

GSICS Data and Products Server User Guide

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1 INTRODUCTION

1.1 Purpose and Scope

The purpose of this user guide is to provide information on how to use the GSICS Data and Products Server.

The GSICS Data and Products Server provide the user community with comparable data sets from a variety of satellite instruments and satellite operators. These data sets can be used to create inter-calibration products to improve the historic and future accuracy of the data sets received from the source satellites.

1.2 Document Structure

Section 1: Introduction
Section 2: Overview
Section 3: Downloading Data
Section 4: Uploading Data
Section 5: Contact Information

1.3 Applicable Documents

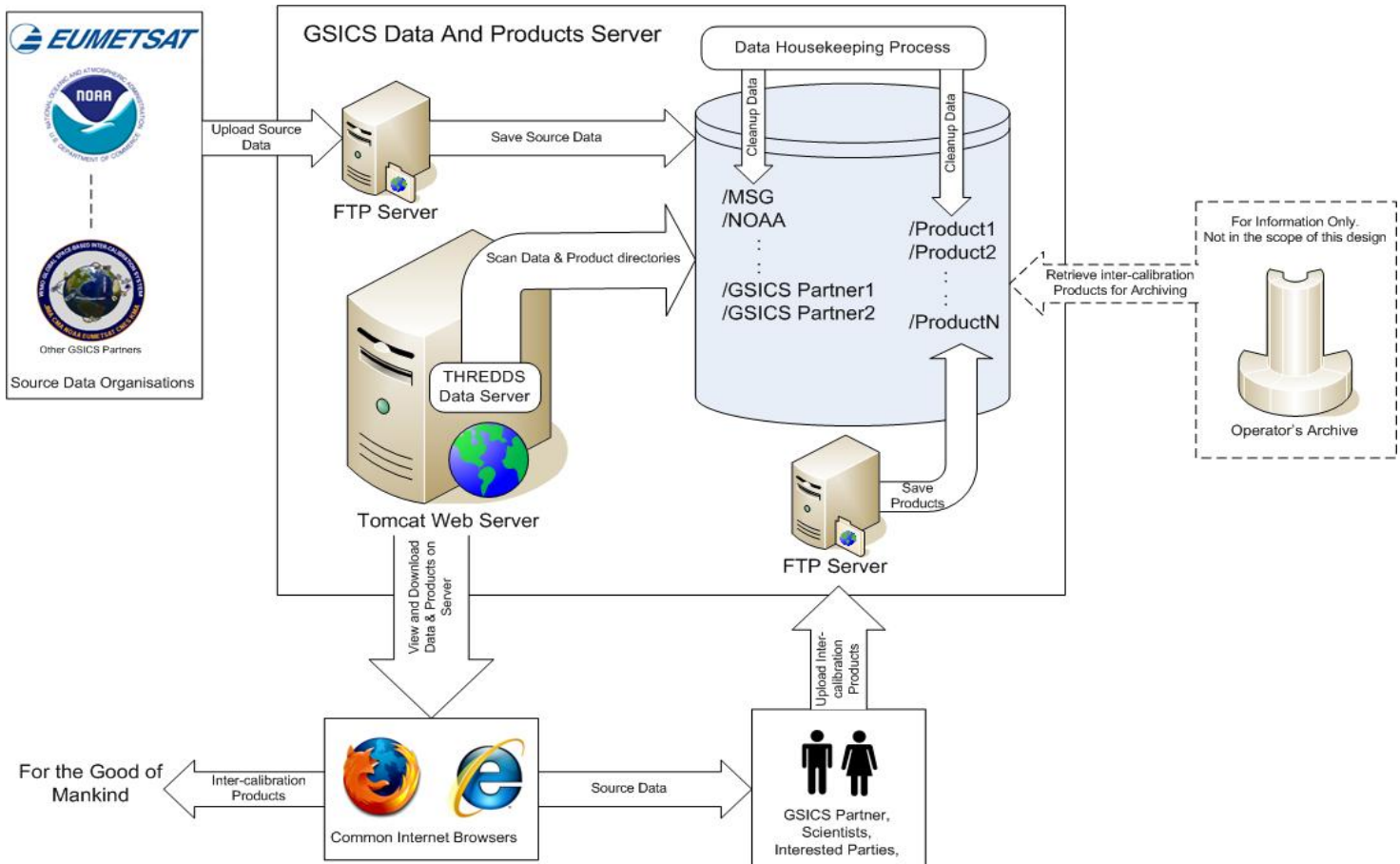
[AD.1] GSICS Data and Products Server Operations Service Specification, EUM/OPS/SPE/09/0978.

[AD.2]: GSICS Procedure for Product Acceptance, NOAA, External NOAA document.

[RD.1]: Manual on the Global Telecommunication System, WMO-No. 386, July 2007.

2 OVERVIEW

The following diagram envisages how GSICS Data and Products Server shall be used:



Processing description from left to right of the diagram:

1. Comparable source data sets are uploaded to the server from the Satellite Operators.
N.B. All source data sets are in netCDF format.
2. Filenames for these data sets follow the WMO filename conventions for the Global Transmission System. These filenames clearly identify the owner of the data set, its content and timing attributes.
3. The data sets residing on the server can be accessed via:
 - HTTP using the THREDDS¹ application from Unidata. THREDDS is a servlet application used to manage and display netCDF data sets on a server. It offers various services for accessing, visualising and downloading of these data sets.

¹ See <http://www.unidata.ucar.edu/projects/THREDDS/> for more information.

- A FTP client application, a pre-defined GSICS user account is available for users who want to directly download the data sets via FTP.
4. Once comparable data sets have been downloaded by the user, any validated GSICS product created by the user can be uploaded back to the server. These ‘GSICS products’ can be ancillary data sets, algorithms, code, documentation or source data correctional products.
 5. The GSICS products are typically archived by the administrator of the Data and Products Server.
 6. GSICS products that are source data correctional products are available for the user community to improve the accuracy of their work with the satellite operator’s data.

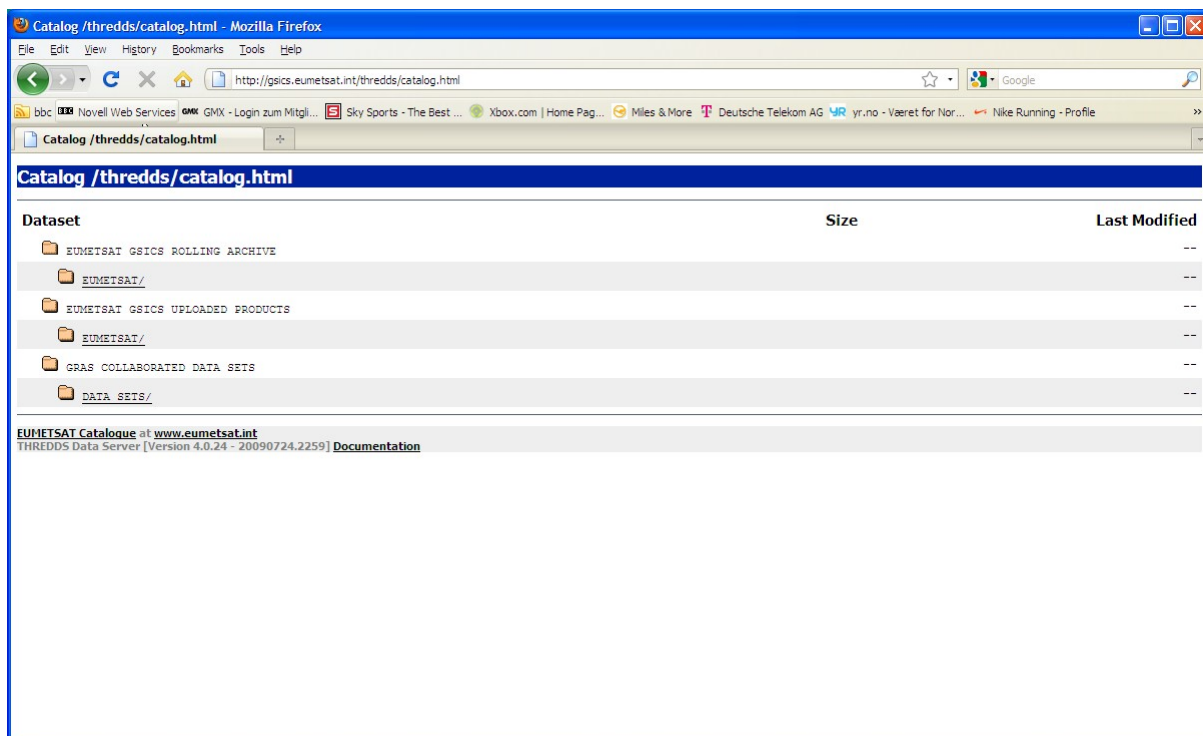
3 DOWNLOADING DATA

In this section, the source data sets and GSICS products are collectively referred to as data sets. Diagrams shown are from accessing the EUMETSAT GSICS Data and Products Server.

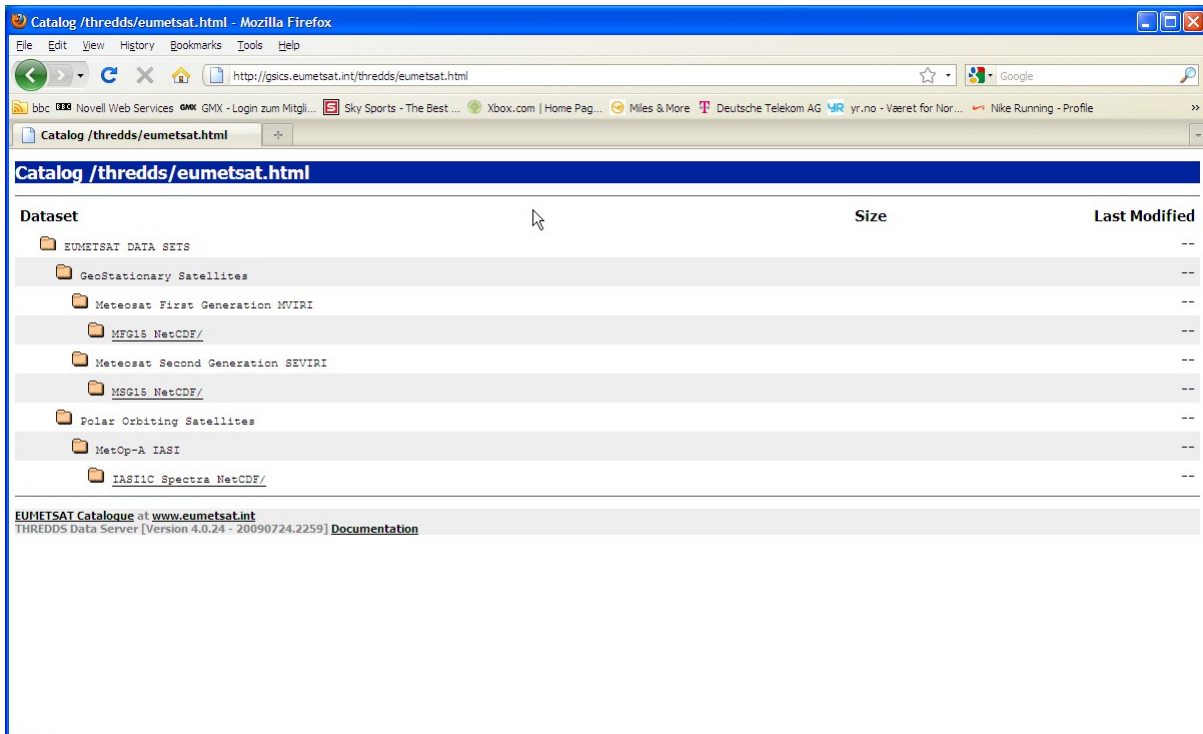
3.1 Via HTTP

Downloading data sets via HTTP is performed as follows:

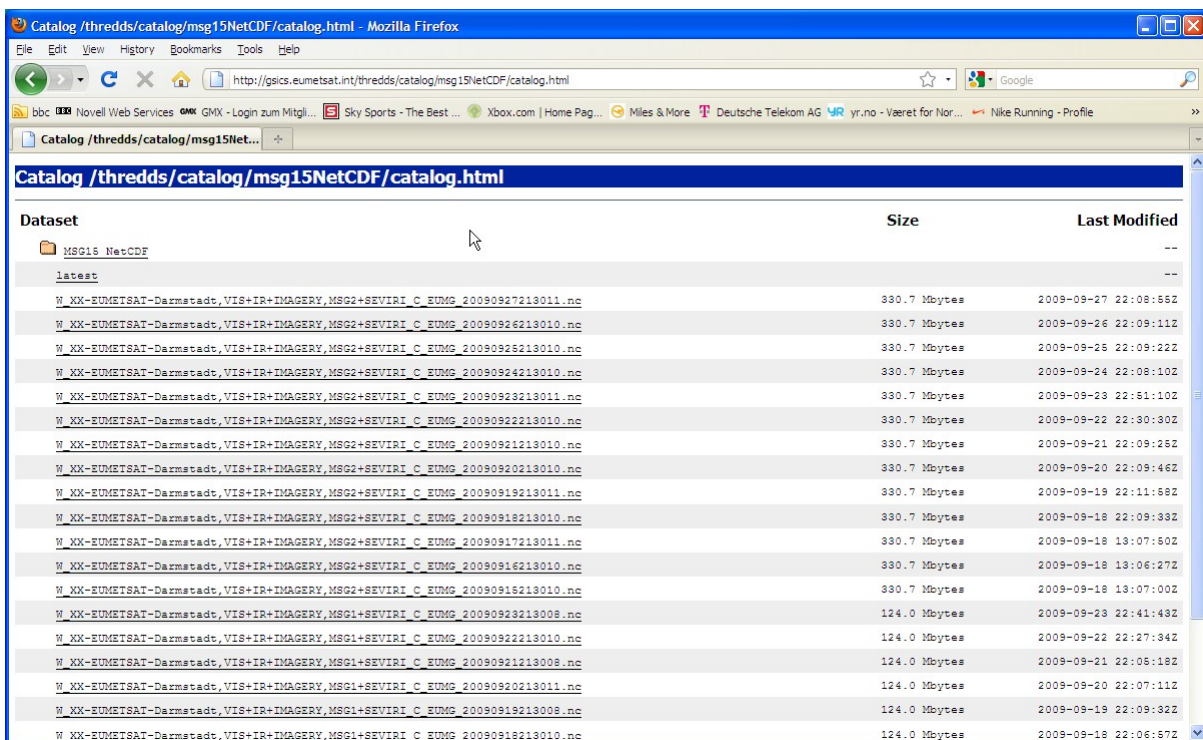
1. From a Internet browser, enter one of the GSICS Data and Products Server URLs given in section 5 of this document e.g. **<http://gsics.eumetsat.int>**.
2. The THREDDS application used to manage the data sets is loaded into the browser.



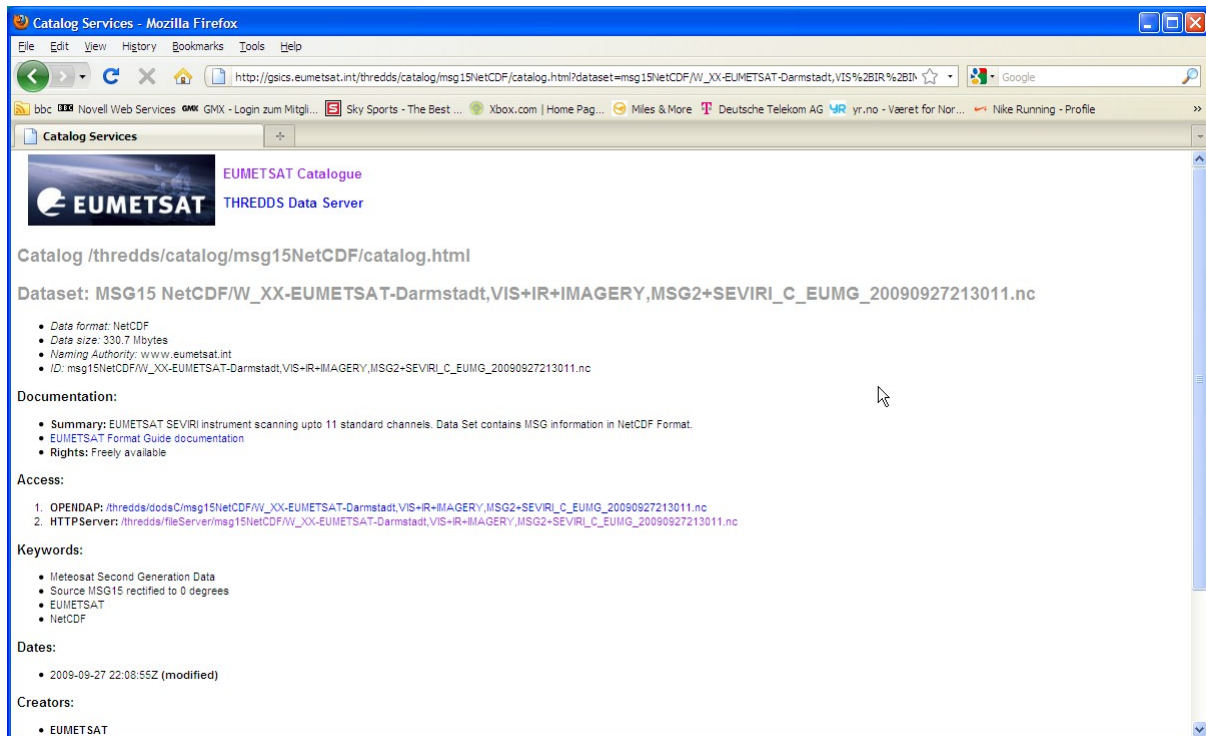
3. Click on the Satellite Operator link (in this case, EUMETSAT) to navigate to the data sets offered by the Operator.



4. This satellite operator offers data sets from 3 different instruments. Selecting an instrument shows the available instrument data sets on the server.



5. Selecting one of the data sets will display its meta data page.



The meta data page is configured by the satellite operator to show the attributes of the data, offer services to visualise it in text form for all or part of the data set using the OpenDAP Access service, and for the **download of the data set, use the HTTPServer Access service.**

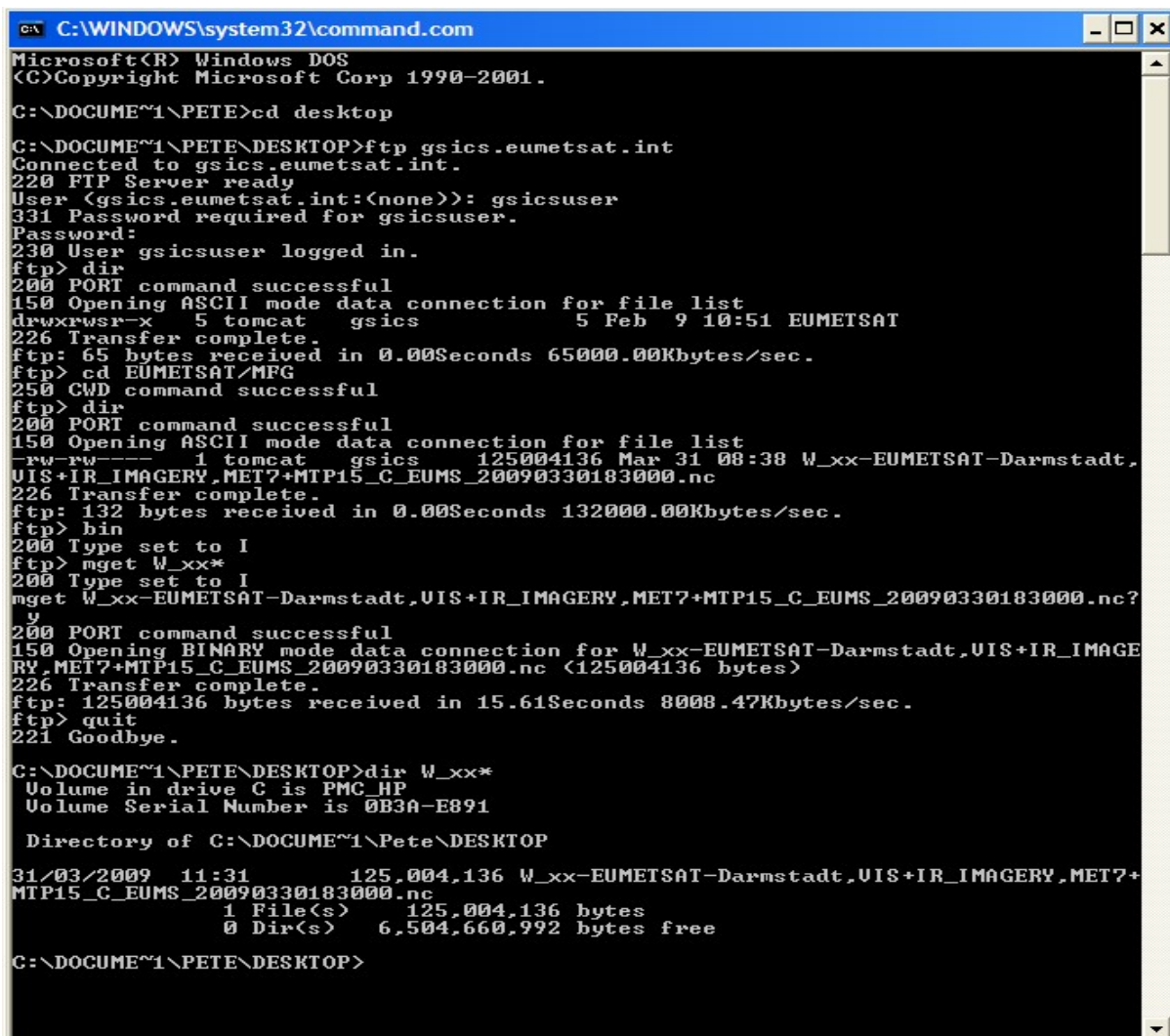
Additional links may be provided to load the data set into a web application (Viewer section of the page) to visualise the data set in a graphical format (if applicable).

3.2 Via FTP

The data set is downloaded using the following steps:

1. From any FTP client, type one of the FTP server addresses given in section 5 of this document e.g. **ftp gsics.eumetsat.int**.
2. Login to the Data and Products Server via the **gsicsuser** account.
3. Change the directory to the data sets you wish to download.
4. Set the transfer mode to binary.
5. Use the command **get** or **mget** (multiple retrievals) to download the data.

The following screen shows an example of downloading a data set.



```
C:\WINDOWS\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-2001.

C:\DOCUME~1\PETE>cd desktop

C:\DOCUME~1\PETE\DESKTOP>ftp gsics.eumetsat.int
Connected to gsics.eumetsat.int.
220 FTP Server ready
User (gsics.eumetsat.int:(none)): gsicsuser
331 Password required for gsicsuser.
Password:
230 User gsicsuser logged in.
ftp> dir
200 PORT command successful
150 Opening ASCII mode data connection for file list
drwxrwsr-x  5 tomcat  gsics          5 Feb  9 10:51 EUMETSAT
226 Transfer complete.
ftp: 65 bytes received in 0.00Seconds 65000.00Kbytes/sec.
ftp> cd EUMETSAT/MFG
250 CWD command successful
ftp> dir
200 PORT command successful
150 Opening ASCII mode data connection for file list
-rw-rw----  1 tomcat  gsics      125004136 Mar 31 08:38 W_xx-EUMETSAT-Darmstadt,
UIS+IR_IMAGERY,MET7+MTP15_C_EUMS_20090330183000.nc
226 Transfer complete.
ftp: 132 bytes received in 0.00Seconds 132000.00Kbytes/sec.
ftp> bin
200 Type set to I
ftp> mget W_xx*
200 Type set to I
mget W_xx-EUMETSAT-Darmstadt,UIS+IR_IMAGERY,MET7+MTP15_C_EUMS_20090330183000.nc?
y
200 PORT command successful
150 Opening BINARY mode data connection for W_xx-EUMETSAT-Darmstadt,UIS+IR_IMAGE
RY,MET7+MTP15_C_EUMS_20090330183000.nc (125004136 bytes)
226 Transfer complete.
ftp: 125004136 bytes received in 15.61Seconds 8008.47Kbytes/sec.
ftp> quit
221 Goodbye.

C:\DOCUME~1\PETE\DESKTOP>dir W_xx*
Volume in drive C is PMC_HP
Volume Serial Number is 0B3A-E891

Directory of C:\DOCUME~1\Pete\DESKTOP

31/03/2009  11:31          125,004,136 W_xx-EUMETSAT-Darmstadt,UIS+IR_IMAGERY,MET7+
MTP15_C_EUMS_20090330183000.nc
               1 File(s)          125,004,136 bytes
               0 Dir(s)          6,504,660,992 bytes free

C:\DOCUME~1\PETE\DESKTOP>
```

4 UPLOADING DATA

4.1 Source Data Sets

Source data sets are uploaded by the Satellite Operators. This is performed using dedicated accounts on each Data and Products Server. Account information is given as follows:

| FTP User Name | Password |
|----------------------|------------------------------|
| CMA | Contact Server System Admin. |
| CNES | Contact Server System Admin. |
| EUMETSAT | Contact Server System Admin. |
| JMA | Contact Server System Admin. |
| KMA | Contact Server System Admin. |
| NOAA | Contact Server System Admin. |

The source data sets shall have filenames that conform to the filename conventions defined in [RD.1] and agreed between the administrators of the Data and Products Servers. Expected source data sets are specified in [AD.1]. Unexpected data sets i.e. those that have not been validated and/or following the file naming convention, received on the server are deleted without notice.

4.2 GSICS Products

GSICS Products are uploaded by the GSICS users. This is performed by a dedicated gsics user account on each Data and Products Server. Account information is given as follows:

| GSICS User FTP Account Name | Password |
|------------------------------------|------------------------------|
| gsicsuser | Contact Server System Admin. |

This account is available on all FTP servers defined in section 5.2 of this document.

To identify valid GSICS products on the Data and Products Servers, they must be validated first via the procedure defined in [AD.2] and the filenames must follow the filename conventions defined in [RD.1].

5 SERVERS INFORMATION

5.1 GSICS THREDDS Server

| Data and Products Server URL | Hosted by | Contact Point |
|---|-----------|--|
| TBD | CMA | TBD |
| http://gsics.eumetsat.int | EUMETSAT | ops@eumetsat.int |
| TBD | JMA | TBD |
| http://cs.star.nesdis.noaa.gov/thredds/catalog.html | NOAA | aleksandar.jelenak@noaa.gov |

5.2 FTP Servers

| Data Management FTP Server | User Account | Hosted by | Contact Point |
|--|---------------------------|-----------|--|
| TBD | TBD | CMA | TBD |
| gsics.eumetsat.int | gsicsuser | EUMETSAT | ops@eumetsat.int |
| TBD | TBD | JMA | TBD |
| TBD | TBD | NOAA | TBD |