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CSDS User Interface
ISDAT
cuimeta Client User's Manual

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with change bars for changes introduced in issue 2.0

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1 Introduction

1.1 Intended readership

This manual is intended for the user of the ISDAT *cuimeta* client within the CSDS User Interface ISDAT Client package.

1.2 Applicability of the manual

The current version of the document applies to the ISDAT version 2.2, delivered as release 4 within the CSDS User Interface Project. It is valid only for UNIX, SUN Solaris workstations.

1.3 Purpose of the CSDS UI Data Manipulation software

The purpose of the CSDS User Interface Data Manipulation software package, of which *cuimeta* is one component, is to provide the scientific community with software tools to manipulate and display Cluster CSDS summary and primary parameters. The *cuimeta* client is used to display global or variable meta data accompanying the physical data in the CDF file.

1.4 How to use this document

This document consist of an overview of the software in order to familiarize the user with the capabilities provided. The User Instructions section (3) should be read in connection with the first hands-on encounter with the *cuimeta*. For the experienced user, a User reference section (4) is provided. A complete list of error messages is provided in Appendix A.

1.5 Related documents

An overview of the CSDS UI ISDAT Client Package is given in [Ref. 3]. It is assumed that the reader is familiar with the information given in that manual.

1.6 Conventions and acronyms

In the following, we will use:

- *italics* to indicate exact names or expressions.
- Courier fonts to give command line expressions.
- > to indicate the terminal prompter.

Acronym	Meaning
CDF	Common Data Format
CSDS	Cluster Science data System
CUI	CSDS User Interface
ESRIN	TBW
IRF-U	Institutet för Rymdfysik, Uppsalaavdelningen Swedish Inst. of Space Phys., Uppsala Division
ISDAT	Interactive Science Data Analysis Tool
N/A	Not Applicable
NDC	National Data Centre
PP	Prime Parameters
SP	Summary Parameters
TBD	To be defined
TBW	To be written
UI	User Interface

Table 1: Acronyms and abbreviations

Acronyms and abbreviations used are described in Table 1.

1.7 Problem reporting

Problems should be reported to the CSDS National Data Centre.

2 Overview of the CSDS UI ISDAT cuimeta client

Cuimeta is an ISDAT client of class *special clients*, (see [Ref. 3]). The *cuimeta* client shows the meta data of the CDF files which the time manager, *cuitm*, (see [Ref. 4]) at the moment handles. If the time period given to the time manager extends over several CDF files, the *cuimeta* client will at startup show meta data for the first file. The user can then step between the files.

Meta data are divided into two categories, global attributes and variable attributes. The user can select which of these (or both) attributes that should be shown. The meta data shown in the client window can then be saved to a file.

3 User Instructions

3.1 Getting started

3.1.1 Setting up the environment and Initialization

Before starting the *cuimeta* client it is assumed that:

- You are familiar with the X-window and mouse usage. If not, consult the appropriate manuals for your work station.
- You have logged in and have a CSDS *session manager* running. If not, see [Ref. 1] for instructions.
- The ISDAT client package has been properly installed and configured at your local workstation. If not, see [Ref. 2] for instructions.
- That you are a registered user at your *CSDS National Data Centre*.
- That a CSDS UI ISDAT server is running at your National Data Centre. If not, contact your National Data Centre for information.
- That a time manager is running at your local workstation. See document [Ref. 4] how to start the time manager.

3.1.2 Starting from the Time Manager, *cuitm*

Click with the mouse on the *clients* menu at the top of the *time manager* window (see [Ref. 4]). Select *csds* and under this menu select *cuimeta*. The *cuimeta* client will then start up as a separate window.

3.1.3 Starting from a command line instruction

If you want to start the *cuimeta* client from the command line, make sure that a data base handler and a time manager are running. Type

```
> cuimeta
```

and the client window will appear on your screen. In this case, the *cuimeta* will connect to the first *time manager* that is found. If several *time managers* are running, you have no control over which your *cuimeta* will connect to.

3.2 Using the CSDS UI cuimeta client

The *cuimeta* shows, at startup, meta data from the CDF file that corresponds to the start time on the time manager (see Figure 1).

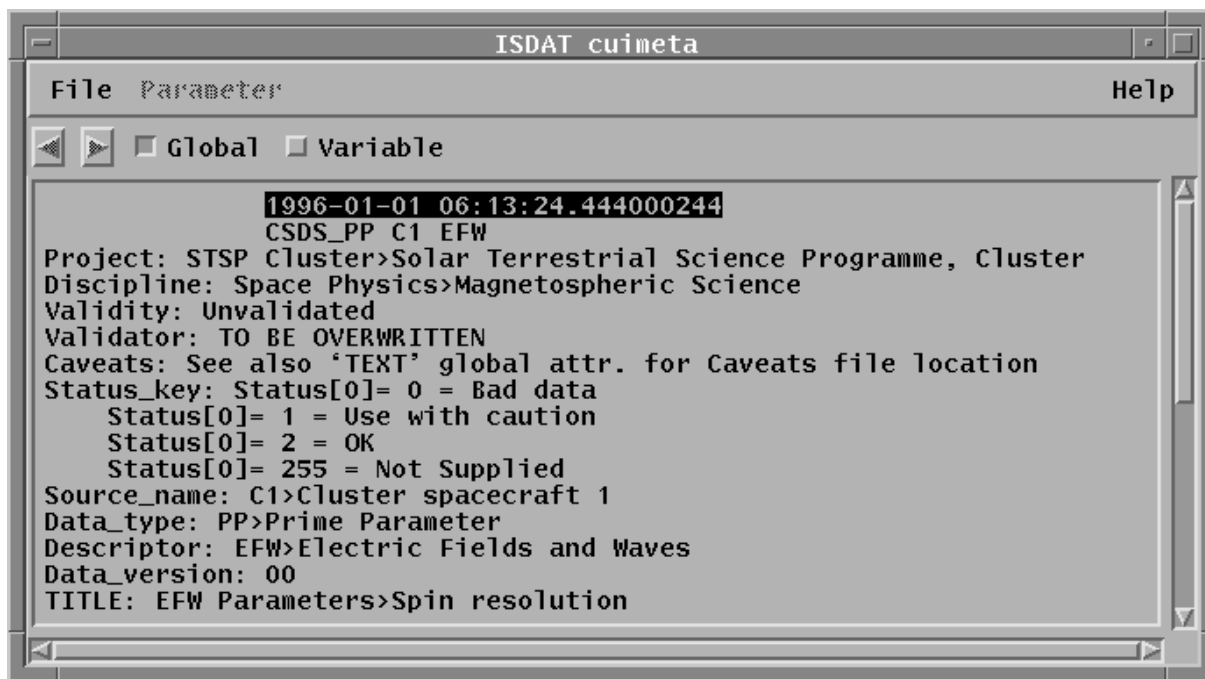


Figure 1: The cuimeta client window

If there are several files in the time interval on the time manager, one can step among them in consecutive order with the arrow buttons. As default, only global attributes are shown. With toggle buttons one can then choose to show variable attributes instead/also.

To save meta data to a file, choose *save* under the *File* menu. A file selector will then pop up where you can choose file name and directory. Pressing *OK* will then write the content of the text window to the selected file.

To exit the client, choose *Exit* under the *File* menu.

A short help text is provided via the *Help* menu button.

3.3 Common errors and probable causes

The most common errors are explained in [Ref. 3].

A number of error messages can appear in the text window of *cuimeta*, such as *bad time*, *bad instrument*, *bad sensor* and so on. See the manual page of the ISDAT server for an explanation.

4 User reference

This section is also available on-line.

NAME

cuimeta - displays CDF meta data

SYNOPSIS

cuimeta

ARGUMENTS

Handles all generic ISDAT and X arguments.

DESCRIPTION

Cuimeta is an ISDAT client of type "special clients". It is designed for CSDS summary (CSDS-SP) and prime (CSDS-PP) parameter data bases.

The cuimeta client can be called from the time manger, cuitm. It shows the global and variable attributes of the CDF files that the time manager manages.

The text screen shows the start time for the CDF file and on the following lines the meta data. With toggle buttons in the panel one can select if global or variable (or both) attributes should be shown. The global attributes describe the CDF file as a whole, while the variable attributes describe properties of each variable in the file.

Menu bar entries:

'File' with buttons:

'Save' The data in the text field can be written to a file. Pressing this button will make a file selector to appear.

'Exit' To exit the client.

'Parameter', with selections for the instruments of the project. (Project is selected on the time manager). For the implemented instruments there are submenus with the parameters to choose among. If the variable button (in the button menu) is active, a parameter must be selected using this menu. If the variable button is not active the parameter menu will be disabled.

'Help' gives a short description of the client.

Button bar:

'Arrow buttons'. If the time interval includes several CDF files, one can step forward and backward between these with the arrowbuttons. If there is no more file to step into, the arrowbutton will be disabled.

'Attribute toggle buttons' to select between variable and global attributes (se above).

ERROR MESSAGES

If a non-existent file name is choosen in the file selector for

saving meta data, the error message "Bad file name" will be printed in the file selectors error message text field.

If the specified database is not available, the message "cannot connect to database", and the database name, will be printed in the window from which the program was started.

Errors recovered in the database, such as "bad time" or "bad sensor", will be printed in the cuimeta text field.

SEE ALSO
 cuitm.1

A Error messages

See section 4.

B Reference Documents

- [1] CSDS-UI software user manual. Technical Report DS-ESR-SM-0001, ESRIN, August 1994.
- [2] CSDS User Interface, ISDAT Installation Manual. Technical Report DS-IRF-IM-0001, IRF-U, September 1995.
- [3] CSDS User Interface, ISDAT User Manual. Technical Report DS-IRF-UM-0001, IRF-U, September 1995.
- [4] CSDS User Interface, ISDAT cuitm User Manual. Technical Report DS-IRF-UM-0004, IRF-U, September 1995.