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# **mdfreader Documentation**

***Release 1.4***

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## MDF MODULE DOCUMENTATION

mdf\_skeleton module describing basic mdf structure and methods

Created on Thu Sept 24 2015

### 1.1 Platform and python version

With Unix and Windows for python 2.6+ and 3.2+

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### 1.2 Dependencies

- Python >2.6, >3.2 <<http://www.python.org>>
- Numpy >1.6 <<http://numpy.scipy.org>>

### 1.3 mdf module

```
class mdf.compressed_data
```

#### Methods

```
compression(a)  
    data compression method
```

**Parameters** **a** : numpy array  
data to be compresses

```
decompression()  
    data decompression
```

```
class mdf.mdf_skeleton (fileName=None, channelList=None, convertAfterRead=True, filterChannel-  
Names=False, noDataLoading=False, compression=False)
```

Bases: dict

## Methods

### MDFVersionNumber

**add\_channel** (*dataGroup*, *channel\_name*, *data*, *master\_channel*, *master\_type*=1, *unit*='', *description*='', *conversion*=None, *info*=None, *compression*=False)  
adds channel to mdf dict.

**Parameters** *dataGroup* : int

dataGroup number. Is appended to master name for non unique channel names

**channel\_name** : str

channel name

**data** : numpy array

numpy array of channel's data

**master\_channel** : str

master channel name

**master\_type** : int, optional

master channel type : 0=None, 1=Time, 2=Angle, 3=Distance, 4=index

**unit** : str, optional

unit description

**description** : str, optional

channel description

**conversion** : info class, optional

conversion description from info class

**info** : info class for CNBlock, optional

used for CABlock axis creation and channel conversion

**compression** : bool

flag to ask for channel data compression

**add\_metadata** (*author*='', *organisation*='', *project*='', *subject*='', *comment*='', *date*='', *time*='')  
adds basic metadata to mdf class

**Parameters** *author* : str

author of file

**organisation** : str

organisation of author

**project** : str

**subject** : str

**comment** : str

**date** : str

**time** : str

### convertAfterRead



**convert\_tables**

**copy()**

copy a mdf class

**fid**

**fileName**

**file\_metadata**

**filterChannelNames**

**getChannel** (*channelName*)

Extract channel dict from mdf structure

**Parameters** **channelName** : str

channel name

**Returns** channel dictionary containing data, description, unit, etc.

**getChannelConversion** (*channelName*)

Extract channel conversion dict from mdf structure

**Parameters** **channelName** : str

channel name

**Returns** channel conversion dict

**getChannelDesc** (*channelName*)

Extract channel description information from mdf structure

**Parameters** **channelName** : str

channel name

**Returns** channel description string

**getChannelMaster** (*channelName*)

Extract channel master name from mdf structure

**Parameters** **channelName** : str

channel name

**Returns** channel master name string

**getChannelMasterType** (*channelName*)

Extract channel master type information from mdf structure

**Parameters** **channelName** : str

channel name

**Returns** channel mater type integer

**getChannelUnit** (*channelName*)

Returns channel unit string Implemented for a future integration of pint

**Parameters** **channelName** : str

channel name

**Returns** str

unit string description

**info**

**masterChannelList**

**multiProc**

**remove\_channel** (*channel\_name*)  
removes channel from mdf dict.

**Parameters** **channel\_name** : str  
channel name

**Returns** value of mdf dict key=channel\_name

**remove\_channel\_conversion** (*channelName*)  
removes conversion key from mdf channel dict.

**Parameters** **channelName** : str  
channel name

**Returns** removed value from dict

**rename\_channel** (*channelName, newname*)  
Modifies name of channel

**Parameters** **channelName** : str  
channel name

**newname** : str  
new channel name

**setChannelAttachment** (*channelName, attachment*)  
Modifies channel attachment

**Parameters** **channelName** : str  
channel name

**attachment**  
channel attachment

**setChannelConversion** (*channelName, conversion*)  
Modifies conversion dict of channel

**Parameters** **channelName** : str  
channel name

**conversion** : dict  
conversion dictionnary

**setChannelData** (*channelName, data, compression=False*)  
Modifies data of channel

**Parameters** **channelName** : str  
channel name

**data** : numpy array  
channel data

**compression** : bool or str

trigger for data compression

**setChannelDesc** (*channelName, desc*)

Modifies description of channel

**Parameters** **channelName** : str

channel name

**desc** : str

channel description

**setChannelMaster** (*channelName, master*)

Modifies channel master name

**Parameters** **channelName** : str

channel name

**master** : str

master channel name

**setChannelMasterType** (*channelName, masterType*)

Modifies master channel type

**Parameters** **channelName** : str

channel name

**masterType** : int

master channel type

**setChannelUnit** (*channelName, unit*)

Modifies unit of channel

**Parameters** **channelName** : str

channel name

**unit** : str

channel unit

**zipfile**



## MDFREADER MODULE DOCUMENTATION



## **MDF3READER MODULE DOCUMENTATION**





## **MDFINFO3 MODULE DOCUMENTATION**



## **MDF4READER MODULE DOCUMENTATION**



## **MDFINFO4 MODULE DOCUMENTATION**



## CHANNEL MODULE DOCUMENTATION





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