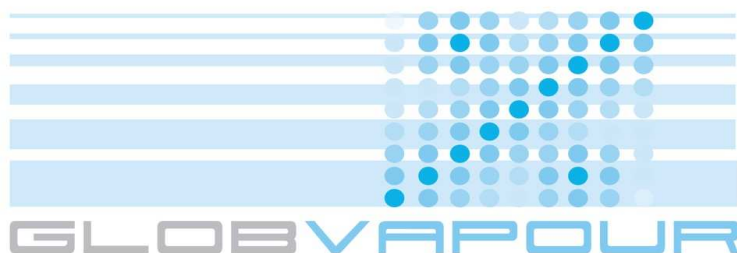




## DUE GLOBVAPOUR

### Filename Convention




Issue 2.0

19 January 2012

Project nr: ESRIN/AO/1-6090/09/I-OL


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	<b>Doc:</b>	GlobVapour_Filename_Convention_V2.0		
	<b>Date:</b>	19 January 2012		
	<b>Issue:</b>	2	<b>Revision:</b>	0


## Document Change Record

Document, Version	Date	Changes	Originator
DOC, v1.0	2010.08.17	Original version	Theo Steenbergen
DOC, v1.1	2010.12.21	External VAL_TIME size corrected Examples in Annex 1 and 2 corrected	Theo Steenbergen
DOC, v2.0	2011.12.13	Updated for final products	Nadine Schneider

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# 1 Introduction

## 1.1 Purpose

This document provides the filename convention for GlobVapour final products. It is differentiated between filenames for internal management and filenames for distribution to the end users. The mapping to the metadata attributes is indicated, if any. Realistic examples are given for clarity.

## 1.2 Definitions, acronyms and abbreviations

NetCDF-CF Network Common Data Form for Climate and Forecast

## 1.3 Applicable Documents


- AD-1 DUE GLOBVAPOUR Software Development Plan (SDP), issue 1, revision 0, dated 16 April 2010.
- AD-2 DUE GLOBVAPOUR Technical Specification Document (TSD), issue 1, revision 0, dated 16 April 2010.

## 1.4 Reference Documents

- RD-1 DUE GLOBVAPOUR Metadata Definition, issue 2, revision 0, dated 13 December 2011.

## 1.5 Structure of the document

Section 2 gives the rationale on the subject. The proposed file naming convention for internal and external usage is provided in section 3, with a concise discussion on the fields of concern and mapping to metadata attributes. Practical examples are given in the Annex.

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## 2 Rationale

The generated GlobVapour L2 and L3 output products must be named in a unique and uniform manner in order to enable consistent identification and efficient access for validation and visualisation tools.

The first requirement for the file naming convention is that the main metadata attributes are represented. A minimum set of information is required for unique identification of the products. This can be done by definition of a concatenated set of field components in a fixed order.

Another requirement is a fixed length (number of characters). This is accomplished through out-padding of fields with crosses ('x').

It is envisaged to apply a standard naming convention for both the 'intermediate' Level 2 products as well as the 'final' Level 3 output products.

The file name extension will be added in accord with the file format, which should normally be NetCDF-CF (extension '.nc').

## 3 Filename convention

### 3.1 Internal

For the internal management of all L2 and L3 GlobVapour products, the following file naming convention is proposed:

**<INSTR>\_<PROC\_LEVEL>\_<TYPE>\_<SAT>\_<VAL\_TIME>\_<PROC\_MODE>\_<PROC\_TIME>**

The meaning, size and possible values or format of each field is reflected in the table below. Non-relevant or empty fields are crossed out with 'x'. In this table, the mapping to the metadata attributes is also indicated [RD-1]. Note in this respect that the **filename** itself is also included as metadata attribute.

Amongst others, the following essential metadata attributes have been intentionally left out of the internal filenames for reasons of redundancy:

- 'version': The GlobVapour product version can be tracked for each product class (as defined by INSTRUMENTS), for given PROCESSING\_LEVEL, PROCESSING\_MODE and PROCESSING\_TIME, through a versioning system using a product generation or processing table.
- 'spatial': The spatial resolution should be static for each product class (as defined by INSTRUMENTS). If changed, it will be only upon version transition.

Table 3-1: File name fields of the GlobVapour NetCDF-CF products for internal usage.


Field	Description	Size	Value / Format	Metadata attribute
INSTR	Instrument(s) involved in the generation of the (combined) product	11	'GOMExxxxxxx', 'SCIAxxxxxxx', 'GOME+SCIAxx',  'SSMlxxxxxxx', 'MERISxxxxxx', 'SSMI+MERISx',  'ATSRxxxxxx', 'AATSRxxxxxx',  'IASIxxxxxxx', 'SEVIRIxxxxx', 'IASI+SEVIRI'	Related to 'instrument'
PROC_LEVEL	Processing level	2	'L2', 'L3'	Identical with 'level'
TYPE <sup>1)</sup>	Product type indicating the temporal resolution (3-hourly, daily, weekly, monthly) and type (mean, composite)	2	'3M', 'DM', 'WM', 'MM', 'DC' <sup>2)</sup>	Related to 'temporal' and 'type'
SAT <sup>3)</sup>	Satellite-id involved in the processing	3	'F13', 'N18', etc.	Related to 'satellite-id'
VAL_TIME <sup>4)</sup>	Validity date and time of the GlobVapour file	14	Format YYYYMMDDHHMMSS	Identical with 'validity'
PROC_MODE	Processing mode associated with the project phase, defining whether the product has been generated in Internal, Prototype, Test or End mode	1	'I', 'P', 'T', 'E'	N/A
PROC_TIME	Processing date and time (at file generation)	14	Format YYYYMMDDHHMMSS	Identical with 'timestamp'

<sup>1)</sup> This is not relevant for L2 products (which are typically orbit based).

<sup>2)</sup> Currently, composite products are only foreseen in combination with daily temporal resolution.

<sup>3)</sup> This is not relevant for L3 products (which are typically based on data from more than one satellite).

<sup>4)</sup> This involves the starting date/time of the validity period. This implies that e.g. for a daily mean, the time '00:00:00' of the particular day is referenced, whereas for a monthly mean the first day of the particular month is specified.

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### 3.2 External

For all L3 GlobVapour products distributed to end users, the following file naming convention is proposed:

**GV\_<INSTR>\_<TYPE>\_<VAL\_TIME>\_<PROC\_MODE>\_<VERSION>**

The meaning, size and possible values or format of each field is reflected in the table below. Non-relevant or empty fields are crossed out with 'x'. In this table, the mapping to the metadata attributes is also indicated [RD-1]. Note in this respect that the **filename** itself is also included as metadata attribute.

Table 3-2: File name fields of the GlobVapour NetCDF-CF products for distribution to end users.


Field	Description	Size	Value / Format	Metadata attribute
INSTR	Instrument(s) involved in the generation of the (combined) product	11	'GOMExxxxxxx', 'SCIAxxxxxxx', 'GOME+SCIAxx', 'SSMxxxxxxx', 'MERISxxxxxx', 'SSM+MERISx', 'ATSRxxxxxxx', 'AATSRxxxxxx', 'IASIxxxxxxx', 'SEVIRIxxxxx', 'IASI+SEVIRI'	Related to 'instrument'
TYPE	Product type indicating the temporal resolution (3-hourly, daily, weekly, monthly) and type (mean, composite)	2	'3M', 'DM', 'WM', 'MM', 'DC' <sup>1)</sup>	Related to 'temporal' and 'type'
VAL_TIME <sup>2)</sup>	Validity date and time of the GlobVapour file	8	Format YYYYMMDD	Related to 'validity'
PROC_MODE	Processing mode associated with the project phase, defining whether the product has been generated in Prototype, Test or End mode	1	'P', 'T', 'E'	N/A
VERSION	Simple product version, incremented for major changes per processing mode phase	1	Numerical ('0', '1', '2', etc.)	N/A <sup>3)</sup>

<sup>1)</sup> Currently, composite products are only foreseen in combination with daily temporal resolution.

<sup>2)</sup> This involves the starting date/time of the validity period. This implies that e.g. for a monthly mean the first day of the particular month is specified.

<sup>3)</sup> This is independent of the product 'version' metadata attribute.



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## Annex 1 - Examples of GlobVapour filenames for internal usage

Example 1 - GlobVapour internal level 2 SSMI WV intermediate:

SSMIxxxxxxx\_L2\_xx\_F13\_20070701022351\_I\_20100818094312.nc

Example 2 - GlobVapour prototype level 3 SSMI+MERIS WV daily composite:

SSMI+MERISx\_L3\_DC\_xxx\_20070701000000\_P\_20100818105959.nc

Example 3 - GlobVapour test level 3 GOME WV monthly mean:

GOMExxxxxxx\_L3\_MM\_xxx\_20071001000000\_T\_20100922230101.nc

Example 4 - GlobVapour end level 3 IASI+SEVIRI WV 3-hourly mean:

IASI+SEVIRI\_L3\_3M\_xxx\_20070821090000\_E\_20100902150123.nc

## Annex 2 - Examples of GlobVapour filenames for end users

Example 1 - GlobVapour prototype level 3 SSMI+MERIS WV daily composite (version 1):

GV\_SSMI+MERISx\_DC\_20070715\_P\_1.nc

Example 2 - GlobVapour test level 3 GOME+SCIAMACHY WV monthly mean (version 2):

GV\_GOME+SCIAxx\_MM\_20061001\_T\_2.nc

Example 3 - GlobVapour end level 3 IASI+SEVIRI WV 3-hourly mean (version 3):

GV\_IASI+SEVIRI\_3M\_20070821\_E\_3.nc