interface_Settings

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(version v0.1.2, 2011-03-28) /home/gis/Documents/interface_10032011/interface_Settings.py

```
Modul with default settings and constants.

This module contains all global constants that are used within the interface.
These global constants should not be changed. Furthermore in this module is a class
containing default values that are read from the related XML file. These values are
default values and can be changed by the user. Another class in this module defines
the logger that is used within this program.
This module can also be used by other modules that want to use these values.
```

Modules

logging xml.dom.minidom

Classes

DefaultSettings
LoggingInterface

class **DefaultSettings**

```
Class with default settings for the data interface that can be
changed by the user by modifying the related XML document with file name
declared in constant FILENAME_DEFAULT_SETTINGS_XML
```

Methods defined here:

__init__(self)

```
Constructor - Reading related XML file and storing values as attributes in class
```

class **LoggingInterface**

```
Class for initialization and destruction of defined loggers using the logging API of Python
```

Methods defined here:

__del__(self)

```
Destructor
```

__init__(self, rootName_, logLevelConsole_, logLevelFile_)

```
Constructor

INPUT_PARAMETERS:
rootName          - Declares the name that is used in the position of 'root'
logLevelConsole   - Declares the minimum level that is used by the console handler
logLevelFile      - Declares the minimum level that is used by the file handler

COMMENTS:
The same name as defined here in the argument 'rootName' must be used for all loggers
of an instance.
```

Functions

POINTER(...)

addressof(...)

```
addressof(C instance) -> integer
Return the address of the C instance internal buffer
```

alignment(...)
```
alignment(C type) -> integer
alignment(C instance) -> integer
Return the alignment requirements of a C instance
```

byref(...)
```
byref(C instance[, offset=0]) -> byref-object
Return a pointer lookalike to a C instance, only usable
as function argument
```

get_errno(...)

pointer(...)

resize(...)
```
Resize the memory buffer of a ctypes instance
```

set_conversion_mode(...)
```
set_conversion_mode(encoding, errors) -> (previous-encoding, previous-
errors)

Set the encoding and error handling ctypes uses when converting
between unicode and strings.  Returns the previous values.
```

set_errno(...)

sizeof(...)
```
sizeof(C type) -> integer
sizeof(C instance) -> integer
Return the size in bytes of a C instance
```

Data

ALL_FLOATS = ['float64', 'double', 'Float64', 'f8', 'float', 'float32', 'Float32', 'f4']
ALL_INTS = ['byte', 'int8', 'i1', 'ubyte', 'UByte', 'uint8', 'u1', 'short', 'int16', 'Int16', 'i2', 'ushort', 'uint16', 'UInt16', 'u2', 'int', 'int32', 'Int32', 'integer', 'i4', ...]
BOOL = ['bool', 'Bool']
BYTE = ['byte', 'int8', 'i1']
COORD_KEYWORDS = ['time', 'height', 'elev', 'depth', 'lat', 'latitude', 'lon', 'longitude', '_id']
DECLARATION_NETCDF_STATION = '_time_series'
DEFAULT_MODE = 0
DOUBLE = ['float64', 'double', 'Float64', 'f8']
FILENAME_DEFAULT_SETTINGS_XML = 'interface_Settings.xml'
FILENAME_SUFFIX_NCML = '__ncml.xml'
FILENAME_SUFFIX_NETCDF = '.nc'
FILENAME_SUFFIX_NUMPYDATA = '__data.npy'
FILENAME_SUFFIX_NUMPYXML = '__coords.xml'
FLOAT = ['float', 'float32', 'Float32', 'f4']
GDAL_DTYPES = ['byte', 'int8', 'i1', 'short', 'int16', 'Int16', 'i2', 'ushort', 'uint16', 'UInt16', 'u2', 'int', 'int32', 'Int32', 'integer', 'i4', 'uint', 'uint32', 'UInt32', 'unsigned_integer', ...]
HEIGHT = ['height', 'elev', 'depth']
HEIGHT_UNITS = ['m', '1']
ID = ['_id']
INTEGER = ['int', 'int32', 'Int32', 'integer', 'i4']
INTERFACE_LOGGER_ROOT = 'interface'
LATITUDE = ['lat', 'latitude']
LATITUDE_UNITS = ['degrees_north']
LONG = ['long', 'int64', 'Int64', 'i8']
LONGITUDE = ['lon', 'longitude']
LONGITUDE_UNITS = ['degrees_east']
MODEL_REFERENCE_TIME_UNITS = ['hours since 1970-01-01 00:00:0.0', 'msec since 1970-01-01 00:00:0.0']
NETCDF3_DTYPES = ['byte', 'int8', 'i1', 'short', 'int16', 'Int16', 'i2', 'int', 'int32', 'Int32', 'integer', 'i4', 'float', 'float32', 'Float32', 'f4', 'float64', 'double', 'Float64', 'f8', ...]
NETCDF_FORMAT = 'NETCDF3_CLASSIC'
NUMPY_DTYPES = ['bool', 'Bool', 'byte', 'int8', 'i1', 'ubyte', 'UByte', 'uint8', 'u1', 'short',

'int16', 'Int16', 'i2', 'ushort', 'uint16', 'UInt16', 'u2', 'int', 'int32', 'Int32', ...]
RTLD_GLOBAL = 256
RTLD_LOCAL = 0
SHORT = ['short', 'int16', 'Int16', 'i2']
STRING = ['char', 'string', 'S1']
TIME = ['time']
U_BYTE = ['ubyte', 'UByte', 'uint8', 'u1']
U_INTEGER = ['uint', 'uint32', 'UInt32', 'unsigned_integer', 'u4']
U_LONG = ['ulong', 'uint64', 'UInt64', 'u8']
U_SHORT = ['ushort', 'uint16', 'UInt16', 'u2']
__author__ = 'Nicolai Holzer'
__author_email__ = 'first-name dot last-name @ mailbox.tu-dresden.de'
__date__ = '2011-03-28'
__version__ = 'v0.1.2'
cdll = <ctypes.LibraryLoader object>
memmove = <CFunctionType object>
memset = <CFunctionType object>
pydll = <ctypes.LibraryLoader object>
pythonapi = <PyDLL 'None', handle 329918 at b74e634c>

Author

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