

1. INTRODUCTION

This note takes the Naming Convention Specification (AD01) for the Herschel/Planck System Database (HPSDB) and applies it to the SPIRE instrument to provide a recommended naming convention for the SPIRE Mission Implementation Base (MIB), which will be provided conforming to the SCOS2000 Database Import ICD (RD01).

The SPIRE MIB has to allow for definition of parameters from the SPIRE EGSE and other test equipment (e.g. TFCS), which is not delivered. Conventions for naming of these parameters will follow the same format as for instrument parameters. Information specifically related to these parameters is included in this document in [blue type](#).

1.1 Documentation

1.1.1 Applicable Documents

AD01	Herschel/Planck Naming Convention Specification (H-P-1-ASPI-SP-0141), Issue 01/00
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1.1.2 Reference Documents

RD01	SCOS2000 Database Import ICD (S2K-MKS-ICD-0001-TOS-GCI), Issues 5.0
RD02	ASPI comments to version 1.0 of this note (email from F. Chatte, 15 th February 2002)
RD03	TFCS Requirements Document (SPIRE-RAL-DOC-001172)

2. NAMING CONVENTION

The SPIRE MIB contains Monitor and Command packets, Monitor and Command parameters plus the corresponding calibration curves and displays (command sequences, verification stages, parameter sets, parameter range sets, etc are TBD)

The following naming convention shall be used:

Item	SCOS field name(s)	Name (alternative, see RD02)	Convention (see AD01)
Command packet	CCF_CNAME CDF_CNAME PTV_CNAME	SC iiipp	4580
Command parameter	CPC_PNAME CDF_PNAME	SP iiipp	5130
Command num calibration	CCA_NUMBR CCS_NUMBR	tttnnnrrr (sss)	5370
Command txt calibration	PAF_NUMBR PAS_NUMBR	tttnnnrrr (sss)	5370
Monitor packet	PID_SPID TPCF_SPID PLF_SPID	tttnnnppp	4380
Monitor parameter	PCF_NAME OCF_NAME OCP_NAME	SM iiipp	5130

	PLF_NAME PTV_PARNAM		
Numerical calibration	CAF_NUMBR CAP_NUMBR	tttnnnrrr (sss)	5370
Textual calibration	TXF_NUMBR TXP_NUMBR	tttnnnrrr (sss)	5370
Polynomial calibration	MCF_IDENT	tttnnnrrr (sss)	5370
Numerical display	DPF_NUMBE DPC_NUMBE	SA iiipp	6100
Graphical display	GPF_NUMBE GPC_NUMBE	SG iiipp	6110
Scrolling display	SPF_NUMBE SPC_NUMBE	SL iiipp	6130

Where:

- iii is the Theoretical Parameter Identifier. The contents of this field are dependent on the parameters available, but a format is proposed: The first character is the Subsystem ID (See section 3.1) and the third character is the Parameter Unit ID (See section 3.5).
- nnn and nnnn are running numbers starting at zero and incrementing
- ttt is the System Element number (see section 3.1)
- rrr is the Real Element number (see section 3.3)
- ppp is the Position Identifier (see section 3.2)
- sss is the Alternative Identifier (see section 3.4)

3. IDENTIFIERS

Identifiers are defined in AD01 with SPIRE allocated particular numbers and characters for the various fields. This section defines how these are used in the SPIRE naming convention.

3.1 System Elements

Each distinct type of subsystem in the instrument (called a System Element Type) is assigned a unique number and a set of identifiers corresponding to the subsystems it contains:

System Element Type	Subsystem ID(s)	Number
OBS	T (Telemetry) 0 (Operations)	480
DPU	D (Data)	490
DCU	B (Bias) D (Data/DAQ) L (LIA) P (Photometer) 2 (Photometer SW) 3 (Photometer MW) 5 (Photometer LW) 8 (Photometer MW+LW) T (Thermal Control) S (Spectrometer) 0 (Spectrometer SW) 1 (Spectrometer LW)	500

MCU	D (Data) C (Chop Axis) J (Jiggle Axis) S (SMEC) T (Trace) L (Latch)	510
SCU	D (Data/DAQ) C (Calibrator) H (Htr) K (SubK) T (Temperature) P (Photometer Bias) S (Spectrometer Bias) L (Photometer LIA) M (Spectrometer LIA)	520
EGSE	C (CDMS Simulator) D (DRCU Simulator) E (Engineering Simulator) S (Shutter)	528
TFCS	B (Black Body) C (Cryostat) F (FTS) M (Beam Monitor) L (Laser) H (Chopper) P (Power Supply) T (Telescope Simulator)	529

3.2 Position Identifiers

Each 'real' model of the instrument is composed of a set of System Elements. This may include more than one System Element of any given type. Each distinct System Element for each instrument model is assigned a unique number. This unique number is also used as the Position Identifier.

System Element	Model			
	AVM	QM	FM	FS
OBS	480	480	480	480
DPU	490 ¹ 491 ²	490 ¹ 491 ²	490 ¹ 491 ²	490 ¹ 491 ²
DCU	500	500	500	500
MCU	510	510	510	510
SCU	520	520	520	520

1. Valid for prime element
2. Valid for redundant element

3.3 Real Element Numbers

These numbers identify individual configurations of each System Element (there may be more than one configuration if, for example, electronic boards have to be exchanged during testing). The table below

gives the Real Element Number for the first configuration of the System Element. They should be incremented by 1 for each new configuration.

System Element	Model			
	AVM	QM	FM	FS
OBS	100	300	500	700
DPU	100 ¹ 200 ²	300 ¹ 400 ²	500 ¹ 600 ²	700 ¹ 800 ²
DCU	100	300	500	700
MCU	100	300	500	700
SCU	100	300	500	700

1. Valid for prime element
2. Valid for redundant element

3.4 Alternative IDs

This number will be used to identify Calibration Curves if SCOS2000 is incapable of handling 8 character field names. The following assignment is made.

System Element Type	Range of values
OBS	500-549
DPU	550-599
DCU	600-649
MCU	650-699
SCU	700-749

3.5 Parameter Unit IDs

This number will be part of the Theoretical Parameter Identifier, identifying the parameter units.

Parameter Unit ID	Parameter Unit
A	Current (Amps)
B	Limit (Boundaries)
E	Error
F	Status (Flag)
H	Frequency (Hertz)
K	Temperature (Kelvin)
L	Lower Limit
M	Mode
N	Number, Count
P	Position
R	Phase (Radians)
S	Speed, Velocity
T	Time, Period
U	Upper Limit
V	Voltage (Volts)

SPIRE

Technical Note

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