

IPASC Data Conversion Tool

version

Data Acquisition and Management Theme of IPASC

September 11, 2020

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Welcome to IPASC Data Conversion Tool's documentation!

Class references

Module: api

```
class ipasc_tool.api.BaseAdapter.BaseAdapter
```

abstract generate_binary_data () → numpy.ndarray

#TODO very detailed decription of how the binary meta data dump should be organized. :return: numpy array

generate_meta_data () → dict

Returns:

abstract generate_meta_data_device () → dict

TODO this method can be implemented using the DeviceMetaDataCreator :return:

abstract set_metadata_value (metadata_tag: [ipasc_tool.core.Metadata.MetaDatum](#)) → object

This method must be implemented to yield appropriate data for all MetaDatum elements in the MetadataTags class.

Parameters: metadata_tag –

Returns:

```
class ipasc_tool.api.adapters.DKFZ_CAMI_Experimental_System_Nrrd_File_Converter.DKFZCAMIExperimentalSystemNrrdFileConverter (nrrd_file_path)
```

generate_binary_data () → numpy.ndarray

#TODO very detailed decription of how the binary meta data dump should be organized. :return: numpy array

generate_meta_data_device () → dict

TODO this method can be implemented using the DeviceMetaDataCreator :return:

set_metadata_value (metadata_tag: [ipasc_tool.core.Metadata.MetaDatum](#)) → object

This method must be implemented to yield appropriate data for all MetaDatum elements in the MetadataTags class.

Parameters: metadata_tag –

Returns:

Module: core

```
class ipasc_tool.core.Metadata.EnumeratedString (tag, mandatory, dtype, unit='N/A', permissible_strings=None)
```

```
class ipasc_tool.core.Metadata.MetaDatum (tag: str, mandatory: bool, dtype: type, unit: str = 'N/A')
```

This class represents a meta datum. A meta datum contains all necessary information to fully characterize the meta information represented by an instance of this class.

```
class ipasc_tool.core.Metadata.MetadataAcquisitionTags
```

Binary time series data meta data tags

```
class ipasc_tool.core.Metadata.MetadataDeviceTags
```

This class defines the naming conventions of the

```
class ipasc_tool.core.Metadata.NDimensionalNumpyArray (tag, mandatory, dtype, unit='N/A',
expected_array_dimension=1)
```

```
class ipasc_tool.core.Metadata.NonNegativeNumber (tag, mandatory, dtype, unit='N/A')
```

```
class ipasc_tool.core.Metadata.NonNegativeNumbersInArray (tag, mandatory, dtype, unit='N/A')
```

```
class ipasc_tool.core.Metadata.NonNegativeWholeNumber (tag, mandatory, dtype, unit='N/A')
```

```
class ipasc_tool.core.Metadata.NumberWithUpperAndLowerLimit (tag, mandatory, dtype, unit='N/A',
lower_limit=- inf, upper_limit=inf)
```

```
class ipasc_tool.core.Metadata.UnconstrainedMetaDatum (tag, mandatory, dtype, unit='N/A')
```

```
class ipasc_tool.core.PADData.PADData (binary_time_series_data: numpy.ndarray = None,
meta_data_acquisition: dict = None, meta_data_device: dict = None)
    TODO: Detailed documentation
```

Module: iohandler

```
ipasc_tool.iohandler.file_reader.load_data (path: str)
```

TODO :param path: Path to an hdf5 file containing PADData. :return: PADData instance

```
ipasc_tool.iohandler.file_writer.write_data (path: str, pa_data: ipasc_tool.core.PADData.PADData)
```

TODO :param path: Path to save an hdf5 file containing PADData. :param pa_data: PADData instance :return:

Module: qualitycontrol

```
ipasc_tool.qualitycontrol.CompletenessChecker.check_metadatum_from_dict (dictionary: dict,
metadatum: ipasc_tool.core.Metadata.MetaDatum)
```

Parameters:

- **dictionary** –
- **meta_datum** –

Returns: [log, count]

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