?' character may be entered in response to the checksum prompt,
resulting in the automatic calculation and printing of the checksum for the patch entered. This value may
now be entered as described above. This will be the normal method of first determining the checksum value.
The only way past the checksum prompt is to enter the correct value or enter two stars to abort this
patch entry. The checksum is calculated by means of a longitudinal exclusive or (XOR) of the entire patch
data entered, except for the header block. Thus both old and new word is validated. On activation of a patch,
each change is validated automatically by comparing the oldword specified for each 'global and offset' specified
in the patch block with the actual word found in program store. This is achieved by internal use of the 'ADR'
routines. After checking, all of the changes are carried out sequentially in one timeslice. (This is essential to
avoid executing half changed code). The patch designer is responsible for memory management opcode changes. If memory management modification has taken place then at the next sysload a patch
saved on tape may be rejected due to extended opcodes changing. When this happens, the system will print
a message saying the patch was not reloaded. The patch designer can then make any necessary modifications and re-activate the patch. Whenever a memory management change has been made,
if any patches are active, a message will warn that some patches may no longer be valid.
Although this tool will replace the current mode of patching, the memory reserved for patch area will still be
available as well as the old overlay 9 and resident debugger breakpoint and patchpoint facilities.
X11 software will be modified to provide a total of up to five fixed length dummy patch globals. This
number can be increased according to development needs. Overlay 22 will type "+" after the issue
number if any patches are currently in service.

PATCH SAVE ON TAPE/DISK

If the option is set, it is possible to save (and subsequently recover) patches from the tape/disk. Patches are
individually marked as to be saved or not when created. Ptch data blocks are defined by a new data block type
"patch-block", and are stored on tape/disc in 'customer data' records as the first block type to be stored
after the configuration record. If it is required to remove all patches from a storage medium, this is carried
out by removing all patch data blocks (or marking them as not to be saved on tape/Disk) then doing a
normal data dump.

EDD

Those patches marked for saving will be data dumped. Non-patch customer data will be dumped as before.

PATCH RECOVERY

Patching SL1 software can sometimes cause serious system problems due to poor patch design.

To minimize the impact of faulty patches, initializes and sysloads will cause patches to be removed if necessary.

SYSTEM INITIALIZE

Every midnight, each active patch has its 'days in service' count updated, to a maximum of 511.
If this reaches 511, the counter will maintain this value. If certain initializes occur, each active patch has its INI
count updated, to a maximum of 31. If this reaches 31, then the count will be maintained at 31. The count will be updated when an INI000 occurs, EXCEPT when the field 1 is one of the following.
These INI's will be ignored.
INI000, field 1 =
0001 manual.
0002 manual
0003 PE signalling fault
0006 overload
0007 overload
0400 power on reset/powerup etc
When the INI count reaches 5, if the patch days in service count is less than 4, the patch is taken out of service.
Upon removal of a patch, an EHM message is given, showing the patch reference number

HISTORY FILE

For the purposes of recording automatic patch retention messages in the history file, all EHMXXX
messages will be treated as INIXXX messages.

SYSLOAD

After a sysload, recovered patches will be activated if possible by initialize. Activation depends on conditions outlined under system initializations, and patch activation. When a data dump is carried out, the patch data saved
is a reflection of the status and service at the time of dumping. After a reload and initialize, active patches
found on the tape or disk which have a days in service count of less than 3 will not be reactivated,
although the data block remains in memory. This is solely to prevent a patch which causes sysloads being
reactivated. Only those patches marked as active at the last data-dump will be considered for reactivation.
If a patch release/issue does not match the tape/disk release/issue, the patch is removed from memory and
an EHM message given. This does not affect the dump inhibit flag, however. If there is a conflict between
patch data and memory, the patch will not be activated, and an error message will be output giving the patch
reference number. This could occur due to memory management changes or cross-dumping between tapes
with different packages. Any changes to patches due to problems at sysload time, or due to user involvement
should be followed by a data dump to update the tape.

OMEGA

Because of increased available memory and a lack of overlay debuggers on the Omega machine type,
the patch retention tool will become part of the Omega's resident debugger. Operationally, the only
difference between the Omega and non-Omega versions will be the access to the commands. On the Omega, to develop a patch, 'EHM' must be typed in after entering the resident debugger. The debugger
will respond with a request to enter a password. After the proper password is given, the patch rentention
commands can be accessed. The commands will work as described in the sections to follow.

EDD007

REQ issp

VERSION 1811
RELEASE 23
ISSUE 55

IN-SERVICE PATCHES : 0

REQ slt
TNS   700   LEFT   134   USED   566
AGNT   20   LEFT   12   USED   8
ACDN   1000   LEFT   988   USED   12
AST   0   LEFT   0   USED   0
DCH   64   LEFT   61   USED   3
AML   16   LEFT   15   USED   1

REQ ****

>ld 43
EDD000

.dat
DATABASE   ISSUE   DATE(d/m/y)/TIME   SIZE(recs) SEQNO
Main   2355 27/07/2002 at 23:14:22   142   2234
Secondary 2355 29/07/2002 at 00:00:08   141   2239
Backup   2355 27/07/2002 at 23:14:22   142   2234
Current backup is on floppy diskette on CMDU 1

CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

>ld 137
CIOD000
.stat
IOP 0 ENABLED   (STANDBY: S/W STATUS) IOP-CMDU
IOP 1 ENABLED   (ACTIVE) IOP-CMDU
CMDU 0 DISABLED (In Split Mode)
CMDU 1 ENABLED   (ACTIVE)
RDUN   DISABLED
ELNK   ENABLED
.****

>ld 43
EDD000

.edd

DB SEQ NUM = 2240
CONFIG
CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

PHYSICAL MAP
BCS TEMPLATE
PBX TEMPLATE
CUST
CLID
ROUTE
LTN TN
LTN LNK
TN
SCL
ESN 00
NCTL
PREXL
ACD
AUTH 00

```
CPK
ESA
IDC   TREES
DIGITAL
DTI
ASNCH
AML / ELAN
VAS
TRSH
DCH
PRI
ARIES
SYSP
XPEC
XTDT
FDCT
FFC
LAPW
MSDL/MISP BLK
SOCKET ID BLK
VMB
CPND
CPND NM
SPECIFIC DATA
  HI
  ALARM_MGT
EDD007

.
EDD000

.****
OVL000

>err edd7

EDD0007
Storage device write error.
Action:  Attempt dump again.

Severity:  Critical

pdt> pwd
/p/etc
pdt> tree /u
----/u/
    |----DB/
    |    |----HI/
    |    |----HI_BAK/
    |    |----HI_TMP/
    |
    |----PATCH/
    |    |----RETEN/
    |    |----PCH_TMP/
    |
    |----RPT/
    |----SMP_DB/
pdt> tree /p
----/p/
    |----DATA/
    |----ETC/
    |----HIDIR/
    |----INSTALL/
    |----MOB/
    |----OS/
    |----RPT/
    |----SL1/

pdt>dosFsCheck /u,1,1<--run dosFsCheck

File size longer than cluster chain: /DB/DATABASE.BAK
Cluster multiply assigned = 0xa /SMP_DB/VIEWCFG.TMP
```

```
Cluster multiply assigned = 0x28 /SMP_DB/EPTFLAG.DB
End of Cluster Chain is 0x0000, should be 0xffff - file cropped /DB/HI/ETH.TMP
End of Cluster Chain is 0x0000, should be 0xffff - file cropped /DB/DATABASE.BAK
value = -1 = 0xFFFFFFFF

pdt>
CIOD167 File size longer than cluster chain: /DB/DATABASE.BAK

CIOD166 Cluster multiply assigned: /SMP_DB/VIEWCFG.TMP - deleted<-system removed

CIOD166 Cluster multiply assigned: /SMP_DB/EPTFLAG.DB - deleted<--system removed

CIOD165 Cluster incorrectly terminated: /DB/HI/ETH.TMP - cropped<-remove in pdt

CIOD165 Cluster incorrectly terminated: /DB/DATABASE.BAK - cropped<-remove in pdt

pdt>cd /u/db/hi
pdt>ll

Directory of '/u/db/hi':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:42:48   .                          <DIR>
       512   Feb-03-1993  16:42:48   ..                         <DIR>
         0   Jul-29-2002  14:53:32   ETH.TMP
        14   Jul-29-2002  14:53:32   SIMM.DB
        71   Jul-29-2002  14:53:30   IPB.DB
        35   Jul-29-2002  14:53:30   CNIB.DB
       237   Jul-27-2002  23:10:00   INET.DB
        31   Jul-29-2002  14:53:30   CP.DB
       255   Jul-29-2002  14:53:28   HI.DB
        33   Jul-29-2002  14:53:30   IOP.DB

pdt> rm eth.tmp
pdt> cd ..
pdt> ll

Directory of '/u/db':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:41:40   .                          <DIR>
       512   Feb-03-1993  16:41:40   ..                         <DIR>
       512   Feb-03-1993  16:42:48   HI                         <DIR>
       512   Feb-03-1993  16:43:06   HI_BAK                     <DIR>
       512   Feb-03-1993  16:43:14   HI_TMP                     <DIR>
      1024   Jul-29-2002  14:53:34   CONFIG.BAK
    144384   Jul-27-2002  23:14:32   DATABASE.REC
        11   Jul-27-2002  23:15:02   LASTARC.STT
       214   Jul-29-2002  14:53:24   HDBAK.ERR
      1024   Jul-27-2002  23:14:32   CONFIG.REC
     26624   Jul-29-2002  14:53:34   DATABASE.BAK
        11   Jul-26-2002  15:39:20   LASTARC.SAV
      3072   Jul-27-2002  18:45:02   DATADFLT.REC
      1024   Jul-27-2002  18:45:52   CONFDFLT.REC
    144384   Jul-27-2002  18:48:12   DATABASE.ORG
      1024   Jul-27-2002  18:48:28   CONFIG.ORG

pdt> rm database.bak
pdt> ll

Directory of '/u/db':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:41:40   .                          <DIR>
       512   Feb-03-1993  16:41:40   ..                         <DIR>
       512   Feb-03-1993  16:42:48   HI                         <DIR>
       512   Feb-03-1993  16:43:06   HI_BAK                     <DIR>
       512   Feb-03-1993  16:43:14   HI_TMP                     <DIR>
      1024   Jul-29-2002  14:53:34   CONFIG.BAK
```

```
    144384   Jul-27-2002  23:14:32   DATABASE.REC
        11   Jul-27-2002  23:15:02   LASTARC.STT
       214   Jul-29-2002  14:53:24   HDBAK.ERR
      1024   Jul-27-2002  23:14:32   CONFIG.REC
        11   Jul-26-2002  15:39:20   LASTARC.SAV
      3072   Jul-27-2002  18:45:02   DATADFLT.REC
      1024   Jul-27-2002  18:45:52   CONFDFLT.REC
    144384   Jul-27-2002  18:48:12   DATABASE.ORG
      1024   Jul-27-2002  18:48:28   CONFIG.ORG

pdt>
pdt> dosFsCheck /u,1,1 <--run dosFsCheck again
value = 0 = 0x0 <--dosFsCheck came back clean

pdt> sl1input

OVL000
>ld 43
EDD000


.edd

DB SEQ NUM = 2241
CONFIG
CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

PHYSICAL MAP
BCS TEMPLATE
PBX TEMPLATE
CUST
CLID
ROUTE
LTN TN
LTN LNK
TN
SCL
ESN  00
NCTL
PREXL
ACD
AUTH 00
CPK
ESA
IDC   TREES
DIGITAL
DTI
ASNCH
AML / ELAN
VAS
TRSH
DCH
PRI
ARIES
SYSP
XPEC
XTDT
FDCT
FFC
LAPW
MSDL/MISP BLK
SOCKET ID BLK
VMB
CPND
CPND NM
SPECIFIC DATA
  HI
  ALARM_MGT
CHECKING

RECORD COUNT =  0142<--no EDD007
DATADUMP COMPLETE
```

```
Starting database backup
to floppy diskette on CMDU 1
DIRECTORY
CONFIG
DATA
HI
Database backup Complete!

.
TEMU129  BackUP process ended successfully.
          Number of floppy diskette(s) used: 1
          Amount of space remaining on the last floppy: 2711
.edd

DB SEQ NUM = 2242
CONFIG
CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

PHYSICAL MAP
BCS TEMPLATE
PBX TEMPLATE
CUST
CLID
ROUTE
LTN TN
LTN LNK
TN
SCL
ESN  00
NCTL
PREXL
ACD
AUTH 00
CPK
ESA
IDC   TREES
DIGITAL
DTI
ASNCH
AML / ELAN
VAS
TRSH
DCH
PRI
ARIES
SYSP
XPEC
XTDT
FDCT
FFC
LAPW
MSDL/MISP BLK
SOCKET ID BLK
VMB
CPND
CPND NM
SPECIFIC DATA
  HI
  ALARM_MGT
CHECKING

RECORD COUNT =  0142
DATADUMP COMPLETE

Starting database backup
to floppy diskette on CMDU 1
DIRECTORY
CONFIG
DATA
HI
Database backup Complete!
```

```
.
EDD000

.
TEMU129  BackUP process ended successfully.
          Number of floppy diskette(s) used: 1
          Amount of space remaining on the last floppy: 2711
EDD000
.dat
DATABASE   ISSUE    DATE(d/m/y)/TIME     SIZE(recs) SEQNO
Main       2355 29/07/2002 at 14:57:46      142    2242
Secondary  2355 29/07/2002 at 14:57:00      142    2241
Backup     2355 29/07/2002 at 14:57:46      142    2242
Current backup is on floppy diskette on CMDU 1

CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

.edd

DB SEQ NUM = 2243
CONFIG
CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

PHYSICAL MAP
BCS TEMPLATE
PBX TEMPLATE
CUST
CLID
ROUTE
LTN TN
LTN LNK
TN
SCL
ESN  00
NCTL
PREXL
ACD
AUTH 00
CPK
ESA
IDC   TREES
DIGITAL
DTI
ASNCH
AML / ELAN
VAS
TRSH
DCH
PRI
ARIES
SYSP
XPEC
XTDT
FDCT
FFC
LAPW
MSDL/MISP BLK
SOCKET ID BLK
VMB
CPND
CPND NM
SPECIFIC DATA
  HI
  ALARM_MGT
CHECKING

RECORD COUNT =  0142
DATADUMP COMPLETE

Starting database backup
to floppy diskette on CMDU 1
```

```
DIRECTORY
CONFIG
DATA
HI

TIM140 15:00  29/7/2002 CPU 1
Database backup Complete!

.
EDD000

.
TEMU129  BackUP process ended successfully.
          Number of floppy diskette(s) used: 1
          Amount of space remaining on the last floppy: 2711

****
>ld 137
CIOD000
.sync
 CMDU 0 IS ACTIVE; HDK WILL BE COPIED
 DISK RDUN WILL BE ENABLED;
 ENTER Y(ES) TO CONFIRM, N(O) TO ABORT
.y

CIOD021 SYNC in progress (0% done)

CIOD021 SYNC in progress (16% done)

CIOD021 SYNC in progress (34% done)

HWI533 CMB: Synchronization of memories completed

CIOD021 SYNC in progress (57% done)

CIOD021 SYNC in progress (82% done)

CIOD021 SYNC in progress (100% done)

OK
.stat
IOP  0 ENABLED   (ACTIVE)  IOP-CMDU
IOP  1 ENABLED   (STANDBY: S/W STATUS)  IOP-CMDU
CMDU 0 ENABLED   (ACTIVE)
CMDU 1 ENABLED   (STANDBY)
RDUN   ENABLED
ELNK   ENABLED
.****
logo


By Allen Russell
```

CC DATA NOT 1.5MB

(PREF and SREF do not prompt in LD 73 during change to the DDB)

```
>ld 73
DDB000
MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)


REQ   prt
TYPE  ddb

CC DATA NOT 1.5MB


TRSH 00
RALM 3
BIPC 2
LFAC 3
BIPV 3  2
SRTK 5  30
SRNT 15  3
LFAL 17  511
SRIM 1
SRMM 2
ICS


REQ   chg
TYPE  ddb
TRSH
ICS

MEM AVAIL: (U/P): 7155228    USED U P: 277592 38283    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)

REQ   prt
TYPE  dti2
FEAT  syti

PREF CK0   18
SREF CK0   FREE RUN
PREF CK1   FREE RUN
SREF CK1   FREE RUN

CCGD   15
CCAR   15


REQ   chg
TYPE  dti2
FEAT  syti
PREF CK0   x18
SREF CK0
PREF CK1
SREF CK1
CCGD
CCAR

MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)
REQ   prt
TYPE  pri2
FEAT  syti
```

```
PREF CK1   18
SREF CK1   FREE RUN

CCGD   15
CCAR   15

MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)
REQ   chg
TYPE  pri2
FEAT  syti
PREF CK0
SREF CK0
PREF CK1   x18
SREF CK1
CCGD
CCAR

MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)
REQ   prt
TYPE  ddb

CC DATA NOT 1.5MB


TRSH 00
RALM 3
BIPC 2
LFAC 3
BIPV 3  2
SRTK 5  30
SRNT 15  3
LFAL 17  511
SRIM 1
SRMM 2
ICS


REQ   chg
TYPE  ddb
PREF  18
SREF
TRSH
ICL

MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)
REQ   prt
TYPE  ddb

PREF 18
SREF FREE RUN

TRSH 00
RALM 128
BIPC 0
LFAC 0
BIPV 3  2
SRTK 5  30
SRNT 15  3
LFAL 17  511
SRIM 1
SRMM 2
ICS

By Allen Russell
```

```
>ld 43
EDD000


.edd

DB SEQ NUM = 2240
CONFIG
CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

PHYSICAL MAP
BCS TEMPLATE
PBX TEMPLATE
CUST
CLID
ROUTE
LTN TN
LTN LNK
TN
SCL
ESN  00
NCTL
PREXL
ACD
AUTH 00
CPK
ESA
IDC   TREES
DIGITAL
DTI
ASNCH
AML / ELAN
VAS
TRSH
DCH
PRI
ARIES
SYSP
XPEC
XTDT
FDCT
FFC
LAPW
MSDL/MISP BLK
SOCKET ID BLK
VMB
CPND
CPND NM
SPECIFIC DATA
  HI
  ALARM_MGT
EDD007


.
EDD000
```

```
.****
OVL000



>err edd7

EDD0007
Storage device write error.
Action:  Attempt dump again.

Severity:  Critical

pdt> pwd
/p/etc
pdt> tree /u
----/u/
    |----DB/
    |    |----HI/
    |    |----HI_BAK/
    |    |----HI_TMP/
    |
    |----PATCH/
    |    |----RETEN/
    |    |----PCH_TMP/
    |
    |----RPT/
    |----SMP_DB/
pdt> tree /p
----/p/
    |----DATA/
    |----ETC/
    |----HIDIR/
    |----INSTALL/
    |----MOB/
    |----OS/
    |----RPT/
    |----SL1/

pdt>dosFsCheck /u,1,1<--run dosFsCheck

File size longer than cluster chain: /DB/DATABASE.BAK
Cluster multiply assigned = 0xa /SMP_DB/VIEWCFG.TMP
Cluster multiply assigned = 0x28 /SMP_DB/EPTFLAG.DB
End of Cluster Chain is 0x0000, should be 0xffff - file cropped /DB/HI/ETH.TMP
End of Cluster Chain is 0x0000, should be 0xffff - file cropped /DB/DATABASE.BAK
value = -1 = 0xFFFFFFFF

pdt>
CIOD167 File size longer than cluster chain: /DB/DATABASE.BAK

CIOD166 Cluster multiply assigned: /SMP_DB/VIEWCFG.TMP - deleted<-system removed

CIOD166 Cluster multiply assigned: /SMP_DB/EPTFLAG.DB - deleted<--system removed

CIOD165 Cluster incorrectly terminated: /DB/HI/ETH.TMP - cropped<-remove in pdt

CIOD165 Cluster incorrectly terminated: /DB/DATABASE.BAK - cropped<-remove in pdt
```

```
pdt>cd /u/db/hi
pdt>ll

Directory of '/u/db/hi':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:42:48   .                          <DIR>
       512   Feb-03-1993  16:42:48   ..                         <DIR>
         0   Jul-29-2002  14:53:32   ETH.TMP
        14   Jul-29-2002  14:53:32   SIMM.DB
        71   Jul-29-2002  14:53:30   IPB.DB
        35   Jul-29-2002  14:53:30   CNIB.DB
       237   Jul-27-2002  23:10:00   INET.DB
        31   Jul-29-2002  14:53:30   CP.DB
       255   Jul-29-2002  14:53:28   HI.DB
        33   Jul-29-2002  14:53:30   IOP.DB

pdt> rm eth.tmp
pdt> cd ..
pdt> ll

Directory of '/u/db':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:41:40   .                          <DIR>
       512   Feb-03-1993  16:41:40   ..                         <DIR>
       512   Feb-03-1993  16:42:48   HI                         <DIR>
       512   Feb-03-1993  16:43:06   HI_BAK                     <DIR>
       512   Feb-03-1993  16:43:14   HI_TMP                     <DIR>
      1024   Jul-29-2002  14:53:34   CONFIG.BAK
    144384   Jul-27-2002  23:14:32   DATABASE.REC
        11   Jul-27-2002  23:15:02   LASTARC.STT
       214   Jul-29-2002  14:53:24   HDBAK.ERR
      1024   Jul-27-2002  23:14:32   CONFIG.REC
     26624   Jul-29-2002  14:53:34   DATABASE.BAK
        11   Jul-26-2002  15:39:20   LASTARC.SAV
      3072   Jul-27-2002  18:45:02   DATADFLT.REC
      1024   Jul-27-2002  18:45:52   CONFDFLT.REC
    144384   Jul-27-2002  18:48:12   DATABASE.ORG
      1024   Jul-27-2002  18:48:28   CONFIG.ORG

pdt> rm database.bak
```

```
pdt> ll

Directory of '/u/db':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Feb-03-1993  16:41:40   .                          <DIR>
       512   Feb-03-1993  16:41:40   ..                         <DIR>
       512   Feb-03-1993  16:42:48   HI                         <DIR>
       512   Feb-03-1993  16:43:06   HI_BAK                     <DIR>
       512   Feb-03-1993  16:43:14   HI_TMP                     <DIR>
      1024   Jul-29-2002  14:53:34   CONFIG.BAK
    144384   Jul-27-2002  23:14:32   DATABASE.REC
        11   Jul-27-2002  23:15:02   LASTARC.STT
       214   Jul-29-2002  14:53:24   HDBAK.ERR
      1024   Jul-27-2002  23:14:32   CONFIG.REC
        11   Jul-26-2002  15:39:20   LASTARC.SAV
      3072   Jul-27-2002  18:45:02   DATADFLT.REC
      1024   Jul-27-2002  18:45:52   CONFDFLT.REC
    144384   Jul-27-2002  18:48:12   DATABASE.ORG
      1024   Jul-27-2002  18:48:28   CONFIG.ORG

pdt>
pdt> dosFsCheck /u,1,1 <--run dosFsCheck again
value = 0 = 0x0 <--dosFsCheck came back clean

pdt> sl1input

OVL000
>ld 43
EDD000


.edd

DB SEQ NUM = 2241
CONFIG
CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

PHYSICAL MAP
BCS TEMPLATE
PBX TEMPLATE
CUST
CLID
ROUTE
LTN TN
LTN LNK
TN
SCL
```

```
ESN  00
NCTL
PREXL
ACD
AUTH 00
CPK
ESA
IDC   TREES
DIGITAL
DTI
ASNCH
AML / ELAN
VAS
TRSH
DCH
PRI
ARIES
SYSP
XPEC
XTDT
FDCT
FFC
LAPW
MSDL/MISP BLK
SOCKET ID BLK
VMB
CPND
CPND NM
SPECIFIC DATA
  HI
  ALARM_MGT
CHECKING

RECORD COUNT =  0142<--no EDD007
DATADUMP COMPLETE

Starting database backup
to floppy diskette on CMDU 1
DIRECTORY
CONFIG
DATA
HI
Database backup Complete!

.
TEMU129  BackUP process ended successfully.
          Number of floppy diskette(s) used: 1
          Amount of space remaining on the last floppy: 2711
.edd

DB SEQ NUM = 2242
CONFIG
CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

PHYSICAL MAP
BCS TEMPLATE
PBX TEMPLATE
CUST
CLID
ROUTE
LTN TN
```

```
LTN LNK
TN
SCL
ESN  00
NCTL
PREXL
ACD
AUTH 00
CPK
ESA
IDC   TREES
DIGITAL
DTI
ASNCH
AML / ELAN
VAS
TRSH
DCH
PRI
ARIES
SYSP
XPEC
XTDT
FDCT
FFC
LAPW
MSDL/MISP BLK
SOCKET ID BLK
VMB
CPND
CPND NM
SPECIFIC DATA
  HI
  ALARM_MGT
CHECKING

RECORD COUNT =  0142
DATADUMP COMPLETE

Starting database backup
to floppy diskette on CMDU 1
DIRECTORY
CONFIG
DATA
HI
Database backup Complete!

.
EDD000


.
TEMU129  BackUP process ended successfully.
          Number of floppy diskette(s) used: 1
          Amount of space remaining on the last floppy: 2711
EDD000


.dat
DATABASE   ISSUE    DATE(d/m/y)/TIME     SIZE(recs) SEQNO
Main       2355 29/07/2002 at 14:57:46      142    2242
```

```
Secondary  2355 29/07/2002 at 14:57:00      142    2241
Backup     2355 29/07/2002 at 14:57:46      142    2242
Current backup is on floppy diskette on CMDU 1

CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED
```

```
.edd

DB SEQ NUM = 2243
CONFIG
CIOD157 INFO: CMDU 1 is ACTIVE, RDUN is DISABLED

PHYSICAL MAP
BCS TEMPLATE
PBX TEMPLATE
CUST
CLID
ROUTE
LTN TN
LTN LNK
TN
SCL
ESN  00
NCTL
PREXL
ACD
AUTH 00
CPK
ESA
IDC   TREES
DIGITAL
DTI
ASNCH
AML / ELAN
VAS
TRSH
DCH
PRI
ARIES
SYSP
XPEC
XTDT
FDCT
FFC
LAPW
```

```
MSDL/MISP BLK
SOCKET ID BLK
VMB
CPND
CPND NM
SPECIFIC DATA
  HI
  ALARM_MGT
CHECKING

RECORD COUNT =  0142
DATADUMP COMPLETE

Starting database backup
to floppy diskette on CMDU 1
DIRECTORY
CONFIG
DATA
HI

TIM140 15:00  29/7/2002 CPU 1
Database backup Complete!

.
EDD000


.
TEMU129  BackUP process ended successfully.
          Number of floppy diskette(s) used: 1
          Amount of space remaining on the last floppy: 2711

****
>ld 137
CIOD000
.sync
 CMDU 0 IS ACTIVE; HDK WILL BE COPIED
 DISK RDUN WILL BE ENABLED;
 ENTER Y(ES) TO CONFIRM, N(O) TO ABORT
.y

CIOD021 SYNC in progress (0% done)

CIOD021 SYNC in progress (16% done)

CIOD021 SYNC in progress (34% done)

HWI533 CMB: Synchronization of memories completed

CIOD021 SYNC in progress (57% done)

CIOD021 SYNC in progress (82% done)

CIOD021 SYNC in progress (100% done)

OK
.stat
IOP  0 ENABLED   (ACTIVE)  IOP-CMDU
IOP  1 ENABLED   (STANDBY: S/W STATUS)  IOP-CMDU
CMDU 0 ENABLED   (ACTIVE)
CMDU 1 ENABLED   (STANDBY)
```

RDUN   ENABLED
ELNK   ENABLED
.****
logo

By Allen Russell

CC DATA NOT 1.5MB

(PREF and SREF do not prompt in LD 73 during change to the DDB)

```
>ld 73
DDB000
MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)


REQ   prt
TYPE  ddb

CC DATA NOT 1.5MB


TRSH 00
RALM 3
BIPC 2
LFAC 3
BIPV 3  2
SRTK 5  30
SRNT 15  3
LFAL 17  511
SRIM 1
SRMM 2
ICS


REQ   chg
TYPE  ddb
TRSH
ICS

MEM AVAIL: (U/P): 7155228    USED U P: 277592 38283    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)

REQ   prt
TYPE  dti2
FEAT  syti

PREF CK0   18
SREF CK0   FREE RUN
PREF CK1   FREE RUN
SREF CK1   FREE RUN

CCGD   15
CCAR   15


REQ   chg
TYPE  dti2
FEAT  syti
PREF CK0   x18
SREF CK0
PREF CK1
SREF CK1
CCGD
CCAR

MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)
REQ   prt
TYPE  pri2
FEAT  syti
```

```
PREF CK1   18
SREF CK1   FREE RUN

CCGD   15
CCAR   15

MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)
REQ   chg
TYPE  pri2
FEAT  syti
PREF CK0
SREF CK0
PREF CK1   x18
SREF CK1
CCGD
CCAR

MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)
REQ   prt
TYPE  ddb

CC DATA NOT 1.5MB


TRSH 00
RALM 3
BIPC 2
LFAC 3
BIPV 3  2
SRTK 5  30
SRNT 15  3
LFAL 17  511
SRIM 1
SRMM 2
ICS


REQ   chg
TYPE  ddb
PREF  18
SREF
TRSH
ICL

MEM AVAIL: (U/P): 7155456    USED U P: 277443 38204    TOT: 7471103
DISK SPACE NEEDED: 59 KBYTES
2MB BACKUP DISKETTE(S) NEEDED: 1  (PROJECTED LD43 - BKO)
REQ   prt
TYPE  ddb

PREF 18
SREF FREE RUN

TRSH 00
RALM 128
BIPC 0
LFAC 0
BIPV 3  2
SRTK 5  30
SRNT 15  3
LFAL 17  511
SRIM 1
SRMM 2
ICS

By Allen Russell
```

MISC PDT COMMANDS

(EDD021-this ends up being a bad IODUC, this is more FYI then anything because it was a hardware problem there was no software command that would help.)

```
OVL111 IDLE   0
>loii
PASS?
TTY #02 LOGGED IN 15:08  21/6/2002

>ld 43
EDD000


.dat
EDD021 ------>EDD0021-Tape unit not idle. Attempt dump again.

000000000 00000000
.
EDD000


.****
>
OVL000
pdt>hiHealthShow
      Active Side 0:

Active Side:
         cp 0 15: 0008
           ipb 0: 0002
        cnib 0 12: 0002
      cnip 0 12 0: 0002
      cnip 0 12 1: 0000 (OutOfService)
        iop 0 17: 0001
           cmb 0: 0002
        simm 0 0: 0008
        simm 0 1: 0000 (OutOfService)
        simm 0 2: 0000 (OutOfService)
        simm 0 3: 0000 (OutOfService)
        simm 0 4: 0000 (OutOfService)
        simm 0 5: 0000 (OutOfService)
        simm 0 6: 0000 (OutOfService)
        simm 0 7: 0000 (OutOfService)
     Active Total: 0025

     StandBy Side 1:

    Standby Total: 0000

value = 0 = 0x0

pdt>iosFdShow
 fd name              drv
  3 /lcd               1
  4 /sio/0             2 in out err
  5 /sio/1             2
  6 /lcd              1
  7 /sdi/tty0          9
  8 /sdi/tty1          9
  9 /sdi/tty2          9
 10 /sio/0             2
 11 /sio/1             2
 12 /POVL1               3
 13 /POVL2               3
 14 /POVL3               3
 15 /POVL4               3
 16 /POVL5               3
value = 4064 = 0xFE0

pdt>devs
drv name
  0 /null
  1 /lcd
  2 /sio/0
  2 /sio/1
  4 /f0
  6 /cd0
  5 /rf0
  7 /mem/
  8 /flash/
  4 /pdtmac
  9 /sdi/tty0
```

```
  9 /sdi/tty1
  9 /sdi/tty2
  3 /POVL1
  3 /POVL2
  3 /POVL3
  3 /POVL4
  3 /POVL5

pdt>machTypeShow
System type is - Option 51C/CP3
value = 15 = 0xF

pdt>tree /u
'/u': device not found

pdt>b
'/p': device not found

pdt>pwd

pdt>ll
Error opening directory ''
Error listing directory

pdt>hiOOSShow
"cnip 0 12 1"(ID = 0x8db8964) OOS Reasons: 16 17 22
"cmdu 0"(ID = 0x8db8ff4) OOS Reasons: 19
"simm 0 1"(ID = 0x8db9224) OOS Reasons: 10
"simm 0 2"(ID = 0x8db92b0) OOS Reasons: 10
"simm 0 3"(ID = 0x8db933c) OOS Reasons: 10
"simm 0 4"(ID = 0x8db93c8) OOS Reasons: 10
"simm 0 5"(ID = 0x8db9454) OOS Reasons: 10
"simm 0 6"(ID = 0x8db94e0) OOS Reasons: 10
"simm 0 7"(ID = 0x8db956c) OOS Reasons: 10
"eth"(ID = 0x8db95f8) OOS Reasons: 17
value = 0 = 0x0

pdt>hiErrShow

Usage: hiErrShow ID, level

ID      - any HI Id
level 0 - show the last error
level 1 - show all errors
Note: special ID (1) is used to show the incoming error buffer

Use also:
hiErrShowCls cid,level  to show errors in class and its objects
hiErrShowAll level      to show errors in HI, its classes and objects
hiErrClear id           to clear errors in class or object
hiErrClearCls cid       to clear errors in the class and its objects
hiErrClearAll           to clear all errors in HI
value = 0 = 0x0

pdt>hiErrShowAll 1

====   HI    =====

ERR#  DEVICE       TASK         TIME       PARM  ERROR MESSAGE
  1: HI          pdtShell01  4989583   0x4346def  invalid object name
  2: HI          pdtShell01 10112101         0  Assert failed

====   cp    =====


====   ipb    =====


====   con    =====


====   cnib    =====


====   cnip    =====


====   ncb    =====


====   cmdu    =====


====   fdisk    =====
```

```
====    hdisk    =====

====    iop    =====

====    cmb    =====

====    simm    =====

====    eth    =====
value = 0 = 0x0

pdt>scsiDrvStat
 CMDU0 is disabled.
 CMDU1 is disabled.
 Disk Redundancy is disabled.
value = 10 = 0xA

pdt>scsiSemShow
VOLUME ** semaphores:
---------------------------------
Volume /f0 *dosvd_semId* semaphore:

Semaphore Id      : 0x8075dbc
Semaphore Type     : MUTEX
Task Queuing      : PRIORITY
Pended Tasks      : 0
Owner           : NONE
Switchover *swoSemaphore* semaphore:

Semaphore Id      : 0x80765cc
Semaphore Type     : MUTEX
Task Queuing      : FIFO
Pended Tasks      : 0
Owner           : NONE

SCSI CTRL 4. Associated semaphores:
---------------------------------
REDUNDANCY *dskRdnMutexSem* semaphore:

Semaphore Id      : 0x8075f0c
Semaphore Type     : BINARY
Task Queuing      : PRIORITY
Pended Tasks      : 0
State           : EMPTY

SCSI CTRL *ctrlMutexSem* semaphore:

Semaphore Id      : 0x8075fcc
Semaphore Type     : BINARY
Task Queuing      : PRIORITY
Pended Tasks      : 0
State           : FULL

SCSI DEV 3(HD) & 0(FD) - CMDU 0.
SCSI DEV 2(HD) & 1(FD) - CMDU 1.

SCSI DEV  0 *devMutexSem* semaphore:

Semaphore Id      : 0x8075e1c
Semaphore Type     : BINARY
Task Queuing      : PRIORITY
Pended Tasks      : 0
State           : FULL


SCSI DEV  3 *devMutexSem* semaphore:

Semaphore Id      : 0x8075edc
Semaphore Type     : BINARY
Task Queuing      : PRIORITY
Pended Tasks      : 0
State           : FULL


SCSI DEV  7 *devMutexSem* semaphore:

Semaphore Id      : 0x8075ccc
```

```
Semaphore Type     : BINARY
Task Queuing       : PRIORITY
Pended Tasks       : 0
State              : FULL

value = 0 = 0x0

pdt>nfsHelp
nfsHelp                    Print this list
netHelp                    Print general network help list
nfsMount "host","filesystem"[,"devname"]  Create device with
                          file system/directory from host
nfsUnmount "devname"         Remove an NFS device
nfsAuthUnixShow             Print current UNIX authentication
nfsAuthUnixPrompt           Prompt for UNIX authentication
nfsIdSet id                 Set user ID for UNIX authentication
nfsDevShow                  Print list of NFS devices
nfsExportShow "host"         Print a list of NFS file systems which
                          are exported on the specified host
mkdir "dirname"             Create directory
rm "file"                  Remove file

EXAMPLE:  -> hostAdd "wrs", "90.0.0.2"
        -> nfsMount "wrs","/disk0/path/mydir","/mydir/"
        -> cd "/mydir/"
        -> nfsAuthUnixPrompt     /* fill in user ID, etc. *
        -> ls                  /* list /disk0/path/mydir *
        -> copy < foo            /* copy foo to standard out *
        -> ld < foo.o           /* load object module foo.o *
        -> nfsUnmount "/mydir/"  /* remove NFS device /mydir/ *

value = 1 = 0x1
pdt>nfsAuthUnixShow
machine name =
user ID      = 0
group ID     = 0
value = 17 = 0x11

pdt>nfsDevShow
device name         file system
-----------       -----------
/null             :
value = 0 = 0x0

pdt>scsiShow
ID LUN VendorID    ProductID     Rev. Type  Blocks  BlkSize pScsiPhysDev
-- --- -------- ---------------- ---- ---- -------- ------- ------------
 0  0  TEAC     FC-1     HF   11 RV J   0R    2880    512    0x0808a760
 3  0  SEAGATE  ST52160N       0651   0  4238282    512    0x0808a840
 7  0  TOSHIBA  CD-ROM XM-5701TA 0167   5R  312500   2048    0x0808a680
value = 0 = 0x0

pdt>simmSetupShow

     SIMM SIDE 0                                SIMM SIDE 1
     -----------                               -----------
simm0: size = 8 MB flash                        size = 0 MB flash
simm1: size = 8 MB flash                        size = 0 MB flash
simm2: size = 8 MB flash                        size = 0 MB flash
simm3: size = 8 MB flash                        size = 0 MB flash
flash total: size = 32 MB                      size = -1 MB
simm1: bank0  size = 16 MB dram, addr = 0x08000000      size = 0 MB dram, addr = 0xffffffff
simm1: bank1  size = 0 MB dram, addr = 0xffffffff       size = 0 MB dram, addr = 0xffffffff
simm2: bank2  size = 0 MB dram, addr = 0xffffffff       size = 0 MB dram, addr = 0xffffffff
simm2: bank3  size = 0 MB dram, addr = 0xffffffff       size = 0 MB dram, addr = 0xffffffff
simm3: bank4  size = 0 MB dram, addr = 0xffffffff       size = 0 MB dram, addr = 0xffffffff
simm3: bank5  size = 0 MB dram, addr = 0xffffffff       size = 0 MB dram, addr = 0xffffffff
simm4: bank6  size = 0 MB dram, addr = 0xffffffff       size = 0 MB dram, addr = 0xffffffff
simm4: bank7  size = 0 MB dram, addr = 0xffffffff       size = 0 MB dram, addr = 0xffffffff
dram total: size = 16 MB        size = 0 MB
value = 0 = 0x0

pdt>swdShow
Software Watchdog monitored tasks (6)

  swdId       taskID      taskName    Tout   Left   Active   kickCnt
----------  ----------   --------    ----   ----   ------   -------
0x80828b8   0x086a296c    tExcTask     8     8    *YES     33915
0x8081838   0x0879b5b0      tSL1       2     2     YES     -724684679
0x80817f8   0x08649958   hiExcScan     32    28     YES     16957
0x80817b8   0x08646fc0     hifmon     47    43     YES     11305
0x8081778   0x086426fc     cnipMon    182   178     YES     2827
0x8081738   0x0863fd64     ipbMoni    62    58     YES     8479
value = 0 = 0x0
```

```
pdt>rdtail 5
... rdError: selection of default file failed. Use 'rdHelp 1'...
value = -1 = 0xFFFFFFFF

pdt>rdopen
... rdOpen: cannot open "" ...
value = -1 = 0xFFFFFFFF

pdt>
pdt>
pdt>scsiReadCmdu
value = 2 = 0x2

pdt>scsiShow
ID LUN VendorID    ProductID     Rev. Type  Blocks  BlkSize pScsiPhysDev
-- --- -------- ---------------- ---- ---- -------- ------- ------------
 0  0  TEAC     FC-1     HF   11 RV J   0R   2880    512    0x0808a760
 3  0  SEAGATE  ST52160N       0651   0  4238282    512    0x0808a840
 7  0  TOSHIBA  CD-ROM XM-5701TA 0167   5R  312500   2048    0x0808a680
value = 0 = 0x0
pdt>

pdt>scsi1BlkDevShow
Block Device #      physical address     size (blocks)
--------------     ----------------    -------------
RPT: enqueue report failed: cat=11, num=705
RPT: enqueue report failed: cat=11, num=17
RPT: enqueue report failed: cat=11, num=705
RPT: enqueue report failed: cat=11, num=514
RPT: enqueue report failed: cat=11, num=705
     0               10            140625306
RPT: enqueue report failed: cat=11, num=705
RPT: enqueue report failed: cat=11, num=17
     1           67112194            67111724
value = -1 = 0xFFFFFFFF

pdt>scsiDrvStat
 CMDU0 is disabled.
 CMDU1 is disabled.
 Disk Redundancy is disabled.
value = 10 = 0xA

pdt>cmduRestoreStatus 0
value = 0 = 0x0

pdt>scsiDrvStat
 CMDU0 is disabled.
 CMDU1 is disabled.
 Disk Redundancy is disabled.
value = 10 = 0xA
pdt>


By Allen Russell
```

Ethernet configuration
(an IP address) is used to access a switch via MAT or rlogin.

```
>ld 17
CFN000
MEM AVAIL: (U/P): 611178   USED: 76949   TOT: 688127
DISK RECS AVAIL: 484
DCH  AVAIL:   64   USED:    0   TOT:   64
AML  AVAIL:   15   USED:    1   TOT:   16

REQ  chg
TYPE adan
ADAN new tty 12
  TTY_TYPE pty
  PORT 0
  DES  ether
  FLOW no
  USER mtc sch bug
  TTYLOG no
  BANR yes            <--configure 2 more pty's, 13 and 14 on ports 1 & 2.

>ld 37
IOD000
.stat

TTY  0 : ENBL   DES: TELERM
TTY  1 : ENBL   DES: MODEM
TTY  2 : ENBL   DES: SPARE
TTY  8 : DSBL
TTY  12 : DSBL   DES: ether<--only shows enabled if you are using the pty
TTY  13 : DSBL   DES: ether
TTY  14 : DSBL   DES: ether
****
>ld 117
OAM000

=>prt host
 ID  Hostname        IP Address
  3  LOCAL_PPP_IF    137.135.192.4
  4  REMOTE_PPP_IF    100.1.1.1
  7  PRIMARY_ENET    137.135.128.253<--these are the default IP addresses
  8  SECONDARY_ENET   137.135.128.254
OK

=>new host primary_denet 47.108.141.170   <--they mustbe IP's that are compatible with the network
INET Data Added

=>new host secondary_denet 47.108.141.171
INET Data Added
```

```
=>prt host
 ID  Hostname        IP Address
  1  PRIMARY_ENET     137.135.128.253
  2  SECONDARY_ENET   137.135.128.254
  3  LOCAL_PPP_IF     137.135.192.4
  4  REMOTE_PPP_IF    100.1.1.1
  5  PRIMARY_DENET    47.108.141.170
  6  SECONDARY_DENET  47.108.141.171
OK

=>enl host 5
HOST: "PRIMARY_DENET" "47.108.141.170" enabled
OK

=>enl host 6
HOST: "SECONDARY_DENET" "47.108.141.171" enabled
OK

=>chg elnk active primary_denet
INET Database updated

=>chg elnk inactive secondary_denet
INET Database updated

=>prt mask
SUBNET MASK: "255.255.254.0"
OK

=>chg mask 255.255.240.0
INET Data Changed

=>prt elnk
ACTIVE   ETHERNET: "PRIMARY_DENET" "47.108.141.170"
INACTIVE ETHERNET: "SECONDARY_DENET" "47.108.141.171"
OK


=>new route 0.0.0.0 47.108.128.1  <--this is the gateway
   TIM000 11/00/00 04:00:00 37998
OPRDATA: 04:00  11/0/0 CPU 1

INET Data Added

=>prt route
 ID  Network         Gateway
257  0.0.0.0        47.108.128.1
OK

=>enl route 257
ROUTE: "0.0.0.0" "47.108.128.1" enabled  <--if route fails to enable here,  in ld 137 dis and enl the elnk first,
OK                                          then come back to ld 117 to enl route
=> ****
```

ld 137
CIOD000
.dis elnk
OK

.enl elnk **<--this will cause the new IP to kick in**
Initialize Network Interface.
Network Interface is up.
Host : PRIMARY
IP Address : 47.108.141.170
Sub-netmask : 255.255.240.0

OK

.stat elnk

ELNK ENABLED
Ethernet (In unit number 0):
Host: PRIMARY_DENET
Internet address: 47.108.141.170
Broadcast address: 47.108.143.255
Ethernet address: 00:00:75:32:00:92
Netmask: 0xff000000; Subnetmask: 0xfffff000
2493 packets received; 1283 packets sent
0 input errors; 0 output errors
0 collisions

.

CORPORATE DIRECTORY NOT BEING RECOGNIZED

Release 25.40 M1 and OTM. OTM transmits Corporate Directory to M1 but M1 does not recognize the directory if it is new or does not recognize the changes if it is a change to an existing directory. A manual INIT will clear the problem but here is a better workaround. I found this workaround in MP16106.

```
pdt>rename cpdir0.tmp cpdir0.csv
pdt>ll

Directory of '/u/db':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Nov-30-2027  00:02:12   .                          <DIR>
       512   Nov-30-2027  00:02:12   ..                         <DIR>
       512   Nov-30-2027  00:02:12   HI                         <DIR>
       512   Nov-30-2027  00:02:12   HI_BAK                     <DIR>
       512   Nov-30-2027  00:02:12   HI_TMP                     <DIR>
       214   Sep-26-2002  14:47:44   HDBAK.OK
      1024   Oct-02-2002  10:43:40   CONFIG.BAK
    240640   Oct-02-2002  10:43:40   DATABASE.BAK
        12   Oct-02-2002  11:00:04   LASTARC.STT
      1024   Oct-02-2002  10:58:58   CONFIG.REC
    240640   Oct-02-2002  10:58:58   DATABASE.REC
       512   Sep-26-2002  12:29:08   INV                        <DIR>
        32   Sep-28-2002  15:50:58   PASSWD.REC
        25   Sep-26-2002  12:40:44   ESET1.DB
        25   Sep-26-2002  12:40:44   ESET2.DB
       512   Sep-26-2002  12:46:16   ITG_DNLD                   <DIR>
     21846   Oct-02-2002  10:47:54   CPDIR0.CSV
        25   Oct-02-2002  10:58:58   ZONE.DB
        25   Oct-02-2002  10:43:40   ZONE.BAK

pdt>INIT_CORP_DIR

Total number of files 1
 0  /u/db/CPDIR0.CSV value = 1 = 0x1
pdt>ll

Directory of '/u/db':

   SIZE          DATE       TIME         NAME
----------   -----------  --------   ------------
       512   Nov-30-2027  00:02:12   .                          <DIR>
       512   Nov-30-2027  00:02:12   ..                         <DIR>
       512   Nov-30-2027  00:02:12   HI                         <DIR>
       512   Nov-30-2027  00:02:12   HI_BAK                     <DIR>
       512   Nov-30-2027  00:02:12   HI_TMP                     <DIR>
       214   Sep-26-2002  14:47:44   HDBAK.OK
      1024   Oct-02-2002  10:43:40   CONFIG.BAK
    240640   Oct-02-2002  10:43:40   DATABASE.BAK
        12   Oct-02-2002  11:00:04   LASTARC.STT
      1024   Oct-02-2002  10:58:58   CONFIG.REC
    240640   Oct-02-2002  10:58:58   DATABASE.REC
       512   Sep-26-2002  12:29:08   INV                        <DIR>
        32   Sep-28-2002  15:50:58   PASSWD.REC
        25   Sep-26-2002  12:40:44   ESET1.DB
        25   Sep-26-2002  12:40:44   ESET2.DB
       512   Sep-26-2002  12:46:16   ITG_DNLD                   <DIR>
     21846   Oct-02-2002  10:47:54   CPDIR0.CSV
        25   Oct-02-2002  10:58:58   ZONE.DB
        25   Oct-02-2002  10:43:40   ZONE.BAK

pdt>exit
```

PDT in Progress. Please Wait....

Done!