XMM Optical Monitor

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SOFTWARE STATUS FOR THE FM

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CHANGE RECORD

ISSUE	DATE	PAGES CHANGED	COMMENTS
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02	14 August 1998	All	Major revision
03	16 August1998	All	Major revision
04	18 Sep 1998	All	Safe Mode added, prime and redundant code merged. Heater Algorithm revised.
05	25 Sep 1998	All	Software modification summary added
06	1 Oct 1998	Section 2	Revision to Modification Summary of release 5
07	23-Dec-1998	All	Revision summary for release 7.
08	26-Mar-1999	All	Revision summary for release 8.
09	19-Apr 1999	All	Revision summary for release 9
09b	1-Oct-1999	All	Revision summary for release 9B
09b	7-Oct-1999	All	Re-issued with omissions added!
10	12-May-2000	All	Revision summary for release 10, added operational considerations sections
11	18-Aug-200	All	Revision summary for release 11.

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1 INTRODUCTION

This document contains all the software files and their version numbers used for Basic Mode and Operational Mode for the ICU and the DPU code for the Optical Monitor FM.
All the files are kept under version control using cvs.
There is a Makefile for each set of ICU source code files for use with GNU make and a series of makefiles and scripts for the DPU source code.

See also the following documents:

XMM-OM/UCSB/TC/0043, Description of DPU flight software changes 1/99 – 3/99

and

XMM-OM/UCSB/RP/0003 DPU Flight Software Testing Report for Release 8

2 CODE MODIFICATION SUMMARY

2.1 Modifications between Release 3 and Release 4

2.1.1 ICU Code

Reference	Comments
OM-MSSL-ECR-69	Autonomous Safing task removed as it would not have been able to respond quickly enough, and there are hardware HV protections anyway
OM-MSSL-ECR-71	The prime and redundant code is now identical. The code decides whether it is running on prime or redundant.
OM-MSSL-NCR-69	ICU now ignores swap unit status in DPU status word when DPU is in 'boot' mode as this value is incorrect.
OM-MSSL-NCR-97	Incorrect loading of Window Table removed.
OM-MSSL-NCR-98	Alert in the event of unexpected DPU reset added.
OM-MSSL-NCR-99	DPU Power down command now works.
OM-MSSL-NCR-100	Command rejected if attempt is made to move filter wheel while it is still moving.
OM-MSSL-NCR-101	Command rejected if attempt is made to move filter wheel to an absolute position before the datum has been found.
OM-MSSL-NCR-102	Filter Wheel now moves slowly when seeking datum when near coarse sensor to prevent occasional failure to find datum.
OM-MSSL-NCR-103	It should now be impossible to have both automatic and contingency heater tasks running together.
OM-MSSL-NCR-104	Default heater control on start-up of operational mode are now the closed loop rather than the open loop algorithms.
OM-MSSL-NCR-105	Going to Safe Mode in Operational Mode now 'safes' the high voltages and filter wheel.
OM-MSSL-NCR-106	Additional 'Intermediate Safe' mode command added, 'Safing level' modifier in command removed.
OM-MSSL-NCR-107	Memory dump of detector electronics now works.
OM-MSSL-NCR-110	Filter wheel 'Bar' position now at 2100 (as per changed specification).

2.1.2 DPU Code

There were no modifications to the DPU code.

2.2 Modifications between Release 4 and Release 5

2.2.1 ICU Code

Reference	Comments
OM-MSSL-ECR-61	HV MCP1 now allowed to rise even if MCP23 not > 1100V (redundant only)
OM-MSSL-NCR-83	Irregular HK – now every 10 s
OM-MSSL-NCR-84	Incorrect heater status in HK fixed
OM-MSSL-NCR-87	Filter sometimes did not show 'Unknown' position prior to finding datum – fixed
OM-MSSL-NCR-88	Closed loop control of interface temperature now uses an average of the main, reference B and Reference C thermistors as its monitoring temperature. This is to be consistent with software used at CSL during thermal balance test.

2.2.2 DPU Code

Reference	Comments
OM-MSSL-ECR-67	Preliminary code for the real-time raw-data mode was added but can be completely turned off.
OM-MSSL-ECR-70	Science and memory windows reset to zero before configuring for each exposure.
OM-MSSL-NCR-90	DPU crashes with heavy white dsp activity, especially during compression and data output – caused by error in white swap unit code and FEC code screening – now fixed.
OM-MSSL-NCR-91	DPU crashes in engineering mode 4 with complex images – caused by the compressed data buffer watermark not being set, now set.
OM-MSSL-NCR-92	Global memory address zero was corrupted after blue event processing – caused by incorrect exiting of bad event address error handler – now fixed.
OM-MSSL-NCR-93	Bad event address – due to blue event ping/pong address wrong for null detector windows, fixed by implementing a more robust algorithm.
OM-MSSL-NCR-95	Flat Field Acquisition now supported
OM-MSSL-NCR-96	Scrubbing now implemented.

2.3 Modifications between Release 5 and Release 6

There were no software modification between release 5 and release 6 of this document. It was issued to clarify and correct issue 5.

2.4 Modifications between Release 6 and Release 7

All software modules were changed because of the addition of extra comments as part of the process of detailed design documentation. In addition, the following NCRs and ECRs were closed.

2.4.1 ICU

Reference	Comments
OM-MSSL-ECR-75	Implement time-out to go to intermediate safe if tm buffer full after x min
OM-MSSL-NCR-118	Incorrect sending of detector acquisition mode with IC_BPE_BINNING
OM-MSSL-NCR-121	Active area offset not added to DP_WDW window info
OM-MSSL-NCR-122	Makefile modifications needed to ensure delivery of .ads files
OM-MSSL-NCR-127	Flat field will not work (part of ECR 72, NCR 118 is also related)
OM-MSSL-NCR-128	15 Windows from DP_WDW will not load

2.4.2 DPU

Reference	Comments
OM-MSSL-NCR-114	DPU reports clock synch errors
OM-MSSL-NCR-115	DPU spontaneous reset following 30,1
OM-MSSL-NCR-117	Bad command while uploading code
OM-MSSL-NCR-119	ICU/DPU communication hang after 1 exposure
OM-MSSL-NCR-120	DA_PROG_MERRORs after power cycle
OM-MSSL-NCR-123	DPU heartbeat status does not reflect tracking on/off status
OM-MSSL-NCR-126	DPU stops communicating at busy spot after 23 hours
OM-MSSL-NCR-131	DP_WDW format correction.

Modifications between Release 7 and Release 8

2.5.1 ICU

Reference	Comments
OM-MSSL-ECR-72	Implement normal exposure with user selectable binning and tracking, see NCR127
OM-MSSL-ECR-75	Implement auto-safing in the event of tm queue staying full for > 5 mins.
OM-MSSL-ECR-76	Package mutex needs an exception handler.
OM-MSSL-ECR-81	Previously undocumented DPU alerts now supported.
OM-MSSL-ECR-82	ICU issues 2 ‘loss of filter wheel’ position messages.
OM-MSSL-NCR-125	ICU crashes with status 0072 after 191 hours
OM-MSSL-NCR-127	Support for low resolution flat field.
OM-MSSL-NCR-128	Support for 15 science windows.
OM-MSSL-NCR-129	No telemetry from OM after switch-on after OBDH problem - no s/w mod required.
OM-MSSL-NCR-137	icu_mem_manager is missing a ‘return’ statement.
OM-MSSL-NCR-140	Loss of telemetry associated with filter wheel ‘hang’.
OM-MSSL-NCR-144	Unnecessary task in dpu_mem_manager causes failures.
OM-MSSL-NCR-149	icu_mem_manager incorrectly calls the ‘unguarded’ versions of icb_driver routines.
OM-MSSL-NCR-151	ICB errors on start of operational mode.
OM-MSSL-NCR-152	Fast HK SID could not be enabled.
OM-MSSL-NCR-153	Fails to send expected illegal parameters when setting invalid speeds of mechanisms.
OM-MSSL-NCR-154	Fails to safe if f/w not previously datumed.
OM-MSSL-NCR-155	Always checks tc packet for valid crc, even when flag says it is not present.
OM-MSSL-NCR-156	Zero movement of dichroic is silently ignored.
OM-MSSL-NCR-157	Errors in makefile.
OM-MSSL-NCR-158	Loss of HK whilst loading centroid look-up tables.
OM-MSSL-NCR-165	Loss of ‘centroid table loaded’ message.

2.5.2 DPU

Reference	Comments
OM-MSSL-ECR-73	Colocate code in a single location.
OM-MSSL-ECR-74	Implement Robust DPU window allocation for flat field data – withdrawn..
OM-MSSL-ECR-77	RTRD mode
OM-MSSL-ECR-78	Implement enable/disable of scrubbing Global Program Storage.
OM-MSSL-ECR-80	Extra alert A5B2
OM-MSSL-NCR-94	ROM code crash – no s/w change required
OM-MSSL-NCR-126	DPU stops communicating at busy spot after 23 hour run.
OM-MSSL-NCR-130	Blue fast mode does not work.
OM-MSSL-NCR-131	DP_WDW format correction.
OM-MSSL-NCR-132	DPU crashes after power off/on using codes with red scrubbing.
OM-MSSL-NCR-133	RED_FEC_ARRAY error reporting array allocation problem.
OM-MSSL-NCR-134	Fast mode allocation error with same sampling time.
OM-MSSL-NCR-135	Fast mode data area allocation wrong.
OM-MSSL-NCR-136	RED DSP FEC s/w fails to output cumulative count of single bit errors.
OM-MSSL-NCR-146	Random exception traced to uninitialised variable.
OM-MSSL-NCR-160	A591 during ‘clean slate’ – no code change required

2.6 Modifications between Release 8 and Release 9B.

2.6.1 ICU

Reference	Comments
OM-MSSL-NCR-170	Time synchronization may fail occasionally – 2us 'settling' required after time 'freeze'
OM-MSSL-NCR-172	Current drop for OM during SW loading.
OM-MSSL-NCR-175	DPU memory dump (6,2) MID=0x20 to 0x27 produces bad Data :
OM-MSSL-NCR-182	ICU-DPU protocol problem in the event of unexpected DPU reset. Code fixed and tested.

2.6.2 DPU

Reference	2.6.2.1.1 Comments
OM-MSSL-NCR-159	Fast mode crash
OM-MSSL-NCR-166	Grism tracking. Modifications in place to prevent tracking whilst grism in use.
OM-MSSL-NCR-171	Eng4 non-conformance to spec. Codes modified and tested.
OM-MSSL-NCR-173	DPU output queue init error.
OM-MSSL-NCR-179	Unable to perform multiple exposures after one single/common 'choose guide stars'.
OM-MSSL-NCR-180	Logic error in IC_DUMP_PROG_RAM command discovered. Codes modified and tested.
OM-MSSL-NCR-181	Inconsistency of DPU memory map in flight and boot configuration.

2.7 Modifications between Release 9B and Release 10

2.7.1 ICU

Reference	Comments
OM-MSSL-ECR-086	Go to mode n if already in mode n is rejected.
OM-MSSL-ECR-087	Change all HV, filter and ADA exceptions to major anomalies.
OM-MSSL-ECR-088	Auto-safe on filter wheel position loss
OM-MSSL-ECR-089	Auto-safe on tm q full for 1 min rather than 5
OM-MSSL-NCR-185	60h in offset field of first science or engineering packet
OM-MSSL-NCR-187	Incorrect DPU memory dump addresses
OM-MSSL-NCR-188	No response to memory dump command
OM-MSSL-NCR-191	Uninitialised variable in module timeman.adb.
OM-MSSL-NCR-192	Instrument PSF broader than expected (S/W auto control of focussing heaters).
OM-MSSL-NCR-194	Go to Safe can fail if DPU sending out data
OM-MSSL-NCR-195	Error code 134 ‘FW not datumed’ incorrectly sent as a Unsuccessful Command Acceptance
OM-MSSL-NCR-196	HV Ramp-up failure sent incorrect message when busy.

2.7.2 DPU

Reference	2.7.2.1.1 Comments
OM-MSSL-NCR-183	Tracking not turned off if no good guide stars found
OM-MSSL-NCR-189	DPU crashes due to higher than expected SEU rate.
OM-MSSL-NCR-193	Incorrect reporting of memory access.
OM-MSSL-NCR-197	IC_CHOOSE_GS command not processed.
OM-MSSL-NCR-198	Double bit error report takes too long.

2.7.3 Operational Implications of Release 10

2.7.3.1 NCRs and ECRs to be closed.

The implications of those NCRs and ECRs about to be closed are as follows.

OM-MSSL-ECR-086 Go to mode n if already in mode n is rejected.

Consecutive similar mode changes are now allowed which may be used by the ground procedures without causing an error.

OM-MSSL-ECR-087 Change all HV, filter and ADA exceptions to major anomalies.

Appropriate databases should be modified – see section 3.4 of XMM-OM/MSSL/ML/10 release 5 for details.

OM-MSSL-ECR-088 Auto-safe on filter wheel position loss

The “Loss of Filter Wheel Position” message should be followed within 20 seconds by an “Automatic Safe Transition” or “Failed Automatic Safe Transition” Major anomaly message –see section 3.4.3.1 of XMM-OM/MSSL/ML/10 release 5 for details. An IC_INIT_DPU will also be sent to the DPU leading to the issuing of a DA_EOT_INIT_DPU (A520) alert.

It will not be necessary to perform the first step of the CRP "goto safe".

It will also no longer be possible to leave safe mode or to ramp up high voltages unless the filter wheel is in the blocked position – see section 3.3.3 of XMM-OM/MSSL/ML/10 release 5 for the new ”f/w not at blocked” execution failure message.

OM-MSSL-ECR-089 Auto-safe on tm q full for 1 min rather than 5

No procedural implications.

OM-MSSL-NCR-183 Tracking not turned off if no good guide stars found

There will no longer be hundreds of alerts produced with the magnifier. Any disabled alerts such as GADE_RANGE errors should be re-enabled.

OM-MSSL-NCR-185 60h in offset field of first science or engineering packet

This bug will no longer be seen in the ground processing.

OM-MSSL-NCR-187 Incorrect DPU memory dump addresses

No procedural implications

OM-MSSL-NCR-188 No response to memory dump command

No procedural implications

OM-MSSL-NCR-189 DPU crashes due to higher than expected SEU rate.

see ncr 198

OM-MSSL-NCR-191 Uninitialised variable in module timeman.adb.

This bug will not now be seen in the simulator.

OM-MSSL-NCR-192 Instrument PSF broader than expected (S/W auto control of focussing heaters).

See note 10 in section 2.2.4.4.3.2. of XMM-OM/MSSL/ML/10 release 5 for details. In addition, it will be necessary to allow for thermal settling before and after magnifier observations as the heater settings for this filter are substantially different to the others..

OM-MSSL-NCR-193 Incorrect reporting of memory access.

No procedural implications

2.7.3.1.1 OM-MSSL-NCR-194 Go to Safe can fail if DPU sending out data

Goto safe will impolitely tell the DPU to shut up (i.e. force suppression of all DPU data on the SSI except heartbeats) and so should be used for contingencies only. Go to Safe will also send an IC_INIT_DPU to the DPU leading to the issuing of a DA_EOT_INIT_DPU (A520) alert. The goto intermediate safe 70% sequence should be used at the end of an orbit.

OM-MSSL-NCR-195 Error code 134 'FW not datumed' incorrectly sent as a Unsuccessful Command Acceptance

Appropriate databases may need to be modified – see section 3.3.3 of XMM-OM/MSSL/ML/10 release 5 for details.

OM-MSSL-NCR-196 HV Ramp-up failure sent incorrect message when busy.

No implications.

OM-MSSL-NCR-197 IC_CHOOSE_GS command not processed.

No implications.

OM-MSSL-NCR-198 Double bit error report takes too long.

After executing clean slate procedure, it is necessary to wait for at least 200 seconds for any scrubbing errors before continuing. Multi-bit errors will repeat on a timescale of more than 130 s now rather than 16 s. See DPU scrubbing technical note (to be issued).

2.7.3.2 NCRs and ECRs remaining Open

Some open NCRs have the following operational implications

OM-MSSL-NCR-167 Magnifier tracking

Look for memory errors and gade range errors (A5B2 and A5AD) during early testing.

OM-MSSL-NCR-184 Insufficient robustness in the guide star selection algorithm. The guide star selection algorithm fails in the presence of a large number of extended sources.

Tracking may not work for fields with many large extended sources.

OM-MSSL-NCR-186 Fast mode data contains internal inconsistency manifested as more slices sampled than commanded in tracking frame
(phil will ring cheng to clarify)

2.7.3.3 Other Considerations

2.7.3.3.1 Timings

Because the dpu code has changed, times allowed for the completion of some dpu commands need to be retimed (ic_init_exp, ic_init_dpu and ic_load_dpuos).

Special compilation note for DPU code

Before compiling the DPU code remember to edit the file

`dpu/development/include/sci_com.h`

and change the `#define` for `STD_WAIT_STATE` from 1114 to 1116. This makes the wait states 1116.

2.7.3.3.2 Uplink considerations

Only uplink the operational code (there cannot be a change to the ROM code of basic mode). This is to be found in file oper.hex.gx

There are no changes to the 'Magic Numbers' as the ROM code cannot change.

2.7.3.3.3 DPU Technical note: exposure duration

Calculating the time it takes.

```
1. saa_time = ( 1 + 1 + dpu_x*dpu_y) *
        [[sci_xsize/dpu_x]/saa_x] * [[sci_ysize/dpu_y]/saa_y]
```

Notice that `[]` means the smaller integer greater than the result.

2. `zerotime = ( mmw_xsize * mmw_ysize)/zerosize`. This is the time we need to zero out the memory window to prepare for the next tracking frame.

Both numbers are in units of DPU msec = 1sec/1024. In Rel 10 and probably in 9b also, `saa_x=4, saa_y=40`, and `zerosize=184`. So...

`saa_time` ~ 3 * 176 * 18 = 9504 DPU msec
`zerotime` ~ 736 * 736 / 184 = 2944 DPU msec

These combined to 12 448 DPU "ms" = 12.15 s. Adding about 1 s for the drift calculation, we get 13.1 s for tracking/SAA/zeroing.

2.7.3.3.4 DPU Technical note: red scrubbing

.There are 0xF6B DPU program code blocks. Each Prog block consists of 15+1 words. Assume it takes 4 DPU BUS cycle to scrub one block. In the case when red is not doing SAA or anything serious, this is consistent with the 15.x second number we saw separating the A592 alerts in NCR 198.

This has been changed now: when we are not doing the SAA, the cycle time for scrubbing is about 130 s.

2.8 Modifications between Release 10 and Release 11

2.8.1 DPU

Reference	Comments
OM-MSSL-ECR 90	Eng BEG/ENDOF_EXP
OM-MSSL-ECR 91	Whole frame
OM-MSSL-NCR 183	track not turned off
OM-MSSL-NCR-171	Reversal of earlier NCR-171
OM-MSSL-NCR 202	Missing alerts
OM-MSSL-NCR-203	Incorrect Word Ordering in FAQ record
OM-MSSL-NCR-204	Unexpected A5AD alerts
OM-MSSL-NCR 205	Alerts from CGS
OM-MSSL-NCR 208	fast mode pointer
OM-MSSL-NCR 209	offsets remembered

2.8.2 ICU

Reference	Comments
OM-MSSL-ECR 87	exceptions->anomalies (re-opened and closed)

2.8.3 Operational Notes for Release 11

1. eng4 mode data has now reverted to the '16-chunk' version.
2. whole CCD mode (ECR91) –this has 'hijacked' the eng2 mode in the command system and is therefore available
3. only one change to ICU code: an SSI exception becomes a major anomaly – this was leftover from ECR 87 in release 10
4. the missing alerts during clean slate are back (NCR 202)

2.9 Outstanding NCRs and ECRs

Reference	Comments
OM-MSSL-ECR-077	RTRD. Will leave code in current state for this release – not formally required.
OM-MSSL-ECR-083	Distortion Maps not to be included for this release – it appears to be a second order effect and may eventually be omitted.
OM-MSSL-ECR-085	RTRD requires new SID's – left open at ESA request.
OM-MSSL-NCR-167	Magnifier tracking. Requires further thought due to extended requirements on local processor memory.
OM-MSSL-NCR-184	Insufficient robustness in the guide star selection algorithm. The guide star selection algorithm fails in the presence of a large number of extended sources.
OM-MSSL-NCR-186	Fast mode data contains internal inconsistency manifested as more slices sampled than commanded in tracking frame
OM-MSSL-NCR-199	ICU hang
OM-MSSL-NCR-200	Spontaneous DPU reset
OM-MSSL-NCR-201	16 bit wraparound (fast mode)
OM-MSSL-NCR-206	FAQ failed

3 BASIC MODE ADA CODE

CVS repository: MSSL
CVS module: icu/fm/basic
CVS tag: release7

File: Makefile Status: Locally Modified
  Working revision: 1.9 Thu Mar 5 11:54:19 1998
  Repository revision: 1.9 /home/egse/CVS/icu/fm/basic/Makefile,v
File: USERDEFS.asm Status: Up-to-date
  Working revision: 1.3 Mon Mar 23 13:52:25 1998
  Repository revision: 1.3 /home/egse/CVS/icu/fm/basic/USERDEFS.asm,v
File: adamakedepend Status: Up-to-date
  Working revision: 1.1 Thu Oct 16 14:36:12 1997
  Repository revision: 1.1 /home/egse/CVS/icu/fm/basic/adamakedepend,v
File: bcp4_ih.ads Status: Up-to-date
  Working revision: 1.3 Sat Nov 22 17:22:41 1997
  Repository revision: 1.3 /home/egse/CVS/icu/fm/basic/bcp4_ih.ads,v
File: bcp4_ih.asm Status: Up-to-date
  Working revision: 1.4 Wed Feb 11 17:14:23 1998
  Repository revision: 1.4 /home/egse/CVS/icu/fm/basic/bcp4_ih.asm,v
File: bsio.asm Status: Up-to-date
  Working revision: 1.4 Tue Feb 10 13:32:13 1998
  Repository revision: 1.4 /home/egse/CVS/icu/fm/basic/bsio.asm,v
File: crc.adb Status: Up-to-date
  Working revision: 1.3 Sat Nov 22 17:22:41 1997
  Repository revision: 1.3 /home/egse/CVS/icu/fm/basic/crc.adb,v
File: crc.ads Status: Up-to-date
  Working revision: 1.2 Sat Nov 22 17:22:41 1997
  Repository revision: 1.2 /home/egse/CVS/icu/fm/basic/crc.ads,v
File: debug.adb Status: Up-to-date
  Working revision: 1.3 Sat Nov 22 17:02:03 1997
  Repository revision: 1.3 /home/egse/CVS/icu/fm/basic/debug.adb,v
File: debug.ads Status: Up-to-date
  Working revision: 1.8 Mon Mar 23 13:45:24 1998
  Repository revision: 1.8 /home/egse/CVS/icu/fm/basic/debug.ads,v
File: dempsu.adb Status: Up-to-date
  Working revision: 1.5 Mon Mar 23 13:45:24 1998
  Repository revision: 1.5 /home/egse/CVS/icu/fm/basic/dempsu.adb,v
File: dempsu.ads Status: Up-to-date
  Working revision: 1.3 Sat Nov 22 17:22:42 1997
  Repository revision: 1.3 /home/egse/CVS/icu/fm/basic/dempsu.ads,v
File: emboot.asm Status: Up-to-date
  Working revision: 1.21 Wed Apr 1 10:54:38 1998
  Repository revision: 1.21 /home/egse/CVS/icu/fm/basic/emboot.asm,v
File: emsubs.asm Status: Up-to-date
  Working revision: 1.6 Wed Apr 1 10:55:13 1998
  Repository revision: 1.6 /home/egse/CVS/icu/fm/basic/emsubs.asm,v
File: hk.adb Status: Up-to-date
  Working revision: 1.24 Mon Mar 23 13:45:25 1998
  Repository revision: 1.24 /home/egse/CVS/icu/fm/basic/hk.adb,v
File: hk.ads Status: Up-to-date
  Working revision: 1.2 Sat Nov 22 17:22:43 1997
  Repository revision: 1.2 /home/egse/CVS/icu/fm/basic/hk.ads,v
File: icb.adb Status: Up-to-date
  Working revision: 1.6 Thu Mar 5 12:34:30 1998
  Repository revision: 1.6 /home/egse/CVS/icu/fm/basic/icb.adb,v
File: icb.ads Status: Up-to-date
  Working revision: 1.2 Sat Nov 22 17:22:43 1997
  Repository revision: 1.2 /home/egse/CVS/icu/fm/basic/icb.ads,v
File: icb_driver.adb Status: Up-to-date
  Working revision: 1.13 Tue Mar 10 10:56:58 1998

```
   Repository revision:    1.13    /home/egse/CVS/icu/fm/basic/icb_driver.adb,v
File: icb_driver.ads       Status: Up-to-date
   Working revision:       1.2     Sat Nov 22 17:22:44 1997
   Repository revision:    1.2     /home/egse/CVS/icu/fm/basic/icb_driver.ads,v
File: icu.ada              Status: Locally Modified
   Working revision:       1.11    Tue Mar 10 10:56:59 1998
   Repository revision:    1.11    /home/egse/CVS/icu/fm/basic/icu.ada,v
File: icu_mem_manager.adb          Status: Up-to-date
   Working revision:       1.13    Mon Mar  9 12:46:08 1998
   Repository revision:    1.13    /home/egse/CVS/icu/fm/basic/icu_mem_manager.adb,v
File: icu_mem_manager.ads          Status: Up-to-date
   Working revision:       1.1     Sat Nov 22 16:45:51 1997
   Repository revision:    1.1     /home/egse/CVS/icu/fm/basic/icu_mem_manager.ads,v
File: importance.ads       Status: Up-to-date
   Working revision:       1.2     Sat Nov 22 17:22:45 1997
   Repository revision:    1.2     /home/egse/CVS/icu/fm/basic/importance.ads,v
File: mem_manager.adb      Status: Up-to-date
   Working revision:       1.8     Thu Mar  5 12:34:31 1998
   Repository revision:    1.8     /home/egse/CVS/icu/fm/basic/mem_manager.adb,v
File: mem_manager.ads      Status: Up-to-date
   Working revision:       1.1     Sat Nov 22 16:46:10 1997
   Repository revision:    1.1     /home/egse/CVS/icu/fm/basic/mem_manager.ads,v
File: memloc.ads           Status: Up-to-date
   Working revision:       1.14    Wed Feb 11 17:14:24 1998
   Repository revision:    1.14    /home/egse/CVS/icu/fm/basic/memloc.ads,v
File: modeman.adb          Status: Up-to-date
   Working revision:       1.10    Mon Mar 23 13:45:25 1998
   Repository revision:    1.10    /home/egse/CVS/icu/fm/basic/modeman.adb,v
File: modeman.ads          Status: Up-to-date
   Working revision:       1.4     Thu Feb 12 15:42:04 1998
   Repository revision:    1.4     /home/egse/CVS/icu/fm/basic/modeman.ads,v
File: mutex.adb            Status: Up-to-date
   Working revision:       1.5     Thu Mar  5 12:34:31 1998
   Repository revision:    1.5     /home/egse/CVS/icu/fm/basic/mutex.adb,v
File: mutex.ads            Status: Up-to-date
   Working revision:       1.4     Tue Dec  2 12:54:39 1997
   Repository revision:    1.4     /home/egse/CVS/icu/fm/basic/mutex.ads,v
File: nhk.adb              Status: Up-to-date
   Working revision:       1.6     Thu Mar  5 12:34:31 1998
   Repository revision:    1.6     /home/egse/CVS/icu/fm/basic/nhk.adb,v
File: nhk.ads              Status: Up-to-date
   Working revision:       1.3     Thu Mar  5 12:34:31 1998
   Repository revision:    1.3     /home/egse/CVS/icu/fm/basic/nhk.ads,v
File: packet.ads           Status: Up-to-date
   Working revision:       1.13    Thu Mar  5 11:56:42 1998
   Repository revision:    1.13    /home/egse/CVS/icu/fm/basic/packet.ads,v
File: peek_poke.ads        Status: Up-to-date
   Working revision:       1.2     Sat Nov 22 17:22:48 1997
   Repository revision:    1.2     /home/egse/CVS/icu/fm/basic/peek_poke.ads,v
File: peek_poke.asm        Status: Up-to-date
   Working revision:       1.1     Thu Oct 16 15:55:00 1997
   Repository revision:    1.1     /home/egse/CVS/icu/fm/basic/peek_poke.asm,v
File: rbi.adb              Status: Up-to-date
   Working revision:       1.11    Thu Mar  5 12:34:31 1998
   Repository revision:    1.11    /home/egse/CVS/icu/fm/basic/rbi.adb,v
File: rbi.ads              Status: Up-to-date
   Working revision:       1.5     Tue Dec  2 12:55:02 1997
   Repository revision:    1.5     /home/egse/CVS/icu/fm/basic/rbi.ads,v
File: rbi_ih.ads           Status: Up-to-date
   Working revision:       1.2     Sat Nov 22 17:22:49 1997
   Repository revision:    1.2     /home/egse/CVS/icu/fm/basic/rbi_ih.ads,v
File: rbi_ih.asm           Status: Up-to-date
   Working revision:       1.4     Wed Feb 11 17:14:24 1998
```

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   Repository revision:   1.4    /home/egse/CVS/icu/fm/basic/rbi_ih.asm,v
File: reset.ads          Status: Up-to-date
   Working revision:     1.3    Thu Feb 12 15:42:04 1998
   Repository revision:  1.3    /home/egse/CVS/icu/fm/basic/reset.ads,v
File: reset.asm          Status: Up-to-date
   Working revision:     1.5    Wed Apr  1 10:54:39 1998
   Repository revision:  1.5    /home/egse/CVS/icu/fm/basic/reset.asm,v
File: ssi_driver.adb     Status: Up-to-date
   Working revision:     1.4    Thu Mar  5 11:57:04 1998
   Repository revision:  1.4    /home/egse/CVS/icu/fm/basic/ssi_driver.adb,v
File: ssi_driver.ads     Status: Up-to-date
   Working revision:     1.3    Tue Nov 25 19:05:32 1997
   Repository revision:  1.3    /home/egse/CVS/icu/fm/basic/ssi_driver.ads,v
File: ssi_ih.ads         Status: Up-to-date
   Working revision:     1.2    Sat Nov 22 17:22:50 1997
   Repository revision:  1.2    /home/egse/CVS/icu/fm/basic/ssi_ih.ads,v
File: ssi_ih.asm         Status: Up-to-date
   Working revision:     1.1    Fri Nov 21 22:04:17 1997
   Repository revision:  1.1    /home/egse/CVS/icu/fm/basic/ssi_ih.asm,v
File: task_report.adb    Status: Up-to-date
   Working revision:     1.6    Thu Mar  5 12:34:32 1998
   Repository revision:  1.6    /home/egse/CVS/icu/fm/basic/task_report.adb,v
File: task_report.ads    Status: Up-to-date
   Working revision:     1.3    Thu Mar  5 12:34:32 1998
   Repository revision:  1.3    /home/egse/CVS/icu/fm/basic/task_report.ads,v
File: taskman.adb        Status: Up-to-date
   Working revision:     1.11   Mon Mar 23 13:45:25 1998
   Repository revision:  1.11   /home/egse/CVS/icu/fm/basic/taskman.adb,v
File: taskman.ads        Status: Up-to-date
   Working revision:     1.2    Sat Nov 22 17:22:51 1997
   Repository revision:  1.2    /home/egse/CVS/icu/fm/basic/taskman.ads,v
File: tc_q.adb           Status: Up-to-date
   Working revision:     1.4    Sat Nov 22 17:22:51 1997
   Repository revision:  1.4    /home/egse/CVS/icu/fm/basic/tc_q.adb,v
File: tc_q.ads           Status: Up-to-date
   Working revision:     1.3    Sat Nov 22 17:22:52 1997
   Repository revision:  1.3    /home/egse/CVS/icu/fm/basic/tc_q.ads,v
File: tc_verify.adb      Status: Up-to-date
   Working revision:     1.5    Thu Mar  5 12:34:32 1998
   Repository revision:  1.5    /home/egse/CVS/icu/fm/basic/tc_verify.adb,v
File: tc_verify.ads      Status: Up-to-date
   Working revision:     1.3    Thu Mar  5 12:34:32 1998
   Repository revision:  1.3    /home/egse/CVS/icu/fm/basic/tc_verify.ads,v
File: tcq.adb            Status: Up-to-date
   Working revision:     1.8    Thu Mar  5 12:34:32 1998
   Repository revision:  1.8    /home/egse/CVS/icu/fm/basic/tcq.adb,v
File: tcq.ads            Status: Up-to-date
   Working revision:     1.2    Sat Nov 22 17:22:53 1997
   Repository revision:  1.2    /home/egse/CVS/icu/fm/basic/tcq.ads,v
File: time_man.adb       Status: Up-to-date
   Working revision:     1.11   Thu Mar  5 12:34:32 1998
   Repository revision:  1.11   /home/egse/CVS/icu/fm/basic/time_man.adb,v
File: time_man.ads       Status: Up-to-date
   Working revision:     1.2    Sat Nov 22 17:22:54 1997
   Repository revision:  1.2    /home/egse/CVS/icu/fm/basic/time_man.ads,v
File: tlink17.lcf        Status: Up-to-date
   Working revision:     1.6    Thu Feb 12 15:42:04 1998
   Repository revision:  1.6    /home/egse/CVS/icu/fm/basic/tlink17.lcf,v
File: tm_man.adb         Status: Up-to-date
   Working revision:     1.14   Mon Mar 23 13:45:25 1998
   Repository revision:  1.14   /home/egse/CVS/icu/fm/basic/tm_man.adb,v
File: tm_man.ads         Status: Up-to-date
   Working revision:     1.3    Sat Nov 22 17:22:54 1997
```

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   Repository revision:  1.3    /home/egse/CVS/icu/fm/basic/tm_man.ads,v
File: tm_q.adb           Status: Up-to-date
   Working revision:     1.4    Sat Nov 22 17:22:55 1997
   Repository revision:  1.4    /home/egse/CVS/icu/fm/basic/tm_q.adb,v
File: tm_q.ads           Status: Up-to-date
   Working revision:     1.3    Sat Nov 22 17:22:55 1997
   Repository revision:  1.3    /home/egse/CVS/icu/fm/basic/tm_q.ads,v
File: tmpsu.adb          Status: Up-to-date
   Working revision:     1.6    Wed Feb 11 17:50:51 1998
   Repository revision:  1.6    /home/egse/CVS/icu/fm/basic/tmpsu.adb,v
File: tmpsu.ads          Status: Up-to-date
   Working revision:     1.2    Sat Nov 22 17:22:56 1997
   Repository revision:  1.2    /home/egse/CVS/icu/fm/basic/tmpsu.ads,v
File: tmq.adb            Status: Up-to-date
   Working revision:     1.8    Thu Mar  5 12:34:33 1998
   Repository revision:  1.8    /home/egse/CVS/icu/fm/basic/tmq.adb,v
File: tmq.ads            Status: Up-to-date
   Working revision:     1.4    Thu Mar  5 12:34:33 1998
   Repository revision:  1.4    /home/egse/CVS/icu/fm/basic/tmq.ads,v
File: types.ads          Status: Up-to-date
   Working revision:     1.2    Sat Nov 22 17:22:56 1997
   Repository revision:  1.2    /home/egse/CVS/icu/fm/basic/types.ads,v
```

4 OPERATIONAL MODE ADA CODE

CVS repository: MSSL
CVS module: icu/fm/oper

```
File: INTVEC.asm          Status: Up-to-date
   Working revision:    1.2   Thu Nov 18 12:12:13 1999
   Repository revision: 1.2   /home/egse/CVS/icu/fm/oper/INTVEC.asm,v
File: Makefile            Status: Up-to-date
   Working revision:    1.20  Tue Feb  8 09:26:20 2000
   Repository revision: 1.20  /home/egse/CVS/icu/fm/oper/Makefile,v
File: USERDEFS.asm        Status: Up-to-date
   Working revision:    1.4   Thu Nov 18 12:12:13 1999
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/USERDEFS.asm,v
File: adamakecleanup      Status: Up-to-date
   Working revision:    1.5   Thu Apr 23 09:01:28 1998
   Repository revision: 1.5   /home/egse/CVS/icu/fm/oper/adamakecleanup,v
File: adamakedepend       Status: Up-to-date
   Working revision:    1.3   Wed Feb 24 14:52:43 1999
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/adamakedepend,v
File: bcp4_ih.ads         Status: Up-to-date
   Working revision:    1.3   Fri Oct 30 17:27:11 1998
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/bcp4_ih.ads,v
File: bcp4_ih.asm         Status: Up-to-date
   Working revision:    1.7   Thu Nov 18 12:12:14 1999
   Repository revision: 1.7   /home/egse/CVS/icu/fm/oper/bcp4_ih.asm,v
File: crc.adb             Status: Up-to-date
   Working revision:    1.4   Thu Nov 18 12:12:14 1999
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/crc.adb,v
File: crc.ads             Status: Up-to-date
   Working revision:    1.3   Thu Nov 18 12:12:14 1999
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/crc.ads,v
File: debug.adb           Status: Up-to-date
   Working revision:    1.8   Thu Nov 18 12:12:15 1999
   Repository revision: 1.8   /home/egse/CVS/icu/fm/oper/debug.adb,v
File: debug.ads           Status: Up-to-date
   Working revision:    1.14  Thu Nov 18 12:12:15 1999
   Repository revision: 1.14  /home/egse/CVS/icu/fm/oper/debug.ads,v
File: dempsu.adb          Status: Up-to-date
   Working revision:    1.5   Mon Oct 26 14:13:39 1998
   Repository revision: 1.5   /home/egse/CVS/icu/fm/oper/dempsu.adb,v
File: dempsu.ads          Status: Up-to-date
   Working revision:    1.4   Thu Nov 18 12:12:15 1999
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/dempsu.ads,v
File: detanalog.adb       Status: Up-to-date
   Working revision:    1.27  Tue Apr 18 12:05:35 2000
   Repository revision: 1.27  /home/egse/CVS/icu/fm/oper/detanalog.adb,v
File: detanalog.ads       Status: Up-to-date
   Working revision:    1.9   Thu Nov 18 12:12:17 1999
   Repository revision: 1.9   /home/egse/CVS/icu/fm/oper/detanalog.ads,v
File: detdigital.adb      Status: Up-to-date
   Working revision:    1.23  Tue May 23 13:31:10 2000
   Repository revision: 1.23  /home/egse/CVS/icu/fm/oper/detdigital.adb,v
File: detdigital.ads      Status: Up-to-date
   Working revision:    1.4   Mon Oct 26 14:13:40 1998
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/detdigital.ads,v
File: detector.ads        Status: Up-to-date
   Working revision:    1.9   Mon Oct 26 14:13:40 1998
   Repository revision: 1.9   /home/egse/CVS/icu/fm/oper/detector.ads,v
File: dpu.adb             Status: Up-to-date
   Working revision:    1.36  Fri Apr  7 10:56:23 2000
   Repository revision: 1.36  /home/egse/CVS/icu/fm/oper/dpu.adb,v
File: dpu.ads             Status: Up-to-date
   Working revision:    1.12  Mon Mar 27 14:11:03 2000
   Repository revision: 1.12  /home/egse/CVS/icu/fm/oper/dpu.ads,v
File: dpu_mem_manager.adb      Status: Up-to-date
   Working revision:    1.22  Fri Apr  7 10:57:14 2000
   Repository revision: 1.22  /home/egse/CVS/icu/fm/oper/dpu_mem_manager.adb,v
File: dpu_mem_manager.ads      Status: Up-to-date
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   Working revision:    1.4   Fri Oct 30 17:27:12 1998
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/dpu_mem_manager.ads,v
File: dpu_mnemo.ads     Status: Up-to-date
   Working revision:    1.8   Thu Feb 25 10:08:09 1999
   Repository revision: 1.8   /home/egse/CVS/icu/fm/oper/dpu_mnemo.ads,v
File: heater.adb        Status: Up-to-date
   Working revision:    1.14  Tue Apr 18 12:06:56 2000
   Repository revision: 1.14  /home/egse/CVS/icu/fm/oper/heater.adb,v
File: heater.ads        Status: Up-to-date
   Working revision:    1.3   Mon Oct 26 14:13:42 1998
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/heater.ads,v
File: hk.adb            Status: Up-to-date
   Working revision:    1.25  Fri Apr  7 11:02:05 2000
   Repository revision: 1.25  /home/egse/CVS/icu/fm/oper/hk.adb,v
File: hk.ads            Status: Up-to-date
   Working revision:    1.5   Thu Nov 18 12:12:19 1999
   Repository revision: 1.5   /home/egse/CVS/icu/fm/oper/hk.ads,v
File: icb.adb           Status: Up-to-date
   Working revision:    1.13  Thu Nov 18 12:12:19 1999
   Repository revision: 1.13  /home/egse/CVS/icu/fm/oper/icb.adb,v
File: icb.ads           Status: Up-to-date
   Working revision:    1.7   Thu Nov 18 12:12:20 1999
   Repository revision: 1.7   /home/egse/CVS/icu/fm/oper/icb.ads,v
File: icb_driver.adb    Status: Up-to-date
   Working revision:    1.10  Thu Nov 18 12:12:20 1999
   Repository revision: 1.10  /home/egse/CVS/icu/fm/oper/icb_driver.adb,v
File: icb_driver.ads    Status: Up-to-date
   Working revision:    1.4   Thu Nov 18 12:12:20 1999
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/icb_driver.ads,v
File: icu.ada           Status: Up-to-date
   Working revision:    1.15  Fri Apr  7 11:02:34 2000
   Repository revision: 1.15  /home/egse/CVS/icu/fm/oper/icu.ada,v
File: icu_mem_manager.adb     Status: Up-to-date
   Working revision:    1.15  Fri Apr  7 11:03:18 2000
   Repository revision: 1.15  /home/egse/CVS/icu/fm/oper/icu_mem_manager.adb,v
File: icu_mem_manager.ads     Status: Up-to-date
   Working revision:    1.3   Fri Oct 30 17:27:12 1998
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/icu_mem_manager.ads,v
File: importance.ads    Status: Up-to-date
   Working revision:    1.8   Mon Mar  8 16:21:06 1999
   Repository revision: 1.8   /home/egse/CVS/icu/fm/oper/importance.ads,v
File: mechanism.adb     Status: Up-to-date
   Working revision:    1.27  Tue Apr 18 12:09:00 2000
   Repository revision: 1.27  /home/egse/CVS/icu/fm/oper/mechanism.adb,v
File: mechanism.ads     Status: Up-to-date
   Working revision:    1.9   Thu Nov 18 12:12:22 1999
   Repository revision: 1.9   /home/egse/CVS/icu/fm/oper/mechanism.ads,v
File: mem_manager.adb   Status: Up-to-date
   Working revision:    1.10  Fri Apr  7 11:06:17 2000
   Repository revision: 1.10  /home/egse/CVS/icu/fm/oper/mem_manager.adb,v
File: mem_manager.ads   Status: Up-to-date
   Working revision:    1.3   Fri Oct 30 17:27:12 1998
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/mem_manager.ads,v
File: memdpu.adb        Status: Up-to-date
   Working revision:    1.12  Mon Mar 27 14:14:52 2000
   Repository revision: 1.12  /home/egse/CVS/icu/fm/oper/memdpu.adb,v
File: memdpu.ads        Status: Up-to-date
   Working revision:    1.2   Mon Oct 26 14:13:46 1998
   Repository revision: 1.2   /home/egse/CVS/icu/fm/oper/memdpu.ads,v
File: memloc.ads        Status: Up-to-date
   Working revision:    1.16  Tue Apr 18 12:10:04 2000
   Repository revision: 1.16  /home/egse/CVS/icu/fm/oper/memloc.ads,v
File: modeman.adb       Status: Up-to-date
   Working revision:    1.13  Thu May 11 15:49:37 2000
   Repository revision: 1.13  /home/egse/CVS/icu/fm/oper/modeman.adb,v
File: modeman.ads       Status: Up-to-date
   Working revision:    1.7   Thu Nov 18 12:12:23 1999
   Repository revision: 1.7   /home/egse/CVS/icu/fm/oper/modeman.ads,v
File: mutex.adb         Status: Up-to-date
   Working revision:    1.13  Fri Apr  7 11:06:43 2000
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   Repository revision: 1.13  /home/egse/CVS/icu/fm/oper/mutex.adb,v
File: mutex.ads          Status: Up-to-date
   Working revision:    1.5   Mon Oct 26 14:13:46 1998
   Repository revision: 1.5   /home/egse/CVS/icu/fm/oper/mutex.ads,v
File: nhk.adb            Status: Up-to-date
   Working revision:    1.8   Thu Nov 18 12:12:23 1999
   Repository revision: 1.8   /home/egse/CVS/icu/fm/oper/nhk.adb,v
File: nhk.ads            Status: Up-to-date
   Working revision:    1.3   Mon Oct 26 14:13:47 1998
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/nhk.ads,v
File: packet.ads         Status: Up-to-date
   Working revision:    1.22  Tue Apr 18 12:12:45 2000
   Repository revision: 1.22  /home/egse/CVS/icu/fm/oper/packet.ads,v
File: peek_poke.ads      Status: Up-to-date
   Working revision:    1.2   Mon Oct 26 13:55:34 1998
   Repository revision: 1.2   /home/egse/CVS/icu/fm/oper/peek_poke.ads,v
File: peek_poke.asm      Status: Up-to-date
   Working revision:    1.3   Thu Nov 18 12:12:24 1999
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/peek_poke.asm,v
File: rbi.adb            Status: Up-to-date
   Working revision:    1.16  Fri Apr  7 11:08:23 2000
   Repository revision: 1.16  /home/egse/CVS/icu/fm/oper/rbi.adb,v
File: rbi.ads            Status: Up-to-date
   Working revision:    1.5   Thu Nov 18 12:12:24 1999
   Repository revision: 1.5   /home/egse/CVS/icu/fm/oper/rbi.ads,v
File: rbi_ih.ads         Status: Up-to-date
   Working revision:    1.1   Mon Mar 23 17:19:27 1998
   Repository revision: 1.1   /home/egse/CVS/icu/fm/oper/rbi_ih.ads,v
File: rbi_ih.asm         Status: Up-to-date
   Working revision:    1.6   Fri Oct 30 17:27:12 1998
   Repository revision: 1.6   /home/egse/CVS/icu/fm/oper/rbi_ih.asm,v
File: reset.ads          Status: Up-to-date
   Working revision:    1.2   Mon Oct 26 13:55:35 1998
   Repository revision: 1.2   /home/egse/CVS/icu/fm/oper/reset.ads,v
File: reset.asm          Status: Up-to-date
   Working revision:    1.3   Thu Nov 18 12:12:25 1999
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/reset.asm,v
File: safing.adb         Status: Up-to-date
   Working revision:    1.6   Fri Apr  7 11:08:56 2000
   Repository revision: 1.6   /home/egse/CVS/icu/fm/oper/safing.adb,v
File: safing.ads         Status: Up-to-date
   Working revision:    1.4   Thu Nov 18 12:12:25 1999
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/safing.ads,v
File: science_fm.adb     Status: Up-to-date
   Working revision:    1.4   Tue Feb 15 12:15:50 2000
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/science_fm.adb,v
File: science_fm.ads     Status: Up-to-date
   Working revision:    1.3   Thu Nov 18 12:12:26 1999
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/science_fm.ads,v
File: ssi_driver.adb     Status: Up-to-date
   Working revision:    1.19  Fri Apr  7 11:09:25 2000
   Repository revision: 1.19  /home/egse/CVS/icu/fm/oper/ssi_driver.adb,v
File: ssi_driver.ads     Status: Up-to-date
   Working revision:    1.4   Mon Oct 26 13:55:35 1998
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/ssi_driver.ads,v
File: ssi_ih.ads         Status: Up-to-date
   Working revision:    1.1   Mon Mar 23 17:19:27 1998
   Repository revision: 1.1   /home/egse/CVS/icu/fm/oper/ssi_ih.ads,v
File: ssi_ih.asm         Status: Up-to-date
   Working revision:    1.3   Mon Nov 24 15:12:57 1997
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/ssi_ih.asm,v
File: ssi_in.adb         Status: Up-to-date
   Working revision:    1.13  Wed Aug 16 08:30:51 2000
   Repository revision: 1.13  /home/egse/CVS/icu/fm/oper/ssi_in.adb,v
File: ssi_in.ads         Status: Up-to-date
   Working revision:    1.3   Thu Nov 18 12:12:27 1999
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/ssi_in.ads,v
File: ssi_out.adb        Status: Up-to-date
   Working revision:    1.12  Fri Apr  7 11:10:41 2000
   Repository revision: 1.12  /home/egse/CVS/icu/fm/oper/ssi_out.adb,v
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File: ssi_out.ads       Status: Up-to-date
   Working revision:    1.3   Thu Nov 18 12:12:27 1999
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/ssi_out.ads,v
File: task_report.adb   Status: Up-to-date
   Working revision:    1.10  Fri Apr  7 11:11:11 2000
   Repository revision: 1.10  /home/egse/CVS/icu/fm/oper/task_report.adb,v
File: task_report.ads   Status: Up-to-date
   Working revision:    1.4   Mon Oct 26 14:13:50 1998
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/task_report.ads,v
File: taskman.adb       Status: Up-to-date
   Working revision:    1.25  Fri Apr  7 11:11:37 2000
   Repository revision: 1.25  /home/egse/CVS/icu/fm/oper/taskman.adb,v
File: taskman.ads       Status: Up-to-date
   Working revision:    1.2   Mon Oct 26 14:13:51 1998
   Repository revision: 1.2   /home/egse/CVS/icu/fm/oper/taskman.ads,v
File: tc_q.adb          Status: Up-to-date
   Working revision:    1.7   Thu Nov 18 12:12:28 1999
   Repository revision: 1.7   /home/egse/CVS/icu/fm/oper/tc_q.adb,v
File: tc_q.ads          Status: Up-to-date
   Working revision:    1.7   Thu Nov 18 12:12:29 1999
   Repository revision: 1.7   /home/egse/CVS/icu/fm/oper/tc_q.ads,v
File: tc_verify.adb     Status: Up-to-date
   Working revision:    1.10  Mon Mar 27 14:19:22 2000
   Repository revision: 1.10  /home/egse/CVS/icu/fm/oper/tc_verify.adb,v
File: tc_verify.ads     Status: Up-to-date
   Working revision:    1.5   Thu Nov 18 12:12:29 1999
   Repository revision: 1.5   /home/egse/CVS/icu/fm/oper/tc_verify.ads,v
File: tcq.adb           Status: Up-to-date
   Working revision:    1.10  Thu Nov 18 12:12:30 1999
   Repository revision: 1.10  /home/egse/CVS/icu/fm/oper/tcq.adb,v
File: tcq.ads           Status: Up-to-date
   Working revision:    1.2   Mon Oct 26 14:13:52 1998
   Repository revision: 1.2   /home/egse/CVS/icu/fm/oper/tcq.ads,v
File: time_man.adb      Status: Up-to-date
   Working revision:    1.19  Fri Apr  7 11:12:20 2000
   Repository revision: 1.19  /home/egse/CVS/icu/fm/oper/time_man.adb,v
File: time_man.ads      Status: Up-to-date
   Working revision:    1.4   Mon Oct 26 14:13:53 1998
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/time_man.ads,v
File: timer_a_ih.adb    Status: Up-to-date
   Working revision:    1.3   Thu Nov 18 12:12:30 1999
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/timer_a_ih.adb,v
File: timer_a_ih.ads    Status: Up-to-date
   Working revision:    1.3   Thu Nov 18 12:12:31 1999
   Repository revision: 1.3   /home/egse/CVS/icu/fm/oper/timer_a_ih.ads,v
File: tlink17.lcf       Status: Up-to-date
   Working revision:    1.8   Wed Feb 24 14:59:04 1999
   Repository revision: 1.8   /home/egse/CVS/icu/fm/oper/tlink17.lcf,v
File: tm_man.adb        Status: Up-to-date
   Working revision:    1.16  Fri Apr  7 11:13:10 2000
   Repository revision: 1.16  /home/egse/CVS/icu/fm/oper/tm_man.adb,v
File: tm_man.ads        Status: Up-to-date
   Working revision:    1.5   Thu Nov 18 12:12:32 1999
   Repository revision: 1.5   /home/egse/CVS/icu/fm/oper/tm_man.ads,v
File: tm_q.adb          Status: Up-to-date
   Working revision:    1.12  Fri Apr  7 11:13:55 2000
   Repository revision: 1.12  /home/egse/CVS/icu/fm/oper/tm_q.adb,v
File: tm_q.ads          Status: Up-to-date
   Working revision:    1.4   Mon Oct 26 14:13:54 1998
   Repository revision: 1.4   /home/egse/CVS/icu/fm/oper/tm_q.ads,v
File: tmpsu.adb         Status: Up-to-date
   Working revision:    1.14  Fri Apr  7 11:14:25 2000
   Repository revision: 1.14  /home/egse/CVS/icu/fm/oper/tmpsu.adb,v
File: tmpsu.ads         Status: Up-to-date
   Working revision:    1.5   Thu Nov 18 12:12:33 1999
   Repository revision: 1.5   /home/egse/CVS/icu/fm/oper/tmpsu.ads,v
File: tmq.adb           Status: Up-to-date
   Working revision:    1.16  Fri Apr  7 11:15:31 2000
   Repository revision: 1.16  /home/egse/CVS/icu/fm/oper/tmq.adb,v
File: tmq.ads           Status: Up-to-date
```

```
   Working revision:    1.7   Wed Dec 16 11:15:11 1998
   Repository revision: 1.7   /home/egse/CVS/icu/fm/oper/tmq.ads,v
File: types.ads         Status: Up-to-date
   Working revision:    1.2   Mon Oct 26 14:13:55 1998
   Repository revision: 1.2   /home/egse/CVS/icu/fm/oper/types.ads,v
```

5 DPU CODE

CVS repository: UCSB
CVS modules: white, blue, red, include, dpu/util
CVS tag: release10

5.1.1.1.1 White CVS Module

```
File: README            Status: Up-to-date
   Working revision:    1.1   Mon Mar  6 18:54:59 1995
   Repository revision: 1.1   /home/xmmom/cvs/master/white/README,v
File: white.asm         Status: Up-to-date
   Working revision:    1.29  Sat Aug 21 06:09:59 1999
   Repository revision: 1.29  /home/xmmom/cvs/master/white/src/asm/white.asm,v
File: cwhite.c          Status: Up-to-date
   Working revision:    1.51  Tue Aug 15 23:57:32 2000
   Repository revision: 1.51  /home/xmmom/cvs/master/white/src/cc/cwhite.c,v
File: shared_io_functions.c   Status: Up-to-date
   Working revision:    1.27  Tue Aug 15 23:57:32 2000
   Repository revision: 1.27
      /home/xmmom/cvs/master/white/src/cc/shared_io_functions.c,v
File: shared_variables.c      Status: Up-to-date
   Working revision:    1.23  Tue Aug 15 23:57:33 2000
   Repository revision: 1.23
      /home/xmmom/cvs/master/white/src/cc/shared_variables.c,v
File: su_calbgd.c       Status: Up-to-date
   Working revision:    1.25  Thu Feb 25 05:08:10 1999
   Repository revision: 1.25
      /home/xmmom/cvs/master/white/src/cc/su_calbgd.c,v
File: su_caldrft.c      Status: Up-to-date
   Working revision:    1.25  Wed Feb 10 21:54:18 1999
   Repository revision: 1.25
      /home/xmmom/cvs/master/white/src/cc/su_caldrft.c,v
File: su_compress.c     Status: Up-to-date
   Working revision:    1.12  Tue Aug 15 23:57:33 2000
   Repository revision: 1.12
      /home/xmmom/cvs/master/white/src/cc/su_compress.c,v
File: su_deliverdata.c  Status: Up-to-date
   Working revision:    1.42  Tue Aug 15 23:57:33 2000
   Repository revision: 1.42
      /home/xmmom/cvs/master/white/src/cc/su_deliverdata.c,v
File: su_dowindow.c     Status: Up-to-date
   Working revision:    1.34  Tue Aug 15 23:57:34 2000
   Repository revision: 1.34
      /home/xmmom/cvs/master/white/src/cc/su_dowindow.c,v
File: su_dpuabort.c     Status: Up-to-date
   Working revision:    1.10  Sat Aug  3 13:47:46 1996
   Repository revision: 1.10
      /home/xmmom/cvs/master/white/src/cc/su_dpuabort.c,v
File: su_engineering.c  Status: Up-to-date
   Working revision:    1.12  Tue Aug 15 23:57:34 2000
   Repository revision: 1.12
      /home/xmmom/cvs/master/white/src/cc/su_engineering.c,v
File: su_getref.c       Status: Up-to-date
   Working revision:    1.21  Thu Feb 25 05:08:09 1999
   Repository revision: 1.21
      /home/xmmom/cvs/master/white/src/cc/su_getref.c,v
File: su_init_exp.c     Status: Up-to-date
   Working revision:    1.10  Thu Nov 12 07:03:14 1998
   Repository revision: 1.10
      /home/xmmom/cvs/master/white/src/cc/su_init_exp.c,v
File: su_initialize.c   Status: Up-to-date
   Working revision:    1.42  Tue Aug 15 23:57:34 2000
   Repository revision: 1.42
      /home/xmmom/cvs/master/white/src/cc/su_initialize.c,v
File: su_locategs.c     Status: Up-to-date
   Working revision:    1.26  Tue Aug 15 23:57:35 2000
```

```
   Repository revision: 1.26
      /home/xmmom/cvs/master/white/src/cc/su_locategs.c,v
File: su_makeags_id.c   Status: Up-to-date
   Working revision:    1.17  Tue Sep  9 15:19:41 1997
   Repository revision: 1.17
      /home/xmmom/cvs/master/white/src/cc/su_makeags_id.c,v
File: su_restore_stars.c      Status: Up-to-date
   Working revision:    1.23  Thu Feb 25 05:08:11 1999
   Repository revision: 1.23
      /home/xmmom/cvs/master/white/src/cc/su_restore_stars.c,v
File: su_rtrd.c         Status: Up-to-date
   Working revision:    1.5   Sat Aug 21 05:56:39 1999
   Repository revision: 1.5   /home/xmmom/cvs/master/white/src/cc/su_rtrd.c,v
File: su_scanbs.c       Status: Up-to-date
   Working revision:    1.29  Thu Jan 21 08:13:11 1999
   Repository revision: 1.29
      /home/xmmom/cvs/master/white/src/cc/su_scanbs.c,v
File: su_scangs.c       Status: Up-to-date
   Working revision:    1.29  Tue Aug 15 23:57:36 2000
   Repository revision: 1.29
      /home/xmmom/cvs/master/white/src/cc/su_scangs.c,v
File: su_submit_cmprss_q.c    Status: Up-to-date
   Working revision:    1.4   Thu May 28 04:41:50 1998
   Repository revision: 1.4
      /home/xmmom/cvs/master/white/src/cc/su_submit_cmprss_q.c,v
File: sun_util.c        Status: Up-to-date
   Working revision:    1.28  Thu Feb 25 06:08:16 1999
   Repository revision: 1.28  /home/xmmom/cvs/master/white/src/cc/sun_util.c,v
File: whitedsp.c        Status: Up-to-date
   Working revision:    1.73  Tue Aug 15 23:57:36 2000
   Repository revision: 1.73  /home/xmmom/cvs/master/white/src/cc/whitedsp.c,v
File: white_crt056y.asm Status: Up-to-date
   Working revision:    1.1   Mon Dec  5 19:43:41 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/white/src/crt/white_crt056y.asm,v
```

Blue CVS Module

```
File: blue.asm          Status: Up-to-date
   Working revision:    1.35  Tue Aug 15 23:57:38 2000
   Repository revision: 1.35  /home/xmmom/cvs/master/blue/src/blue.asm,v
```

Red CVS Module

```
File: red.asm           Status: Up-to-date
   Working revision:    1.18  Fri Feb 19 20:29:16 1999
   Repository revision: 1.18  /home/xmmom/cvs/master/red/src/asm/red.asm,v
File: README            Status: Up-to-date
   Working revision:    1.2   Mon Mar  6 18:55:44 1995
   Repository revision: 1.2   /home/xmmom/cvs/master/red/src/cc/README,v
File: cred.c            Status: Up-to-date
   Working revision:    1.11  Fri Feb 19 06:00:14 1999
   Repository revision: 1.11  /home/xmmom/cvs/master/red/src/cc/cred.c,v
File: reddsp.c          Status: Up-to-date
   Working revision:    1.27  Tue Aug 15 23:57:29 2000
   Repository revision: 1.27  /home/xmmom/cvs/master/red/src/cc/reddsp.c,v
File: sun_hopper.c      Status: Up-to-date
   Working revision:    1.2   Thu Jan 11 21:06:35 1996
   Repository revision: 1.2   /home/xmmom/cvs/master/red/src/cc/sun_hopper.c,v
File: red_crt056y.asm   Status: Up-to-date
   Working revision:    1.2   Mon Dec  5 20:08:37 1994
   Repository revision: 1.2
      /home/xmmom/cvs/master/red/src/crt/red_crt056y.asm,v
```

Include CVS Module

```
File: FecCode.asm       Status: Up-to-date
   Working revision:    1.6   Wed Sep 23 22:21:04 1998
```

```
   Repository revision: 1.6   /home/xmmom/cvs/master/include/FecCode.asm,v
File: FecTab.asm        Status: Up-to-date
   Working revision:    1.2   Fri Sep 11 16:46:07 1998
   Repository revision: 1.2   /home/xmmom/cvs/master/include/FecTab.asm,v
File: README            Status: Up-to-date
   Working revision:    1.1.1.1     Mon Dec  5 15:16:28 1994
   Repository revision: 1.1.1.1     /home/xmmom/cvs/master/include/README,v
File: Readme.ps         Status: Up-to-date
   Working revision:    1.2   Wed Sep 13 20:12:16 1995
   Repository revision: 1.2   /home/xmmom/cvs/master/include/Readme.ps,v
File: cred.h            Status: Up-to-date
   Working revision:    1.7   Mon Feb  8 03:45:50 1999
   Repository revision: 1.7   /home/xmmom/cvs/master/include/cred.h,v
File: cwhite.h          Status: Up-to-date
   Working revision:    1.10  Wed Dec  9 22:07:45 1998
   Repository revision: 1.10  /home/xmmom/cvs/master/include/cwhite.h,v
File: dpu_util.h        Status: Up-to-date
   Working revision:    1.8   Thu Jun 13 17:11:31 1996
   Repository revision: 1.8   /home/xmmom/cvs/master/include/dpu_util.h,v
File: dpucfg_map.h      Status: Up-to-date
   Working revision:    1.14  Tue Aug 15 23:57:40 2000
   Repository revision: 1.14  /home/xmmom/cvs/master/include/dpucfg_map.h,v
File: global_access.c   Status: Up-to-date
   Working revision:    1.16  Tue Aug 15 23:57:40 2000
   Repository revision: 1.16  /home/xmmom/cvs/master/include/global_access.c,v
File: hopper.asm        Status: Up-to-date
   Working revision:    1.2   Wed Dec  9 22:11:35 1998
   Repository revision: 1.2   /home/xmmom/cvs/master/include/hopper.asm,v
File: idiot.h           Status: Up-to-date
   Working revision:    1.21  Thu Feb 25 05:21:14 1999
   Repository revision: 1.21  /home/xmmom/cvs/master/include/idiot.h,v
File: macro.h           Status: Up-to-date
   Working revision:    1.4   Thu Jan 11 23:42:08 1996
   Repository revision: 1.4   /home/xmmom/cvs/master/include/macro.h,v
File: mic_restore_0.h   Status: Up-to-date
   Working revision:    1.1   Sat Aug 21 06:49:44 1999
   Repository revision: 1.1   /home/xmmom/cvs/master/include/mic_restore_0.h,v
File: mic_restore_1.h   Status: Up-to-date
   Working revision:    1.1   Sat Aug 21 06:49:45 1999
   Repository revision: 1.1   /home/xmmom/cvs/master/include/mic_restore_1.h,v
File: mic_restore_old.h Status: Up-to-date
   Working revision:    1.1   Sat Aug 21 06:49:45 1999
   Repository revision: 1.1
      /home/xmmom/cvs/master/include/mic_restore_old.h,v
File: mic_restore_params.h    Status: Up-to-date
   Working revision:    1.5   Sat Aug 21 06:49:46 1999
   Repository revision: 1.5
      /home/xmmom/cvs/master/include/mic_restore_params.h,v
File: nop.asm           Status: Up-to-date
   Working revision:    1.1   Thu May 28 17:05:21 1998
   Repository revision: 1.1   /home/xmmom/cvs/master/include/nop.asm,v
File: our_own_types.h   Status: Up-to-date
   Working revision:    1.9   Sat Aug  3 13:55:08 1996
   Repository revision: 1.9   /home/xmmom/cvs/master/include/our_own_types.h,v
File: red.h             Status: Up-to-date
   Working revision:    1.6   Wed Sep 23 22:21:07 1998
   Repository revision: 1.6   /home/xmmom/cvs/master/include/red.h,v
File: red_buffers.h     Status: Up-to-date
   Working revision:    1.2   Fri Feb 17 17:11:39 1995
   Repository revision: 1.2   /home/xmmom/cvs/master/include/red_buffers.h,v
File: red_control.h     Status: Up-to-date
   Working revision:    1.6   Tue Sep  9 15:23:04 1997
   Repository revision: 1.6   /home/xmmom/cvs/master/include/red_control.h,v
File: red_crt0_equ.h    Status: Up-to-date
   Working revision:    1.2   Fri Feb 17 17:11:42 1995
   Repository revision: 1.2   /home/xmmom/cvs/master/include/red_crt0_equ.h,v
File: red_default.h     Status: Up-to-date
   Working revision:    1.16  Mon Sep 20 05:22:58 1999
   Repository revision: 1.16  /home/xmmom/cvs/master/include/red_default.h,v
File: red_os_variables.h      Status: Up-to-date
```

```
   Working revision:    1.6   Sat Sep 19 10:01:06 1998
   Repository revision: 1.6
      /home/xmmom/cvs/master/include/red_os_variables.h,v
File: red_shared_variables.h  Status: Up-to-date
   Working revision:    1.10  Tue Aug 15 23:57:41 2000
   Repository revision: 1.10
      /home/xmmom/cvs/master/include/red_shared_variables.h,v
File: red_static_variables.h  Status: Up-to-date
   Working revision:    1.10  Tue Aug 15 23:57:41 2000
   Repository revision: 1.10
      /home/xmmom/cvs/master/include/red_static_variables.h,v
File: sci_com.h         Status: Up-to-date
   Working revision:    1.14  Tue Aug 15 23:57:42 2000
   Repository revision: 1.14  /home/xmmom/cvs/master/include/sci_com.h,v
File: sci_ram.h         Status: Up-to-date
   Working revision:    1.2   Fri Feb 17 17:11:48 1995
   Repository revision: 1.2   /home/xmmom/cvs/master/include/sci_ram.h,v
File: setup.h           Status: Up-to-date
   Working revision:    1.7   Tue Aug 15 23:57:42 2000
   Repository revision: 1.7   /home/xmmom/cvs/master/include/setup.h,v
File: sim_blue_local_ram.h    Status: Up-to-date
   Working revision:    1.5   Wed Mar 20 18:55:02 1996
   Repository revision: 1.5
      /home/xmmom/cvs/master/include/sim_blue_local_ram.h,v
File: sun_util.h        Status: Up-to-date
   Working revision:    1.5   Thu Jun 13 17:11:34 1996
   Repository revision: 1.5   /home/xmmom/cvs/master/include/sun_util.h,v
File: vbtwl.def         Status: Up-to-date
   Working revision:    1.3   Mon Jul 15 17:58:37 1996
   Repository revision: 1.3   /home/xmmom/cvs/master/include/vbtwl.def,v
File: vbtwl.h           Status: Up-to-date
   Working revision:    1.3   Mon Jul 15 17:58:38 1996
   Repository revision: 1.3   /home/xmmom/cvs/master/include/vbtwl.h,v
File: white.h           Status: Up-to-date
   Working revision:    1.15  Wed Dec  9 22:15:41 1998
   Repository revision: 1.15  /home/xmmom/cvs/master/include/white.h,v
File: white_buffers.h   Status: Up-to-date
   Working revision:    1.3   Sat Mar 21 02:02:50 1998
   Repository revision: 1.3   /home/xmmom/cvs/master/include/white_buffers.h,v
File: white_control.h   Status: Up-to-date
   Working revision:    1.19  Tue Aug 15 23:57:42 2000
   Repository revision: 1.19  /home/xmmom/cvs/master/include/white_control.h,v
File: white_crt0_equ.h  Status: Up-to-date
   Working revision:    1.2   Sat Mar 21 02:02:51 1998
   Repository revision: 1.2
      /home/xmmom/cvs/master/include/white_crt0_equ.h,v
File: white_default.h   Status: Up-to-date
   Working revision:    1.25  Tue Aug 15 23:57:43 2000
   Repository revision: 1.25  /home/xmmom/cvs/master/include/white_default.h,v
File: white_os_variables.h    Status: Up-to-date
   Working revision:    1.8   Sat Aug 21 06:58:27 1999
   Repository revision: 1.8
      /home/xmmom/cvs/master/include/white_os_variables.h,v
File: white_shared_variables.h      Status: Up-to-date
   Working revision:    1.19  Tue Aug 15 23:57:43 2000
   Repository revision: 1.19
      /home/xmmom/cvs/master/include/white_shared_variables.h,v
File: white_static_variables.h      Status: Up-to-date
   Working revision:    1.19  Tue Aug 15 23:57:43 2000
   Repository revision: 1.19
      /home/xmmom/cvs/master/include/white_static_variables.h,v
File: xmmom_Test_Stack.asm    Status: Up-to-date
   Working revision:    1.2   Tue Sep  9 15:23:09 1997
   Repository revision: 1.2
      /home/xmmom/cvs/master/include/xmmom_Test_Stack.asm,v
File: xmmom_std.asm     Status: Up-to-date
   Working revision:    1.6   Wed Dec  9 22:19:29 1998
   Repository revision: 1.6   /home/xmmom/cvs/master/include/xmmom_std.asm,v
File: xmmom_std2.asm    Status: Up-to-date
   Working revision:    1.1   Wed Dec  9 23:21:57 1998
```

```
   Repository revision: 1.1   /home/xmmom/cvs/master/include/xmmom_std2.asm,v
```

Util CVS Module

```
File: asm_headers       Status: Up-to-date
   Working revision:    1.2   Fri Feb 20 23:33:17 1998
   Repository revision: 1.2
      /home/xmmom/cvs/master/dpu/util/bin/asm_headers,v
File: csh0_headers      Status: Up-to-date
   Working revision:    1.1   Tue Sep  9 16:51:04 1997
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/bin/csh0_headers,v
File: csh_headers       Status: Up-to-date
   Working revision:    1.1   Tue Sep  9 16:51:04 1997
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/bin/csh_headers,v
File: get_base          Status: Up-to-date
   Working revision:    1.3   Wed Sep 16 21:44:53 1998
   Repository revision: 1.3   /home/xmmom/cvs/master/dpu/util/bin/get_base,v
File: get_psize         Status: Up-to-date
   Working revision:    1.1   Tue Sep  9 16:42:53 1997
   Repository revision: 1.1   /home/xmmom/cvs/master/dpu/util/bin/get_psize,v
File: make_loader_lut   Status: Up-to-date
   Working revision:    1.2   Fri Feb 20 23:33:18 1998
   Repository revision: 1.2
      /home/xmmom/cvs/master/dpu/util/bin/make_loader_lut,v
File: makebdsp          Status: Up-to-date
   Working revision:    1.4   Mon Jul 13 00:26:00 1998
   Repository revision: 1.4   /home/xmmom/cvs/master/dpu/util/bin/makebdsp,v
File: makebootrom       Status: Up-to-date
   Working revision:    1.2   Fri Feb 20 23:33:19 1998
   Repository revision: 1.2
      /home/xmmom/cvs/master/dpu/util/bin/makebootrom,v
File: makedsp           Status: Up-to-date
   Working revision:    1.7   Tue Oct 27 16:01:08 1998
   Repository revision: 1.7   /home/xmmom/cvs/master/dpu/util/bin/makedsp,v
File: makerdsp          Status: Up-to-date
   Working revision:    1.5   Mon Jul 13 00:26:02 1998
   Repository revision: 1.5   /home/xmmom/cvs/master/dpu/util/bin/makerdsp,v
File: makewdsp          Status: Up-to-date
   Working revision:    1.4   Mon Jul 13 00:26:02 1998
   Repository revision: 1.4   /home/xmmom/cvs/master/dpu/util/bin/makewdsp,v
File: recover_cmd       Status: Up-to-date
   Working revision:    1.1   Tue Sep  9 16:32:00 1997
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/bin/recover_cmd,v
File: strip_cmd         Status: Up-to-date
   Working revision:    1.1   Tue Sep  9 16:32:00 1997
   Repository revision: 1.1   /home/xmmom/cvs/master/dpu/util/bin/strip_cmd,v
File: vsw_headers       Status: Up-to-date
   Working revision:    1.1   Tue Sep  9 16:51:05 1997
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/bin/vsw_headers,v
File: Makefile_asm_headers    Status: Up-to-date
   Working revision:    1.3   Sat Sep 19 09:06:35 1998
   Repository revision: 1.3
      /home/xmmom/cvs/master/dpu/util/src/Makefile_asm_headers,v
File: Makefile_blue     Status: Up-to-date
   Working revision:    1.8   Wed Dec  9 23:07:24 1998
   Repository revision: 1.8
      /home/xmmom/cvs/master/dpu/util/src/Makefile_blue,v
File: Makefile_red      Status: Up-to-date
   Working revision:    1.2   Thu Jul  9 17:36:08 1998
   Repository revision: 1.2
      /home/xmmom/cvs/master/dpu/util/src/Makefile_red,v
File: Makefile_red_bios Status: Up-to-date
   Working revision:    1.5   Sat Sep 19 10:21:52 1998
   Repository revision: 1.5
      /home/xmmom/cvs/master/dpu/util/src/Makefile_red_bios,v
File: Makefile_red_cmd  Status: Up-to-date
```

```
   Working revision:    1.12  Tue Oct 27 15:57:01 1998
   Repository revision: 1.12
      /home/xmmom/cvs/master/dpu/util/src/Makefile_red_cmd,v
File: Makefile_red_su   Status: Up-to-date
   Working revision:    1.4   Wed Dec  9 23:07:25 1998
   Repository revision: 1.4
      /home/xmmom/cvs/master/dpu/util/src/Makefile_red_su,v
File: Makefile_srec     Status: Up-to-date
   Working revision:    1.8   Wed Dec  9 23:07:25 1998
   Repository revision: 1.8
      /home/xmmom/cvs/master/dpu/util/src/Makefile_srec,v
File: Makefile_total_size     Status: Up-to-date
   Working revision:    1.1   Wed Sep 13 20:11:40 1995
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/Makefile_total_size,v
File: Makefile_white    Status: Up-to-date
   Working revision:    1.3   Thu Jul  9 17:36:09 1998
   Repository revision: 1.3
      /home/xmmom/cvs/master/dpu/util/src/Makefile_white,v
File: Makefile_white_bios     Status: Up-to-date
   Working revision:    1.4   Thu Jun 13 17:15:26 1996
   Repository revision: 1.4
      /home/xmmom/cvs/master/dpu/util/src/Makefile_white_bios,v
File: Makefile_white_boot     Status: Up-to-date
   Working revision:    1.3   Wed Mar 20 19:20:18 1996
   Repository revision: 1.3
      /home/xmmom/cvs/master/dpu/util/src/Makefile_white_boot,v
File: Makefile_white_cmd      Status: Up-to-date
   Working revision:    1.13  Tue Oct 27 15:57:47 1998
   Repository revision: 1.13
      /home/xmmom/cvs/master/dpu/util/src/Makefile_white_cmd,v
File: Makefile_white_su Status: Up-to-date
   Working revision:    1.8   Tue Sep  9 17:01:17 1997
   Repository revision: 1.8
      /home/xmmom/cvs/master/dpu/util/src/Makefile_white_su,v
File: loader.lut.template     Status: Up-to-date
   Working revision:    1.1   Sun Mar 22 23:02:36 1998
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/loader.lut.template,v
File: loader.lut.w      Status: Up-to-date
   Working revision:    1.1   Sun Mar 22 23:02:37 1998
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/loader.lut.w,v
File: red_link_loc.ctl  Status: Up-to-date
   Working revision:    1.3   Mon May 13 22:41:26 1996
   Repository revision: 1.3
      /home/xmmom/cvs/master/dpu/util/src/red_link_loc.ctl,v
File: srec.doc          Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:51:46 1994
   Repository revision: 1.1   /home/xmmom/cvs/master/dpu/util/src/srec.doc,v
File: white_link_loc.ctl      Status: Up-to-date
   Working revision:    1.1   Sun Dec  4 20:11:42 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/white_link_loc.ctl,v
File: blue_split.c      Status: Up-to-date
   Working revision:    1.2   Sat Feb 19 00:14:41 1994
   Repository revision: 1.2
      /home/xmmom/cvs/master/dpu/util/src/cc/blue_split.c,v
File: boot_split.c      Status: Up-to-date
   Working revision:    1.1   Mon May 13 19:51:33 1996
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/cc/boot_split.c,v
File: cal_checksum.c    Status: Up-to-date
   Working revision:    1.1   Tue Mar 31 19:37:32 1998
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/cc/cal_checksum.c,v
File: change_bit.c      Status: Up-to-date
   Working revision:    1.1   Sat Sep 19 10:20:34 1998
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/cc/change_bit.c,v
```

```
File: cmnder.c          Status: Up-to-date
   Working revision:    1.4   Fri May 10 22:34:57 1996
   Repository revision: 1.4
      /home/xmmom/cvs/master/dpu/util/src/cc/cmnder.c,v
File: create_loader_lut.c     Status: Up-to-date
   Working revision:    1.7   Thu Jul  9 17:36:55 1998
   Repository revision: 1.7
      /home/xmmom/cvs/master/dpu/util/src/cc/create_loader_lut.c,v
File: extract_p.c       Status: Up-to-date
   Working revision:    1.1   Tue Aug 15 23:57:25 2000
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/cc/extract_p.c,v
File: sizetest.c        Status: Up-to-date
   Working revision:    1.1   Sun Dec  4 20:13:24 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/cc/sizetest.c,v
File: srec.c            Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:52:30 1994
   Repository revision: 1.1   /home/xmmom/cvs/master/dpu/util/src/cc/srec.c,v
File: strip_lod.wo_fec  Status: Up-to-date
   Working revision:    1.3   Thu May 28 20:04:44 1998
   Repository revision: 1.3
      /home/xmmom/cvs/master/dpu/util/src/cc/strip_lod.wo_fec,v
File: strip_lod_wfec.c  Status: Up-to-date
   Working revision:    1.1   Fri Feb 20 23:33:47 1998
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/cc/strip_lod_wfec.c,v
File: strip_lod_wofec.c Status: Up-to-date
   Working revision:    1.1   Fri Feb 20 23:33:48 1998
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/cc/strip_lod_wofec.c,v
File: aouthdr.h         Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:06 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/aouthdr.h,v
File: coreaddr.h        Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:07 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/coreaddr.h,v
File: dspext.h          Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:08 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/dspext.h,v
File: fect.h            Status: Up-to-date
   Working revision:    1.1   Sun Mar 22 23:09:39 1998
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/fect.h,v
File: filehdr.h         Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:08 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/filehdr.h,v
File: forErrorCorrTable.h     Status: Up-to-date
   Working revision:    1.1   Sun Mar 22 23:09:40 1998
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/forErrorCorrTable.h,v
File: linenum.h         Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:09 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/linenum.h,v
File: maout.h           Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:10 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/maout.h,v
File: reloc.h           Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:11 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/reloc.h,v
File: scnhdr.h          Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:12 1994
```

```
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/scnhdr.h,v
File: srec.h            Status: Up-to-date
   Working revision:    1.2   Tue Sep  9 15:25:45 1997
   Repository revision: 1.2
      /home/xmmom/cvs/master/dpu/util/src/include/srec.h,v
File: storclas.h        Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:14 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/storclas.h,v
File: storcls.h         Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:15 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/storcls.h,v
File: syms.h            Status: Up-to-date
   Working revision:    1.1   Tue Jan  4 16:53:16 1994
   Repository revision: 1.1
      /home/xmmom/cvs/master/dpu/util/src/include/syms.h,v
```

6 LOADABLE CODE

```
DPU code
--------

MD5 Checksums

8cb330b7a8b14d810bfd490e2a8ad391  blue_p3.cmd.0
368a716ca62ec8a7d13d9c27415d8aff  p0.cmd.0
262fbb659435bc8ad0a647047d81fb25  p5.cmd.0
858334682493278b4a7965b34d6c1841  p7.cmd.0

-rw-rw-rw-   1 pjs1     xray        19900 Aug 16 01:16 blue_p3.cmd.0
-rw-rw-rw-   1 pjs1     xray       315340 Aug 16 01:16 p0.cmd.0
-rw-rw-rw-   1 pjs1     xray        86980 Aug 16 01:16 p5.cmd.0
-rw-rw-rw-   1 pjs1     xray       103380 Aug 16 01:16 p7.cmd.0

ICU code
--------

MD5 Checksum

13793734c6f96446af8f392f098eb3bf  icu.hex

-rw-r--r--   1 pjs1     xray       596727 Aug  9 10:28 icu.hex
```