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SPIRE

Herschel SPIRE On-Board Software Configuration Report

Ref:	IFSI/OBS/RP/2004-001
Rev:	4.0.0
Date:	30/10/2009
Page:	1 of 10

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SPIRE On Board Software Configuration Report

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Ref	IFSI/OBS/RP/2004-001
Rev	4.0.0
Date	30/10/2009
Page	2 of 10

❖ Index

❖	Index.....	2
1	Introduction.....	3
2	Spire OBS Images Management.....	3
2.1	Boot Software:	3
2.2	Information to store Spire OBS Image to EEPROM	3
2.3	Image Integrity CheckSums.....	3
2.4	Integrity CheckSums for SPIRE OBS Version 4.0.0.....	4
2.5	Spire OBS Memory Map	4
2.6	The file SPIRE_NM.MAP	4
3	Delivery files in the Spire OBS.....	5
3.1	Spire OBS File checksums.....	5
3.2	Referred libraries delivered.....	9
3.3	Referred libraries delivered – MMLIB	9
3.4	Referred libraries delivered – 1553_CONSOLIDATED	9



1 Introduction

The present document is valid for SPIRE OBS Version 4.0.0. This document contains the list of all files that constitute the official SPIRE On-Board Software. This document also contains the checksums calculated on the Spire On-Board Software binary image, these can verify the integrity of the On-Board Software loaded on the target System.

2 Spire OBS Images Management

This section contains information usable for verifying the integrity of an OBS loaded on target system.

The Spire OBS Images is delivered in two different formats:

- ❖ One is in compliance with the Boot Software Version 2 Specification.
- ❖ One is in compliance with the ICD-14 formats

2.1 Boot Software:

The Boot Software is a small program hardwired in the DPU that is responsible for the loading of an OBS image without the use of a running one, the load can be done through new incoming TC containing OBS segments, or from the OnBoard EEPROM, where an OBS was previously wrote. Spire OBS Images is packed via the TCGEN tool provided by CGS, the manufacturer of BSW.

2.2 Information to store Spire OBS Image to EEPROM

This Spire OBS Image used to burn in EEPROM:

Start Address : 0x004000

End Address : 0x016057

Information extracted from the compiler/linker Output file "SPIRE_NM.MAP",
See §2.5 "Spire OBS Memory Map"

2.3 Image Integrity CheckSums

This paragraph contains the checksums calculated on the Spire On-Board Software binary image, these can verify the integrity of the On-Board Software loaded on the target System¹.

The following table report the list of the memory segments used.

Segment name	Start address	End address	# of Word
seg_rth	0x000000	0x0000FF	0x00100
seg_init	0x004000	0x005FFF	0x02000
seg_pmco	0x006000	0x01FFFF	0x1A000
Total occupation			0x1C100

¹ To verify the integrity of the Image loaded on-board refer to:
"Spire OBS User Manual" §4.3 "Verification of the running OBS"



2.4 Integrity CheckSums for SPIRE OBS Version 4.0.0

The following table report the checksums calculated, linked to the effective used area ².

Segment name	Start address	End address	# Word	Checksum
seg_rth	0x000000	0x0000FF	0x0100	Not Checked
seg_init	0x004000	0x00574A	0x174B	0xE9C4
seg_pmco	0x006000	0x015FFE	0xFFFF	0x5DC1
seg_pmco	0x015FFF	0x016057	0x0059	0x305F

For more information on this table see the chapter:

The checksum of the segment “seg_rth” varies because it contains a reflection table of the handlers managing interrupts, those handlers may vary dependently by the running software behavior and in nominal condition may not vary except during startup and maintenance operations.

For this reason the checksum of the segment “seg_rth” is not checked, this is the actually common approach adopted by all three instrument HIFI, PACS and SPIRE.

2.5 Spire OBS Memory Map

The compilation will produce many intermediate files. Useful output file is the memory map file that documents the actual DPU memory usage by the OBS.

2.6 The file SPIRE_NM.MAP

Here is the header extraction from the **SPIRE_NM.MAP** file contained in the OBS distribution and valid for the SPIRE OBS version 4.0.0:

Analog Devices ADSP-210x0 Linker				spire_nm.map	Page 1
Release 3.3, Version 2.21				Thu Oct 22 16:50:40 2009	
Copyright (c) 1991-1996 Analog Devices, Inc.					
Architecture Description: FirstDPU					
Segment	Start	End	Length	Memory Type	Attribute Width
seg_rth	000000	0000ff	256	Program Memory	RAM
seg_dmda	00000000	0005fbff	392192	Data Memory	RAM
seg_init	004000	005fff	8192	Program Memory	RAM
seg_pmco	006000	01ffff	106496	Program Memory	RAM
seg_pmhi	020000	07ffff	393216	Program Memory	RAM
seg_stak	0005fc00	000603ff	2048	Data Memory	RAM
heap1	00060400	0007ffff	130048	Data Memory	RAM
1355_IF	40000000	400fffff	1048576	Data Memory	RAM
EEPROM	80000000	8003ffff	262144	Data Memory	RAM
Timer	81000000	81ffffff	16777216	Data Memory	PORT
watchdog	82000000	82ffffff	16777216	Data Memory	PORT
Int_mng	83000000	83ffffff	16777216	Data Memory	PORT
SMCS_reg	84000000	84ffffff	16777216	Data Memory	RAM

² The SPIRE OBS can calculate checksum of chunks of at least 65535 [0xFFFF] addressable words so the checksums will be calculated on segmented areas.



Ref	IFSI/OBS/RP/2004-001
Rev	4.0.0
Date	30/10/2009
Page	5 of 10

Bus_IF_DCU	88000000	88ffffff	16777216	Data Memory	RAM
Bus_IF_MCU	89000000	89ffffff	16777216	Data Memory	RAM
Bus_IF_SCU	8a000000	8affffff	16777216	Data Memory	RAM
Bus_IF_1553	8f000000	8ffffff	16777216	Data Memory	RAM

Memory Usage (Actual):

Segment	Start	End	Length	Memory Type	Attribute
seg_rth	000000	0000ff	256	Program Memory	RAM
seg_init	004000	00400e	15	Program Memory	RAM
seg_pmco	006000	016057	65624	Program Memory	RAM
seg_pmhi	*****	*****	0	Program Memory	RAM
seg_dmda	00000000	0005d9be	383423	Data Memory	RAM
seg_stak	0005fc00	0005fc0a	11	Data Memory	RAM
heap1	*****	*****	0	Data Memory	RAM
1355_IF	*****	*****	0	Data Memory	RAM
EEPROM	*****	*****	0	Data Memory	RAM
Timer	*****	*****	0	Data Memory	PORT
watchdog	*****	*****	0	Data Memory	PORT
Int_mng	*****	*****	0	Data Memory	PORT
SMCS_reg	*****	*****	0	Data Memory	RAM
Bus_IF_D	*****	*****	0	Data Memory	RAM
Bus_IF_M	*****	*****	0	Data Memory	RAM
Bus_IF_S	*****	*****	0	Data Memory	RAM
Bus_IF_1	*****	*****	0	Data Memory	RAM

Memory Usage Summaries:

Memory Type	Attribute	Total
Program Memory	ROM	0
Program Memory	RAM	65895
Program Memory	PORT	0
Data Memory	ROM	0
Data Memory	RAM	383434
Data Memory	PORT	0

--- Cross reference omitted ---

3 Delivery files in the Spire OBS

Source files will be delivered with the OBS 4.0.0.

Note for 4.0.0.

The internal Versioning identity will not be released due to a porting of the repositories tree into a new versioning system. Actually all files were marked as revision 1.0

Note for 4.0.0.

Collision between library source and OBS one were made

3.1 Spire OBS File checksums

The following table reports the list of the files, the version number as assigned by the CVS with related date and a checksum word as computed with the md5 algorithm. The list includes source codes, include files, executable and ancillary files (architecture, Virtuoso Project file etc.). Some



Ref	IFSI/OBS/RP/2004-001
Rev	4.0.0
Date	30/10/2009
Page	6 of 10

object files are also present for library functions that were provided by CGS and were compiled once and for all.

Data	Date	md5sum
all_cfg.h	16/09/2009 17.36	988815a6c48073ad577e748a1e3dbaee
all_def.h	02/09/2009 13.26	576d225ea205be65428526c637756bfb
all_dox.h	17/09/2009 10.45	9d844a0ddb9f0d67f0faf8ccdfd0a69f
all_err.h	02/09/2009 13.26	971f6f53941fe350415d5ea494fd4166
all_ext.h	02/09/2009 13.26	eaf58bbfd633c845ae260125d089eba1
all_fun.h	02/09/2009 13.26	99d1309caddf7b56b95a5435fd9904d6
all_include.h	26/10/2008 21.01	92871653544820074db6235d5d9a381c
all_lkp_index.h	02/09/2009 13.26	b6378e60f51e3af8dedbe13850d5e247
all_pkt_ctl.h	17/09/2009 11.03	8f71296858fe097a9a3f0def1171b957
all_pkt_sid.h	02/09/2009 13.26	61ca1f945cbff9cff5ce13d1c0734364
all_struct.h	02/09/2009 13.26	102232a0880d9843a0387c1a269ff667
all_sys.h	18/07/2008 17.35	f8044e5e064d4cf0900641e3da6c2c30
all_tbl.h	02/09/2009 13.26	419629a7186d71dc32cb476815e0f1cf
all_tc.h	02/09/2009 13.26	c68d2f3abe143477e1740cfb541e2936
all_type.h	02/09/2009 13.26	f9ed3132f60e76800fb5f0235f744891
all_var.h	21/10/2009 17.03	45c2a53e3abb08423b1fe9073c65f4bf
allnodes.h	29/09/2009 14.44	f8ce792599555ecfb574aeb5e2e44dd5
asm_fx.s	09/10/2009 15.42	e7cfa294e54ef3acde6cb69d19e6db0f
auto_act.c	02/09/2009 13.26	f8ea8229324bdccfcc3c5dbf5fffb032c
auto_def.h	02/09/2009 13.26	e85cb211e3f303b7d156eef7a53fec11
auto_fx.c	02/09/2009 13.26	ea9a946e90e5fd5ac1b69d242ed3fd64
auto_psh.c	02/09/2009 13.26	7d623e68fba82a0be9f095c0a7ba50a3
auto_seq.c	02/09/2009 13.26	959406df49cb7312e0d9dc66d82ef534
auto_seq.h	16/09/2009 17.17	90a1f73e40921ea801d4cd77c236b556
auto_sfx.c	02/09/2009 13.26	a0505f242f590f6501544005cb895f69
auto_str.h	02/09/2009 13.26	302732accffe4aa15228156942de318d
cmd_seq.c	02/09/2009 13.26	7195c1aabb51f22a7f16748491b34d1
cmd_seq.h	09/09/2009 18.48	e897138942d7513cb33835b84e227682
confl553.h	02/09/2009 13.26	ca172fb2d794fa0c742572c07c7059cf
crc.c	02/09/2009 13.26	8eafd47df65a496550a00aac1d6b1bbe
dbg_seq.c	26/10/2008 20.59	00b08527f01190f6909cada145d881f6
dbg_tm.c	02/09/2009 13.26	f146e5c5c23f55b5635e1220902cb644
dpu.c	02/09/2009 13.26	697b07bad1fa133b5911bb23eeb64b0d
eeeprom_p.c	24/07/2008 08.54	af321b26958bfa2f5f5411f8a21f4b57
Eprm.c	16/09/2009 17.20	5fab501b9a3b03a2e5d8c11bc95c5e58
Eprm.h	02/09/2009 13.26	33bfb03260e77d2fcc767432b568e36
Eprmsys.h	02/09/2009 13.26	602b6920cab420d10a811394d2148b05
global.c	02/09/2009 13.26	bbb6297fa78136fe4793e57c5fbc34fa
hk_ask.c	02/09/2009 13.26	a3a7d28ffb3a95aa1dc6af6b8clac6c4
hk_ask.h	02/09/2009 13.26	0de7698fb73c9b19ad4056a389f1bb29
HK Commands.h	16/09/2009 17.37	355521b91465b155fe664f0a99b23206
hk_dpu.c	24/07/2008 08.54	4eddfcdbc3b2f50d0d84a112540b829d
hk_dpuf.c	18/07/2008 17.35	fcc1d2c83b9dab3b50e86f8ab6d12e12
hk_init.c	18/07/2008 17.35	5ffe915cfdae7adb3a4a4443c2bc9ed1
hk_mon.c	18/07/2008 17.35	b1420385063beecf9da4bcffdfa7186f
hk_mon.h	18/07/2008 17.35	9679665c02fd952bc39492a01d78d476
hk_mon_def.h	18/07/2008 17.35	5af8f385ccc4e799b5a8d54a564906d2
hk_npl.c	02/09/2009 13.26	b6ace02e8d3e3efd4c8d953fd1a1e53e
HK Packet Def.h	02/09/2009 13.26	c28afc8defa0f8e1ad8d2f4a088817d8
hs.c	02/09/2009 13.26	9fb4df02b98e066a96d6989df841db08
hs.h	02/09/2009 13.26	9ce02aee61fc2e7887b89a1d3599711e
hs_flush.c	02/09/2009 13.26	4d5041dbc582bcfb161db9cd214a88dc



INAF IFSI

Herschel
SPIRE**Herschel
SPIRE On-Board Software
Configuration Report**

Ref	IFSI/OBS/RP/2004-001
Rev	4.0.0
Date	30/10/2009
Page	7 of 10

hs_mem.c	02/09/2009	13.26	6fa378da6937d92b087c502518081155
hs_mux.c	02/09/2009	13.26	70dc3f01ac786f4fb19eb63ad46d791d
hs_nom.c	30/09/2009	16.07	79f1ce0094295bc216bd71050244ba50
hs_sbr.c	24/07/2008	08.54	09b840509f6485454c745f29dc07acfb
hs_sel.c	29/09/2009	10.29	2ab87c752ada7f7ff1ab78d0574c23fe
hs_trx.c	02/09/2009	13.26	700d36353257dc255bcb16e0a1b8b3f6
idle.c	26/10/2008	21.00	9d55c8e80bafa5897ecdaa933cfb7c58
idle.h	17/09/2009	16.39	badf7145c0046a6d567ca78f06b93a4b
iext1553.h	12/09/2009	18.39	fcdb60e64e3416003edf38569f15401f
init.c	02/09/2009	13.26	604983b305dcd03ba5ab6f1f93b2ca47
init.h	22/10/2009	11.42	ee960eb4544e6fb7601a46498c7389f2
init_fx.c	23/09/2009	11.21	1a30f0a9c988ae97a70dbaad7e152641
init1553.c	23/09/2009	11.21	76b3cdd449179afd7b916e699df53372
init1553.h	17/09/2009	17.30	ddc81207353500e5210dca40bf226353
Inttab.h	17/09/2009	16.40	02e58290c651dc49efeb14177c987049
irq0.s	17/09/2009	16.24	62540d95e1a500a21aa34fd0c8a293c1
irq2.s	22/09/2009	19.12	b2613d880767d53884343c5f64bf87b3
irq3.s	17/09/2009	17.18	589051425c838a5cad415135ee5a211c
isrl1553.c	16/09/2009	17.33	f22cd87b57decc2b50a9fale1fffd2476
ivar1553.h	22/09/2009	19.12	ab6abde2460a5eaab8ca7a4a77d59fb5
ls.c	23/09/2009	11.19	a1f72b13ce40e3ca19e0c376741a98f8
ls.h	23/09/2009	11.29	8e054294d143a1c981db400cb027f365
ls_act.c	18/09/2009	16.09	755477917dc524acd2457c0a219c0bc2
ls_doc.h	23/09/2009	11.02	56d580c041970049cc2fafe008145439
ls_fx.c	02/09/2009	13.26	71a7361ac0838b056c1a12cleea65cda
ls_fx_io.c	02/09/2009	13.26	b62524d52c2acdb1518b13d083fb33b7
ls_init.c	02/09/2009	13.26	ff6d751c01fdfc60552636a4b1b86a27
ls_state.c	23/09/2009	11.27	d7ca553b88da6c351561c6ccd0b501eb
ls_struct.h	02/09/2009	13.26	414c777e4378f4fbbae1c5ff8d014619
lst_link.c	02/09/2009	13.26	c26a288bec616ea4a1a2016d970bb578
main1553.c	23/09/2009	11.33	06a3e45f3dfebd47448c3df52e478004
mem.h	02/09/2009	13.26	53cf336524d2dd18637ea174d2d51d4b
mem_dump.c	02/09/2009	13.26	6750065386c97c008f176c147367ff0a
mem_dump.h	16/09/2009	17.02	6194d2dececd4219e4f948e34b6386d
mem_fx.s	22/10/2009	11.26	dbbd991dcc717cacedee360010fa134
mem21020.s	17/09/2009	10.45	76e215e91e41abb9eeb1a41c33b285d9
mid_link.c	02/09/2009	13.26	977a82763359eacf8ddc25724688a3a7
MilAPI.h	02/09/2009	13.26	e60557f0b9bb89ba1ad6337f4f7f340d
MilConf.c	17/09/2009	10.39	e36b082fc569c0c55292b14a9f2a6e36
MilConf.h	12/09/2009	18.39	463150d16955619e41d8783252e84959
MilDef.h	12/09/2009	18.39	52fb175450739d6dbcc5d797ca9ea933
MilErr.h	17/09/2009	10.40	3aad809816bdf9d8dba0b6d022304ca
MilInit.c	13/09/2009	19.44	2eba3ffff1324052d8f8fffd96063596
MilInit.h	17/09/2009	10.41	5f30582ffe3771edf8ca92c123f127bb
MilIrq.c	02/09/2009	13.26	0821e283d87a263dbbfc7c310887fa4a
MilIrq.h	02/09/2009	13.26	e16cec7ec7f6285a46523f9891a78978
Milmem.c	17/09/2009	10.52	8077e4594cd96a0bc2bac94814bcfd07
Milmem.h	02/09/2009	13.26	218d4024c643facc78b4cb06c6e743dd
MilRt.c	02/09/2009	13.26	a401293a4d740cf6529fb49a2a5191ed
MilRt.h	02/09/2009	13.26	c19dffd0cd3ffff1cb9ba16e1275b12bb
mon_chk.c	18/07/2008	17.36	b65f891a54a81bafabb8cc464a65897e
mon_ext.h	02/09/2009	13.26	8436ea0665d6672270b752e5baa8c967
mon_fx.c	17/09/2009	12.52	da5346a88548471ebe39ed5531217a74
mon_str.c	02/09/2009	13.26	a4a6f8e89a105421bf290c3637fde7ed
mon_str.h	02/09/2009	13.26	a9f144c50465b35e7ea7f2e860a99aca
mon_var.h	02/09/2009	13.26	941ff87a9856998460f7b42b806b6459



INAF IFSI

Herschel
SPIRE**Herschel
SPIRE On-Board Software
Configuration Report**

Ref	IFSI/OBS/RP/2004-001
Rev	4.0.0
Date	30/10/2009
Page	8 of 10

n_ext.h	12/09/2009	18.39	e144f6f8102da3880dd36bf3fcb84e6e
n_var.h	02/09/2009	13.26	b7db5968a71a2b3d5267ac2e7cd98849
nalloc.c	29/09/2009	14.50	0e16f3ea85a910385a6cf92cf48d81f9
nalloc.h	25/09/2009	14.13	1e9ba3c2670d440144e680970b3f69b0
NODE1.c	25/09/2009	14.11	4e78f39e372bfbd5249cef89c613c513
NODE1.h	12/09/2009	18.39	fe61d4ce560be8fe5c285465cc497b6b
palloc.c	02/09/2009	13.26	88ec0712f90817a3bee33e0919d4c70e
pkup_fx.c	12/09/2009	18.39	56deac5d068e6f5a5c876c81d39e854f
pkup_seq.c	02/09/2009	13.26	78e32e156982c3163ae832e8cabb8920
pkup_seq.h	12/09/2009	18.39	45446ecc34edd4389cd10ebb3daf78b2
pmload.h	16/09/2009	18.05	6f83fda7b8d577853d51488d0f87e57a
pmload.s	02/09/2009	13.26	69e9145e710d25f988c54e0b89bf4b52
pre_link.c	18/07/2008	17.36	b104fba56ecae8633bbb227ce5e12022
pubfuncs.c	02/09/2009	13.26	dc579d62a4f6856a2601c49da412bd79
sec_cis.c	02/09/2009	13.26	1a91256a840cfcf5a1062176e799ed4b
spire_err.h	02/09/2009	13.26	e30e8edd00232c0038e57be97141addb
spire_icd.h	18/07/2008	17.35	8a885e47fff455dce8badd8ec62fb0f4
spire_tc.h	02/09/2009	13.26	f59da63ede7eaf80b84520fc4534de87
spire_tm.h	02/09/2009	13.26	2573e962c3f68c75265d03cf4f5f2568
spiresyntax.h	30/09/2009	16.14	32ae776942341a3f41eddf738c85dac5
spirever.h	17/09/2009	10.45	1b604da8c11dc4e72bd17ba81f82ffdl
SSCommands.h	02/09/2009	13.26	790f8ee18e4d39bdf6e86e9ddb4322f
ssize.c	21/10/2009	17.18	067d353dfbfb91b234810a579abe618f
stdafx.h	02/09/2009	13.26	d61dbbcde6cd22d4872c712a281df7ca
tabler.c	02/09/2009	13.26	90be0d9f67830ed1b439889999020beb
tabler.h	02/09/2009	13.26	c9071d660d0dcbca477c564070e443e3
tbl_ext.h	17/09/2009	16.39	f60eb2e2a00923de7f85ef378ee04ff1
tbl_fx.c	02/09/2009	13.26	861b2db886796c7a8c509ab4fd0ad289
tbl_list.h	02/09/2009	13.26	034ac93df2213fab95b0d9d548c769e0
tc_accep.c	02/09/2009	13.26	5e00f3960ab813102330c89ee9cd590b
tc_accfx.c	02/09/2009	13.26	d9d87c0ea3efadb152f631993800a1f0
tc_event.c	02/09/2009	13.26	abe6f87136358eeffa51bb501674a97d
tc_fx.c	02/09/2009	13.26	48bd336c89bdd126e8e6536f5901c0d3
tc06mem.c	02/09/2009	13.26	17faa8a6b18264a7eb639e48a37b29a4
tc0800fx.c	02/09/2009	13.26	a5efa6aad0e138f2e58597eab803cc1c
tc0801fx.c	18/07/2008	17.35	42247d7ec7fa6ada1cde173eb601bf03
tc0802fx.c	18/07/2008	17.35	7360b80fb898130b56a05e0ea2666126
tc080401.c	18/07/2008	17.36	8495cf47290d3de9e592bd749e636dde
tc080402.c	18/07/2008	17.36	943ad67b55c6cc65bc797471d2ac4e1d
tc080403.c	18/07/2008	17.36	d00df46a09dc17c4602dbc2b84d0d9ff
tc080410.c	18/07/2008	17.36	b99d53b7bd4fc72f152117c70f6dc56c
tc0804C0.c	18/07/2008	17.36	b3d8bccba70ed22562ca3deaa52f76fd
tc0804C1.c	18/07/2008	17.36	479c401f9bad25900765011dba038500
tc0804CA.c	02/09/2009	13.26	f875f995ef5c73246a567605e1261164
tc0804CB.c	02/09/2009	13.26	e4c4be211adb67e23ebc4349177cdb1d
tc0804CC.c	02/09/2009	13.26	16bb51ecfb9f265ed2ac606bfc85dff6
tc0804CD.c	02/09/2009	13.26	11047c6b6dc61b71ccf4feb237ab8b9d
tc0804CE.c	02/09/2009	13.26	41a3c3bf8f6965b52d702f03e45663a4
tc0804fx.c	02/09/2009	13.26	6ecf6b5de6464cea28827f7b4acae70b
tc0805fx.c	02/09/2009	13.26	f41a0e08d5ed4e94079a8341efcc4fa6
tc09time.c	02/09/2009	13.26	99a8f939cd65788088325a4a2ff4a608
tc0Eptc.c	18/07/2008	17.36	ca65cab134b70f84b529fa107a76999a
tc11ctst.c	02/09/2009	13.26	41aee91aa6d9832b4e753d815757bf89
time_task.h	22/10/2009	15.49	80abb7c96ab1bbd465f30e0875ec919f
time_tsk.c	23/09/2009	11.25	c863f61f7194ba37a060221e9c214f6d
time_tsk.s	02/09/2009	13.26	eea92af6a52cd88562806babdb93055b



Ref	IFSI/OBS/RP/2004-001
Rev	4.0.0
Date	30/10/2009
Page	9 of 10

tm_event.c	02/09/2009	13.26	4142e0b85e15cbcfb64984f07633f809
tm_event.h	07/09/2009	15.25	0ee9f96d4e10822feb0186c82dac9b35
tmtc_if.c	02/09/2009	13.26	1ebbf454008e27dd84d2b6838d6f836a
tmtc_if.h	02/09/2009	13.26	5ccda63fc31e70784396d7d9cab5134e
util1553.c	02/09/2009	13.26	caf8f7954f30765c9e07ebe875a88af8
vm.h	02/09/2009	13.26	704c769eb91e315f8f3377f67a0e5a43
vm_core.c	02/09/2009	13.26	4ddd2bdf3644f73506c88d819e5a17b4
vm_def.h	02/09/2009	13.26	7b3674ca314a82cfffcdadabcc955b765
vm_fx.c	02/09/2009	13.26	a46cb10eeb7a8f61cf317dc0fd06aa98
vm_fxtab.c	02/09/2009	13.26	f625772a580030af2f152c2b0857ad48
vm_hard.c	17/09/2009	10.01	791f78e06e3cc4de8a07c5d2415c9e49
vm_hard.h	18/09/2009	15.17	f856e9bca344cd1a29ef2aef8abf568c
vm_s_fx.c	02/09/2009	13.26	d30b9ddfe5f98dab80974f8ebf4ef965
vm_s_ph.c	02/09/2009	13.26	d1e6eca4f7ea7354262f4dc1500bbb06
vm_share.c	02/09/2009	13.26	d2dd537b4c6bca505bd8728c62615536
vm_soft.c	02/09/2009	13.26	d17bf9f41308e720a8324cb0120af040
vm_soft.h	02/09/2009	13.26	6a82546f5700740ad68356cf772dcd43
vm_svc.c	02/09/2009	13.26	9d695465929baca47774a7e87dfcc050
vm_svc.h	02/09/2009	13.26	82d71e7a9a73bb46bf12f445d4fba088
vm_svc_f.c	02/09/2009	13.26	042f56c718858db02194866a0c352d82
vms.c	02/09/2009	13.26	727b706aa7cd466dec6ac7758ae97f7e
write_ee.c	18/07/2008	17.35	c4b3fd85424d91b936f0088b0bd45274
xorcpy.c	18/07/2008	17.35	15bfb9ad2dc8647016e75488af8381fc
xorcpy.s	22/10/2009	15.50	d9ffaac5986d317df9f8d8421dd5cacf

3.2 Referred libraries delivered

Some source files are also present for library functions that were provided by IFSI and are maintained separately from OBS.

3.3 Referred libraries delivered – MMLIB

The following table reports the list of the files, the version number as assigned by the CVS with related date and a checksum word as computed with the md5 algorithm.

Data	Date	md5sum
MM_crc.c	16/11/2005 16.17	717c7c9a4c696db936dc78b6ecdc40d7
MM_lib.c	03/11/2008 14.48	9d755b9735a6f956423e55402cf45134
MM_misc.c	13/07/2006 10.35	f6f5c5d3ce88248494f16a56fcec9299
MM_21020.s	16/11/2006 15.23	f8262eacfeedf1acd80b8ccd5f94475
MM_21020.h	03/02/2006 11.08	82b839addffd7f40e9f509573be659d4
MM_crc.h	25/11/2005 11.13	62886218eb13e50fb91a8f6fa3668d0c
MM_lib.h	30/10/2006 15.08	b2fd15005692a1264e15aa5cab9582f7
MM_MISC.h	04/07/2006 10.43	4f322dbd5b86a13660bb6ff708169806

3.4 Referred libraries delivered – 1553_CONSOLIDATED

The following table reports the list of the files, the version number as assigned by the CVS with related date and a checksum word as computed with the md5 algorithm.

File	Date	Md5 checksum
init1553.c	07/02/2007 14.23	c525f56aef3af872493e9ffa64395015
isr1553.c	23/08/2007 13.02	b8ca1537cbb1c41fd0417311d944efdf
MilConf.c	07/02/2007 14.23	e36b082fc569c0c55292b14a9f2a6e36
MilInit.c	07/02/2007 14.23	2eba3ffff1324052d8f8fffd96063596
MilIrq.c	07/02/2007 14.23	0821e283d87a263dbbfc7c310887fa4a
Milmem.c	07/02/2007 14.23	8077e4594cd96a0bc2bac94814bcfd07
MilRt.c	07/02/2007 14.23	a401293a4d740cf6529fb49a2a5191ed
putil1553.c	23/08/2007 13.29	e9e79c01d26cd3958571768f63cdb0a6
util1553.c	23/08/2007 14.02	7ba4a18f09f7c74dab4d76e1138e75c7
conf1553.h	07/02/2007 14.23	32a307ee6a3602289888a6e3b1943057
init1553.h	07/02/2007 14.23	62481b7718809eda3a9f0c8089abed2c
ivar1553.h	07/02/2007 14.23	411495d033bd343fe052dbfffc181c143
MilAPI.h	07/02/2007 14.23	e60557f0b9bb89ba1ad6337f4f7f340d
MilConf.h	07/02/2007 14.23	463150d16955619e41d8783252e84959
MilDef.h	07/02/2007 14.23	52fb175450739d6dbcc5d797ca9ea933
MilErr.h	07/02/2007 14.23	3aad809816bdf9d8dba0b6d022304ca
MilInit.h	07/02/2007 14.23	5f30582ffe3771edf8ca92c123f127bb
MilIrq.h	07/02/2007 14.23	e16cec7ec7f6285a46523f9891a78978
Milmem.h	07/02/2007 14.23	218d4024c643facc78b4cb06c6e743dd
MilRt.h	07/02/2007 14.23	c19dff0cd3fff1cb9ba16e1275b12bb
irq2.s	07/02/2007 14.23	9a838771738c8b279059ebef9d20e0

Note: files in green are under consolidation procedure that implies synchronizing the PACS/HIFI/SPIRE's OBS's.

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This document is composed by 10 (ten) pages.