

PRODUCTS NAMING STANDARD CONVENTION

prepared by/ <i>préparé par</i>	Gian Maria Pinna
reference/ <i>référence</i>	PGSI-GSEG-EOPG-TN-06-0001
issue/ <i>édition</i>	2
revision/ <i>révision</i>	0
date of issue/ <i>date d'édition</i>	18 June 2007
status/ <i>état</i>	Final
Document type/ <i>type de document</i>	
Distribution/ <i>distribution</i>	

A P P R O V A L

Title	Products Naming Standard Convention	issue 2	revision 0
<i>titre</i>		<i>issue</i>	<i>revision</i>

author	Gian Maria Pinna	date	18 June 2007
<i>auteur</i>		<i>date</i>	

C H A N G E L O G

reason for change /raison du changement	issue/issue	revision/revision	date/date
Modification of JERS SAR Product Code	1	5	22 June 2006
Improvement of naming convention for products other than SAFE to include the CRC-16 calculated from the production date	1	6	05 July 2006
Revised table 1	1	7	23 August 2006
Included definition of CRC-16 algorithm	1	8	19 October 2006
CRC-16 algorithm clarification	1	8	19 October 2006
Revised product codes plus other changes	1	9	02 April 2007
Improvement of naming convention to allow different uniqueness file name code types. Removed codes tables in favour of an external applicable document. Other minor changes.	2	0	18 June 2007

C H A N G E R E C O R D

Issue: 2 Revision: 0

reason for change/raison du changement	page(s)/page(s)	paragraph(s)/paragraph(s)

<i>reason for change/raison du changement</i>	<i>page(s)/page(s)</i>	<i>paragraph(s)/paragraph(s)</i>
Added Reference to EO Parameters Codes document and removed reference to ODISSEO Station Code Reference document.	2	2
Added clarifications on the uniqueness file name identifier.	4	3
Removed codes tables.	5 and following	4
Corrected examples.	10	5

T A B L E O F C O N T E N T S

1	INTRODUCTION	1
2	REFERENCE AND APPLICABLE DOCUMENTS	2
3	NAMING CONVENTION	3
4	EXAMPLES OF PRODUCTS NAMES	5

1 INTRODUCTION

This is a proposal for the naming convention applicable to the ESA generated products.

The proposed convention is taking into account the ESA Earth Explorer File Format Standard v1.4 (CS-TN-ESA-CS-0154) and the Envisat naming convention, even if it deviates from both conventions. For multi-files products, this is the name of the containing directory. The name elements are separated by underscores.

Note: this convention is applicable to:

- Single file archived products for the missions/sensors that do not have a “native” product names
- Single file products distributed to end users for the missions/sensors that do not have a “native” product names
- Multi-files products to be archived and/or distributed to the end users, and that have to be packaged either in a directory or another type of packaging (zip, tar, etc.), and for which a standard name for the package is not already existing. In the case such standard package name does not exist, this convention has to be used for the name of the directory or package file.

Note 2: this convention is NOT applicable to:

- Single file products for the missions/sensors that already have a “native” product names (e.g. Envisat)
- Multi-file products packaged in a directory or other type of packaging (e.g. zip, tar, etc.) and for which a standard name for the directory or package file already exists.

2 REFERENCE AND APPLICABLE DOCUMENTS

[AD-01] EO Parameters Codes, PGSI-GSEG-EOPG-TN-07-0001, V. 1.0, 18-June-2007

3 NAMING CONVENTION

This convention specifies a file name for the EO products, according to the following specification:

MMNN_TTTTTTTTTT_YYYYMMDDTHHMMSS_YYYYMMDDTHHMMSS_FFF_OOOOOO_XXXX.EEEE

The elements of the name are separated by underscores, and are specified according to the following table:

Name Element Description	Pattern	Comment
Satellite Name and Mission Number. See AD-01.	MMNN	2 uppercase letters and 2 numbers
File Type. See AD-01.	TTTTTTTTTT	10 uppercase letters, digits and underscores “_”
Validity Start Date and Time: YYYYMMDDTHHMMSS	<Validity Start>	15 characters (separated by “T”)
Validity End Date and Time: YYYYMMDDTHHMMSS	<Validity End>	15 characters (separated by “T”)
Originating Facility that generated the product package. See AD-01.	FFF	3 characters
Absolute orbit number at <Validity Start>	OOOOOO	Up to 6 characters, no leading zeroes
Uniqueness file name identifier, i.e. an alphanumeric string that ensure the uniqueness of the file name in the case of repetitive generation of the same product. The specific implementation might be format and mission dependent, with the following specifications: 1. SAFE products (mandatory): checksum calculated with CRC-16 computed on the entire SAFE Manifest file. 2a. Other product formats (recommended): checksum calculated with CRC-16 computed on the product generation date/time in ISO standard (for all other formats) or a file where the product generation date/time is contained, or 2b. Other product formats (mandatory if 2a cannot be implemented): a 4-character alphanumeric string that ensures the uniqueness of the file name. It can be defaulted to “0000” in the case no ambiguity exists. The CRC-16 algorithm is to be applied in his “direct” convention and with the following parameters: Generating polynomial: $x^{16} + x^{12} + x^5 + 1$ Initial value: 0xFFFF	XXXX	4-characters alphanumeric string, with leading zeroes
Extension. See AD-01.	.EEEE	Up to 4 characters

Table 1: Product naming convention

For what concerns the uniqueness file name identifier, it is to be noted that in the case of SAFE products it covers both the fundamental role of long-term preservation parameter and uniqueness value (up to certain limits), while for the other formats it is only (optionally) used to ensure a certain level of uniqueness. The usage of the checksum implemented in the present specification is an alternative to the commonly used sequential counters, which proved in the past to be of limited value across a distributed ground segment.

For formats other than SAFE the uniqueness file name identifier specification might be calculated as CRC-16 over a significant file (or portion of file) of the format. An example could be the MPH of some of the ESA formats. As this would be specific to each format, the minimal approach recommended in the present specification is to calculate it over the product generation date/time in ISO standard (i.e. as string in the format “YYYYMMDDThhmmss.nnn”).

Finally, as uniqueness file name identifier any 4-characters alphanumeric string can be used that ensures to the maximum extent the uniqueness of the file name. An example is the one of Envisat where a sequential numeric counter (0001, 0002, etc.) was used. As another example, for the IMAGE2006 project the Spot products file names use for the uniqueness identifier the string PRXX, where XX is the country code of the projection utilized.

The following conventions are used for the names of metadata and/or quick-look files and in particular the MMMC update files and the JPEG quick-look files associated to a product:

- a) the MMMC update file name takes the same file name of the product without the “format” extension and adds the suffix “_EX.xml”
- b) the MMMC JPEG quick-look file maintains the same name of the product apart the filename extension that takes the extension “.JPG”.

4 EXAMPLES OF PRODUCTS NAMES

1234567890123456789012345678901234567890123456789012345678901234567890
ER01_AT1_ATS_OP_19920531T234020_19920601T012340_GAT_4584_A2FC.ESA
ER01_AT1_ATS_OP_19920531T234020_19920601T012340_GAT_4584_1FA5.SAFE
EN01_ASA_WS__OP_20050130T080000_20050130T081000_ESR_15263_A2FC.ESA
EN01_ASA_WS__OP_20050130T080000_20050130T081000_ESR_15263_1FA5.SAFE
ER01_SAR_IM__OP_20050130T095200_20050130T100138_ESR_56123_A2FC.WILM
LS07_ETM_ETM_OP_20050130T095200_20050130T095320_ESR_33143_A2FC.WILM
LS05_TM__TM__OP_20050130T095200_20050130T095924_ESR_100098_A2FC.WILM
LS05_TM__TM__OP_20050130T095200_20050130T095924_ESR_100098_1FA5.SAFE
EA01_MOD_MOD_OP_20050214T191445_20050214T192443_KIR_27457_A2FC.WILM
JE01_JSA_IM__OP_19940210T142753_19940210T143528_TRO_1234_A2FC.WILM
JE01_VNI_VNI_OP_19940210T142753_19940210T143528_TRO_1234_A2FC.WILM
NO10_AVH_L1A_1P_20040530T131537_20040530T132433_MAS_12345_A2FC.SHRK
OV02_SWF_L1A_1P_20040421T124052_20040421T125104_MAT_12345_A2FC.SHRK
SP04_HRI1_X__1O_20070511T075231_20070511T080158_MAS_1234_PRSL.BIL
(example of not used CRC-16 code for Spot orthorectified products)
GO01_EGG_NOM_1B_20080114T084322_20080114T095823_KIR_1234_A2FC.EE