

Blacknest Data System (BDS)

BdsImportMetadata – 3.1.2 - 2023-03-09

1. Introduction

The BdsImportMetadata program provides a simple command line program for adding seismic metadata to the BDS system. The BdsImportMetadata program is a client of the BdsServer and connects through the AdminAccess API in order to import the requested data.

The BdsImportMetadata program currently only supports import from StationXML files, but it can be extended in the future to support other formats.

2. Usage

The BdsImportMetadata program can be run by any user that has permissions to perform full administration tasks on the BDS system. It accepts the following command line options followed by a file name to import:

<i>Core Options</i>	
-help	Help on command line parameters
-v	Be verbose with comments
-host <hostname>	BDS Server host name
-user <user:password>	The BDS user id and password
-format <format>	The input files format. Default STATIONXML
-formatList	List the supported data formats
-startTime <time>	The StartTime. Overrides startTime's in Metadata
-endTime <time>	The EndTime. Overrides endTime's in Metadata
-network	Overrides Network organisation
-source	The metadata source (Default Main). Note this is the Metadata source "sourceMeta".
-include <channel>	Only import channels that match the network:station:channel name listed. Regular expressions and multiple -include's supported.
-exclude <channel>	Don't import channels that match the network:station:channel name listed. Regular expressions and multiple -include's supported.
-dataType <DataType list>	Only import channels with the given data types. DataType list like "seismic,temperature,pressure"
-dryRun	Perform all data validation tests but don't actually import the metadata
-ignoreWarnings	Don't abort on warnings which includes Location or Calibration mismatches with existing Metadata.
<i>TBD</i>	
-channelRename <chan1=chan1To, ...>	Rename the channels as needed.

-force

Not sure if to implement this yet

The BdsImportMetadata program will read the BDS_HOST environment variable at start-up. This variable, if set, defines the default BdsServer host name to contact. The default is “localhost” if this is not set.

The bdsImportMetadata program will import the Stations, Channels, Calibrations, Sensors, Digitisers and Responses from the StationXML file provided on the command line.

It first validates the StationXML raw XML syntax and then proceeds to import the Metadata.

It requires that the network defined in the XML file exists on the BdsServer and the source if this is changed from the default.

The Stations, Channels, Calibrations, Sensors, Digitisers and Response are added if not already present. On any error the program will abort with a suitable error message and the BdsServer’s MySQL database transaction will be aborted such that no update will have been performed.

The BDS SpecialChannels database allows specific channels to be ignored from import. This database list allows regular expressions for the Network:Station:Channel and specified a dataType for import. Setting dataType to “ignore” ignores this channel from import.

The startTime and endTime for the Metadata are taken from the Metadata file. If the endTime is not set this defaults to end_of_time.

The Channels dataType is determined from the StationXML “Type” parameter. If any of the Type values are “GEOPHYSICAL” or “Seismic” then the dataType is set to “seismic”. If any of the Type values are “Pressure” or “Temperature” then the dataType is set to “data”. Otherwise the dataType is set to “unknown”.

3. Supported Metadata Files

Currently the system only supports StationXML files for Metadata imports. These are fully self describing and so all of the Metadata is imported as is.

4. Further Information

For further information please look at the BDS system documentation at:

<https://portal.beam.ltd.uk/support/blacknest>.