Total Pages : 94

ALCATEL SPACE

HERSCHEL / PLANCK

System Database Specification

Naming Convention Specification

H-P-1-ASPI-SP-0141

Product Code : 00000

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ENREGISTREMENT DES EVOLUTIONS / CHANGE RECORDS

ISSUE	DATE	§ : DESCRIPTION DES EVOLUTIONS § : CHANGE RECORD	REDACTEUR AUTHOR
01/00 01/01	01/02/02 15/03/02	Issue 01 - Revision 00 Issue 01 - revision 01 General . All examples modified to separate the different fields (separator = "/") . Element direct definition modified to support subsystem or system pseudo identifiers : use of "subsystem pseudo type of system element" and "subsystem pseudo position" in case of "direct definition" limited to a subsystem else, in case of "direct definition" not limited to a subsystem, then use of "pseudo subsystem", "system pseudo type of system element" and "system pseudo position". This is to be compliant with remarks from PACS and to potential other similar needs. ➢ NMCVT-4075-C Deleted (Element) ➢ NMCVT-4111-C deleted (Model) ➢ NMCVT-4440-C Modified (TM) ➢ NMCVT-4450-C Modified " ➢ NMCVT-4455-C Modified " ➢ NMCVT-4640-C Modified (TC) ➢ NMCVT-4650-C Modified " ➢ NMCVT-4655-C Modified " ➢ NMCVT-4840-C Modified (1553) ➢ NMCVT-4850-C Modified " ➢ NMCVT-4860-C Modified " ➢ NMCVT-5060-C Modified (OBDH) ➢ NMCVT-5080-C Modified " ➢ NMCVT-5150-C Modified (Parameter) ➢ NMCVT-5175-C Modified " ➢ NMCVT-5380-C Modified (Curves) ➢ NMCVT-7510-C Modified (Pseudo TOSE allocation) ➢ NMCVT-7520-C Modified (Pseudo position allocation) ➢ Summary updated accordingly . Real definition and direct definition of "logical data" to be unique for "system element model" instead of "real element" ➢ NMCVT-4380-C Modified (TM) ➢ NMCVT-4400-C Modified " ➢ NMCVT-4420-C Modified " ➢ NMCVT-4440-C Modified " ➢ NMCVT-4450-C Modified " ➢ NMCVT-4455-C Modified " ➢ NMCVT-4580-C Modified (TC) ➢ NMCVT-4600-C Modified " ➢ NMCVT-4620-C Modified " ➢ NMCVT-4640-C Modified " ➢ NMCVT-4650-C Modified "	F. Chatte C Torregrossa

ISSUE	DATE	§ : DESCRIPTION DES EVOLUTIONS § : CHANGE RECORD	REDACTEUR AUTHOR
		➢ NMCVT-4655-C Modified " ➢ NMCVT-4780-C Modified (1553) ➢ NMCVT-4800-C Modified " ➢ NMCVT-4820-C Modified " ➢ NMCVT-4840-C Modified " ➢ NMCVT-4850-C Modified " ➢ NMCVT-4860- C Modified " ➢ NMCVT-5020-C Modified (OBDH) ➢ NMCVT-5044-C Modified " ➢ NMCVT-5060-C Modified " ➢ NMCVT-5080-C Modified " ➢ NMCVT-5130-C Modified (Parameters) ➢ NMCVT-5150-C Modified " ➢ NMCVT-5160-C Modified " ➢ NMCVT-5175-C Modified " ➢ NMCVT-4450-C Modified " ➢ NMCVT-4455-C Modified " Introduction (chapter 1) . Adding introduction (§1.1) Documents (Chapter 2) . HPSDB specification change from applicable document to reference document . Adding of acronyms . Adding of definition General requirements (Chapter 3) . Clarification on parameter function code . definition of pseudo subsystem, type of system element, position, … ➢ NMCVT-0110-C Modified ➢ NMCVT-0200-C New ➢ NMCVT-0300-C New ➢ NMCVT-0400-C New Modification of TM packet identifier (IDIN09F instead of IDIN10F) ➢ NMCVT-4114-C New ➢ NMCVT-4340-C Modified ➢ NMCVT-4380-C Modified ➢ NMCVT-7500-C Modified Modification of PSICD templates ➢ NMCVT-4320-C Modified (TM) ➢ NMCVT-4520-C Modified (TC) Creation of theoretical command sequences ➢ NMCVT-4657-C New ➢ NMCVT-4660-C Deleted ➢ NMCVT-4670-C New ➢ NMCVT-4672-C New ➢ NMCVT-4674-C New	

ISSUE	DATE	§ : DESCRIPTION DES EVOLUTIONS § : CHANGE RECORD	REDACTEUR AUTHOR
		➢ NMCVT-4675-C New ➢ NMCVT-4676-C New 1553 template replace by 1553 command word ➢ NMCVT-4705-C Modified Parameters : . Suppression of groups type (acquisition / command) . Adding of parameter set definition . Adding of parameter set value definition . Adding of parameter range set definition ➢ NMCVT-5126-C Modified ➢ NMCVT-5210-C New ➢ NMCVT-5215-C New ➢ NMCVT-5217-C New ➢ NMCVT-5220-C New ➢ NMCVT-5225-C New ➢ NMCVT-5227-C New ➢ NMCVT-5250-C New ➢ NMCVT-5255-C New ➢ NMCVT-5257-C New ➢ NMCVT-4690-C Deleted ➢ NMCVT-4695-C Deleted Curves ➢ NMCVT-5120-C New ➢ NMCVT-5355-C New ➢ NMCVT-5360-C Modified ➢ NMCVT-5365-C New ➢ NMCVT-5370-C Modified ➢ NMCVT-5375-C New ➢ NMCVT-5380-C Deleted Displays . Adding of theoretical display / suppression of mimic displays ➢ NMCVT-6050-C New ➢ NMCVT-6100-C Deleted ➢ NMCVT-6105-C New ➢ NMCVT-6110-C Deleted ➢ NMCVT-6120-C Deleted ➢ NMCVT-6125-C Deleted ➢ NMCVT-6128-C New ➢ NMCVT-6130-C Deleted Modification of real display requirement ➢ NMCVT-6150-C New Adding of display direct definition ➢ NMCVT-6160-C New ➢ NMCVT-6170-C New ➢ NMCVT-6200-C New Requirement numbering correction ➢ NMCVT-7520-C instead of NMCVT-7510-C	

ISSUE	DATE	§ : DESCRIPTION DES EVOLUTIONS § : CHANGE RECORD	REDACTEUR AUTHOR
		"Type of system element" changed by "theoretical element" "System element model" changed by "theoretical model" "… direct definition" change in "model … definition" ➢ all requirements previously titled "… direct definition".	

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1. SCOPE

The scope of this document is to provide the naming convention to apply for the identifiers attached to all items which will be manipulated all among the Herschel / Planck project from engineering up to operation and which will be defined in the Herschel /Planck System DataBase (HPSDB).

This naming convention is aimed mainly to prevent identifier duplication at spacecraft real model level.

In addition, this naming convention shall support commonality between Herschel and Planck (for instance common subsystem (RF, …), common boxes (QRS, CCS, …)) and between the different models of a same spacecraft (AVM, SVM, PFM, …), this will allow to have common items allowing common development for AIT (TM and TC identifiers, test sequences, synoptics, …) or operation (TM and TC identifiers, displays, …) or software (TM and TC identifiers, …).

As last aim, this naming convention shall make the identifier as readable as possible.

Chapter 2 provides the applicable and reference documents. RD1 document in annex 4 provide a provisional naming convention limited to one spacecraft model (PFM) definition and not supporting all the spacecraft model definitions used during development phases.

Chapter 3 provides the general identifier requirements : possible subtypes, authorised characters, …

Chapter 4 provides the detail identifier requirements, each requirement is linked with an RD4~~AD1~~ requirement.

Chapter 5 provides the general allocation requirements : mainly range of allocated value per subsystem.

Chapter 6 provides the detailed allocation requirements.

Chapter 7 provides some additional requirements to be applied on some attributes (APID, labels, …).

The requirements have the following format :

- Requirement identifier :
  - 5 characters set to "NMCVT" to identify requirements applicable to NaMing ConVenTion,
  - 4 decimal digits to uniquely identified NMCNV requirement,
  - One character set to "C" to identify that the requirements apply to both Herschel and Planck,
- requirement title,
- Verification method : one character set to "I" to indicate that the validation method will be done by inspection (mainly via HPSDB checks or automatic generation).
- Text of the requirement.

1.1 HPSDB data model presentation

HPSDB use principle consists in defining (refer to figure 1.1) :

"theoretical elements"

Who : equipment engineering

how : Inputs

functional identifier : PTI

typical data : theoretical mass, theoretical curves, theoretical packets, theoretical parameters, …

example : Star tracker associated to theoretical element number "025" with :

theoretical polynomial curve "025566" : 3x + 2.5

theoretical parameter "M012" with limit set (6,10).

"Real elements"

who : equipment fabrication,

how : instanciation of "theoretical element" with "real element" number (this generates instanciation of all physical data) + inputs (to overwrite theoretical data with real data)

functional identifier : Serial number

typical data : real mass, real curve, …

example : real star tracker associated to real element number 998 with

real polynomial curve "M01201" : 3x+2.6

"theoretical model"

who : system engineering,

how : by associating to each position of the "theoretical model" a "theoretical element" and a "subsystem identifier" (this generates instanciation of logical data)

functional identifier : theoretical model name

typical data : real packets, real parameters, 1553 bus address, …

example : "herschel PFM" including nominal star tracker in position "023" and part of subsystem "A" with

real parameter identifier instanciated in "AM012023" and limit set updated to (5,10).

"real model"

who : AIT

how : by associating to each theoretical element part of corresponding "theoretical model" a "real element"

identifier : real model name (instanciation of the "theoretical model identifier with the real model number)

typical data : triplet (theoretical model identifier, position identifier, real element identifier, satellite identifier, …

example : The nominal (position "023") star tracker of "Herschel PFM 01" is the STR number 998 with serial number : xxxx, the calibration curve will be "AM0120230"

Note :

At "real element" level it is possible to enter attributes without correspondence at "theoretical element" level. At "theoretical model" level it is possible to enter attributes without correspondence at "theoretical element" level. At "real model" level it is possible to enter attributes without correspondence at "theoretical model" level or at "real element level". This facility is known as "direct definition", and will be used for instance to define a TM packet which contains parameters associated to different

"theoretical elements" (this is the case for PACS). However in order to emulate the different instanciation made in normal definitions, pseudo "theoretical elements", "pseudo position" and "pseudo subsystem" are defined at subsystem level or system level depending if the item is limited to a subsystem or not. This last facility allows for instance to associate a theoretical calibration curve at "theoretical model" level to a derived parameter which is depending of parameters belonging to different elements, this curve will then be instanciated at "real model" level.

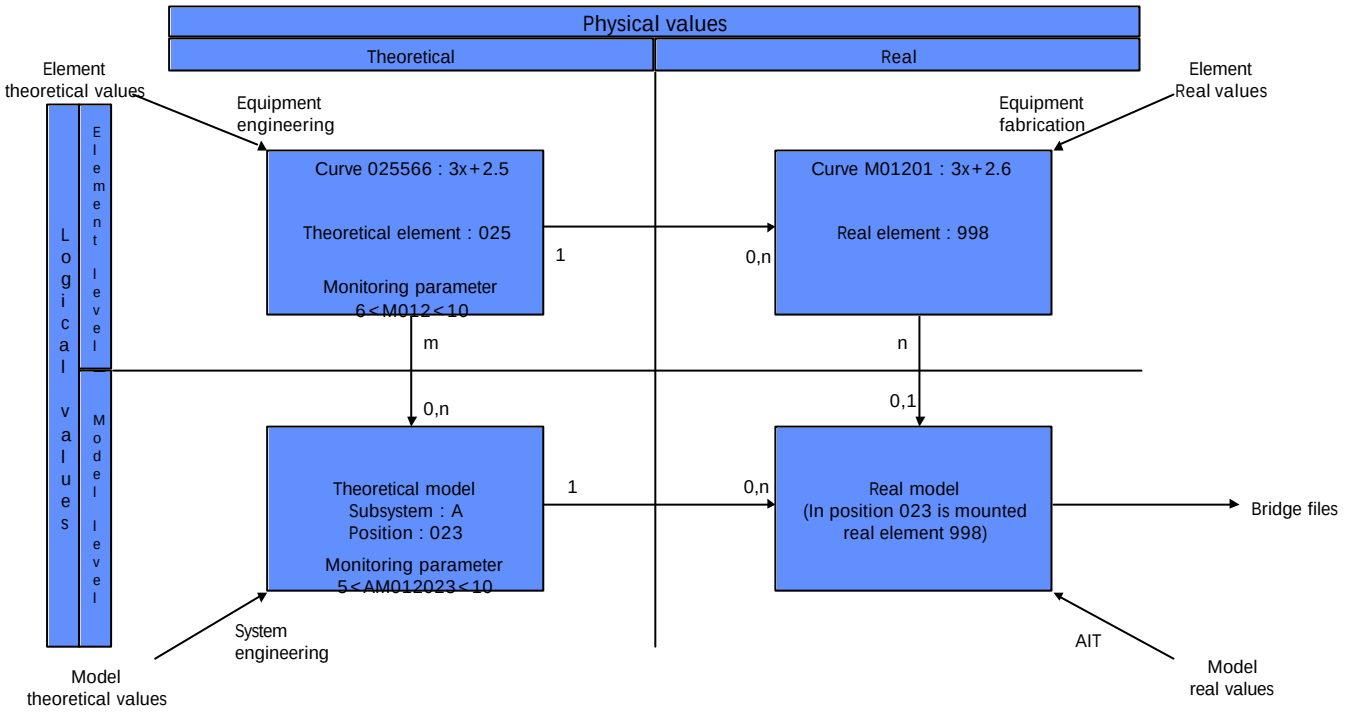

Figure 1-1 - Higher level data model

2. DOCUMENTS

In case of conflict between this document and other document (mainly RD1), this document has precedence.

2.1 Applicable documents

None

2.2 Reference documents

RD1	SCI-PT-RS-07360	Operations Interface Requirement Document (Annex 4)
RD2	S2K-MCS-ICD-0001-TOS-GCI	SCOS-2000 database import ICD
RD3	SCI-PT-ICD-07527	Packet structure interface control document (PSICD)
RD4	H-P-1-ASPI-SP-0082	Herschel / Planck System database specification

2.3 Acronyms

2.4 Acronyms

ACC Attitude Control Computer
ACMS Attitude Control and Measurement System
AD Applicable Document
AIT Assembly Integration Test
ASCII American Standard …
ASPI Alcatel Space
AVM Avionics Validation Model
BC Bus controller (1553)
CCS Central Checkout System
CDMS Command and Data Management System
CDMU Command and data Management Unit
CLCW Command Link control Word
CQM Cryogenic Qualification Model
CT central Terminal (OBDH)
EGSE Electrical Ground Support Equipment
EQM Electrical Qualification Model
FDDB Flight Dynamics Data Base

FE	Front End
FM	Flight Model
GSE	Ground Support Equipment
HPSDB	Herschel/Planck System DataBase
HTTP	HyperText Transfer Protocol
HTTPS	HyperText Transfert Protocol Secure
H/W	HardWare
H-xxx	Herschel-xxx
IE	Internet Explorer
I/O	Input/Output
MAP	Multiplexed Access Point
MCS	Mission Control System
MMI	Man Machine Interface
N/A	Not Applicable
OBCP	On Board Control Procedure
OBSW	On Board SoftWare
PAC	Packet Assembly Controller
PFM	Proto Flight Model
PLM	PayLoad Module
PSICD	Packet Structure Interface Document
PTI	Product Tree Identifier
P-xxx	Planck-xxx
RD	Reference Document
RT	Remote Terminal
SCOE	Specific CheckOut Equipment
SDB	System DataBase
SDE	Software Development Environment
SID	Structure IDentifier
SQL	S? Query Language
SSL	Secure Socket Layer
SVF	Software Validation Facility
SVM	SerVice Module
S/W	SoftWare
TBC	To Be confirmed

TBD To Be Defined

TBW To Be Written

TC TeleCommand

TM TeleMetry

TWTA Tube Wave T… A…

~~Refer to AD1~~

~~2.4~~2.5 Definition

"Acquisition parameter"

Parameter which is part of the "acquisition chain", so it is included in TM packet, 1553 acquisition message, or acquisition parameter.

"Archive area"

An "archive area" is an "area" where are archived the validated records which have been superseded.

"Area"

An "area" is a logical subset of the database. Three area are defined per site : "working", "reference" and "archive".

"Attributes" (often called "data" in requirements)

"Attributes" are the different characteristics associated to an "item" (for instance : attributes of a curve item can be the short description, one point, …)

"Central site"

A "central site" is a unique site which is the one to be delivered to the customer for spacecraft's operation and which is used to load, via the "export / import" activity, the different mirror sites during spacecraft's development and tests.

"Command parameter"

Parameter which is part of the "command chain", so it is included in TC packet, 1553 command message, OBDH interrogation, or command parameter.

"Condition parameter"

A "condition parameter" is a boolean expression which can include any other type of parameter, and which is used for condition evaluation (TC pre-sending condition, limit selection condition, …).

"Data"

Refer to "attributes".

"Derived parameter"

A "derived parameter" is a parameter which is defined as a mathematical expression which can include any other type of parameter.

"Direct definition"

Even if HPSDB is build in a way that the "real data" are generated from "theoretical data" by instantiation, it is still possible to enter directly "real data" via "direct definition" tool. This facility is

kept to be sure to be able to enter any "real" data which cannot be linked with a "theoretical" one, however it is recommended to use this facility with moderation.

"Element"

An "element" is the smallest equipment which can be integrated on a spacecraft model, it can be a spacecraft box , a thermistance, a software, … (For instance : TWTA, CDMU software), and it can be "theoretical" or "real".

"Environment"

An "environment" is a set of consistent data relevant for a project.

"Export / Import"

"Export / Import" is the activity to transfer consistent subset of data from "reference area" of the "central site" to "reference area" of a "mirror site".

"External identifier"

"External identifier" is an identifier which is generated by an external (to HPSDB) tool. For each "internal identifier" the tool provides an "external identifier" which is imported in HPSDB. The correspondence between the "internal identifier" and the external identifier is a "one to one correspondence". Typical example : parameter on-board software identifier. (opposite is "internal identifier").

"Identifier"

Each item, theoretical or real, has an unique "identifier". The identifier of the "real" "item" is an "instantiation" of the corresponding "theoretical" "identifier" by a specific attribute (also named identifier inside the requirements) associated to the "real" "item". A naming convention has to be issued to fix the rules to be applied to build those identifiers, HPSDB will have to check that those rules are applied (level 1 check)

"Instantiation"

"Physical instanciation" (refer to "physical data") : when an item (element or model) is instantiated from a theoretical item to a real item then :

By default, the attributes of the real item are the same as the ones of the theoretical item,

Some attributes of the real item can be generated by concatenation of the ones of the theoretical item with a dedicated real item attribute (for instance : item identifier, …). The real item dedicated attribute used to perform the concatenation is the item number (real element number or real model number).

Some attributes of the real item can supersede the corresponding attributes of the theoretical item (Curves identifier, curves contents, …).

"Logical instanciation" (refer to "logical data") when an element (theoretical or real) is allocated to a model (theoretical or real) then :

By default, the attributes of the element inside the model are the same as the ones of the source element (example : mass, …),

Some attributes of the element inside the model can be generated by concatenation of the ones of the source element with a dedicated element attribute associated to the model (for instance : parameter identifier, short description, …). The dedicated element attribute associated to the model used to performed the concatenation is composed of the subsystem identifier to which is allocated the element and the element "position" inside the model.

Some attributes of the element inside the model can supersede the attributes of the source element (limits, …)

"Intelligent equipment's"

An equipment is said intelligent if he can receive (send) TM (TC) packets via 1553 lower level protocol.

"Item" (Up to issue 01/00 was called "record")

An "item" is an "item" (this is obvious !) and all its associated attributes (for ORACLE expert it can be seen as a view record) (for instance : parameter, TM packet, …).

"Internal identifier"

"internal identifier" is a real "identifier" (opposite is "external identifier").

"Log / Log download"

"Log / Log download" is the activity to send back to the "working area" of the "central site" items which have been validated at any "mirror site" level.

“Logical data”

“Logical data” are the attributes of “a theoretical element” or of a “real element” which are instantiated respectively at “theoretical model” generation (TM packet identifier, TC packet identifier, command sequence identifier, 1553 message identifier, OBDH interrogation identifier, parameter identifier, …) or at “real model” generation (TM packet identifier, TC packet identifier, command sequence identifier, 1553 message identifier, OBDH interrogation identifier, parameter identifier, curve identifier …).

"Mirror site"

A "mirror site" is a "site" dedicated to a specific user, it is loaded from the "reference area" of the "central site", the "user" is free to performed modification on its "mirror site" but each validation is automatically reported to the "working area" of the "central site" via the "log / log download" activity.

"Model"

A "model" is a spacecraft model. It can be Herschel PFM, Planck SVM PFM, AVM, … . It can be "theoretical" or "real".

"Non-Intelligent equipment's"

An equipment is said non-intelligent if he cannot receive (send) TM (TC) packets via 1553 lower level protocol, in this case it exchanges its data with the bus controller via the 1553 messages.

“Physical data”

“Physical data” are the attributes of a “theoretical element” or of a “theoretical model” which are instantiated respectively at “real element” generation (Mass, calibration curve, …) or at “real element” generation (Calibration curve, …)

"Real"

The word "real" is used for attributes of "theoretical model" (Parameter, message 1553, …) or "real element" (curves, …) which have been "instantiated " (opposite is "theoretical").

"Real element"

A "real element" is an instantiation of a "theoretical element" (for instance : TWTA with serial number = 1234, CDMU software with version 2.0) and contains some attributes ("real") which can supersede corresponding attributes of the corresponding "theoretical element" (for instance : calibration curve).

"Real model"

A "real model" is an instantiation of a "theoretical model" by associating part or all of the "theoretical element" included in the corresponding (corresponding to "real model") subsystem of the "theoretical model" with one of the "real element" (of same type of course) (for instance : Herschel PFM is built from TWTA with serial number 1234 and with CDU software version 2.0).

"Reference area"

A "reference area" is an "area" which contains the current valid data.

"Selector" (up to issue 1.2 was equivalent to "unique")

A "selector" is a parameter or location (TBC) which allows, in function of its value, to determine the contents of a part of an associated packet, message or structure.

"Subsystem"

A "subsystem" is a part of theoretical model in charge of a function (AOCMS, CDMS, Power distribution, one experiment, …). It is composed of a list, possibly dependant of the theoretical model it belongs to (for instance : AOCMS), of "theoretical elements" and associated real physical attributes (X, Y, Z, …) and logical attributes (bus addresses, …) allowing to instantiate some attributes of "theoretical element" (parameter identifier, command identifier, …). EGSE is considered as a subsystem.

"System parameter"

A "system parameter" is a "parameter" which is set automatically by the test environment (CCS, …) and can be monitored or used as any other "parameter".

"Theoretical"

The word "theoretical" is used for attributes (Parameter, message 1553, curves, …) which have not been instanciated (opposite is "real").

"Theoretical element" (From issue 01/01 up to issue 02/00 was called "Type of system element")

A "theoretical element" is a generic definition (list of generic or default attributes) of an element (for instance : TWTA, CDMU software).

"Theoretical model" (From issue 01/01 up to issue 02/00 was called system element model")

A "theoretical model" is a generic definition of a spacecraft model (for instance : Herschel PFM, AVM). A "theoretical model" contains a list of subsystems.

"User"

The word "user" is used to group all the users of HPDB : engineering team, tests team, operation teams, …

"User parameter"

A "user parameter" is a "parameter" which is set by the user (CCS user, MCS user, …) (for instance : test environment - this parameter can be used to calculate "condition parameter" which can be used for limits selection).

"Working area"

A "working area" is an "area" where the user enters all its items, in this area the user items are not traced.

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3. GENERAL IDENTIFIER REQUIREMENTS

The identifiers are coded using the identifier subtypes defined in the following requirements.

NMCVT-0100-C - Identifier type - I

The identifier type shall be defined as any character string able to include one or several occurrences of the following identifier characters :

- [0-9] (decimal digits),
- [A-H] (characters from "A" to "H", but only upper case),
- [J-N] (characters from "J" to "N", but only upper case),
- [P] (character "P", but only upper case),
- [R-Z] (characters from "R" to "Z", but only upper case),
- [_] (underscore),
- [+] (plus),
- [-] (minus, dash),
- [.] (dot).

Note :

1 Characters "I", "O" and "Q" by default are excluded in order to minimise the likelihood of transcription errors when these are typed manually, however they can be used if specifically authorised (theoretical element, theoretical model, …).

NMCVT-0110-C - Identifier subtype - I

The identifier subtypes are identifier type with length and other potential limitations and shall be :

- IDCHnnF with
  - "ID" for identifier type,
  - "CH" for any authorised character,
  - "nn" for the identifier length (01-99),
  - "F" for fixed length
- IDE201F (function specifier for parameter - refer to RD1-A4.3) :
  - Length = 1,
  - Enumerated data :

. "B" Spare (at function specifier level),
. "D" for synthetic (derived) parameters,
. "E" Spare (at function specifier level),
. ~~"H" Spare (at function specifier level),~~
. "J" Spare (at function specifier level),
. ~~"K" for constant parameter (not compliant with RD1 due to TC identifier function),~~
. "M" for TM parameters,
. "N" Spare (at function specifier level),
. "P" for command parameter,
. "R" Spare (at function specifier level),
. ~~"Z" for system parameter,~~
. "U" for user parameter,
. "W" Spare (at function specifier level),
. "Z" for system parameter.

– IDINnnF with
- "ID" for identifier type,
- "IN" for any decimal digit string,
- "nn" for the identifier length (01-99),
- "F" for fixed length

Note :

1 Some other limitations can be added in the corresponding requirements.

2 For IDE201F, the other allowed letter are for other items than parameter :

. A for alphanumeric display (refer NMCVT-6050-C),
. C for telecommand packet (refer to NMCVT-4540-C),
. G for graphical display (refer to NMCVT-6105-C),
. H for generic curve (refer to NMCVT-5355-C)
. I for…bidden,
. L for scrolling display (refer to NMCVT-6128-C),
. O for…bidden,
. Q for…bidden,
. S for sequence (refer to NMCVT-4657-C),
. T for parameter set (refer to NMCVT-5210-C),
. V for parameter set value,
. X for TC packet header (not supported),

. Y for TC packet header parameter (not supported). ~~(TC, sequence, …).~~

3 For IDINnnF, the greater value (9, 99, 999, …) is reserved for "pseudo" definition.

NMCVT-0200-C - Element pseudo definition - I

In case of "direct definition" at real element level, the "theoretical element" number part of the real element identifier shall be forced to the "pseudo theoretical element" number (which is fixed to "998" for Herschel and "999" for Planck).

This allows to associate all the real element defined directly to a "pseudo theoretical element".

NMCVT-0300-C - Subsystem pseudo definition - I

In case of "direct definition" at real model level ~~theoretical~~ or in case of definition at theoretical model level and if the definition is limited to one subsystem, then the reference to the "theoretical element" number and to the "position" number shall respectively be forced to the "subsystem pseudo theoretical element" number associated to the subsystem and to the "subsystem pseudo position" number associated to the subsystem (refer to NMCVT-7510-C for the "subsystem pseudo theoretical element" number allocation per subsystem and to NMCVT-7520-C for the "subsystem pseudo position" number allocated per subsystem).

Note :

1 in order to prevent any conflict between Herschel and Planck due to same subsystem identifier usage even if subsystems are different (A, H, S,…) there is a "subsystem pseudo theoretical element" number per "theoretical model" (Herschel or Planck) and a "subsystem pseudo position" number per "theoretical model" (Herschel or Planck).

2 The "subsystem pseudo theoretical element" is referenced as "<subsystem identifier>_PSEUDO_H" for Herschel and as "<subsystem identifier>_PSEUDO_P" for Planck in NMCVT-7510-C.

3 The "subsystem pseudo position" is referenced as "<subsystem identifier>_PSEUDO_H" for Herschel and as "<subsystem identifier>_PSEUDO_P" for Planck in NMCVT-7520-C.

NMCVT-0400-C - System pseudo definition - I

In case of "direct definition" at real model level or in case of definition at theoretical model level ~~theoretical~~ and if the definition is not limited to one subsystem, then the reference to the "subsystem", the "theoretical element" number and to the "position" number shall respectively be forced to the "pseudo subsystem", the "system pseudo theoretical element" number associated to the model and to the "system pseudo position" number associated to the model (refer to NMCVT-7510-C for the "pseudo theoretical element number allocation per model) and to NMCVT-7520-C for the "pseudo position" number allocated per model).

Note :

1 in order to prevent any conflict between Herschel and Planck referring to the same "system pseudo theoretical element" or "system pseudo position identifier" there is a "system pseudo theoretical element" number per "theoretical model" (Herschel = 998 or Planck =999) and a "system pseudo position" number per "theoretical model (Herschel = 998 or Planck = 999)

2 The "pseudo subsystem" is referenced as "PSEUDO_H" for Herschel and as "PSEUDO_P" for Planck in NMCVT-7500-C.

3 The "system pseudo theoretical element" is referenced as "PSEUDO_H" for Herschel and as "PSEUDO_P" for Planck in NMCVT-7510-C.

4 The "system pseudo position" is referenced as "PSEUDO_H" for Herschel and as "PSEUDO_P" for Planck in NMCVT-7520-C.

4. IDENTIFIER REQUIREMENTS

The following requirements are directly linked to ~~AD1~~ RD4 requirements. In order to insure the traceability with [RD4~~AD1~~] document, the NMCVT requirements numbering is the one of the HPSDB requirements (for instance NMCVT-1234-C requirement refer to HPSDB-1234-C requirement in RD4~~AD1~~).

To facilitate the understanding of the examples, separator is used to separate the different fields, the separator is the character "/" and so it is not part of the identifier.

4.1 Configuration

NMCVT-4030-C - Theoretical elements - I

"Theoretical element" identifier shall :

– Be of IDCH11F subtype,

– Be unique.

For instance :"01234567890", "CDMU_____", "CDMU_SW_h__", "TWTA_____", "CCS_____"

Note : Letters "I", "O" and "Q" are allowed

NMCVT-4040-C - Theoretical element number - I

"Theoretical element" number identifier shall :

– Be of IDIN03F subtype (refer to NMCVT-7510-C),

– Be unique.

For instance :"012", "001~~0~~", "9~~87~~~~98~~"

note : Used in some identifier (when there is no length constraint) as three first character (structure, …).

NMCVT-4050-C - Real elements - I

"Real element" identifier shall :

– Be of IDCH14F subtype with the following limitations :

- From first up to eleventh character is "theoretical element" identifier (IDCH11F - refer to NMCVT-4030-C),
- From twelfth up to fourteenth character is "real element" number (IDIN03F - refer to NMCVT-4060-C),

– Be unique.

For instance :"01234567890/012", "CDMU_____/999~~007~~", "CDMU_SW_h__/001", "TWTA_____/002", "CCS_____/003"

NMCVT-4060-C - Real element number - I

"Real element" number shall :

– Be of IDIN03F

– Be unique for a "theoretical element".

For instance : "012", "9998", "250"

Note : used for instantiation at real element generation (curve identifier, real element identifier, …)

NMCVT-4075-C - Deleted ~~Elements direct definition - I~~

~~"element direct definition" identifier shall :~~

~~?Be of IDCH14F subtype with the following limitations :~~

~~?From first up to eleventh character is "pseudo theoretical element" identifier (IDCH11F - refer to NMCVT-4030-C),~~

~~?From twelfth up to fourteenth character is "pseudo real element" number (IDIN03F - refer to NMCVT-4060-C),~~

– ~~Be unique.~~

~~*For instance :"01234567890999", "CDMU_____999", "CDMU_SW_h__999", "TWTA_____999", "CCS_____999"*~~

NMCVT-4100-C - Theoretical models - I

"Theoretical model" identifier shall :

– Be of IDCH10F subtype

– Be unique.

For instance : "H_01234567", "P_PLM_____", "H_PFM_____", "X_AVM1____"

Note : Characters "I", "O" and "Q" are allowed.

NMCVT-4111-C - Deleted ~~Theoretical models direct definition - I~~

~~"Theoretical model direct definition" identifier shall :~~

~~?Be of IDCH10F subtype~~

– ~~Be unique.~~

~~*For instance : "H_01234567", "P_PLM_____", "H_PFM_____", "X_AVM1____"*~~

~~*Note : Characters "I", "O" and "Q" are allowed.*~~

NMCVT-4113-C - Subsystems - I

"Subsystem" identifier shall :

– Be of IDCH01F subtype (refer to NMCVT-7500-C),

– Be unique for a "theoretical model".

For instance : "A", "C", "YZ"

NMCVT-4114-C - Subsystem numbers - I

"Subsystem" number shall :

– Be of IDIN02F subtype (refer to NMCVT-7500-C),

– Be unique for a "theoretical model".

For instance : "01", "03", "25"

NMCVT-4117-C - Position - I

"Position" identifier shall :

– Be of IDIN03F subtype (refer to NMCVT-7520-C),

– Be unique for a "theoretical model".

For instance : "0010", "987", "012"

Note : used for instantiation at theoretical model generation (parameter identifier, Telecommand packet identifier, …)

NMCVT-4120-C - Real models - I

"Real model" identifier shall :

– Be of IDCH12F subtype with the following limitations :

- From first up to tenth character is "theoretical model" identifier (IDCH10F - refer to NMCVT-4100-C),
- From eleventh up to twelfth character is "real model" number (IDIN02F - refer to NMCVT-4130-C),

– Be unique.

For instance : "H_01234567/01", "P_PLM_____/02", "H_PFM_____/98", "X_AVM1____/25"

NMCVT-4130-C - Real model number - I

"Real model" number shall :

– Be of IDCH02F subtype

– Be unique for a "theoretical model".

For instance : "01", "98", "025"

Note : could be used (it is not in the current status of HPSDB) for any instantiation at "real model" generation.

4.2 Telemetry packets

NMCVT-4305-C - TM packet standard template - I

"TM packet standard template" identifier shall :

– be of IDCH10F subtype with the following limitations :
- First character is "pseudo subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),
- Second character is "X",
- From third up to sixth character is "TMSD" (to refer to TM packet standard template),
- From seventh up to tenth character is IDIN04F ~~(Unique for "YXTMSD")~~,

– Be unique.

For instance : "Z/X/TMSD/0123", "Z/X/TMSD/99998", "Z/X/TMSD/0250"

NMCVT-4320-C - TM packet PSICD template - I

"TM packet PSICD template" identifier shall :

– Be of IDCH120F subtype with the following limitations :
- First character is "pseudo subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),
- Second character is "X",
- From third up to sixth character is "TMPS" (to refer to TM packet PSICD template),
- From seventh up to ninth~~eighth~~ character is IDIN032~~2~~F (Type),
- From tenth~~ninth~~ up to twelfth~~tenth~~ character is IDIN032~~2~~F (Subtype),

– Be unique.

For instance : "Z/X/TMPS/001/023", "Z/X/TMPS/255/2559998", "Z/X/TMPS/025/025"

NMCVT-4340-C - Theoretical TM packet - I

"Theoretical TM packet" identifier shall :

– Be of IDIN047F subtype ~~with the following limitations :~~

~~?From first up to third character is "~~theoretical~~ element" number (IDIN03F - refer to NMCVT-4040-C),~~

~~?From fourth~~ first ~~up to seventh~~ fourth ~~character IDIN04F,~~

– Be unique for a "theoretical element".

For instance : "~~012~~0123", "~~998~~99998", "~~025~~0250"

NMCVT-4360-C - Theoretical TM structure - I

"Theoretical TM structure" identifier shall :

– Be of IDCH11F subtype with the following limitations :

- From first up to third character is "theoretical element" number (IDIN03F - refer to NMCVT-4040-C),
- From fourth up to seventh character is "TMST" (to refer to TM structure),
- From eighth up to eleventh character is IDIN04F,

– Be unique for a "theoretical element".

For instance : "012/TMST/0123", "98798/TMST/99998", "025/TMST/0250"

NMCVT-4374-C - Theoretical TM packet group - I

"Theoretical TM packet group" identifier shall :

– Be of IDCH11F subtype with the following limitations :

- From first up to third character is "theoretical element" number (IDIN03F - refer to NMCVT-4040-C),
- From fourth up to seventh character is "TMGR" (to refer to TM group),
- From eighth up to eleventh character is IDIN04F,

– Be unique for a "theoretical element".

For instance : "012/TMGR/0123", "98798/TMGR/99998", "025/TMGR/0250"

NMCVT-4380-C - Real TM packet - I

"Real TM packet" identifier shall :

– Be of ~~IDIN10F~~ IDIN09F subtype with the following limitations :

- From first up to second character is “subsystem number” (IDIN02F - refer to NMCVT-4114-C),
- From ~~first~~ third up to ~~seventh~~ sixth character is "theoretical TM packet" identifier (~~IDIN07F~~ IDIN04F - refer to NMCVT-4340-C),
- From ~~eighth~~ seventh up to ~~tenth~~ ninth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model~~real model~~".

For instance : "01/0123/012~~0120123012~~", "25/9999/987~~9989998998~~", "~~025~~01/0250/025"

NMCVT-4400-C - Real TM structure - I

"Real TM structure" identifier shall :

– Be of IDCH14F subtype with the following limitations :

- From first up to eleventh character is "theoretical TM" structure identifier (IDCH11F - refer to NMCVT-4360-C),
- From twelfth up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "012TMST0123/012", "9~~87~~98TMST999~~98~~/9~~87~~98", "025TMST0250/025~~025~~"

NMCVT-4420-C - Real TM packet group - I

"Real TM packet group" identifier shall :

– Be of IDCH14F subtype with the following limitation :

- From first up to eleventh character is "theoretical TM packet group" identifier (IDCH11F - refer to NMCVT-4374-C),
- From twelfth up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "012TMGR0123/012", "9~~87~~98TMGR999~~98~~/987~~998~~", "025TMGR0250/025~~025~~"

NMCVT-4440-C - Model TM packet ~~direct~~ definition - I

"Model TM packet ~~direct~~ definition" identifier shall :

– Be of ~~IDIN10F~~ IDIN09F subtype with the following limitations :

- From first ~~up~~ to second is subsystem number (IDIN02F - refer to NMCVT-4114-C),
- From third up to sixth character is "theoretical TM packet" identifier (IDIN04F - refer to NMCVT-4340-C),
- From ~~eighth~~ seventh up to ~~tenth~~ ninth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117~~4117~~-C),

– Be unique for a "theoretical model"~~real model~~.

For instance : "~~999~~01/0123/108~~999~~", "~~999~~08/999~~98~~/239~~999~~", "~~999~~26/0250/999"

NMCVT-4450-C - Model TM structure ~~direct~~ definition - I

"Model TM structure ~~direct~~ definition" identifier shall :

– Be of IDCH14F subtype with the following limitations :

- From first up to eleventh character is "pseudo theoretical TM structure" identifier (IDCH11F - refer to NMCVT-4360-C),
- From twelfth up to fourteenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~999~~108TMST0123/108~~999~~", "999TMST999~~98~~/999", "~~999~~109TMST0250/109~~999~~"

NMCVT-4455-C - Model TM packet group ~~direct~~ definition - I

"Model TM packet group ~~direct~~ definition" identifier shall :

– Be of IDCH14F subtype with the following limitations :

- From first up to eleventh character is "pseudo theoretical TM packet group" identifier (IDCH11F - refer to NMCVT-4374-C),
- From twelfth up to fourteenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~999~~108TMGR0123/108~~999~~", "999TMGR999~~98~~/999", "~~999~~109TMGR0250/109~~999~~"

4.3 Telecommand packets

NMCVT-4505-C - TC packet standard template - I

"TC packet standard template" identifier shall :

– be of IDCH10F subtype with the following limitations :

- First character is "pseudo subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),
- Second character is "X" ~~(RD1)~~,
- From third up to sixth character is "TCSD" (to refer to TC packet standard template),
- From seventh up to tenth character is IDIN04F, ~~(Unique for "YXTCSD")~~

– Be unique.

For instance : "Z/X/TCSD/0123", "Z/X/TCSD/999~~98~~", "Z/X/TCSD/0250"

NMCVT-4520-C - TC packet PSICD template - I

"TC packet PSICD template" identifier shall :

– Be of IDCH12~~0~~F subtype with the following limitations :

- First character is "pseudo subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),
- Second character is "X" ~~(RD1)~~,
- From third up to sixth character is "TCPS" (to refer to TC packet PSICD template),
- From seventh up to eighth character is IDIN03~~2~~F (type),
- From ninth up to tenth character is IDIN03~~2~~F (subtype),

– Be unique.

For instance : "Z/X/TCPS/001/023", "Z/X/TCPS/255/255~~9998~~", "Z/X/TCPS/025/025"

NMCVT-4540-C - Theoretical TC packet - I

"Theoretical TC packet" identifier shall :

– Be of IDCH04F subtype with the following limitations :
  - First character is "C",
  - From second up to fourth character is IDCH03F,
– Be unique for a "theoretical element".

For instance : "C012", "CABC", "C9998", "C025"

NMCVT-4560-C - Theoretical TC structure - I

"Theoretical TC structure" identifier shall :

– Be of IDCH11F subtype with the following limitations :
  - From first up to third character is "theoretical element" number (IDIN03F - refer to NMCVT-4040-C),
  - From fourth up to seventh character is "TCST" (to refer to TC structure),
  - From eighth up to eleventh is IDIN04F,
– Be unique for a "theoretical element".

For instance : "012/TCST/0123", "98798/TCST/99998", "025/TCST/0250"

NMCVT-4574-C - Theoretical TC packet group - I

"Theoretical TC packet group" identifier shall :

– Be of IDCH11F subtype with the following limitations :
  - From first up to third character is "theoretical element" number" (IDIN03F - refer to NMCVT-4040-C),
  - From fourth up to seventh character is "TCGR" (to refer to TC group),
  - From eighth up to eleventh character is IDIN04F
– Be unique for a "theoretical element".

For instance : "012/TCGR/0123", "98798/TCGR/99998", "025/TCGR/0250"

NMCVT-4580-C - Real TC packet - I

"Real TC packet" identifier shall :

– Be of IDCH08F subtype with the following limitations :
  - First character is "subsystem" identifier (IDCH01F - refer to NMCVT-4113-C),
  - From second up to fifth character is "theoretical TC packet identifier" (IDCH04F - refer to NMCVT-4540-C),

- From sixth up to eighth character is "position identifier" (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "A/C012/012", "A/CABC/012", "Y/C9998/98798", "H/C025/190025"

NMCVT-4600-C - Real TC structure - I

"Real TC structure" identifier shall :

– Be of IDCH14F subtype with the following limitations :

- From first up to eleventh character is "theoretical TC structure" identifier (IDCH11F - refer to NMCVT-4560-C),
- From twelfth up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical~~real~~ model".

For instance : "012TCST0123/012", "98798TCST99998/98798", "025TCST0250/025"

NMCVT-4620-C - Real TC packet group - I

"Real TC packet group" identifier shall :

– Be of IDCH14F subtype with the following limitation :

- From first up to eleventh character is "theoretical TC packet group" identifier (IDCH11F - refer to NMCVT-4574-C),
- From twelfth up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "012TCGR0123/012", "98798TCGR99998/98798", "025TCGR0250/025"

NMCVT-4640-C - Model TC packet ~~direct~~ definition - I

"Model TC packet ~~direct~~ definition" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is "~~pseudo~~ subsystem" identifier (IDCH01F - refer to NMCVT-4113-C),
- From second up to fifth character is "~~pseudo~~ theoretical TC packet identifier" (IDCH04F - refer to NMCVT-4540-C)
- From sixth up to eighth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "Z/C012/999", "~~Z~~A/CABC/108~~999~~", "Z/C999/~~8~~999", "Z/C025/9989~~9~~"

NMCVT-4650-C - Model TC structure ~~direct~~ definition - I

"Model TC structure ~~direct~~ definition" identifier shall :

– Be of IDCH14F subtype with the following limitations :

- From first up to eleventh character is "pseudo theoretical TC structure" identifier (IDCH11F - refer to NMCVT-4560-C),
- From twelfth character up to fourteenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~999~~108TCST0123/108~~999~~", "999TCST999~~98~~/999", "~~999~~109TSST0250/109~~999~~"

NMCVT-4655-C - Model TC packet group ~~direct~~ definition - I

"Model TC packet group ~~direct~~ definition" identifier shall :

– Be of IDCH14F subtype with the following limitation :

- From first up to eleventh character is "~~-~~pseudo theoretical TC packet group" identifier (IDCH11F - refer to NMCVT-4574-C),
- From twelfth up to fourteenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~999~~108TCGR0123/108~~999~~", "999TCGR999~~98~~/999", "~~999~~109TCGR0250/109~~999~~"

4.4 Command sequences

NMCVT-4657-C - Theoretical command sequence - I

"Theoretical command sequence" identifier shall :

– Be of IDCH04F subtype with the following limitations :

- First character is "S",
- From second to fourth character is IDCH03F,

– Be unique for a "theoretical element".

For instance : "S/012", "S/ABC", S/99~~98~~", "S/025"

NMCVT-4660-C - Deleted ~~Command sequence - I~~

~~**"Command sequence" identifier shall :**~~

~~?Be of IDCH08F subtype with the following limitations :~~

~~?First character is "subsystem" identifier (IDCH01F - refer to NMVCT-4113-C),~~

~~?Second character is "S",~~

~~?From third up to fifth character is IDCH03F,~~

~~?From sixth up to eighth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),~~

– ~~Be unique for a "real model".~~

~~*For instance : "AS012012", "ASABC012", "YS998998", "HS025025"*~~

NMCVT-4670-C - Theoretical formal parameter - I

"Theoretical formal parameter" identifier shall :

– Be of IDCH04F subtype with the following limitations :

▪ First character is "H",

▪ From second up to fourth character is IDCH03F,

– Be unique for a "theoretical sequence".

For instance : "H/012", "H/ABC", H/999", "H/025"

NMCVT-4672-C - Real command sequence - I

"~~Theoretical~~ Real command sequence" identifier shall :

– Be of IDCH08F subtype with the following limitations :

▪ First character is "subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),

▪ From second up to fifth character is "theoretical command sequence" identifier (IDCH04F- refer to NMCVT-4657~~60~~-C),

▪ From sixth up to eighth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "A/S012/012", "A/SABC/012", "Y/S9998/98798", "H/S025/190025"

NMCVT-4674-C - Real formal parameter - I

"Real formal parameter" identifier shall :

– Be of IDCH08F subtype with the following limitations :

▪ First character is "subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),

▪ From second up to fifth character is "theoretical formal parameter" identifier (IDCH04F- refer to NMCVT-4670-C),

▪ From sixth up to eighth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "real sequence".

For instance : "A/H012/012", "A/HABC/012", "Y/H999/987", "H/H025/190"

NMCVT-4675-C - Model command sequence definition - I

" Model command sequence definition" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is "subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),
- From second up to fifth character is "theoretical command sequence" identifier (IDCH04F - refer to NMCVT-4657-C),
- From sixth up to eighth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "A/S012/108", "A/SABC/109", "Y/S9998/98798", "Z/S025/988025"

NMCVT-4676-C - Model formal parameter definition - I

"Model formal parameter definition" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is "subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),
- From second up to fifth character is “theoretical formal parameter” identifier (IDCH04F- refer to NMCVT-4670-C),
- From sixth up to eighth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "real sequence".

For instance : "A/H012/012", "A/HABC/012", "Y/H999/987", "H/H025/190"

NMCVT-4680-C - Deleted

NMCVT-4685-C - Deleted

NMCVT-4690-C - Deleted ~~Command parameter set value - I~~

~~"Command parameter set value" identifier shall :~~

~~?Be of IDCH08F subtype with the following limitations :~~

~~?First character is "subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),~~

~~?Second character is "V",~~

~~?From third up to fifth character is IDCH03F,~~

~~?From sixth up to eighth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),~~

~~?Be unique for a "real model".~~

~~*For instance : "AV012012", "AVABC012", "YV998998", "HV025025"*~~

~~**NMCVT-4660~~~~4695~~**~~**-C - Command parameter range check - I**~~

~~"Command parameter range check" identifier shall : TBD (N4 in RD2)~~

~~*For instance : TBD*~~

~~4.4~~4.5 1553 messages

NMCVT-4705-C - 1553 ~~message template~~command word - I

"1553 message command word~~template~~" identifier shall

– be of IDCH10F subtype with the following limitations :

- First character is "~~pseudo~~ subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),
- Second character is "X",
- From third up to sixth character is "BUCW~~SD~~" (to refer to 1553 command word ~~message template~~),
- From seventh up to eighth character is IDIN02F (RT address),
- From ninth up to tenth character is IDIN02F (Sub address),

~~?From seventh up to tenth character is IDIN04F (Unique for "YXBUSD"),~~

– Be unique per "theoretical model"~~.~~

For instance : "~~Z~~A/X/BUCW~~SD~~/01/01~~23~~", "~~Z~~H/X/BUCW~~SD~~/31/31~~9998~~", "~~Z~~A/X/BUCW~~SD~~/~~0~~25/25~~0~~"

NMCVT-4725-C - 1553 status word - I

"1553 status word" identifier shall

– be of IDCH10F subtype with the following limitations :

- First character is "subsystem" identifier (IDCH01F- refer to NMVCT-4113-C),
- Second character is "X",
- From third up to sixth character is "BUSW" (to refer to 1553 status word),
- From seventh up to eighth character is IDIN02F (RT address),
- From ninth character up to tenth character is IDIN02F (sub address),

– Be unique per "theoretical model".

For instance : "~~D~~A/X/BUSW/01/01~~23~~", "~~A~~H/X/BUSW/31/31~~9998~~", "A/X/BUSW/25/25"

NMCVT-47340-C - Theoretical 1553 message - I

"Theoretical 1553 message" identifier shall :

– Be of IDIN11F subtype with the following limitations :

- From first up to third character is "theoretical element number (IDIN03F - refer to NMCVT-4040-C),
- From fourth up to seventh character is "BUMG" (to refer to 1553 message),
- Eighth character is IDCH01F ("A" for Acquisition, "C" for Command),
- From ninth up to eleventh is IDIN03F,

– Be unique for a "theoretical element".

For instance : "012/BUMG/A/012", "98798/BUMG/C/9998", "025/MUMG/C/025"

NMCVT-4760-C - Theoretical 1553 structure - I

"Theoretical 1553 structure" identifier shall :

– Be of IDCH11F subtype with the following limitations :

- From first up to third character is "theoretical element" number (IDIN03F - refer to NMCVT-4040-C),
- From fourth up to seventh character is "BUST" (to refer to 1553 structure),
- Eighth character is IDCH01F ("A" for Acquisition, "C" for Command),
- From ninth up to eleventh is IDIN03F,

– Be unique for a "theoretical element".

For instance : "012/BUST/A/012", "98798/BUST/C/9998", "025/BUMG/C/025"

NMCVT-4774-C - Theoretical 1553 message group - I

"Theoretical 1553 message group" identifier shall :

– Be of IDCH11F subtype with the following limitations :

- From first up to third character is "theoretical element" number (IDIN03F - refer to NMCVT-4040-C),
- From fourth up to seventh character is "BUGR" (to refer to 1553 group),
- Eighth character is IDCH01F ("A" for Acquisition, "C" for command),
- From ninth up to eleventh character is IDIN03F

– Be unique for a "theoretical element".

For instance : "012/BUGR/A/012", "98798/BUGR/C/9998", "025/BUGR/C/025"

NMCVT-4780-C - Real 1553 message - I

"Real 1553 message" identifier shall :

– Be of IDIN14F subtype with the following limitations :

- From first up to eleventh character is "theoretical 1553 message" identifier" (IDIN11F - refer to NMCVT-4740-C)
- From twelfth up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "012BUMGA012/012", "9~~87~~98BUMGC99~~98~~/9~~87~~98", "025MUMGC025/025"

NMCVT-4800-C - Real 1553 structure - I

"Real 1553 structure" identifier shall :

– Be of IDCH14F subtype with the following limitations :

- From first up to eleventh character is "theoretical 1553 structure" identifier (IDCH11F - refer to NMCVT-4760-C),
- From twelfth character up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "012BUSTA012/012", "9~~87~~98/BUSTC/99~~98~~/9~~87~~98", "025BUMGC025/025"

NMCVT-4820-C - Real 1553 message group - I

"Real 1553 message group" identifier shall :

– Be of IDCH14F subtype with the following limitation :

- From first up to eleventh character is "theoretical 1553 message group" identifier (IDCH11F - refer to NMCVT-4774-C),
- From twelfth up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "012BUGRA012/012", "9~~87~~98BUGRC99~~98~~/9~~87~~98", "025BUGRC025/025"

NMCVT-4840-C - Model 1553 message ~~direct~~ definition - I

"Model 1553 message ~~direct~~ definition" identifier shall :

– Be of IDIN10F subtype with the following limitations :

- From first up to eleventh~~seventh~~ character is "pseudo theoretical 1553 message" identifier (IDIN11~~07~~F - refer to NMCVT-4740-C)

- From eighth up to tenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~999~~012BUMGA012/109~~999~~", "999BUMGC99~~98~~/999", "~~999~~998~~MB~~UMGC025/998~~999~~"

NMCVT-4850-C - Model 1553 structure ~~direct~~ definition - I

"Model 1553 message structure ~~direct~~ definition" identifier shall :

– Be of IDCH14F subtype with the following limitations :

- From first up to eleventh character is "pseudo theoretical 1553 structure" identifier (IDCH11F - refer to NMCVT-4760-C),
- From twelfth character up to fourteenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~999BUSTA012999~~012BUSTA012/~~99~~109", "999BUSTC99~~98~~/999", "99~~89~~BUMGC025/99~~89~~"

NMCVT-485~~560~~-C - Model 1553 message group ~~direct~~ definition - I

"Model 1553 message group ~~direct~~ definition" identifier shall :

– Be of IDCH14F subtype with the following limitation :

- From first up to eleventh character is "pseudo theoretical 1553 message group" identifier (IDCH11F - refer to NMCVT-4774-C),
- From twelfth up to fourteenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~ theoretical model".

For instance : "012BUGRA012/109", "999BUGRC999/999", "998BUGRC025/998"

~~4.5~~4.6 OBDH interfaces

NMCVT-4974-C - Theoretical OBDH interrogation - I

"Theoretical OBDH" identifier shall :

– Be of IDIN11F subtype with the following limitations :

- From first up to third character is "theoretical element number" (IDIN03F - refer to NMCVT-4040-C),
- from fourth up to seventh character is "DHIN" (to refer to OBDH interrogation),
- Eighth character is IDCH01F ("C" for Command),
- From ninth up to eleventh character IDIN03F,

– Be unique for a "theoretical element".

For instance : "012/DHIN/C/012", "98798/DHIN/C/99998", "025/DHIN/C/025"

NMCVT-4990-C - Theoretical OBDH interrogation group - I

"Theoretical OBDH interrogation group" identifier shall :

– Be of IDCH11F subtype with the following limitations :

- From first up to third character is "theoretical element number" (IDIN03F - refer to NMCVT-4040-C),
- From fourth up to seventh character is "DHGR" (to refer to OBDH group),
- Eighth character is IDCH01F ("C" for command),
- From ninth up to eleventh character is IDIN03F,

– Be unique for a "theoretical element".

For instance : "012/DHGR/C/012", "98798/DHGR/C/99998", "025/DHGR/C/025"

NMCVT-5020-C - Real OBDH interrogation - I

"Real OBDH interrogation" identifier shall :

– Be of IDIN14F subtype with the following limitations :

- From first up to eleventh character is "theoretical OBDH interrogation" identifier (IDIN11F - refer to NMCVT-4974-C)
- From twelfth up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "012DHINC012/012", "98798DHINC99998/98798", "025DHINC025/025"

NMCVT-5044-C - Real OBDH interrogation group - I

"Real OBDH interrogation group" identifier shall :

– Be of IDCH14F subtype with the following limitation :

- From first up to eleventh character is "theoretical OBDH interrogation group" identifier (IDCH11F - refer to NMCVT-4990-C),
- From twelfth up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C"),

– Be unique for a "~~real~~theoretical model".

For instance : "012DHGRC012/012", "98798DHGRC99998/98798", "025DHGRC025/025"

NMCVT-5060-C - Model OBDH interrogation ~~direct~~ definition - I

"Model OBDH interrogation ~~direct~~ definition" identifier shall :

– Be of IDIN14F subtype with the following limitations :

- From first up to eleventh character is "pseudo theoretical OBDH interrogation" identifier (IDIN11F - refer to NMCVT-4974-C)
- From eighth up to tenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~999DHINC012999~~012DHINC012/~~99~~109", "999DHINC99~~98~~/999", "99~~89~~DHINC025/99~~89~~"

NMCVT-5080-C - OBDH interrogation group ~~direct~~ definition - I

"Model OBDH interrogation group ~~direct~~ definition" identifier shall :

– Be of IDCH14F subtype with the following limitation :

- From first up to eleventh character is "pseudo theoretical OBDH interrogation group" identifier (IDCH11F - refer to NMCVT-4990-C),
- From twelfth up to fourteenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~999DHGRC012999~~012DHGRC012/~~99~~109", "999DHGRC99~~98~~/999", "99~~89~~DHGRC025/99~~89~~"

~~4.6~~4.7 Parameters

NMCVT-5110-C - Theoretical parameter - I

"Theoretical parameter" identifier shall :

– Be of IDCH04F subtype with the following limitations :

- First character is IDE201F,
- From second up to fourth character is IDCH03F,

– Be unique for a "theoretical element".

For instance : "M/012", "P/ABC", "D/99~~98~~", "U/025"

NMCVT-5120-C - Condition number - I

"condition " number shall :

- Be of IDCH02F subtype,
- Be unique for a "theoretical or real parameter".

For instance : "01", "99", "25"

NMCVT-5126-C - Theoretical parameter group - I

"Theoretical parameter group" identifier shall :

- Be of IDCH11F subtype with the following limitations :
  - From first up to third character is "theoretical element number" (IDIN03F - refer to NMCVT-4040-C),
  - From fourth up to seventh character is "PAGR" (to refer to parameter group),
  - ~~?Eighth character is IDCH01F ("A" for Acquisition, "C" for Command, "U" for User, "Z" for System), "D" for Derived, "W" for Condition)~~
  - From eighth~~ninth~~ up to eleventh character is IDIN043F,
- Be unique for a "theoretical element".

For instance : "012/PAGR/C0012", "98798/PAGR/U999998", "025/PAGR/W0025"

NMCVT-5130-C - Real parameter - I

"Real parameter" identifier shall :

- Be of IDCH08F subtype with the following limitations :
  - First character is subsystem identifier (IDCH01F - refer to NMCVT-4113-C),
  - From second up to fifth character is "theoretical parameter" identifier (IDCH04F - refer to NMCVT-5110-C),
  - From sixth character up to eighth character is "position identifier" (IDIN03F - refer to NMCVT-4117-C),
- Be unique for a "~~real~~theoretical model".

For instance : "A/M012/012", "DA/PABC/012", "Y/D9998/98798", "H/U025/190025"

Note : Due to SCOS2000, "VAR" and "GVAR" as first 3 or four characters of real parameters are prohibited

NMCVT-5150-C - Model p~~P~~arameter ~~direct~~ definition - I

"Model p~~P~~arameter ~~direct~~ definition" identifier shall :

- Be of IDCH08F subtype with the following limitations :

- First character is "~~pseudo~~ subsystem" identifier (IDCH01F - refer to NMCVT-4113-C), ~~(TBC : could be subsystem identifier),~~
- From second up to fifth character is "~~pseudo~~ theoretical parameter" identifier (IDCH04F - refer to NMCVT-5110-C),
- From sixth up to eighth character is subsystem or system "pseudo position identifier" (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~ZM012999~~A/M012/~~99~~109", "~~ZPABC999~~A/PABC/108~~999~~", "Z/D99~~98~~/999", "Z/U025/99~~89~~"

Note : Due to SCOS2000, "VAR" and "GVAR" as first 3 or four characters of real parameters are prohibited

NMCVT-5160-C - Real parameter group - I

"Real parameter group" identifier shall :

– Be of IDCH14F subtype with the following limitation :

- From first up to eleventh character is "theoretical parameter group" identifier (IDCH11F - refer to NMCVT-5126-C),
- From twelfth up to fourteenth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "012PAGR~~C~~0012/012", "9~~8798~~PAGR~~U~~999~~98~~/9~~8798~~", "025PAGR~~W~~0025/025"

NMCVT-5175-C - Model p~~P~~arameter group ~~direct~~ definition - I

"Model p~~P~~arameter group ~~direct~~ definition" identifier shall :

– Be of IDCH14F subtype with the following limitation :

- From first up to eleventh character is "pseudo theoretical parameter group" identifier (IDCH11F - refer to NMCVT-5126-C),
- From twelfth up to fourteenth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "~~999~~109PAGRC012/109~~999~~", "999PAGRU999~~8~~/999", "~~999~~998PAGRW025/998~~999~~"

NMCVT-5210-C - Theoretical parameter set - I

"Theoretical parameter set" identifier shall :

– Be of IDCH04F subtype with the following limitations :

- First character is "T",
- From second up to fourth character is IDCH03F,

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– Be unique for a "theoretical element".

For instance : "T/012", "T/ABC", "T/999", "T/025"

NMCVT-5215-C - Real parameter set - I

"Real parameter set" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is subsystem identifier (IDCH01F - refer to NMCVT-4113-C),
- From second up to fifth character is "theoretical parameter set" identifier (IDCH04F - refer to NMCVT-5200-C),
- From sixth character up to eighth character is "position identifier" (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model".

For instance : "A/T012/012", "Y/TABC/987", "Y/T999/987", "H/T025/190"

NMCVT-5217-C - Model parameter set definition - I

"Model parameter set definition" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is "subsystem" identifier (IDCH01F - refer to NMCVT-4113-C),
- From second up to fifth character is "theoretical parameter set" identifier (IDCH04F - refer to NMCVT-5110-C),
- From sixth up to eighth character is subsystem or system "pseudo position identifier" (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model".

For instance : "A/T012/109", "A/TABC/108", "Z/T999/999", "Z/T025/998"

NMCVT-5220-C - Theoretical parameter set value - I

"Theoretical parameter set value" identifier shall :

– Be of IDCH04F subtype with the following limitations :

- First character is "V",
- From second up to fourth character is IDCH03F,

– Be unique for a "theoretical element".

For instance : "V/012", "V/ABC", "V/999", "V/025"

NMCVT-5225-C - Real parameter set value - I

"Real parameter set value" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is subsystem identifier (IDCH01F - refer to NMCVT-4113-C),
- From second up to fifth character is "theoretical parameter set value" identifier (IDCH04F - refer to NMCVT-5220-C),
- From sixth character up to eighth character is "position identifier" (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model".

For instance : "A/V012/012", "Y/VABC/987", "Y/V999/987", "H/V025/190"

NMCVT-5227-C - Model parameter set value definition - I

"Model parameter set value definition" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is "subsystem" identifier (IDCH01F - refer to NMCVT-4113-C),
- From second up to fifth character is "theoretical parameter set value" identifier (IDCH04F - refer to NMCVT-5120-C),
- From sixth up to eighth character is subsystem or system "pseudo position identifier" (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model".

For instance : "A/V012/109", "A/VABC/108", "Z/V999/999", "Z/V025/998"

NMCVT-5250-C - Theoretical parameter range set - I

"Theoretical parameter range set" identifier shall :

– Be of IDCH04F subtype with the following limitations :

- First character is "R",
- From second up to fourth character is IDCH03F,

– Be unique for a "theoretical element".

For instance : "R/012", "R/ABC", "R/999", "R/025"

NMCVT-5255-C - Real parameter range set - I

"Real parameter range set" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is subsystem identifier (IDCH01F - refer to NMCVT-4113-C),

- From second up to fifth character is "theoretical parameter range set" identifier (IDCH04F - refer to NMCVT-5250-C),
- From sixth character up to eighth character is "position identifier" (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model".

For instance : "A/R012/012", "Y/RABC/987", "Y/R999/987", "H/R025/190"

NMCVT-5257-C - Model parameter set definition - I

"Model parameter set definition" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is "subsystem" identifier (IDCH01F - refer to NMCVT-4113-C),
- From second up to fifth character is "theoretical parameter set value" identifier (IDCH04F - refer to NMCVT-5120-C),
- From sixth up to eighth character is subsystem or system "pseudo position identifier" (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model".

For instance : "A/R012/109", "A/RABC/108", "Z/R999/999", "Z/R025/998"

~~4.7~~4.8 Curves

NMCVT-5355-C - Generic curve - I

"Generic curve" identifier shall :

– Be of IDCH10F subtype with the following limitations :

- First character is "subsystem" identifier (IDCH01F - refer to NMCVT-4113-C),
- Second character is "H",
- From third up to fifth character is IDCH03F,
- From sixth up to eighth character is subsystem or system "pseudo position identifier" (IDIN03F - refer to NMCVT-4117-C),

– Be unique.

For instance : "A/H/012/109", "A/H/ABC/108", "Z/H/999/999", "Z/H/025/998"

NMCVT-5360-C - Theoretical element curve - I

"Theoretical element curve" identifier shall :

– Be of IDIN06F subtype with the following limitations :

- From first up to third character is "theoretical element" number (IDIN03F - refer to requirement NMCVT-4040-C),
- From fourth to sixth character is IDIN03F, ~~(unique for "theoretical element"),~~

– Be unique for a "theoretical element".

For instance : "012/012", "998/998", "025/025", "107/863", "108/762", "109/453", "999/326"

~~*Note : to identify uniquely a curve the type (Analogue or digital) and subtype (for analogue only : polynomial or discrete) of curve shall be provided - In order to be in line with RD1.*~~

NMCVT-5365-C - Real element curve - I

"Real element curve" identifier shall :

– Be of IDCH06F subtype with the following limitations :

- From first up to fourth character is "real element parameter" identifier (IDCH04F - refer to requirement NMCVT-5110-C),
- From fifth to sixth character is condition number (IDIN02F - refer to NMCVT-5120-C),

– Be unique for a "real element".

For instance : "M012/01", "PABC/50", "D999/99", "U025/25"

NMCVT-5370-C - Theoretical model~~Real~~ curve - I

"~~Real~~ Theoretical model curve" identifier shall :

– Be of IDIN06F~~IDIN09F~~ subtype with the following limitations :

- From first up to third character is subsystem or system "pseudo theoretical element" number (IDIN03F - refer to requirement NMCVT-4040-C),
- From fourth to sixth character is IDIN03F,

~~? from first to sixth character is "theoretical curve" identifier (IDIN06F - refer to 5360-C),~~

~~? From seventh to ninth character is "real element" number (IDIN03F - refer to NMCVT-4060-C),~~

– Be unique for a "~~real~~ theoretical ~~element~~model".

For instance : ~~"012012012", "998998998", "025025025"~~"109/012", "999/999", "999/500"

NMCVT-5375-C - Real model curve - I

"Real model curve" identifier shall :

– Be of IDCH10F subtype with the following limitations :

- From first up to eighth character is "real model parameter" identifier (IDCH08F - refer to requirement NMCVT-5130-C),
- From ninth to tenth character is condition number (IDIN02F - refer to NMCVT-5120-C),

– Be unique for a "real model".

For instance : "AM012012/01", "APABC012/50", "YD999987/99", "HU025190/25"

~~**NMCVT-5380-C - Curve direct definition - I**~~

~~"Curve direct definition" identifier shall :~~

~~?Be of IDIN09F subtype with the following limitations :~~

~~?from first to sixth character is "pseudo theoretical curve" identifier (IDIN06F - refer to 5360-C),~~

~~?From seventh to ninth character is "pseudo real element" number (IDIN03F - refer to NMCVT-4060-C),~~

~~?Be unique for a "real element".~~

~~*For instance : "999012999", "999998999", "999025999"*~~

~~4.8~~4.9 Displays

The following naming convention for displays is such that the implementation of theoretical displays, real dispalys and direct definition ~~(even if not specified in HPSDB specification)~~ will be possible ~~(the two~~ three ~~last characters always reflect the "position number") as it is for TC packets or parameters (8 characters).~~

NMCVT-6050-C - Theoretical alphanumeric display - I

" Theoretical alphanumeric display" identifier shall :

Be of IDCH04F subtype with the following limitations :

- First character is "A",
- From second up to fourth character is IDCH03F,

– Be unique for a " theoretical element ".

For instance : "A/012", "A/ABC", "A/999", "A/025"

NMCVT-6100-C - deleted

NMCVT-6105-C - Theoretical Graphic display - I

" Theoretical graphic display" identifier shall :

– Be of IDCH04F subtype with the following limitations :

- First character is "G",
- From second up to fourth character is IDCH03F,

– Be unique for a " theoretical element ".

For instance : "G/012", "G/ABC", "G/999", "G/025"

NMCVT-6110-C - deleted

NMCVT-6120-C - deleted

NMCVT-6125-C - deleted

NMCVT-6128-C - Theoretical scrolling display - I

" Theoretical scrolling display" identifier shall :

– Be of IDCH04F subtype with the following limitations :

- First character is "L",
- From second up to fourth character is IDCH03F,

– Be unique for a "theoretical element ".

For instance : "L/012", "L/ABC", "L/999", "L/025"

NMCVT-6130-C - deleted

NMCVT-6150-C - Real display - I

"Real display" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is “subsystem” identifier (IDCH01F- refer to NMVCT-4113-C),
- From second to fifth character is theoretical display identifier,
- From sixth up to eighth character is "position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model".

For instance : "A/A012/012", "A/AABC/012", "Y/G999/987", "H/L025/190"

NMCVT-6160-C - Model alphanumeric display definition - I

"Model alphanumeric display definition" identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is subsystem identifier (IDCH01F- refer to NMVCT-4113-C),
- From second up to fifth character is "theoretical alphanumeric dispay" identifier (IDCH04F - refer to NMCVT-6050-C),
- From sixth up to eighth character is subsystem or system "pseudo position" number (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model".

For instance : "A/A012/109~~999~~", "A/AABC/108~~999~~", "Z/A999~~8~~/999", "Z/A025/998~~9~~"

NMCVT-6170-C - Model graphic display definition - I

"Model graphic display definition " identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is subsystem identifier (IDCH01F- refer to NMVCT-4113-C),
- From second up to fifth character is "theoretical graphic display" identifier (IDCH04F - refer to NMCVT-6105-C),
- From sixth up to eighth character is subsystem or system "pseudo position" number (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "theoretical model".

For instance : "A/G012/~~99~~109", "A/GABC/108~~999~~", "Z/G999~~8~~/999", "Z/G025/998~~9~~"

NMCVT-6200-C - Model scrolling display definition - I

"Model scrolling display definition " identifier shall :

– Be of IDCH08F subtype with the following limitations :

- First character is subsystem identifier (IDCH01F- refer to NMVCT-4113-C),
- From second up to fifth character is "theoretical scrolling display" identifier (IDCH04F- refer to NMCVT-6128-C),
- From sixth up to eighth character is subsystem or system "pseudo position" identifier (IDIN03F - refer to NMCVT-4117-C),

– Be unique for a "~~real~~theoretical model".

For instance : "A/L012/~~99~~109", "A/LABC/108~~999~~", "Z/L999~~8~~/999", "Z/L025/998~~9~~"

5. GENERAL ALLOCATION REQUIREMENT

TBW

6. DETAIL ALLOCATION REQUIREMENTS

6.1 Subsystems

NMCVT-7500-C - Subsystem identifiers allocation - I

The subsystem identifiers allocation shall be as follows :

Subsystem identifier	Subsystem number	Herschel	Planck
– "A"	01	AOCMS	AOCMS
– "B"	02	ACC software	ACC software
– "C"	03	RCS	RCS
– "D"	04	CDMS	CDMS
– "E"	05	CDMS software	CDMS software
– "F"	06	Frame structure	Frame structure
– "G"	07	Spare	Spare
– "H"	08	HIFI	HFI
– "J"	10	System	System
– "K"	11	Kryo	Spare
– "L"	12	Spare	LFI
– "M"	13	Radiation monitor	Radiation monitor
– "N"	14	Spare	Spare
– "P"	16	PACS	Spare
– "R"	18	Radio frequency (TT&C)	Radio frequency (TT&C)
– "S"	19	SPIRE	Sorption cooler
– "T"	20	Thermal control	Thermal control
– "U"	21	Spare	Spare
– "V"	22	Visual monitor camera	Visual monitor camera
– "W"	23	Electrical power	Electrical power
– "X"	24	STR software	Spare
– "Y"	25	EGSE	EGSE
– "Z"	26	Pseudo subsystem	Pseudo subsystem

~~1.2~~6.2 Theoretical elements

The following list has to be completed.

NMCVT-7510-C - Theoretical element allocation - I

The theoretical element identifier and corresponding theoretical element number allocation shall be as follows (As far as it is not sure that the element described hereafter will be in fact composed of several theoretical elements (mainly for instruments) the allocated number are given as range - in addition, for information, is provided the number of real corresponding equipment per spacecraft model and the associated subsystem) :

Theoretical element identifier	Theoretical element number	Element number for Herschel	Planck	Subsystem
– "ACC"	[001-009]	1	1	A
– "GYRO"	[010-019]	1	0	A
– "STR"	[020-029]	2	0	A
– "RWE"	[030-039]	1	0	A
– "RW"	[040-049]	4	0	A
– "SAS-H"	[050-059]	2	0	A
– "FSS"	[060-069]	2	0	A
– "QRS"	[070-079]	2	2	A
– "STR_MAPPER"	[080-089]	0	1	A
– "AAD"	[090-099]	0	1	A
– "SAS-P"	[100-10~~9~~]	0	3	A
– "A_PSEUDO_H"	[108]	1	0	A
– "A_PSEUDO_P"	[109]	0	1	A
– "ACC_SW_H"	[110-11~~9~~]	1	0	B
– "B_PSEUDO_H"	[118]	1	0	B
– "ACC-SW_P"	[120-12~~9~~]	0	1	B
– "B_PSEUDO_P"	[129]	0	1	B
– "RCS_H"	[130-13~~9~~]	1	0	C
– "C_PSEUDO_H"	[138]	1	0	C
– "RCS_P"	[140-14~~9~~]	0	1	C
– "C_PSEUDO_P"	[149]	0	1	C
– "CDMU"	[150-15~~9~~]	1	1	D
– "D_PSEUDO_H"	[158]	1	0	D

–	"D_PSEUDO_P"	[159]	0	1	D
–	"CDMU_SW_H"	[160-1679]	1	0	E
–	"E_PSEUDO_H"	[168]	1	0	E
–	"CDMU_SW_P"	[170-1779]	0	1	E
–	"E_PSEUDO_P"	[179]	0	1	E
–	"FRAME_STR"	[180-1879]	TBD	TBD	F
–	"F_PSEUDO_H"	[188]	1	0	F
–	"F_PSEUDO_P"	[189]	0	1	F
–	"HIFI"	[190-2379]	1	0	H
–	"H_PSEUDO_H"	[238]	1	0	H
–	"HFI"	[240-2879]	0	1	H
–	"H_PSEUDO_P"	[289]	0	1	H
–	"SYSTEM"	[290-2979]	TBD	TBD	J
–	"J_PSEUDO_H"	[298]	1	0	J
–	"J_PSEUDO_P"	[299]	0	1	J
–	"CRYO_ELEC"	[300-309]	1	0	K
–	"CRYOSTAT"	[310-3179]	1	0	K
–	"K_PSEUDO_H"	[318]	1	0	K
–	"LFI"	[320-3679]	0	1	L
–	"L_PSEUDO_P"	[369]	0	1	L
–	"RAD_MON"	[370-3779]	TBD	TBD	M
–	"M_PSEUDO_H"	[378]	1	0	M
–	"M_PSEUDO_P"	[379]	0	1	M
–	"PACS"	[380-4279]	1	0	P
–	"P_PSEUDO_H"	[428]	1	0	P
–	"LGA"	[430-439]	2	3	R
–	"MGA"	[440-449]	1	1	R
–	"RFDN"	[450-459]	1	1	R
–	"TWTA"	[460-469]	2	2	R
–	"TRSP"	[470-4779]	2	2	R
–	"R_PSEUDO_H"	[478]	1	0	R
–	"R_PSEUDO_P"	[479]	0	1	R
–	"SPIRE"	[480-5279]	1	0	S

–	"S_PSEUDO_H"	[528]	1	0	S
–	"SRP_COOLER"	[530-5579]	0	1	S
–	"S_PSEUDO_P"	[559]	0	1	S
–	"THERMAL_H"	[600-7479]	1	0	T
–	"T_PSEUDO_H"	[748]	1	0	T
–	"THERMAL_P"	[750-8979]	0	1	T
–	"T_PSEUDO_P"	[899]	0	1	T
–	"VISUAL_MON"	[560-5624]	TBD	TBD	V
–	"V_PSEUDO_H"	[563]	1	0	V
–	"V_PSEUDO_P"	[564]	0	1	V
–	"PCDU"	[565-569]	1	1	W
–	"BATTERY"	[570-574]	1	1	W
–	"SOLAR_AR_H"	[575-579]	1	0	W
–	"SOLAR_AR_P"	[580-5824]	0	1	W
–	"W_PSEUDO_H"	[583]	1	0	W
–	"W_PSEUDO_P"	[584]	0	1	W
–	"STR_SW"	[585-5879]	1	0	X
–	"X_PSEUDO_H"	[588]	1	0	X
–	"X_PSEUDO_P"	[589]	0	1	X
–	EGSE	[900-987998]	1	1	Y
–	"Y_PSEUDO_H"	[988]	1	0	R
–	"Y_PSEUDO_P"	[989]	0	1	R
–	"PSEUDO_H"	[9989-9989]	1	1	Z
–	"PSEUDO_P"	[999-999]	1	1	Z

~~1.3~~6.3 Position

NMCVT-75~~2~~10-C - Position allocation - I

The "position" identifier of different "theoretical elements" belonging to a "theoretical model" shall be allocated as follows (A range, closed~~identical~~ to the one provided for "theoretical element" number is provided for each element and for the same reason - In addition, this table provides the 1553 bus and OBDH address) :

Theoretical element identifier	Position Number	CDMS Bus 1553 address	CDMS Bus OBDH address	ACC Bus 1553 address	ACC Bus OBDH address
– "ACC"	[001-009]				
– "GYRO"	[010-019]				
– "STR1"	[020-029]				
– "STR2"	[020-029]				
– "RWE"	[030-039]				
– "RW1"	[040-049]				
– "RW2"	[040-049]				
– "RW3"	[040-049]				
– "RW4"	[040-049]				
– "SAS-H1"	[050-059]				
– "SAS-H2"	[050-059]				
– "FSS1"	[060-069]				
– "FSS1"	[060-069]				
– "QRS1"	[070-079]				
– "QRS2"	[070-079]				
– "STR_MAPPER"	[080-089]				
– "AAD"	[090-099]				
– "SAS-P1"	[100-107~~9~~]				
– "SAS-P2"	[100-107~~9~~]				
– "SAS-P3"	[100-107~~9~~]				
– "A_PSEUDO_H"	[108]				
– "A_PSEUDO_P"	[109]				
– "ACC_SW "	[110-117~~29~~]U				

[120-127]

- "B_PSEUDO_H" [118]
- "B_PSEUDO_P" [129]
- "RCS" [130-13749]U [140-147]
- "C_PSEUDO_H" [138]
- "C_PSEUDO_P" [149]
- "CDMU" [150-1579]
- "D_PSEUDO_H" [158]
- "D_PSEUDO_P" [159]
- "CDMU_SW" [160-16779]U [170-177]
- "E_PSEUDO_H" [168]
- "E_PSEUDO_P" [179]
- "FRAME_STR" [180-1879]
- "F_PSEUDO_H" [188]
- "F_PSEUDO_P" [189]
- "HIFI" [190-2379]
- "H_PSEUDO_H" [238]
- "HFI" [240-2879]
- "H_PSEUDO_P" [289]
- "SYSTEM" [290-2979]
- "J_PSEUDO_H" [298]
- "J_PSEUDO_P" [299]
- "CRYO_ELEC" [300-309]
- "CRYOSTAT" [310-3179]
- "K_PSEUDO_H" [318]
- "LFI" [320-3679]
- "L_PSEUDO_P" [369]
- "RAD_MON" [370-3779]
- "M_PSEUDO_H" [378]
- "M_PSEUDO_P" [379]
- "PACS" [380-4279]
- "P_PSEUDO_H" [428]

- "LGA1" [430-439]
- "LGA2" [430-439]
- "LGA3" [430-439]
- "MGA" [440-449]
- "RFDN" [450-459]
- "TWTA1" [460-469]
- "TWTA2" [460-469]
- "TRSP1" [470-4779]
- "TRSP2" [470-4779]
- "R_PSEUDO_H" [478]
- "R_PSEUDO_P" [479]
- "SPIRE" [480-5279]
- "S_PSEUDO_H" [528]
- "SRP_COOLER" [530-5579]
- "S_PSEUDO_P" [559]
- "THERMAL" [600-747899]U [750-897]
- "T_PSEUDO_H" [748]
- "T_PSEUDO_P" [899]
- "VISUAL_MON" [560-5624]
- "V_PSEUDO_H" [563]
- "V_PSEUDO_P" [564]
- "PCDU" [565-569]
- "BATTERY" [570-574]
- "SOLAR_AR" [575-5824]
- "W_PSEUDO_H" [583]
- "W_PSEUDO_P" [584]
- "STR_SW" [585-5879]
- "X_PSEUDO_H" [588]
- "X_PSEUDO_P" [589]
- "EGSE" [900-98798]
- "Y_PSEUDO_H" [988]
- "Y_PSEUDO_P" [989]
- "PSEUDO_H" [9989-9989]

– "PSEUDO_P" [999-999]

7. ATTRIBUTES REQUIREMENTS

7.1 Application ID

NMCVT-7500-C - Application identifier allocation - I
The application identifiers allocation shall be as follows per subsystem : According to RD3 annexe 3.

NMCVT-7600-C - Description - I
The descriptions (long and short) shall : – Consist of 26 letters of upper and lower case english alphabet A-Z, digits 0-9, 'space', plus and minus signs, – Not contain a quote, double quote, accent, comma, colon, full-stop, and semi-colon, – Not contain any special or non-printing character and in particular the under score unless it is absolutely necessary to define the data item, – Be as readable as possible, – Have an understandable abbreviations and acronyms, – Not be left empty.

7.1.1 Short description

NMCVT-7610-C - Short description - I
TBW

~~*1.1.2*~~*7.1.2 Long description*

NMCVT-7620-C - Long description - I
TBW

~~1.2~~7.2 Software parameter identifier

NMCVT-7800-C - Software parameter identifier - I
"Software parameter" identifier shall : – Be of IDIN05F (limited to 65535) subtype with the following limitations : ▪ Generated by software SDE and reloaded inside HPSDB. – Be unique for a "software (CDMU or ACC) and real model".

8. ANNEX 1 : COMPLIANCE MATRIX WITH RD1

RD1	Naming convention	Compliance	Remarks
General Conventions There shall be logically distinct databases for Herschel and Planck – this implies that the same naming conventions may be may be used for both Herschel and Planck. The naming convention will not provide the means for the logical distinction.		C	Supported by ~~AD1~~RD4
A4.1 Field width constraints See AD-8.		PC	To be detailed during HPSDB development
A4.2 Descriptions Many tables in AD-8 include a descriptive field. This should be human-readable and gives further information on the record. The description provided for any data item should: • Consist of 26 letters of upper and lower case English alphabet A-Z, digits 0-9 and 'space',and the plus and minus signs; • Not contain a quote, double-quote, accent, comma, colon, full-stop or semi-colon; • Not contain any special or non-printing character and in particular the under score unless it is absolutely necessary to define the data item; • Be as readable as possible; • Have understandable abbreviations and acronyms;	NMCVT-7600-C	C	

RD1	Naming convention	Compliance	Remarks
• Not be left empty.			
A4.3 Subsystem identifiers Subsystem identifiers are used to uniquely identify the relevant spacecraft subsystem for the data item in question. For the Herschel-Planck project the following identifiers have been defined (TBC when system definition complete):	NMCVT-4113-C	C	The following subsystems have been added : "C" for RCS "K" for Herschel CRYO "Y" for EGSE "Z" for pseudo (due to HPSDB)
A + B for Attitude and Orbit Control Subsystem (AOCS)	NMCVT-7500-C	PC	A : compliant B : not compliant
D + E for On-Board Data Handling Subsystem (CDMS)	NMCVT-7500-C	PC	D : compliant E : Not compliant
J for system	NMCVT-7500-C	C	To be clarify
W for Electrical Power Subsystem (PS or EPSS)	NMCVT-7500-C	C	
R for Radio Frequency Subsystem (TT&C)	NMCVT-7500-C	C	
T for Thermal Control Subsystem (TCS)	NMCVT-7500-C	C	
M for Radiation Monitor	NMCVT-7500-C	C	To be clarify
V for Visual Monitor Camera	NMCVT-7500-C	C	
F for Frame- structure etc.	NMCVT-7500-C	C	To be clarify
A for ACC Software Parameters	NMCVT-7500-C	NC	Set to B instead of A
C for CDMS Software Parameters	NMCVT-7500-C	NC	Set to E instead of C

RD1	Naming convention	Compliance	Remarks
X for Star Tracker Software Parameters	NMCVT-7500-C	C	
H for HIFI	NMCVT-7500-C	C	
P for PACS	NMCVT-7500-C	C	
S for SPIRE	NMCVT-7500-C	C	
H for HFI	NMCVT-7500-C	C	
L for LFI	NMCVT-7500-C	C	
S for Sorption Cooler Subsystem	NMCVT-7500-C	C	
The Char 8 fields shall have the following format: The first character shall be a sub-system identifier selected from the above list as appropriate. The second character shall be a function specifier, as indicated in the following table. The remaining characters shall consist of the digits 0-9 inclusive and the 23 uppercase letters of the English alphabet (A-Z without the letters O, Q, or I, to minimise the likelihood of transcription errors when these are typed manually).		PC	The plus, minus, underscore, dash and dot characters are also allowed (NMCVT-0100-C) according to RD2 chapter 3.3 third bullet.
Parameter identifier (ground) : PCF_NAME Char 8 M, C,D (C for Constants D for Synthetic Parameters)	NMCVT-5130-C	PC	➢ Other function specifier have been added (NMCVT-0110-C - Subtype IDE201F) : ~~?"K" for constante ("C" is used for TC"~~ ➢ "Z" for system parameters ➢ "U" for user parameters

RD1	Naming convention	Compliance	Remarks
			➢ The "type of data" is the sixth character instead of eighth.
Parameter identifier (on-board) PCF_PID N10	NMCVT-7800-C	C	Warning : in RD3 (PSICD) the software parameter is coded on 16 bits so cannot be grater than 65535 (N5).
Monitoring numerical curve identifier CAF_NUMBR N4	NMCVT-5370-C	NC	N9 instead of N4
monitoring texte curve identifier TXF_NUMBR N4	NMCVT-5370-C	NC	N9 instead of N4
monitor plynomial curve identifier MCF_IDENT N4	NMCVT-5370-C	NC	N9 instead of N4
Monitor packet identifier (fixed length) PID_SPID N10	NMCVT-4380-C	C	
Monitor packet identifier (variable length) PID_TPSD N10	NMCVT-4380-C	C	
Alphanumeric display DPF_NUMBE Char8 A (AM - *Displays created to feed data for a Mimic shall use Function Specifier AM)*	NMCVT-6100-C	C	
Grphic display identifier GPF_NUMBE Char8 G	NMCVT-6110-C	C	

RD1	Naming convention	Compliance	Remarks
Scrolling display identifier SCF_NUMBE Char8 L	NMCVT-6130-C	C	
TC packet header TCP_ID Char8 X	NMCVT-4505-C	C	To be confirmed
TC packet header parameter PCPC_PNAME Char8 Y	NMCVT-5130-C	PC	Defined as any other parameters
TC packet identifier CCF_CNAME Char8 C	NMCVT-4580-C	C	
Command parameter CPC_PNAME Char8 P	NMCVT-5130-C	C	
Command sequence CSF_NAME Char8 S	NMCVT-4660-C	C	
Command sequence formal parameter CSP_FPNAME Char8 F		C	
Verification stage identifier CVS_ID N5		PC	Via expected effect of TC

RD1	Naming convention	Compliance	Remarks
Command parameter set PST_NAME Char8 T		C	
Command parameter set value PSV_PVSID Char8 V		C	
Command numerical curve CCA_NUMBR N4	NMCVT-5370-C	NC	N9 instead of N4
Command textual curve PAF_NUMBR N4	NMCVT-5370-C	NC	N9 instead of N4
Command sequence parameter range check PRF_NUMBR N4		NC	As for curve the N4 length is too limited.
N10 => Ten digit number N such that 0 < N < 2^{32} -1		NC	Non-duplication guaranty by HPSDB instanciations
N5 => Five digit number 00000 - 32767		NC	Non-duplication guaranty by HPSDB instanciations
N4 => Four digit number 0001 - 9999		NC	Non-duplication guaranty by HPSDB instanciations
Char8 => Eight Character alphanumeric identifier intended for Human use.	NMCVT-0110-C	C	
N4 : 1 000 - 1 999 HIFI HFI		NC	Non-duplication guaranty by HPSDB instanciations
N4 : 2 000 - 2 999 PACS LFI		NC	Non-duplication guaranty by

RD1	Naming convention	Compliance	Remarks
			HPSDB instanciations
N4 : 3 000 - 3 999 SPIRE Sorption Cooler Subsystem		NC	Non-duplication guaranty by HPSDB instanciations
N4 : 4 000 - 8 999 Alcatel		NC	Non-duplication guaranty by HPSDB instanciations
N4 : 9 000 - 9 999 ESOC		NC	Non-duplication guaranty by HPSDB instanciations
N5 : 00 001- 02 999 HIFI HFI		NC	Non-duplication guaranty by HPSDB instanciations
N5 : 03 000- 05 999 PACS LFI		NC	Non-duplication guaranty by HPSDB instanciations
N5 : 06 000 - 08 999 SPIRE Sorption Cooler Subsystem		NC	Non-duplication guaranty by HPSDB instanciations
N5 : 09 000 - 19 999 Alcatel		NC	Non-duplication guaranty by HPSDB instanciations
N5 : 20 000 - 29 999 ESOC		NC	Non-duplication guaranty by HPSDB instanciations
N10 : 10 000 000 -19 999 999 HIFI HFI		NC	Non-duplication guaranty by HPSDB instanciations
N10 : 20 000 000 -29 999 999 PACS LFI		NC	Non-duplication guaranty by HPSDB instanciations
N10 : 30 000 000 -39 999 999 SPIRE Sorption Cooler Subsystem		NC	Non-duplication guaranty by HPSDB instanciations
40 000 000 - 79 999 999 Alcatel		NC	Non-duplication guaranty by

RD1	Naming convention	Compliance	Remarks
			HPSDB instanciations
80 000 000 - 99 999 999 ESOC		NC	Non-duplication guaranty by HPSDB instanciations
Experience indicates that it can also be very useful to indicate the type of data being communicated by a telemetry item or the destination of a command. For example T for a temperature, V for a voltage, C for a current, D for a discrete hardware measurement, W for a software parameter if a separate identifier has not been made available. This type information should be the final character of the Designator, when supplied.	NMCVT-0110-C	NC	Impossible to comply with this request (not mandatory) and some identifier length too short (TC packet, Parameters, …)
A4.4 Telemetry Packet Packet identifiers shall be allocated on the basis of the source of the packet. Example 10000003 could be defined by HIFI	NMCVT-4380-C	NC	Non-duplication guaranty by HPSDB instanciations
A4.5 Command Master Function Number: Example: AC0001 (Command number for the AOCS subsystem)	NMCVT-4580-C	C	Warning : the example looks wrong : 6 characters.
A4.5.1 Command Parameter Reference Number, (PREF): Example: AP0001 (Command parameter for the AOCS subsystem) Please note that the command parameter name is not used to link it to any given command packet because they can be used in many different packets and therefore are not unique across them. They are unique within their own table and therefore no two-command parameters can share the same name.	NMCVT-5130-C	C	Warning : the example looks wrong : 6 characters and no "type of parameter".
A4.5.2 Command Sequences: Command sequences shall be identified the subsystem identifier and the letter S for sequence. For	NMCVT-4660-C	C	Warning : the example looks wrong : 6 characters.

RD1	Naming convention	Compliance	Remarks
example AS123 is a sequence for the AOCS subsystem. Example: AS001svt			
A4.6 Telemetry Parameters A telemetry parameter shall be the relevant subsystem code letter and followed by the data type. Example: AM1234	NMCVT-5130-C	C	Warning : the example looks wrong : 6 characters.
A4.6.1 Derived or Synthetic Parameters: Derived parameters shall be identified by the subsystem identifier followed by the letter D (Derived or Synthetic) followed by a four-digit unique number derived parameter type designator T and a four-digit unique number and.) Where T can be: S – Saved (Supported by the system) H - Hard coded (Needs C++ complier.) D – Dynamic (Most common. Supported directly by the editor application) Example: ADD0004 (Leading zeros are required) ADS1234 All synthetic parameters must be defined in the telemetry database.	NMCVT-5130-C	PC	Warning : requirement unclear, but potential modification of naming convention for "T" code" ??? Warning : the example looks wrong : 6 characters.
A4.6.3 Constant Parameters: Constant parameters shall be identified by the subsystem identifier followed by the letter C (Constant) followed by a four-digit unique number. (i.e. AC1234)	NMCVT-5130-C	C	Warning : the example looks wrong : 6 characters.
A4.7.1 Alphanumeric Displays (AND): AND naming shall use the subsystem identifier followed by the letter A (e.g. AA1234)	NMCVT-6100-C	C	Warning : the example looks wrong : 6 characters.
A4.7.2 Graphical Displays (GRD): GRD naming shall use the subsystem identifier followed by the letter G (e.g. AG1234)	NMCVT-6110-C	C	Warning : the example looks wrong : 6 characters.
A4.7.3 Mimic Alphanumeric Displays: Mimic alphanumeric displays (One Mimic alphanumeric display	NMCVT-6120-C	C	Warning : the example looks

RD1	Naming convention	Compliance	Remarks
must be defined for each Mimic Diagram created) use the subsystem identifier followed by AM (e.g. AAM1234).			wrong : 6 characters.
A4.7.4 Mimic Display Diagrams (MDD): MDD naming shall use the subsystem identifier followed by the function specifier AD (i.e. AAD1234)	NMCVT-6125-C	C	Warning : the example looks wrong : 6 characters.
A4.7.5 Scrolling Log Displays (SLD): SLD naming shall use the subsystem identifier followed by the function specifier L followed by a four-digit number (i.e. AL1234)	NMCVT-6130-C	C	Warning : the example looks wrong : 6 characters.
A4.8 Convention to be used for Procedures: Subsystem Identifier TBC:. AOC for AOCS DHS for CDMS EPS for Power TCS for TCS TTC for RF part of command, telemetry and tracking RM for Radiation Monitor VMC for Visual Monitoring Camera OBS for On-Board Software procedures SYS for Systems Procedures MPP for Mission Planning Procedures PAC for PACS HIF for HIFI SPI for SPIRE HFI for HFI LFI for LFI SOR for Sorption Cooler System		NC	Not covered by HPSDB tool
A4.8.1 Flight Control Procedures, FCP: FCP's shall be referenced using a four-digit number preceded by **FCP**_ and the relevant subsystem		NC	Not covered by HPSDB tool

RD1	Naming convention	Compliance	Remarks
identifier followed by 'underscore' (i.e. **FCP_AOC_123**4) Note: leading zeros are required (i.e. **FCP_AOC_000**1)			
A4.8.2 Contingency Recovery Procedures: CRP's shall be referenced using four digit number preceded by CRP_ and the relevant subsystem identifier followed by underscore' (i.e. CRP_AOC_1234) Note: leading zeros are required (i.e. CRP_AOC_0001)		NC	Not covered by HPSDB tool
A4.8.3 Timelines: The character string TDoyFfNn shall identify Timelines as follows: Where: T = Timeline Doy = Day of Year Ff = File number Nn = Version number		NC	Not covered by HPSDB tool To be clarify.

9. SUMMARY

9.1 Configuration

NMVCT-4030-C

Theoretical element															
IDCH11F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4040-C

Theoretical element nb															
IDIN03F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4050-C

real element															
Theoretical element											Real element number				
IDCH11F											IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4060-C

Real element number															
IDIN03F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4100-C

Theoretical model															
IDCH10F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4113-C

Subsyst.															
IDCHO1F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4114-C

Subsystem number															
IDINO2F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4117-C

Position															
IDIN03F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4120-C

real model					
Theoretical model	real model number				

IDCH10F										IDIN02F					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4130-C

Real model nb.															
IDIN02F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

~~1.2~~9.2 Telemetry packets

NMVCT-4305-C

TM packet standard template															
Subsyst.															
Z	X	T	M	S	D	IDIN04F									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4320-C

TM packet PSICD template															
Subsyst.						type			subtype						
Z	X	T	M	P	S	IDIN03F			IDIN03F						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4340-C

Theoretical TM packet													

IDIN04F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4360-C

Theoretical TM structure															
theoretical element															
IDIN03F			T	M	S	T	IDIN04F								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4374-C

Theoretical TM packet group															
theoretical element															
IDIN03F			T	M	G	R	IDIN04F								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4380-C

Real TM packet															
Subsystem number			Theoretical TM packet			Position									
IDIN02F			IDIN04F			IDIN03F									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4400-C

Real TM structure					
Theoretical TM structure			Position		
theoretical element					

IDIN03F			T	M	S	T	IDIN04F				IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4420-C

Real TM packet group															
Theoretical TM packet group											Position				
theoretical element															
IDIN03F			T	M	G	R	IDIN04F				IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4440-C

Model TM packet definition															
Subsystem number		Theoretical TM packet				Pseudo position									
IDIN02F		IDIN04F				IDIN03F									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4450-C

Model TM structure definition															
Pseudo theoretical TM structure											Pseudo position				
Pseudo theoretical element															
IDIN03F			T	M	S	T	IDIN04F				IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4455-C

Model TM packet group definition															
pseudo theoretical TM packet group											Pseudo position				
Pseudo theoretical element															
IDIN03F			T	M	G	R	IDIN04F				IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

~~1.3~~9.3 Telecommand packets

NMVCT-4505-C

TC packet standard template															
Subsyst.															
Z	X	T	C	S	D	IDIN04F									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4520-C

TC packet PSICD template															
Subsyst.						type			subtype						
Z	X	T	C	P	S	IDIN03F			IDIN03F						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4540-C

Theoretical TC packet															
Function															
C	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4560-C

Theoretical TC structure															
theoretical element															
IDIN03F			T	C	S	T	IDIN04F								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4574-C

Theoretical TC packet group															
theoretical element															
IDIN03F			T	C	G	R	IDIN04F								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4580-C

Real TC packet															
Subsyst.	Theoretical TC packet				Position										
	Function														
IDCH01F	C	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4600-C

Real TC structure								
Theoretical TC structure						Position		
theoretical element								
IDIN03F	T	C	S	T	IDIN04F	IDIN03F		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4620-C

Real TC packet group															
Theoretical TC packet group											Position				
theoretical element															
IDIN03F			T	C	G	R	IDIN04F				IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4640-C

Model TC packet definition															
Subsyst.	Theoretical TC packet				Pseudo position										
	Function														
IDCH01F	C	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4650-C

Model TC structure definition															
Pseudo theoretical TC structure											Pseudo position				
Pseudo theoretical elem.															
IDIN03F			T	C	S	T	IDIN04F				IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4655-C

Model TC packet group definition		

Pseudo theoretical TC packet group											Pseudo position				
Pseudo theoretical elem.															
IDIN03F			T	C	G	R	IDIN04F				IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

9.4 Command sequences

NMVCT-4657-C

Theoretical command sequence															
Function															
S	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMCVT-4670-C

Theoretical formal parameter															
Function															
H	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4672-C

Real command sequence															
Subsyst.	Theoretical command sequence				Position										
	Function														
IDCH01F	S	IDCH03F			IDCIN3F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4074-C

Real formal parameter															
Subsyst.	Theoretical formal parameter				Position										
	Function														
IDCH01F	H	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4675-C

Model command sequence definition															
Subsyst.	Theoretical command sequence				Pseudo position										
	Function														
IDCH01F	S	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4676-C

Model formal parameter definition															
Subsyst.	Theoretical formal parameter				Pseudo position										
	Function														
IDCH01F	C	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

~~9.4~~9.5 1553 messages

NMVCT-4705-C

1553 comand word															
Subsyst.															
IDCH01F	X	B	U	C	W	IDIN04F									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4725-C

1553 status word															
Subsyst.						RT address		Subaddress							
IDCH01F	X	B	U	S	W	IDIN02F		IDIN02F							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4740-C

Theoretical 1553 message															
Theoretical element							A/C								
IDIN03F			B	U	M	G	IDCH01F	IDIN03F							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4760-C

Theoretical 1553 structure															
theoretical element							A/C								
IDIN03F			B	U	S	T	IDCH01F	IDIN03F							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4774-C

Theoretical 1553 message group					

theoretical element							A/C								
IDIN03F			B	U	G	R	IDCH01F	IDIN03F							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4780-C

Real 1553 message															
Theoretical 1553 message											Position				
Theoretical element							A/C								
IDIN03F			B	U	M	G	IDCH01F	IDIN03F			IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4800-C

Real 1553 structure															
Theoretical 1553 structure											Position				
theoretical element							A/C								
IDIN03F			B	U	S	T	IDCH01F	IDIN03F			IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4820-C

Real 1553 message group															
Theoretical 1553 message group											Position				
theoretical element							A/C								
IDIN03F			B	U	G	R	IDCH01F	IDIN03F			IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4840-C

Model 1553 message definition															
Pseudo theoretical 1553 message											Pseudo position				
Pseudo theoretical element							A/C								
IDIN03F			B	U	M	G	IDCH01F	IDIN03F			IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4850-C

Model 1553 structure definition															
Pseudo theoretical 1553 structure											Pseudo position				
Pseudo theoretical element							A/C								
IDIN03F			B	U	S	T	IDCH01F	IDIN03F			IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4860-C

Model 1553 message group definition															
Pseudo theoretical 1553 message group											Pseudo position				
Pseudo theoretical element							A/C								
IDIN03F			B	U	G	R	IDCH01F	IDIN03F			IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

~~9.5~~9.6 OBDH interfaces

NMVCT-4974-C

Theoretical OBDH interrogation					

Theoretical element							A/C								
IDIN03F			D	H	I	N	C	IDIN03F							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-4990-C

Theoretical OBDH interrogation group															
theoretical element							A/C								
IDIN03F			D	H	G	R	C	IDIN03F							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5020-C

Real OBDH interrogation															
Theoretical OBDH interrogation											Position				
Theoretical element							A/C								
IDIN03F			D	H	I	N	C	IDIN03F			IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5044-C

Real OBDH interrogation group															
Theoretical OBDH interrogation group											Position				
theoretical element							A/C								
IDIN03F			D	H	G	R	C	IDIN03F			IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5060-C

Model OBDH interrogation definition																
Pseudo theoretical OBDH interrogation											Pseudo position					
Pseudo theoretical element							A/C									
IDIN03F			D	H	I	N	C	IDIN03F			IDIN03F					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

NMVCT-5080-C

Model OBDH interrogation group definition																
Pseudo theoretical OBDH interrogation group											Pseudo position					
Pseudo theoretical element							A/C									
IDIN03F			D	H	G	R	C	IDIN03F			IDIN03F					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

~~9.6~~9.7 Parameters

NMVCT-5110-C

Theoretical parameter															
Function															
IDE201F	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5120C

Condition number															
IDINO2F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5126-C

Theoretical parameter group															
theoretical element															
IDIN03F			P	A	G	R	IDIN04F								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5130-C

Real parameter															
Subsyst.	Theoretical parameter				Position										
	Function														
IDCH01F	IDE201F	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5150-C

Model parameter definition															
Subsyst.	Theoretical parameter				Pseudo position										
	Function														
IDCH01F	IDE201F	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5160-C

Real parameter group					
Theoretical parameter group			Position		
theoretical element					

IDIN03F			P	A	G	R	IDIN04F				IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5175-C

Model parameter group definition															
Pseudo theoretical parameter group											Pseudo position				
Pseudo theoretical element															
IDIN03F			P	A	G	R	IDIN04F				IDIN03F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5210-C

Theoretical parameter set															
Function															
T	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5215-C

Real parameter set															
Subsyst.	Theoretical parameter set				Position										
	Function														
IDCH01F	T	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5217-C

Model parameter set definition															

Subsyst.	Theoretical parameter set				Pseudo position											
	Function															
IDCH01F	T	IDCH03F			IDIN03F											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

NMVCT-5220-C

Theoretical parameter set value															
Function															
V	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5225-C

Real parameter set value															
Subsyst.	Theoretical parameter set value				Position										
	Function														
IDCH01F	V	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5227-C

Model parameter set value definition															
Subsyst.	Theoretical parameter set value				Pseudo position										
	Function														
IDCH01F	V	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5250-C

Theoretical parameter range set															
Function															
R	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5255-C

Real parameter range set															
Subsyst.	Theoretical parameter range set				Position										
	Function														
IDCH01F	R	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-5257-C

Model parameter range set definition															
Subsyst.	Theoretical parameter range set				Pseudo position										
	Function														
IDCH01F	R	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

~~9.7~~9.8 Curves

NMVCT-5355C

Generic curve															

Subsyst.	Theoretical parameter range set				Pseudo position											
	Function															
IDCH01F	H	IDCH03F			IDIN03F											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

NMVCT—5360C

Theoretical element curves															
Theoretical element number															
IDIN03F			IDIN03F												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT—5365C

Real element curves															
Element parameter				Condition number											
IDCH04F				IDIN02F											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT—5370C

Theoretical model curves															
Pseudo theoretical element nb															
IDIN03F			IDIN03F												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT—5375C

Real model curves						

Model parameter								Condition number							
IDCH08F								IDIN02F							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

~~9.8~~9.9 Displays

NMVCT-6050-C

Theoretical alphanumeric display															
Function															
A	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-6105-C

Theoretical graphic display															
Function															
G	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-6128-C

Theoretical scrolling display															
Function															
L	IDCH03F														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-6150-C

Real display															
Subsyst.	Theoretical display identifier				Position										
IDCH01F	IDCH04F				IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-6160-C

Model alphanumeric display definition															
Subsyst.	Theoretical alphanumeric display				Pseudo position										
	Function														
IDCH01F	A	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-6170-C

Model graphic display definition															
Subsyst.	Theoretical graphic display				Pseudo position										
	Function														
IDCH01F	G	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

NMVCT-6200-C

Model scrolling display definition															
Subsyst.	Theoretical scrolling display				Pseudo position										
	Function														
IDCH01F	L	IDCH03F			IDIN03F										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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