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Blacknest Data System (BDS)
BdsImportScream Daemon – 1.0.0 - 2008-02-25

1. Introduction

The BdsImportScream daemon is a data import daemon that is design to import incoming GCF files from the Gurlap Satellite data feed into the BDS system.

There is one BdsImportScream daemon running on a suitable host, possibly the master BDS host computer. The BdsImportScream daemon is a clients of the BdsServer and connects through the DataAddAccess API in order to import the requested data.

2. Usage

The BdsImportScream is normally started off and system boot time by the BdsImportScream initialisation script in /etc/rc.d/init.d. It can thus be started and stopped with the following command line commands:

> *service BdsImportScream start*
> *service BdsImportScream stop*

The BdsImportScream daemon runs as the **bds** user to enhance system security. For debugging the BdsImportScream also takes the following command line arguments:

-help	Help on command line parameters
-f	Run in foreground mode
-force	Force import although validation fails
-c	Catch up without importing the data

3. Configuration

The BdsImportScream uses a single text file, /etc/BdsImportScream.conf, to define its configuration. This configuration file is read when the program starts up. The configuration file's mode only allows the user **bds** and **root** to access it to provide a degree of protection for the DataBase password. The configuration file has the following parameters defined:

BdsServer	The BdsServer host name
BdsUser	The BDS user and password
DataDirectory	The root directory fro the SCREAM data files
Source*.name	A title for this set of data
Source*.network	The Network Organisation for this set of data
Source*.channels	The list of station/channel pairs to import from the file. Normally one channel. (eg: EKB:BHE_01)

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Source*.format	The files format, normally GCF
Source*.dir	The directory for the files relative to the directory defined in DataDirectory.

There can be any number of "Source*" entries each with a different number in place of the "*" field.

4. Operation

The bdsImportScream daemon operates once every 10 minutes. It scans each of the source directories for new files. It keeps a cache of the files it has updated in /var/cache/bdsImportScreamTimes.cache. Where new files are found it will first validate the data and then import the data. It will ignore the two most recent files as the SCREAM system may update the blocks in these files to fix missing blocks during reception.

If validation fails an error message will be printed in the system log and the data will not be imported. Note that, currently, this includes missing blocks of data.

The "-c" option is available for the bdsImportScream program to catch up with the present data files. In this case the bdsImportScream program will just update its position to the latest files by writing a suitable entry into /var/cache/bdsImportScreamTimes.cache.

5. Error Logs

The BdsImportScream will output error and warning logs to the standard system's syslog daemon. These will normally be written into the /var/log/messages file.

6. Further Information

For further information please look at the BDS system documentation at:
https://portal.beam.ltd.uk/support/blacknest .