
python-cybox Documentation

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The MITRE Corporation

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The python-cybox library provides an API for developing and consuming Cyber Observable eXpression (CybOX) content. Developers can leverage the API to create applications that create, consume, translate, or otherwise work with CybOX content.

Versions

Each version of python-cybox is designed to work with a single version of the CybOX Language. The table below shows the latest version the library for each version of CybOX.

CybOX Version	python-cybox Version
2.1	2.1.0.21 (PyPI) (GitHub)
2.0.1	2.0.1.4 (PyPI) (GitHub)
2.0	2.0.0.1 (PyPI) (GitHub)
1.0	1.0.0b3 (PyPI) (GitHub)

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2.1 Getting Started with python-cybox

Note: The python-cybox library is intended for developers who want to add CybOX support to existing programs or create new programs that handle CybOX content. Experience with Python development is assumed.

Other users should look at existing [tools](#) that support CybOX.

Understanding XML, XML Schema, and the CybOX language is also incredibly helpful when using python-cybox in an application.

First, you should follow the *Installation* procedures.

2.1.1 Example Scripts

The python-cybox repository contains several [example scripts](#) that help illustrate the capabilities of the APIs. These scripts are simple command line utilities that can be executed by passing the name of the script to a Python interpreter.

```
$ python simple_email_instance.py
```

2.1.2 Writing Your Own Application

See the [Examples](#) page for more examples of using python-cybox in your own application.

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2.2 Installation

2.2.1 Recommended Installation

Use `pip`:

```
$ pip install cybox
```

You might also want to consider using a [virtualenv](#).

2.2.2 Dependencies

The python-cybox library is developed on Python 2.7 and tested against both Python 2.6 and 2.7. Besides the Python Standard Library, python-cybox relies on the following Python libraries:

- [lxml](#) - A Pythonic binding for the C libraries [libxml2](#) and [libxslt](#).
- [python-dateutil](#) - A library for parsing datetime information.
- [importlib](#) (Python 2.6) - Convenience wrappers for `__import__()`.

Note: `importlib` is [built into](#) Python 2.7, and is available on PyPI for Python 2.6.

Each of these can be installed with `pip` or by manually downloading packages from PyPI. On Windows, you will probably have the most luck using [pre-compiled binaries](#) for `lxml`. On Ubuntu (12.04 or 14.04), you should make sure the following packages are installed before attempting to compile `lxml` from source:

- `libxml2-dev`
- `libxslt1-dev`
- `zlib1g-dev`

2.2.3 Manual Installation

If you are unable to use `pip`, you can also install python-cybox with `setuptools`. If you don't already have `setuptools` installed, please install it before continuing.

1. Download and install the [dependencies](#) above. Although `setuptools` will generally install dependencies automatically, installing the dependencies manually beforehand helps distinguish errors in dependency installation from errors in python-cybox installation. Make sure you check to ensure the versions you install are compatible with the version of python-cybox you plan to install.
2. Download the desired version of python-cybox from [PyPI](#) or the [GitHub releases](#) page. The steps below assume you are using the 2.1.0.21 release.
3. Extract the downloaded file. This will leave you with a directory named `cybox-2.1.0.21`.

```
$ tar -zxf cybox-2.1.0.21.tar.gz
$ ls
cybox-2.1.0.21  cybox-2.1.0.21.tar.gz
```

OR

```
$ unzip cybox-2.1.0.21.zip
$ ls
cybox-2.1.0.21  cybox-2.1.0.21.zip
```

4. Run the installation script.

```
$ cd cybox-2.1.0.21
$ python setup.py install
```

5. Test the installation.

```
$ python
Python 2.7.6 (default, Mar 22 2014, 22:59:56)
[GCC 4.8.2] on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> import cybox
>>>
```

If you don't see an `ImportError`, the installation was successful.

2.2.4 Further Information

If you're new to installing Python packages, you can learn more at the [Python Packaging User Guide](#), specifically the [Installing Python Packages](#) section.

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2.3 Overview

This page provides a quick overview needed to understand the inner workings of the python-cybox library. If you prefer a more hands-on approach, browse the [Examples](#).

2.3.1 CybOX Entities

Each type within CybOX is represented by a class which derives from `cybox.Entity`. In general, there is one Python class per CybOX type, though in some cases classes which would have identical functionality have been reused rather than writing duplicating classes. One example of this is that many enumerated values are implemented using the `cybox.common.properties.String`, since values aren't checked to make sure they are valid enumeration values.

Note: Not all CybOX types have yet been implemented.

2.3.2 Controlled Vocabulary Strings

Controlled Vocabulary strings are a concept originally designed for STIX and adapted for use in CybOX as well. For background, see the [STIX documentation](#). Controlled Vocabulary strings are implemented in the `cybox` Python package very similarly to how they are implemented in the `stix` package, so viewing the [python-stix documentation](#) should help explain how to work with CybOX Controlled Vocabulary strings as well. CybOX vocabularies are defined in the `cybox.common.vocabs` module.

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2.4 Examples

This page includes some basic examples of creating and parsing CybOX content.

There are a couple things we do in these examples for purposes of demonstration that shouldn't be done in production code:

- When calling `to_xml()`, we use `include_namespaces=False`. This is to make the example output easier to read, but means the resulting output cannot be successfully parsed. The XML parser doesn't know what namespaces to use if they aren't included. In production code, you should explicitly set `include_namespaces` to `True` or omit it entirely (`True` is the default).
- We use `set_id_method(IDGenerator.METHOD_INT)` to make IDs for Objects and Observables easier to read and cross-reference within the XML document. In production code, you should omit this statement, which causes random UUIDs to be created instead, or create explicit IDs yourself for objects and observables.

2.4.1 Creating Objects

The easiest way to create an object is to construct one and then set various properties on it.

```
from cybox.objects.file_object import File
f = File()
f.file_name = "malware.exe"
f.file_path = "C:\Windows\Temp\malware.exe"
print(f.to_xml(include_namespaces=False, encoding=None))
```

Which outputs:

```
<FileObj:FileObjectType xsi:type="FileObj:FileObjectType">
  <FileObj:File_Name>malware.exe</FileObj:File_Name>
  <FileObj:File_Path>C:\Windows\Temp\malware.exe</FileObj:File_Path>
</FileObj:FileObjectType>
```

For some objects, such as the `AddressObject`, you can pass parameters directly into the constructor.

```
from cybox.objects.address_object import Address
a = Address("1.2.3.4", Address.CAT_IPV4)
print(a.to_xml(include_namespaces=False, encoding=None))
```

```
<AddressObj:AddressObjectType xsi:type="AddressObj:AddressObjectType" category="ipv4-addr">
  <AddressObj:Address_Value>1.2.3.4</AddressObj:Address_Value>
</AddressObj:AddressObjectType>
```

2.4.2 Creating Observables

Full CybOX documents are expected to have `Observables` as the root element. You can pass any object to the `Observables` constructor to generate the proper XML.

```
from mixbox.idgen import IDGenerator, set_id_method
from cybox.core import Observables
from cybox.objects.file_object import File
set_id_method(IDGenerator.METHOD_INT)
f = File()
f.file_name = "malware.exe"
f.file_path = "C:\Windows\Temp\malware.exe"
print(Observables(f).to_xml(include_namespaces=False, encoding=None))
```

```
<cybox:Observables cybox_major_version="2" cybox_minor_version="1" cybox_update_version="0">
  <cybox:Observable id="example:Observable-1">
    <cybox:Object id="example:File-2">
      <cybox:Properties xsi:type="FileObj:FileObjectType">
        <FileObj:File_Name>malware.exe</FileObj:File_Name>
        <FileObj:File_Path>C:\Windows\Temp\malware.exe</FileObj:File_Path>
```

```

        </cybox:Properties>
    </cybox:Object>
</cybox:Observable>
</cybox:Observables>

```

To include multiple objects as individual Observables within one document, you can pass them as a list to the Observables constructor.

```

from mixbox.idgen import IDGenerator, set_id_method
from cybox.core import Observables
from cybox.objects.address_object import Address
from cybox.objects.uri_object import URI
set_id_method(IDGenerator.METHOD_INT)
a = Address("1.2.3.4", Address.CAT_IPV4)
u = URI("http://cybox.mitre.org/")
print(Observables([a, u]).to_xml(include_namespaces=False, encoding=None))

```

```

<cybox:Observables cybox_major_version="2" cybox_minor_version="1" cybox_update_version="0">
  <cybox:Observable id="example:Observable-1">
    <cybox:Object id="example:Address-2">
      <cybox:Properties xsi:type="AddressObj:AddressObjectType" category="ipv4-addr">
        <AddressObj:Address_Value>1.2.3.4</AddressObj:Address_Value>
      </cybox:Properties>
    </cybox:Object>
  </cybox:Observable>
  <cybox:Observable id="example:Observable-3">
    <cybox:Object id="example:URI-4">
      <cybox:Properties xsi:type="URIObj:URIObjectType">
        <URIObj:Value>http://cybox.mitre.org/</URIObj:Value>
      </cybox:Properties>
    </cybox:Object>
  </cybox:Observable>
</cybox:Observables>

```

2.4.3 HTTP Message Body

When outputting XML, by default, reserved XML characters such as < and > are escaped by default.

```

from cybox.objects.http_session_object import HTTPMessage
m = HTTPMessage()
m.message_body = "<html><title>An HTML page</title><body><p>Body text</p></body></html>"
m.length = len(m.message_body.value)
print(m.to_xml(include_namespaces=False, encoding=None))

```

```

<HTTPSessionObj:HTTPMessageType>
  <HTTPSessionObj:Length>69</HTTPSessionObj:Length>
  <HTTPSessionObj:Message_Body>&lt;html&gt;&lt;title&gt;An HTML page&lt;/title&gt;&lt;body&gt;&lt;p&gt;Body text&lt;/p&gt;&lt;/body&gt;&lt;/html&gt;
</HTTPSessionObj:HTTPMessageType>

```

When you parse this content, these characters are converted back.

```

from cybox.bindings.http_session_object import parseString
m2 = HTTPMessage.from_obj(parseString(m.to_xml(encoding=None)))
print(m2.message_body)

```

```

<html><title>An HTML page</title><body><p>Body text</p></body></html>

```

2.4.4 HTTP User Agent

```

from cybox.objects.http_session_object import *
fields = HTTPRequestHeaderFields()
fields.user_agent = 'Mozilla/5.0 (Windows NT 6.1; Win64; x64; rv:25.0) Gecko/20100101 Firefox/25.0'

header = HTTPRequestHeader()
header.parsed_header = fields

request = HTTPClientRequest()
request.http_request_header = header

req_res = HTTPRequestResponse()
req_res.http_client_request = request

session = HTTPSession()
session.http_request_response = [req_res]

print(session.to_xml(include_namespaces=False, encoding=None))

```

```

<HTTPSessionObj:HTTPSessionObjectType xsi:type="HTTPSessionObj:HTTPSessionObjectType">
  <HTTPSessionObj:HTTP_Request_Response>
    <HTTPSessionObj:HTTP_Client_Request>
      <HTTPSessionObj:HTTP_Request_Header>
        <HTTPSessionObj:Parsed_Header>
          <HTTPSessionObj:User_Agent>Mozilla/5.0 (Windows NT 6.1; Win64; x64; rv:25.0) Geck
        </HTTPSessionObj:Parsed_Header>
      </HTTPSessionObj:HTTP_Request_Header>
    </HTTPSessionObj:HTTP_Client_Request>
  </HTTPSessionObj:HTTP_Request_Response>
</HTTPSessionObj:HTTPSessionObjectType>

```

2.4.5 Objects with DateTime properties

When setting DateTime properties on objects, you can either use a native Python `datetime.datetime` or a string. The `python-dateutil` library is used to parse strings into dates, so a wide variety of formats is supported.

```

import datetime
from cybox.objects.email_message_object import EmailMessage
e = EmailMessage()
e.from_ = "spammer@spam.com"
e.subject = "This is not spam"
e.date = datetime.datetime(2012, 1, 17, 8, 35, 6)
print(e.to_xml(include_namespaces=False, encoding=None))

```

```

<EmailMessageObj:EmailMessageObjectType xsi:type="EmailMessageObj:EmailMessageObjectType">
  <EmailMessageObj:Header>
    <EmailMessageObj:From xsi:type="AddressObj:AddressObjectType" category="e-mail">
      <AddressObj:Address_Value>spammer@spam.com</AddressObj:Address_Value>
    </EmailMessageObj:From>
    <EmailMessageObj:Subject>This is not spam</EmailMessageObj:Subject>
    <EmailMessageObj:Date>2012-01-17T08:35:06</EmailMessageObj:Date>
  </EmailMessageObj:Header>
</EmailMessageObj:EmailMessageObjectType>

```

```

from cybox.objects.email_message_object import EmailMessage
e = EmailMessage()
e.date = "Mon, 14 Oct, 2013 12:32:03 -0500"
print(e.to_xml(include_namespaces=False, encoding=None))

```

```

<EmailMessageObj:EmailMessageObjectType xsi:type="EmailMessageObj:EmailMessageObjectType">
  <EmailMessageObj:Header>
    <EmailMessageObj:Date>2013-10-14T12:32:03-05:00</EmailMessageObj:Date>
  </EmailMessageObj:Header>
</EmailMessageObj:EmailMessageObjectType>

```

2.4.6 Hashes

In many cases you can pass a dictionary or a list to create an instance of a CybOX type.

```

from cybox.common import HashList
h = HashList.from_list([{'type' : 'MD5', 'simple_hash_value' : 'FFFFFF'},
                       {'type' : 'SHA1', 'simple_hash_value' : 'FFFFFF'}])
print(h.to_xml(include_namespaces=False, encoding=None))

```

```

<cyboxCommon:HashListType>
  <cyboxCommon:Hash>
    <cyboxCommon:Type>MD5</cyboxCommon:Type>
    <cyboxCommon:Simple_Hash_Value>FFFFFF</cyboxCommon:Simple_Hash_Value>
  </cyboxCommon:Hash>
  <cyboxCommon:Hash>
    <cyboxCommon:Type>SHA1</cyboxCommon:Type>
    <cyboxCommon:Simple_Hash_Value>FFFFFF</cyboxCommon:Simple_Hash_Value>
  </cyboxCommon:Hash>
</cyboxCommon:HashListType>

```

This can easily be incorporated into constructing objects as well.

```

from cybox.objects.win_file_object import WinFile
f = WinFile()
f.file_name = "foo.exe"
f.drive = "C:\\\\"
f.hashes = h
print(f.to_xml(include_namespaces=False, encoding=None))

```

```

<WinFileObj:WindowsFileObjectType xsi:type="WinFileObj:WindowsFileObjectType">
  <FileObj:File_Name>foo.exe</FileObj:File_Name>
  <FileObj:Hashes>
    <cyboxCommon:Hash>
      <cyboxCommon:Type>MD5</cyboxCommon:Type>
      <cyboxCommon:Simple_Hash_Value>FFFFFF</cyboxCommon:Simple_Hash_Value>
    </cyboxCommon:Hash>
    <cyboxCommon:Hash>
      <cyboxCommon:Type>SHA1</cyboxCommon:Type>
      <cyboxCommon:Simple_Hash_Value>FFFFFF</cyboxCommon:Simple_Hash_Value>
    </cyboxCommon:Hash>
  </FileObj:Hashes>
  <WinFileObj:Drive>C:\\</WinFileObj:Drive>
</WinFileObj:WindowsFileObjectType>

```

2.4.7 Object Subclasses

The WindowsFile object is a subclass of the File object. As you can see, the correct namespaces for the various properties are set.

```
from cybox.objects.win_file_object import WinFile
f = WinFile()
f.file_name = "blah.exe"
f.drive = "C:\\\\"
print(f.to_xml(include_namespaces=False, encoding=None))
```

```
<WinFileObj:WindowsFileObjectType xsi:type="WinFileObj:WindowsFileObjectType">
  <FileObj:File_Name>blah.exe</FileObj:File_Name>
  <WinFileObj:Drive>C:\\</WinFileObj:Drive>
</WinFileObj:WindowsFileObjectType>
```

As another example, the WinUser object is a refinement of the UserAccount object, which itself is a refinement of the Account object. As with Hashes, these can be constructed from a dictionary representation.

```
from cybox.objects.win_user_account_object import WinUser
winuser_dict = {
    # Account-specific fields
    'disabled': False,
    'domain': 'ADMIN',
    # UserAccount-specific fields
    'password_required': True,
    'full_name': "Steve Ballmer",
    'home_directory': "C:\\Users\\ballmer\\",
    'last_login': "2011-05-12T07:14:01+07:00",
    'username': "ballmer",
    'user_password_age': "P180D",
    # WinUser-specific fields
    'security_id': "S-1-5-21-3623811015-3361044348-30300820-1013",
    'security_type': "SidTypeUser",
    'xsi:type': 'WindowsUserAccountObjectType',
}
print(WinUser.from_dict(winuser_dict).to_xml(include_namespaces=False, encoding=None))
```

```
<WinUserAccountObj:WindowsUserAccountObjectType xsi:type="WinUserAccountObj:WindowsUserAccountObjectType">
  disabled="false" password_required="true">
  <AccountObj:Domain>ADMIN</AccountObj:Domain>
  <UserAccountObj:Full_Name>Steve Ballmer</UserAccountObj:Full_Name>
  <UserAccountObj:Home_Directory>C:\\Users\\ballmer\\</UserAccountObj:Home_Directory>
  <UserAccountObj:Last_Login>2011-05-12T07:14:01+07:00</UserAccountObj:Last_Login>
  <UserAccountObj:Username>ballmer</UserAccountObj:Username>
  <UserAccountObj:User_Password_Age>P180D</UserAccountObj:User_Password_Age>
  <WinUserAccountObj:Security_ID>S-1-5-21-3623811015-3361044348-30300820-1013</WinUserAccountObj:Security_ID>
  <WinUserAccountObj:Security_Type>SidTypeUser</WinUserAccountObj:Security_Type>
</WinUserAccountObj:WindowsUserAccountObjectType>
```

2.4.8 ObservableCompositions

```
from mixbox.idgen import IDGenerator, set_id_method
from cybox.core import Observable, Observables, ObservableComposition
from cybox.objects.file_object import File
from cybox.objects.process_object import Process
set_id_method(IDGenerator.METHOD_INT)
```



```

observables = Observables()

proc = Process.from_dict(
    {"name": "cmd.exe",
     "image_info": {"command_line": "cmd.exe /c blah.bat"}})
proc.name.condition = "Equals"
proc.image_info.command_line.condition = "Contains"
oproc = Observable(proc)
observables.add(oproc)

f = File.from_dict({"file_name": "blah", "file_extension": "bat"})
f.file_name.condition = "Contains"
f.file_extension.condition = "Equals"
ofile = Observable(f)
observables.add(ofile)

oproc_ref = Observable()
oproc_ref.id_ = None
oproc_ref.idref = oproc.id_

ofile_ref = Observable()
ofile_ref.id_ = None
ofile_ref.idref = ofile.id_

o_comp = ObservableComposition(operator="OR")
o_comp.add(oproc_ref)
o_comp.add(ofile_ref)
observables.add(Observable(o_comp))

print(observables.to_xml(include_namespaces=False, encoding=None))

```

```

<cybox:Observables cybox_major_version="2" cybox_minor_version="1" cybox_update_version="0">
  <cybox:Observable id="example:Observable-1">
    <cybox:Object id="example:Process-2">
      <cybox:Properties xsi:type="ProcessObj:ProcessObjectType">
        <ProcessObj:Name condition="Equals">cmd.exe</ProcessObj:Name>
        <ProcessObj:Image_Info>
          <ProcessObj:Command_Line condition="Contains">cmd.exe /c blah.bat</ProcessObj:Command_Line>
        </ProcessObj:Image_Info>
      </cybox:Properties>
    </cybox:Object>
  </cybox:Observable>
  <cybox:Observable id="example:Observable-3">
    <cybox:Object id="example:File-4">
      <cybox:Properties xsi:type="FileObj:FileObjectType">
        <FileObj:File_Name condition="Contains">blah</FileObj:File_Name>
        <FileObj:File_Extension condition="Equals">bat</FileObj:File_Extension>
      </cybox:Properties>
    </cybox:Object>
  </cybox:Observable>
  <cybox:Observable id="example:Observable-7">
    <cybox:Observable_Composition operator="OR">
      <cybox:Observable idref="example:Observable-1">
      </cybox:Observable>
      <cybox:Observable idref="example:Observable-3">
      </cybox:Observable>
    </cybox:Observable_Composition>
  </cybox:Observable>
</cybox:Observables>

```

```
</cybox:Observables>
```

2.4.9 Parsing example

Just as you can call `to_xml()` to generate XML, you can call `parseString` to parse an XML string.

```
>>> import cybox.bindings.file_object as file_binding
>>> from cybox.objects.file_object import File
>>> a = """
... <FileObj:FileObjectType
...     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
...     xmlns:FileObj="http://cybox.mitre.org/objects#FileObject-2"
...     xsi:type="FileObj:FileObjectType">
...     <FileObj:File_Name condition="Contains">bad.exe</FileObj:File_Name>
... </FileObj:FileObjectType>
... """
>>> file_obj = file_binding.parseString(a)
>>> type(file_obj)
<class 'cybox.bindings.file_object.FileObjectType'>
>>> f = File.from_obj(file_obj)
>>> f.file_name.value
'bad.exe'
>>> str(f.file_name)
'bad.exe'
>>> f.file_name.condition
'Contains'
```

2.4.10 Comparisons

CyBOX objects can be compared for equality using the standard Python equality operator. By default, every field must be equal between the two objects. However, you can explicitly say that some fields should not be considered.

```
>>> from cybox.objects.file_object import File

>>> file_1 = File.from_dict({'file_name': 'abcd.dll', 'size_in_bytes': '25556'})
>>> file_2 = File.from_dict({'file_name': 'abcd.dll', 'size_in_bytes': '25556'})
>>> file_3 = File.from_dict({'file_name': 'abcd.dll', 'size_in_bytes': '1337'})

# First, disable the use of ``size_in_bytes`` comparisons.
>>> File.size_in_bytes.comparable = False

>>> file_1 == file_2
True
>>> file_1 == file_3
True

# Now, set it back to True (the default).
>>> File.size_in_bytes.comparable = True

>>> file_1 == file_2
True
>>> file_1 == file_3
False
```

2.4.11 Custom Objects

The CybOX Custom Object is used to specify objects which do not have their own object type in CybOX. These objects should be used with care, as they can make interoperability more challenging if both producer and consumer do not agree on the fields used in the Custom object.

```

from cybox.common.object_properties import CustomProperties, Property
from cybox.objects.custom_object import Custom

c = Custom()

# This should be a QName with a prefix specific to the application
# (i.e. not "example"). The prefix should be included in the output
# namespaces.
c.custom_name = "example:OfficePassword"
c.description = "This is a string used as a password to protect an Microsoft Office document."
c.custom_properties = CustomProperties()

p1 = Property()
p1.name = "password"
p1.description = "MS Office encryption password"
p1.value = "SuP3rS3cr3T!"
c.custom_properties.append(p1)

print(c.to_xml(include_namespaces=False, encoding=None))

```

```

<CustomObj:CustomObjectType xsi:type="CustomObj:CustomObjectType" custom_name="example:OfficePassword"
  <cyboxCommon:Custom_Properties>
    <cyboxCommon:Property name="password" description="MS Office encryption password">SuP3rS3cr3T!</cyboxCommon:Property>
  </cyboxCommon:Custom_Properties>
  <CustomObj:Description>This is a string used as a password to protect an Microsoft Office document.</CustomObj:Description>
</CustomObj:CustomObjectType>

```

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2.5 Contributing

If you notice a bug, have a suggestion for a new feature, or find that that something just isn't behaving the way you'd expect it to, please submit an issue to our [issue tracker](#).

If you'd like to contribute code to our repository, you can do so by issuing a pull request and we will work with you to try and integrate that code into our repository. Users who want to contribute code to the python-cybox repository should be familiar with [git](#) and the [GitHub pull request process](#).

API Reference

Version: 2.1.0.21

3.1 API Reference

3.1.1 CybOX Common

Modules located in the base `cybox.common` package

Note: Most objects from the CybOX Common schema can be implemented directly from the `cybox.common` package, rather than needing to remember which submodule they are defined in.

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`cybox.common` package

The `cybox.common` module contains classes needed to implement the types found in the CybOX Common schema (`cybox_common.xsd`). Although the implementation is spread between different modules within the `cybox.common` package, types should be imported directly from this module in case the implementations are reorganized in the future.

In other words, do this:

```
from cybox.common import String
```

rather than:

```
from cybox.common.properties import String
```

Submodules

Version: 2.1.0.21

`cybox.common.attribute_groups` module Version: 2.1.0.21

cybox.common.build module

class `cybox.common.build.BuildConfiguration`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.BuildConfigurationType`

configuration_setting_description

(List of values permitted)

XML Binding class name: `Configuration_Setting_Description`

Dictionary key name: `configuration_setting_description`

configuration_settings

Type: `cybox.common.configuration_settings.ConfigurationSettings`

XML Binding class name: `Configuration_Settings`

Dictionary key name: `configuration_settings`

class `cybox.common.build.BuildInformation`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.BuildInformationType`

build_configuration

Type: `cybox.common.build.BuildConfiguration`

XML Binding class name: `Build_Configuration`

Dictionary key name: `build_configuration`

build_id

XML Binding class name: `Build_ID`

Dictionary key name: `build_id`

build_label

XML Binding class name: `Build_Label`

Dictionary key name: `build_label`

build_output_log

XML Binding class name: `Build_Output_Log`

Dictionary key name: `build_output_log`

build_project

XML Binding class name: `Build_Project`

Dictionary key name: `build_project`

build_script

XML Binding class name: Build_Script

Dictionary key name: build_script

build_utility

Type: *cybox.common.build.BuildUtility*

XML Binding class name: Build_Utility

Dictionary key name: build_utility

build_version

XML Binding class name: Build_Version

Dictionary key name: build_version

compilation_date

Type: *cybox.common.datetimewithprecision.DateTimeWithPrecision*

XML Binding class name: Compilation_Date

Dictionary key name: compilation_date

compilers

Type: *cybox.common.compilers.Compilers*

XML Binding class name: Compilers

Dictionary key name: compilers

libraries

Type: *cybox.common.libraries.Libraries*

XML Binding class name: Libraries

Dictionary key name: libraries

class `cybox.common.build.BuildUtility`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.BuildUtilityType`

build_utility_name

XML Binding class name: Build_Utility_Name

Dictionary key name: build_utility_name

build_utility_platform_specification

Type: *cybox.common.platform_specification.PlatformSpecification*

XML Binding class name: Build_Utility_Platform_Specification

Dictionary key name: build_utility_platform_specification

Version: 2.1.0.21

cybox.common.byterun module

class `cybox.common.byterun.ByteRun`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ByteRunType`

byte_order

Type: `cybox.common.properties.String`

XML Binding class name: `Byte_Order`

Dictionary key name: `byte_order`

byte_run_data

XML Binding class name: `Byte_Run_Data`

Dictionary key name: `byte_run_data`

file_system_offset

Type: `cybox.common.properties.Integer`

XML Binding class name: `File_System_Offset`

Dictionary key name: `file_system_offset`

hashes

Type: `cybox.common.hashes.HashList`

XML Binding class name: `Hashes`

Dictionary key name: `hashes`

image_offset

Type: `cybox.common.properties.Integer`

XML Binding class name: `Image_Offset`

Dictionary key name: `image_offset`

length

Type: `cybox.common.properties.PositiveInteger`

XML Binding class name: `Length`

Dictionary key name: `length`

offset

Type: `cybox.common.properties.Integer`

XML Binding class name: `Offset`

Dictionary key name: `offset`

class `cybox.common.byterun.ByteRuns` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_common.ByteRunsType`

byte_run

(List of values permitted)

Type: `cybox.common.byterun.ByteRun`

XML Binding class name: `Byte_Run`

Dictionary key name: `byte_run`

Version: 2.1.0.21

cybox.common.cipher module

class `cybox.common.cipher.Cipher` (value=None)
Bases: `cybox.common.properties.BaseProperty`

XML binding class: `cybox.bindings.cybox_common.CipherType`

Version: 2.1.0.21

cybox.common.compensation_model module

class `cybox.common.compensation_model.CompensationModel` (value=None)
Bases: `cybox.common.properties.BaseProperty`

XML binding class: `cybox.bindings.cybox_common.CompensationModelType`

Version: 2.1.0.21

cybox.common.compilers module

class `cybox.common.compilers.Compiler`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.CompilerType`

compiler_informal_description

Type: `cybox.common.compilers.CompilerInformalDescription`

XML Binding class name: `Compiler_Informal_Description`

Dictionary key name: `compiler_informal_description`

compiler_platform_specification

Type: *cybox.common.platform_specification.PlatformSpecification*

XML Binding class name: *Compiler_Platform_Specification*

Dictionary key name: *compiler_platform_specification*

class *cybox.common.compilers.CompilerInformalDescription*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.cybox_common.CompilerInformalDescriptionType*

compiler_name

XML Binding class name: *Compiler_Name*

Dictionary key name: *compiler_name*

compiler_version

XML Binding class name: *Compiler_Version*

Dictionary key name: *compiler_version*

class *cybox.common.compilers.Compilers*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.cybox_common.CompilersType*

compiler

(List of values permitted)

Type: *cybox.common.compilers.Compiler*

XML Binding class name: *Compiler*

Dictionary key name: *compiler*

Version: 2.1.0.21

cybox.common.configuration_settings module

class *cybox.common.configuration_settings.ConfigurationSetting*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.cybox_common.ConfigurationSettingType*

item_description

XML Binding class name: *Item_Description*

Dictionary key name: *item_description*

item_name

XML Binding class name: *Item_Name*

Dictionary key name: `item_name`

item_type

XML Binding class name: `Item_Type`

Dictionary key name: `item_type`

item_value

XML Binding class name: `Item_Value`

Dictionary key name: `item_value`

class `cybox.common.configuration_settings.ConfigurationSettings`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ConfigurationSettingsType`

configuration_setting

(List of values permitted)

Type: `cybox.common.configuration_settings.ConfigurationSetting`

XML Binding class name: `Configuration_Setting`

Dictionary key name: `configuration_setting`

Version: 2.1.0.21

cybox.common.contributor module

class `cybox.common.contributor.Contributor`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ContributorType`

contribution_location

XML Binding class name: `Contribution_Location`

Dictionary key name: `contribution_location`

date

Type: `cybox.common.daterange.DateRange`

XML Binding class name: `Date`

Dictionary key name: `date`

email

XML Binding class name: `Email`

Dictionary key name: `email`

name

XML Binding class name: Name

Dictionary key name: name

organization

XML Binding class name: Organization

Dictionary key name: organization

phone

XML Binding class name: Phone

Dictionary key name: phone

role

XML Binding class name: Role

Dictionary key name: role

class `cybox.common.contributor.Personnel` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_common.PersonnelType`

contributor

(List of values permitted)

Type: `cybox.common.contributor.Contributor`

XML Binding class name: Contributor

Dictionary key name: contributor

Version: 2.1.0.21

cybox.common.data_segment module

class `cybox.common.data_segment.DataSegment`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.DataSegmentType`

byte_order

Type: `cybox.common.properties.String`

XML Binding class name: Byte_Order

Dictionary key name: byte_order

data_format

XML Binding class name: Data_Format

Dictionary key name: data_format

data_segment

Type: *cybox.common.properties.String*

XML Binding class name: Data_Segment

Dictionary key name: data_segment

data_size

Type: *cybox.common.data_segment.DataSize*

XML Binding class name: Data_Size

Dictionary key name: data_size

id_

XML Binding class name: id

Dictionary key name: id

offset

Type: *cybox.common.properties.Integer*

XML Binding class name: Offset

Dictionary key name: offset

search_distance

Type: *cybox.common.properties.Integer*

XML Binding class name: Search_Distance

Dictionary key name: search_distance

search_within

Type: *cybox.common.properties.Integer*

XML Binding class name: Search_Within

Dictionary key name: search_within

class `cybox.common.data_segment.DataSize` (*value=None*)

Bases: *cybox.common.properties.String*

XML binding class: `cybox.bindings.cybox_common.DataSizeType`

is_plain()

units

XML Binding class name: units

Dictionary key name: units

Version: 2.1.0.21

cybox.common.daterange module

class cybox.common.daterange.**DateRange**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DateRangeType

end_date

Type: *cybox.common.datetimewithprecision.DateWithPrecision*

XML Binding class name: End_Date

Dictionary key name: end_date

start_date

Type: *cybox.common.datetimewithprecision.DateWithPrecision*

XML Binding class name: Start_Date

Dictionary key name: start_date

Version: 2.1.0.21

cybox.common.datetimewithprecision module

class cybox.common.datetimewithprecision.**DateTimeWithPrecision** (*value=None, precision='second'*)

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DateTimeWithPrecisionType

precision

XML Binding class name: precision

Dictionary key name: precision

to_dict()

value

XML Binding class name: valueOf_

Dictionary key name: value

class cybox.common.datetimewithprecision.**DateWithPrecision** (*value=None, precision='day'*)

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DateWithPrecisionType

precision

XML Binding class name: precision

Dictionary key name: precision

to_dict ()

value

XML Binding class name: valueOf_

Dictionary key name: value

cybox.common.datetimewithprecision.**validate_date_precision** (*instance, value*)

cybox.common.datetimewithprecision.**validate_datetime_precision** (*instance, value*)

cybox.common.datetimewithprecision.**validate_time_precision** (*instance, value*)

Version: 2.1.0.21

cybox.common.dependencies module

class cybox.common.dependencies.**Dependencies**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DependenciesType

dependency

(List of values permitted)

Type: *cybox.common.dependencies.Dependency*

XML Binding class name: Dependency

Dictionary key name: dependency

class cybox.common.dependencies.**Dependency**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DependencyType

dependency_description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Dependency_Description

Dictionary key name: dependency_description

dependency_type

XML Binding class name: Dependency_Type

Dictionary key name: dependency_type

Version: 2.1.0.21

cybox.common.digitalsignature module

class cybox.common.digitalsignature.**DigitalSignature**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DigitalSignatureInfoType

certificate_issuer

Type: *cybox.common.properties.String*

XML Binding class name: Certificate_Issuer

Dictionary key name: certificate_issuer

certificate_subject

Type: *cybox.common.properties.String*

XML Binding class name: Certificate_Subject

Dictionary key name: certificate_subject

signature_description

Type: *cybox.common.properties.String*

XML Binding class name: Signature_Description

Dictionary key name: signature_description

signature_exists

XML Binding class name: signature_exists

Dictionary key name: signature_exists

signature_verified

XML Binding class name: signature_verified

Dictionary key name: signature_verified

class cybox.common.digitalsignature.**DigitalSignatureList** (*args)

Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.cybox_common.DigitalSignaturesType

digital_signature

(List of values permitted)

Type: *cybox.common.digitalsignature.DigitalSignature*

XML Binding class name: Digital_Signature

Dictionary key name: digital_signature

Version: 2.1.0.21

cybox.common.environment_variable module**class** `cybox.common.environment_variable.EnvironmentVariable`Bases: `mixbox.entities.Entity`XML binding class: `cybox.bindings.cybox_common.EnvironmentVariableType`**name**Type: `cybox.common.properties.String`

XML Binding class name: Name

Dictionary key name: name

valueType: `cybox.common.properties.String`

XML Binding class name: Value

Dictionary key name: value

class `cybox.common.environment_variable.EnvironmentVariableList (*args)`Bases: `mixbox.entities.EntityList`XML binding class: `cybox.bindings.cybox_common.EnvironmentVariableListType`**environment_variable**

(List of values permitted)

Type: `cybox.common.environment_variable.EnvironmentVariable`

XML Binding class name: Environment_Variable

Dictionary key name: environment_variable

Version: 2.1.0.21

cybox.common.errors module**class** `cybox.common.errors.Error`Bases: `mixbox.entities.Entity`XML binding class: `cybox.bindings.cybox_common.ErrorType`**error_count**

XML Binding class name: Error_Count

Dictionary key name: error_count

error_instancesType: `cybox.common.errors.ErrorInstances`

XML Binding class name: Error_Instances

Dictionary key name: error_instances

error_type

XML Binding class name: Error_Type

Dictionary key name: error_type

class `cybox.common.errors.ErrorInstances`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ErrorInstancesType`

error_instance

(List of values permitted)

XML Binding class name: Error_Instance

Dictionary key name: error_instance

class `cybox.common.errors.Errors`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ErrorsType`

error

(List of values permitted)

Type: `cybox.common.errors.Error`

XML Binding class name: Error

Dictionary key name: error

Version: 2.1.0.21

cybox.common.execution_environment module

class `cybox.common.execution_environment.ExecutionEnvironment`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ExecutionEnvironmentType`

command_line

XML Binding class name: Command_Line

Dictionary key name: command_line

start_time

Type: `cybox.common.datetimewithprecision.DateTimeWithPrecision`

XML Binding class name: Start_Time

Dictionary key name: start_time

system

Type: *cybox.common.object_properties.ObjectProperties*

XML Binding class name: System

Dictionary key name: system

user_account_info

Type: *cybox.common.object_properties.ObjectProperties*

XML Binding class name: User_Account_Info

Dictionary key name: user_account_info

Version: 2.1.0.21

cybox.common.extracted_features module

class `cybox.common.extracted_features.CodeSnippets` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_common.CodeSnippetsType`

code_snippet

(List of values permitted)

Type: *cybox.common.object_properties.ObjectProperties*

XML Binding class name: Code_Snippet

Dictionary key name: code_snippet

class `cybox.common.extracted_features.ExtractedFeatures`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ExtractedFeaturesType`

code_snippets

Type: *cybox.common.extracted_features.CodeSnippets*

XML Binding class name: Code_Snippets

Dictionary key name: code_snippets

functions

Type: *cybox.common.extracted_features.Functions*

XML Binding class name: Functions

Dictionary key name: functions

imports

Type: *cybox.common.extracted_features.Imports*

XML Binding class name: Imports

Dictionary key name: imports

strings

Type: *cybox.common.extracted_string.ExtractedStrings*

XML Binding class name: Strings

Dictionary key name: strings

class `cybox.common.extracted_features.Functions` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_common.FunctionsType`

function

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Function

Dictionary key name: function

class `cybox.common.extracted_features.Imports` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_common.ImportsType`

import_

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Import

Dictionary key name: import

Version: 2.1.0.21

cybox.common.extracted_string module

class `cybox.common.extracted_string.ExtractedString` (*string_value=None*)

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ExtractedStringType`

address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Address

Dictionary key name: address

byte_string_value

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Byte_String_Value

Dictionary key name: byte_string_value

encoding

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.CharacterEncoding*

XML Binding class name: Encoding

Dictionary key name: encoding

english_translation

Type: *cybox.common.properties.String*

XML Binding class name: English_Translation

Dictionary key name: english_translation

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

language

Type: *cybox.common.properties.String*

XML Binding class name: Language

Dictionary key name: language

length

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Length

Dictionary key name: length

string_value

Type: *cybox.common.properties.String*

XML Binding class name: String_Value

Dictionary key name: string_value

class `cybox.common.extracted_string.ExtractedStrings` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_common.ExtractedStringsType`

extracted_string

(List of values permitted)

Type: *cybox.common.extracted_string.ExtractedString*

XML Binding class name: String

Dictionary key name: string

Version: 2.1.0.21

cybox.common.hashes module

class `cybox.common.hashes.Hash` (*hash_value=None, type_=None, exact=False*)

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.HashType`

fuzzy_hash_value

Type: *cybox.common.properties.String*

XML Binding class name: Fuzzy_Hash_Value

Dictionary key name: fuzzy_hash_value

simple_hash_value

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Simple_Hash_Value

Dictionary key name: simple_hash_value

type_

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.HashName*

XML Binding class name: Type

Dictionary key name: type

class `cybox.common.hashes.HashList` (**args*)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_common.HashListType`

hashes

(List of values permitted)

Type: *cybox.common.hashes.Hash*

XML Binding class name: Hash

Dictionary key name: hash

Version: 2.1.0.21

cybox.common.internationalization_settings module

class `cybox.common.internationalization_settings.InternalStrings`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.InternalStringsType`

content

XML Binding class name: `Content`

Dictionary key name: `content`

key

XML Binding class name: `Key`

Dictionary key name: `key`

class `cybox.common.internationalization_settings.InternationalizationSettings`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.InternationalizationSettingsType`

internal_strings

(List of values permitted)

Type: `cybox.common.internationalization_settings.InternalStrings`

XML Binding class name: `Internal_Strings`

Dictionary key name: `internal_strings`

Version: 2.1.0.21

cybox.common.libraries module

class `cybox.common.libraries.Libraries`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.LibrariesType`

library

Type: `cybox.common.libraries.Library`

XML Binding class name: `Library`

Dictionary key name: `library`

class `cybox.common.libraries.Library`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.LibraryType`

name

XML Binding class name: `name`

Dictionary key name: `name`

version

XML Binding class name: `version`

Dictionary key name: `version`

Version: 2.1.0.21

cybox.common.location module

class `cybox.common.location.Location`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.LocationType`

id_

XML Binding class name: `id`

Dictionary key name: `id`

idref

XML Binding class name: `idref`

Dictionary key name: `idref`

static lookup_class (*xsi_type*)

name

XML Binding class name: `Name`

Dictionary key name: `name`

to_dict ()

Version: 2.1.0.21

cybox.common.measuresource module

class `cybox.common.measuresource.MeasureSource`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.MeasureSourceType`

class_

XML Binding class name: classxx

Dictionary key name: class

contributors

Type: *cybox.common.contributor.Personnel*

XML Binding class name: Contributors

Dictionary key name: contributors

description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Description

Dictionary key name: description

information_source_type

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.InformationSourceType*

XML Binding class name: Information_Source_Type

Dictionary key name: information_source_type

instance

Type: *cybox.common.object_properties.ObjectProperties*

XML Binding class name: Instance

Dictionary key name: instance

name

XML Binding class name: name

Dictionary key name: name

platform

Type: *cybox.common.platform_specification.PlatformSpecification*

XML Binding class name: Platform

Dictionary key name: platform

sighting_count

XML Binding class name: sighting_count

Dictionary key name: sighting_count

source_type

XML Binding class name: source_type

Dictionary key name: `source_type`

system

Type: `cybox.common.object_properties.ObjectProperties`

XML Binding class name: `System`

Dictionary key name: `system`

time

Type: `cybox.common.time.Time`

XML Binding class name: `Time`

Dictionary key name: `time`

tool_type

TypedField subclass for VocabString fields.

Type: `cybox.common.vocabs.ToolType`

XML Binding class name: `Tool_Type`

Dictionary key name: `tool_type`

tools

Type: `cybox.common.tools.ToolInformationList`

XML Binding class name: `Tools`

Dictionary key name: `tools`

Version: 2.1.0.21

cybox.common.object_properties module

class `cybox.common.object_properties.CustomProperties` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_common.CustomPropertiesType`

property_

(List of values permitted)

Type: `cybox.common.object_properties.Property`

XML Binding class name: `Property`

Dictionary key name: `property`

class `cybox.common.object_properties.ObjectProperties`

Bases: `mixbox.entities.Entity`

The Cybox ObjectProperties base class.

XML binding class: `cybox.bindings.cybox_common.ObjectPropertiesType`

add_related (*related, relationship, inline=True*)

custom_properties

Type: *cybox.common.object_properties.CustomProperties*

XML Binding class name: Custom_Properties

Dictionary key name: custom_properties

object_reference

XML Binding class name: object_reference

Dictionary key name: object_reference

to_dict ()

to_obj (*ns_info=None*)

class *cybox.common.object_properties.Property* (*value=None*)

Bases: *cybox.common.properties.String*

XML binding class: *cybox.bindings.cybox_common.PropertyType*

description

XML Binding class name: description

Dictionary key name: description

is_plain ()

Whether the Property can be represented as a single value.

name

XML Binding class name: name

Dictionary key name: name

Version: 2.1.0.21

cybox.common.platform_specification module

class *cybox.common.platform_specification.PlatformIdentifier* (*value=None*)

Bases: *cybox.common.properties.String*

XML binding class: *cybox.bindings.cybox_common.PlatformIdentifierType*

system

XML Binding class name: system

Dictionary key name: system

system_ref

XML Binding class name: `system_ref`

Dictionary key name: `system-ref`

class `cybox.common.platform_specification.PlatformSpecification`

Bases: `mixbox.entities.Entity`

CyBOX Common PlatformSpecification object representation

XML binding class: `cybox.bindings.cybox_common.PlatformSpecificationType`

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: `Description`

Dictionary key name: `description`

identifier

(List of values permitted)

Type: `cybox.common.platform_specification.PlatformIdentifier`

XML Binding class name: `Identifier`

Dictionary key name: `identifier`

Version: 2.1.0.21

cybox.common.properties module

class `cybox.common.properties.BaseProperty` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.BaseObjectPropertyType`

is_plain()

Whether the Property can be represented as a single value.

The *datatype* can be inferred by the particular `BaseProperty` subclass, so if *datatype* and *value* are the only non-None properties, the `BaseProperty` can be represented by a single value rather than a dictionary. This makes the JSON representation simpler without losing any data fidelity.

class `cybox.common.properties.AnyURI` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.AnyURIObjectPropertyType`

class `cybox.common.properties.Base64Binary` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.Base64BinaryObjectPropertyType`

class `cybox.common.properties.Date` (*value=None, precision='day'*)

XML binding class: `cybox.bindings.cybox_common.DateObjectPropertyType`

class `cybox.common.properties.DateTime` (*value=None, precision='second'*)

XML binding class: `cybox.bindings.cybox_common.DateTimeObjectPropertyType`

class `cybox.common.properties.Double` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.DoubleObjectPropertyType`

class `cybox.common.properties.Duration` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.DurationObjectPropertyType`

class `cybox.common.properties.Float` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.FloatObjectPropertyType`

class `cybox.common.properties.HexBinary` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.HexBinaryObjectPropertyType`

class `cybox.common.properties.Integer` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.IntegerObjectPropertyType`

class `cybox.common.properties.Long` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.LongObjectPropertyType`

class `cybox.common.properties.Name` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.NameObjectPropertyType`

class `cybox.common.properties.NonNegativeInteger` (*value=None*)

XML binding class:

`cybox.bindings.cybox_common.NonNegativeIntegerObjectPropertyType`

class `cybox.common.properties.PositiveInteger` (*value=None*)

XML binding class:

`cybox.bindings.cybox_common.PositiveIntegerObjectPropertyType`

class `cybox.common.properties.String` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.StringObjectPropertyType`

class `cybox.common.properties.Time` (*value=None, precision='second'*)

XML binding class: `cybox.bindings.cybox_common.TimeObjectPropertyType`

class `cybox.common.properties.UnsignedInteger` (*value=None*)

XML binding class:

`cybox.bindings.cybox_common.UnsignedIntegerObjectPropertyType`

class `cybox.common.properties.UnsignedLong` (*value=None*)

XML binding class: `cybox.bindings.cybox_common.UnsignedLongObjectPropertyType`

Version: 2.1.0.21

cybox.common.structured_text module

class `cybox.common.structured_text.StructuredText` (*value=None*)

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.StructuredTextType`

is_plain()

Whether this can be represented as a string rather than a dictionary

Subclasses can override this to include their custom fields in this check:

return `(super(..., self).is_plain() and self.other_field is None)`

structuring_format

XML Binding class name: `structuring_format`

Dictionary key name: `structuring_format`

to_dict()

value

XML Binding class name: `valueOf_`

Dictionary key name: `value`

Version: 2.1.0.21

cybox.common.time module

class `cybox.common.time.Time` (*start_time=None, end_time=None, produced_time=None, received_time=None*)

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.TimeType`

end_time

Type: `cybox.common.datetimewithprecision.DateTimeWithPrecision`

XML Binding class name: `End_Time`

Dictionary key name: `end_time`

produced_time

Type: `cybox.common.datetimewithprecision.DateTimeWithPrecision`

XML Binding class name: `Produced_Time`

Dictionary key name: `produced_time`

received_time

Type: *cybox.common.datetimewithprecision.DateTimeWithPrecision*

XML Binding class name: Received_Time

Dictionary key name: received_time

start_time

Type: *cybox.common.datetimewithprecision.DateTimeWithPrecision*

XML Binding class name: Start_Time

Dictionary key name: start_time

Version: 2.1.0.21

cybox.common.tools module

class `cybox.common.tools.ToolConfiguration`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ToolConfigurationType`

build_information

XML Binding class name: Build_Information

Dictionary key name: build_information

configuration_settings

XML Binding class name: Configuration_Settings

Dictionary key name: configuration_settings

dependencies

XML Binding class name: Dependencies

Dictionary key name: dependencies

internationalization_settings

XML Binding class name: Internationalization_Settings

Dictionary key name: internationalization_settings

usage_context_assumptions

XML Binding class name: Usage_Context_Assumptions

Dictionary key name: usage_context_assumptions

class `cybox.common.tools.ToolInformation` (*tool_name=None, tool_vendor=None*)

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ToolInformationType`

compensation_model

Type: *cybox.common.compensation_model.CompensationModel*

XML Binding class name: Compensation_Model

Dictionary key name: compensation_model

description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Description

Dictionary key name: description

errors

Type: *cybox.common.errors.Errors*

XML Binding class name: Errors

Dictionary key name: errors

execution_environment

Type: *cybox.common.execution_environment.ExecutionEnvironment*

XML Binding class name: Execution_Environment

Dictionary key name: execution_environment

id_

XML Binding class name: id

Dictionary key name: id

idref

XML Binding class name: idref

Dictionary key name: idref

metadata

(List of values permitted)

Type: *cybox.common.metadata.Metadata*

XML Binding class name: Metadata

Dictionary key name: metadata

name

XML Binding class name: Name

Dictionary key name: name

references

Type: *cybox.common.tools.ToolReferences*

XML Binding class name: References

Dictionary key name: references

service_pack

XML Binding class name: Service_Pack

Dictionary key name: service_pack

tool_configuration

Type: *cybox.common.tools.ToolConfiguration*

XML Binding class name: Tool_Configuration

Dictionary key name: tool_configuration

tool_hashes

Type: *cybox.common.hashses.HashList*

XML Binding class name: Tool_Hashes

Dictionary key name: tool_hashes

tool_specific_data

Type: *cybox.common.tools.ToolSpecificData*

XML Binding class name: Tool_Specific_Data

Dictionary key name: tool_specific_data

type_

TypedField subclass for VocabString fields.

(List of values permitted)

Type: *cybox.common.vocabs.ToolType*

XML Binding class name: Type

Dictionary key name: type

vendor

XML Binding class name: Vendor

Dictionary key name: vendor

version

XML Binding class name: Version

Dictionary key name: version

class *cybox.common.tools.ToolInformationList* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.cybox_common.ToolsInformationType*

tool

(List of values permitted)

Type: *cybox.common.tools.ToolInformation*

XML Binding class name: Tool

Dictionary key name: tool

class `cybox.common.tools.ToolReference`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ToolReferenceType`

reference_type

XML Binding class name: reference_type

Dictionary key name: reference_type

value

XML Binding class name: valueOf_

Dictionary key name: value

class `cybox.common.tools.ToolReferences`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ToolReferencesType`

reference

(List of values permitted)

Type: *cybox.common.tools.ToolReference*

XML Binding class name: Reference

Dictionary key name: reference

class `cybox.common.tools.ToolSpecificData`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ToolSpecificDataType`

static lookup_class (*xsi_type*)

to_dict ()

Version: 2.1.0.21

cybox.common.usage_context module

class `cybox.common.usage_context.UsageContextAssumptions`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.UsageContextAssumptionsType`

usage_context_assumption

(List of values permitted)

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: `Usage_Context_Assumption`

Dictionary key name: `usage_context_assumption`

Version: 2.1.0.21

cybox.common.vocabs module

class `cybox.common.vocabs.ActionArgumentName` (*value=None*)

Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.ActionName` (*value=None*)

Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.ActionObjectAssociationType` (*value=None*)

Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.ActionRelationshipType` (*value=None*)

Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.ActionType` (*value=None*)

Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.CharacterEncoding` (*value=None*)

Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.EventType` (*value=None*)
Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.HashName` (*value=None*)
Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.InformationSourceType` (*value=None*)
Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.ObjectRelationship` (*value=None*)
Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.ObjectState` (*value=None*)
Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.ToolType` (*value=None*)
Bases: `cybox.common.vocabs.VocabString`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

class `cybox.common.vocabs.VocabString` (*value=None*)
Bases: `cybox.common.attribute_groups.PatternFieldGroup`,
`mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

classmethod `from_obj` (*cls_obj*)

is_plain ()

Whether the VocabString can be represented as a single value.

to_dict ()

to_obj (*ns_info=None*)

value

XML Binding class name: valueOf_

Dictionary key name: value

vocab_name

XML Binding class name: vocab_name

Dictionary key name: vocab_name

vocab_reference

XML Binding class name: vocab_reference

Dictionary key name: vocab_reference

xsi_type

XML Binding class name: xsi_type

Dictionary key name: xsi:type

`cybox.common.vocabs.register_vocab` (*cls*)

Register a VocabString subclass.

Also, calculate all the permitted values for class being decorated by adding an `_ALLOWED_VALUES` tuple of all the values of class members beginning with `TERM_`.

`cybox.common.vocabs.validate_value` (*instance, value*)

3.1.2 CybOX Core

Modules located in the base `cybox.core` package

Note: Most objects from the CybOX Core schema can be implemented directly from the `cybox.core` package, rather than needing to remember which submodule they are defined in.

Version: 2.1.0.21

cybox.core package

Submodules

Version: 2.1.0.21

cybox.core.action module

class `cybox.core.action.Action`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.ActionType`

action_aliases

Type: `cybox.core.action.ActionAliases`

XML Binding class name: `ActionAliases`

Dictionary key name: `action_aliases`

action_arguments

Type: `cybox.core.action.ActionArguments`

XML Binding class name: `ActionArguments`

Dictionary key name: `action_arguments`

action_status

XML Binding class name: `action_status`

Dictionary key name: `action_status`

associated_objects

Type: `cybox.core.action.AssociatedObjects`

XML Binding class name: `AssociatedObjects`

Dictionary key name: `associated_objects`

context

XML Binding class name: `context`

Dictionary key name: `context`

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: `Description`

Dictionary key name: `description`

discovery_method

Type: `cybox.common.measuresource.MeasureSource`

XML Binding class name: `Discovery_Method`

Dictionary key name: `discovery_method`

frequency

Type: `cybox.core.frequency.Frequency`

XML Binding class name: `Frequency`

Dictionary key name: `frequency`

id_

XML Binding class name: id

Dictionary key name: id

idref

XML Binding class name: idref

Dictionary key name: idref

name

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionName*

XML Binding class name: Name

Dictionary key name: name

ordinal_position

XML Binding class name: ordinal_position

Dictionary key name: ordinal_position

relationships

Type: *cybox.core.action.ActionRelationships*

XML Binding class name: Relationships

Dictionary key name: relationships

timestamp

XML Binding class name: timestamp

Dictionary key name: timestamp

type_

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionType*

XML Binding class name: Type

Dictionary key name: type

class `cybox.core.action.ActionAliases` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_core.ActionAliasesType`

action_alias

(List of values permitted)

Type: `cybox.Unicode`

XML Binding class name: Action_Alias

Dictionary key name: action_alias

class cybox.core.action.ActionArgument

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_core.ActionArgumentType

argument_name

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionArgumentName*

XML Binding class name: Argument_Name

Dictionary key name: argument_name

argument_value

XML Binding class name: Argument_Value

Dictionary key name: argument_value

class cybox.core.action.ActionArguments (*args)

Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.cybox_core.ActionArgumentsType

action_argument

(List of values permitted)

Type: *cybox.core.action.ActionArgument*

XML Binding class name: Action_Argument

Dictionary key name: action_argument

class cybox.core.action.ActionRelationship

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_core.ActionRelationshipType

action_references

(List of values permitted)

Type: *cybox.core.action_reference.ActionReference*

XML Binding class name: Action_Reference

Dictionary key name: action_reference

type

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionType*

XML Binding class name: Type

Dictionary key name: type

class *cybox.core.action.ActionRelationships* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.cybox_core.ActionRelationshipsType*

relationship

(List of values permitted)

Type: *cybox.core.action.ActionRelationship*

XML Binding class name: Relationship

Dictionary key name: relationship

class *cybox.core.action.Actions* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.cybox_core.ActionsType*

action

(List of values permitted)

Type: *cybox.core.action.Action*

XML Binding class name: Action

Dictionary key name: action

class *cybox.core.action.AssociatedObjects* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.cybox_core.AssociatedObjectsType*

associated_object

(List of values permitted)

Type: *cybox.core.associated_object.AssociatedObject*

XML Binding class name: Associated_Object

Dictionary key name: associated_object

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cybox.core.action_reference module CybOX Action Reference Class

class `cybox.core.action_reference.ActionReference` (*action_id=None*)
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.ActionReferenceType`

action_id

XML Binding class name: `action_id`

Dictionary key name: `action_id`

Version: 2.1.0.21

cybox.core.associated_object module

class `cybox.core.associated_object.AssociatedObject` (*defined_object=None, type_=None, association_type=None*)

Bases: `cybox.core.object.Object`

The CybOX Associated Object element.

Currently only supports the `id`, `association_type` and `ObjectProperties` properties

XML binding class: `cybox.bindings.cybox_core.AssociatedObjectType`

association_type

TypedField subclass for `VocabString` fields.

Type: `cybox.common.vocabs.ActionObjectAssociationType`

XML Binding class name: `Association_Type`

Dictionary key name: `association_type`

Version: 2.1.0.21

cybox.core.event module

class `cybox.core.event.Event`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.EventType`

actions

Type: `cybox.core.action.Actions`

XML Binding class name: `Actions`

Dictionary key name: `actions`

description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Description

Dictionary key name: description

event

(List of values permitted)

Type: *cybox.core.event.Event*

XML Binding class name: Event

Dictionary key name: event

frequency

Type: *cybox.core.frequency.Frequency*

XML Binding class name: Frequency

Dictionary key name: frequency

id_

XML Binding class name: id

Dictionary key name: id

idref

XML Binding class name: idref

Dictionary key name: idref

location

Type: *cybox.common.location.Location*

XML Binding class name: Location

Dictionary key name: location

observation_method

Type: *cybox.common.measuresource.MeasureSource*

XML Binding class name: Observation_Method

Dictionary key name: observation_method

type_

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.EventType*

XML Binding class name: Type

Dictionary key name: type

Version: 2.1.0.21

cybox.core.frequency module

class cybox.core.frequency.**Frequency**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_core.FrequencyType

rate

XML Binding class name: rate
Dictionary key name: rate

scale

XML Binding class name: scale
Dictionary key name: scale

trend

XML Binding class name: trend
Dictionary key name: trend

units

XML Binding class name: units
Dictionary key name: units

Version: 2.1.0.21

cybox.core.object module

class cybox.core.object.**DomainSpecificObjectProperties**
Bases: mixbox.entities.Entity

The Cybox DomainSpecificObjectProperties base class.

XML binding class: cybox.bindings.cybox_core.DomainSpecificObjectPropertiesType

to_dict ()

to_obj (*ns_info=None*)

class cybox.core.object.**Object** (*properties=None, id=None, idref=None*)
Bases: mixbox.entities.Entity

The CyBOX Object construct identifies and specifies the characteristics of a specific cyber-relevant object (e.g. a file, a registry key or a process).

Currently only supports the following data members: - id - idref - has_changed - description - properties - related_objects - domain_specific_object_properties

Notes

By default `cybox.core.object.Object` will cache objects when instantiated. If you are experiencing memory issues in your environment, we encourage the use of `cybox.utils.caches.cache_clear()` in your script to prevent an Out of Memory error. Depending on your use case, it can be after serialization or if a certain threshold is met (e.g. %30 of memory consumed by cache mechanism).

XML binding class: `cybox.bindings.cybox_core.ObjectType`

add_related (*related, relationship, inline=True*)

defined_effect

Type: `cybox.core.effect.DefinedEffect`

XML Binding class name: `Defined_Effect`

Dictionary key name: `defined_effect`

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: `Description`

Dictionary key name: `description`

discovery_method

Type: `cybox.common.measuresource.MeasureSource`

XML Binding class name: `Discovery_Method`

Dictionary key name: `discovery_method`

domain_specific_object_properties

Type: `cybox.core.object.DomainSpecificObjectProperties`

XML Binding class name: `Domain_Specific_Object_Properties`

Dictionary key name: `domain_specific_object_properties`

has_changed

XML Binding class name: `has_changed`

Dictionary key name: `has_changed`

id_

XML Binding class name: `id`

Dictionary key name: `id`

idref

XML Binding class name: `idref`

Dictionary key name: `idref`

location

Type: *cybox.common.location.Location*

XML Binding class name: Location

Dictionary key name: location

properties

Type: *cybox.common.object_properties.ObjectProperties*

XML Binding class name: Properties

Dictionary key name: properties

related_objects

Type: *cybox.core.object.RelatedObjects*

XML Binding class name: Related_Objects

Dictionary key name: related_objects

state

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.VocabString*

XML Binding class name: State

Dictionary key name: state

class `cybox.core.object.RelatedObject` (*args, **kwargs)

Bases: *cybox.core.object.Object*

XML binding class: `cybox.bindings.cybox_core.RelatedObjectType`

classmethod `from_dict` (*cls_dict*)

classmethod `from_obj` (*cls_obj*)

get_properties ()

relationship

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ObjectRelationship*

XML Binding class name: Relationship

Dictionary key name: relationship

to_dict ()

to_obj (*ns_info=None*)

class `cybox.core.object.RelatedObjects` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_core.RelatedObjectsType`

related_object

(List of values permitted)

Type: `cybox.core.object.RelatedObject`

XML Binding class name: `Related_Object`

Dictionary key name: `related_object`

`cybox.core.object.add_external_class` (*klass*, *xsi_type*)

Adds a class implementation to this binding's `globals()` dict.

These classes can be used to implement `Properties`, `Domain_Specific_Object_Properties`, or `Defined_Effect` fields on an `Object`.

Parameters

- **klass** (*class*) – Python class that implements the new type
- **xsi_type** (*str*) – An `xsi:type` value corresponding to the *klass*.

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cybox.core.observable module

class `cybox.core.observable.Keywords` (**args*)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_core.KeywordsType`

keyword

(List of values permitted)

Type: `cybox.Unicode`

XML Binding class name: `Keyword`

Dictionary key name: `keyword`

class `cybox.core.observable.Observable` (*item=None*, *id_=None*, *idref=None*, *title=None*, *description=None*)

Bases: `mixbox.entities.Entity`

A single `Observable`.

XML binding class: `cybox.bindings.cybox_core.ObservableType`

add_keyword (*value*)

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: `Description`

Dictionary key name: `description`

event

Type: *cybox.core.event.Event*

XML Binding class name: Event

Dictionary key name: event

id_

XML Binding class name: id

Dictionary key name: id

idref

XML Binding class name: idref

Dictionary key name: idref

keywords

Type: *cybox.core.observable.Keywords*

XML Binding class name: Keywords

Dictionary key name: keywords

negate

XML Binding class name: negate

Dictionary key name: negate

object_

Type: *cybox.core.object.Object*

XML Binding class name: Object

Dictionary key name: object

observable_composition

Type: *cybox.core.observable.ObservableComposition*

XML Binding class name: Observable_Composition

Dictionary key name: observable_composition

observable_source

(List of values permitted)

Type: *cybox.common.measuresource.MeasureSource*

XML Binding class name: Observable_Source

Dictionary key name: observable_source

pattern_fidelity

Type: *cybox.core.pattern_fidelity.PatternFidelity*

XML Binding class name: Pattern_Fidelity

Dictionary key name: pattern_fidelity

sighting_count

XML Binding class name: sighting_count

Dictionary key name: sighting_count

title

XML Binding class name: Title

Dictionary key name: title

class `cybox.core.observable.ObservableComposition` (*operator='AND', observables=None*)Bases: `mixbox.entities.EntityList`

The ObservableCompositionType entity defines a logical compositions of CyBOX Observables. The combinatorial behavior is derived from the operator property.

XML binding class: `cybox.bindings.cybox_core.ObservableCompositionType`**add** (*observable*)**observables**

(List of values permitted)

Type: `cybox.core.observable.Observable`

XML Binding class name: Observable

Dictionary key name: observables

operator

XML Binding class name: operator

Dictionary key name: operator

class `cybox.core.observable.Observables` (*observables=None*)Bases: `mixbox.entities.EntityList`

The root CyBOX Observables object.

XML binding class: `cybox.bindings.cybox_core.ObservablesType`**add** (*object_*)**cybox_major_version**

XML Binding class name: cybox_major_version

Dictionary key name: cybox_major_version

cybox_minor_version

XML Binding class name: cybox_minor_version

Dictionary key name: cybox_minor_version

cybox_update_version

XML Binding class name: `cybox_update_version`

Dictionary key name: `cybox_update_version`

observable_package_source

Type: `cybox.common.measuresource.MeasureSource`

XML Binding class name: `Observable_Package_Source`

Dictionary key name: `observable_package_source`

observables

(List of values permitted)

Type: `cybox.core.observable.Observable`

XML Binding class name: `Observable`

Dictionary key name: `observables`

pools

Type: `cybox.core.pool.Pools`

XML Binding class name: `Pools`

Dictionary key name: `pools`

`cybox.core.observable.validate_event` (*instance, value*)

`cybox.core.observable.validate_object` (*instance, value*)

`cybox.core.observable.validate_observable_composition` (*instance, value*)

`cybox.core.observable.validate_operator` (*instance, value*)

Version: 2.1.0.21

cybox.core.pattern_fidelity module

class `cybox.core.pattern_fidelity.ObfuscationTechnique`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.ObfuscationTechniqueType`

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: `Description`

Dictionary key name: `description`

observables

Type: `cybox.core.observable.Observables`

XML Binding class name: `Observables`

Dictionary key name: `observables`

class `cybox.core.pattern_fidelity.ObfuscationTechniques` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.cybox_core.ObfuscationTechniquesType`

obfuscation_technique

(List of values permitted)

Type: `cybox.core.pattern_fidelity.ObfuscationTechnique`

XML Binding class name: `Obfuscation_Technique`

Dictionary key name: `obfuscation_technique`

class `cybox.core.pattern_fidelity.PatternFidelity`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.PatternFidelityType`

ease_of_evasion

XML Binding class name: `Ease_of_Evasion`

Dictionary key name: `ease_of_evasion`

evasion_techniques

Type: `cybox.core.pattern_fidelity.ObfuscationTechniques`

XML Binding class name: `Evasion_Techniques`

Dictionary key name: `evasion_techniques`

noisiness

XML Binding class name: `Noisiness`

Dictionary key name: `noisiness`

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cybox.core.pool module

class `cybox.core.pool.ActionPool`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.ActionPoolType`

actions

(List of values permitted)

Type: `cybox.core.action.Action`

XML Binding class name: Action

Dictionary key name: actions

class `cybox.core.pool.EventPool`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.EventPoolType`

events

(List of values permitted)

Type: `cybox.core.event.Event`

XML Binding class name: Event

Dictionary key name: events

class `cybox.core.pool.ObjectPool`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.ObjectPoolType`

objects

(List of values permitted)

Type: `cybox.core.object.Object`

XML Binding class name: Object

Dictionary key name: objects

class `cybox.core.pool.Pools`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.PoolsType`

action_pool

Type: `cybox.core.pool.ActionPool`

XML Binding class name: Action_Pool

Dictionary key name: action_pool

event_pool

Type: `cybox.core.pool.EventPool`

XML Binding class name: Event_Pool

Dictionary key name: event_pool

object_pool

Type: `cybox.core.pool.ObjectPool`

XML Binding class name: Object_Pool

Dictionary key name: object_pool

property_pool

Type: *cybox.core.pool.PropertyPool*

XML Binding class name: Property_Pool

Dictionary key name: property_pool

class `cybox.core.pool.PropertyPool`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.cybox_core.PropertyPoolType`

properties

(List of values permitted)

Type: *cybox.common.object_properties.Property*

XML Binding class name: Property

Dictionary key name: properties

3.1.3 CybOX Objects

Modules located in the base `cybox.objects` package

Version: 2.1.0.21

cybox.objects package

Submodules

Version: 2.1.0.21

cybox.objects.account_object module

class `cybox.objects.account_object.Account`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.account_object.AccountObjectType`

authentication

(List of values permitted)

Type: *cybox.objects.account_object.Authentication*

XML Binding class name: Authentication

Dictionary key name: authentication

creation_date

Type: *cybox.common.properties.DateTime*

XML Binding class name: Creation_Date

Dictionary key name: creation_date

description

Type: *cybox.common.properties.String*

XML Binding class name: Description

Dictionary key name: description

disabled

XML Binding class name: disabled

Dictionary key name: disabled

domain

Type: *cybox.common.properties.String*

XML Binding class name: Domain

Dictionary key name: domain

last_accessed_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Last_Accessed_Time

Dictionary key name: last_accessed_time

locked_out

XML Binding class name: locked_out

Dictionary key name: locked_out

modified_date

Type: *cybox.common.properties.DateTime*

XML Binding class name: Modified_Date

Dictionary key name: modified_date

class `cybox.objects.account_object.Authentication`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.account_object.AuthenticationType`

authentication_data

Type: *cybox.common.properties.String*

XML Binding class name: Authentication_Data

Dictionary key name: authentication_data

authentication_token_protection_mechanism

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.VocabString*

XML Binding class name: Authentication-Token-Protection-Mechanism

Dictionary key name: authentication_token_protection_mechanism

authentication_type

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.VocabString*

XML Binding class name: Authentication_Type

Dictionary key name: authentication_type

structured_authentication_mechanism

Type: *cybox.objects.account_object.StructuredAuthenticationMechanism*

XML Binding class name: Structured_Authentication_Mechanism

Dictionary key name: structured_authentication_mechanism

class `cybox.objects.account_object.StructuredAuthenticationMechanism`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.account_object.StructuredAuthenticationMechanismType`

description

Type: *cybox.common.properties.String*

XML Binding class name: Description

Dictionary key name: description

Version: 2.1.0.21

cybox.objects.address_object module

class `cybox.objects.address_object.Address` (*address_value=None, category=None*)

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.address_object.AddressObjectType`

address_value

Type: *cybox.common.properties.String*

XML Binding class name: Address_Value

Dictionary key name: address_value

category

XML Binding class name: category

Dictionary key name: category

is_destination

XML Binding class name: is_destination

Dictionary key name: is_destination

is_source

XML Binding class name: is_source

Dictionary key name: is_source

is_spoofed

XML Binding class name: is_spoofed

Dictionary key name: is_spoofed

vlan_name

Type: *cybox.common.properties.String*

XML Binding class name: VLAN_Name

Dictionary key name: vlan_name

vlan_num

Type: *cybox.common.properties.Integer*

XML Binding class name: VLAN_Num

Dictionary key name: vlan_num

class `cybox.objects.address_object.EmailAddress` (*addr_string=None*)

Bases: *cybox.objects.address_object.Address*

Convenience class for creating email addresses.

Note that this is not an actual CybOX type.

XML binding class: `cybox.bindings.address_object.AddressObjectType`

classmethod `istypeof` (*obj*)

Version: 2.1.0.21

cybox.objects.api_object module

class `cybox.objects.api_object.API`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.api_object.APIObjectType`

address

Type: `cybox.common.properties.HexBinary`

XML Binding class name: Address

Dictionary key name: address

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: Description

Dictionary key name: description

function_name

Type: `cybox.common.properties.String`

XML Binding class name: Function_Name

Dictionary key name: function_name

normalized_function_name

Type: `cybox.common.properties.String`

XML Binding class name: Normalized_Function_Name

Dictionary key name: normalized_function_name

platform

Type: `cybox.common.platform_specification.PlatformSpecification`

XML Binding class name: Platform

Dictionary key name: platform

Version: 2.1.0.21

cybox.objects.archive_file_object module

class `cybox.objects.archive_file_object.ArchiveFile`

Bases: `cybox.objects.file_object.File`

XML binding class: `cybox.bindings.archive_file_object.ArchiveFileObjectType`

archive_format

Type: `cybox.objects.archive_file_object.ArchiveFileFormat`

XML Binding class name: Archive_Format

Dictionary key name: archive_format

archived_file

(List of values permitted)

Type: *cybox.objects.file_object.File*

XML Binding class name: Archived_File

Dictionary key name: archived_file

comment

Type: *cybox.common.properties.String*

XML Binding class name: Comment

Dictionary key name: comment

decryption_key

Type: *cybox.common.properties.String*

XML Binding class name: Decryption_Key

Dictionary key name: decryption_key

encryption_algorithm

Type: *cybox.common.cipher.Cipher*

XML Binding class name: Encryption_Algorithm

Dictionary key name: encryption_algorithm

file_count

Type: *cybox.common.properties.Integer*

XML Binding class name: File_Count

Dictionary key name: file_count

version

Type: *cybox.common.properties.String*

XML Binding class name: Version

Dictionary key name: version

class *cybox.objects.archive_file_object.ArchiveFileFormat* (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: *cybox.bindings.archive_file_object.ArchiveFileFormatType*

Version: 2.1.0.21

cybox.objects.artifact_object module

class *cybox.objects.artifact_object.Artifact* (*data=None, type_=None*)

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: *cybox.bindings.artifact_object.ArtifactObjectType*

content_type

XML Binding class name: content_type

Dictionary key name: content_type

content_type_version

XML Binding class name: content_type_version

Dictionary key name: content_type_version

classmethod **from_dict** (*cls_dict*)**classmethod** **from_obj** (*cls_obj*)**hashes**Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

packagingType: *cybox.objects.artifact_object.Packaging*

XML Binding class name: Packaging

Dictionary key name: packaging

raw_artifactType: *cybox.objects.artifact_object.RawArtifact*

XML Binding class name: Raw_Artifact

Dictionary key name: raw_artifact

raw_artifact_reference

XML Binding class name: Raw_Artifact_Reference

Dictionary key name: raw_artifact_reference

suspected_malicious

XML Binding class name: suspected_malicious

Dictionary key name: suspected_malicious

to_dict ()**to_obj** (*ns_info=None*)**type_**

XML Binding class name: type_

Dictionary key name: type

class *cybox.objects.artifact_object*.**Base64Encoding**Bases: *cybox.objects.artifact_object.Encoding*

XML binding class: `cybox.bindings.artifact_object.EncodingType`

pack (*data*)

unpack (*packed_data*)

class `cybox.objects.artifact_object.Bz2Compression`
Bases: `cybox.objects.artifact_object.Compression`

XML binding class: `cybox.bindings.artifact_object.CompressionType`

pack (*data*)

unpack (*packed_data*)

class `cybox.objects.artifact_object.Compression` (*compression_mechanism=None, compression_mechanism_ref=None*)

Bases: `mixbox.entities.Entity`

A Compression packaging layer

Currently only zlib and bz2 are supported. Also, `compression_mechanism_ref` is not currently supported.

XML binding class: `cybox.bindings.artifact_object.CompressionType`

compression_mechanism

XML Binding class name: `compression_mechanism`

Dictionary key name: `compression_mechanism`

compression_mechanism_ref

XML Binding class name: `compression_mechanism_ref`

Dictionary key name: `compression_mechanism_ref`

pack (*data*)

This should accept byte data and return byte data

unpack (*packed_data*)

This should accept byte data and return byte data

class `cybox.objects.artifact_object.Encoding` (*algorithm=None, character_set=None, custom_character_set_ref=None*)

Bases: `mixbox.entities.Entity`

An encoding packaging layer.

Currently only base64 with a standard alphabet is supported.

XML binding class: `cybox.bindings.artifact_object.EncodingType`

algorithm

XML Binding class name: algorithm

Dictionary key name: algorithm

character_set

XML Binding class name: character_set

Dictionary key name: character_set

custom_character_set_ref

XML Binding class name: custom_character_set_ref

Dictionary key name: custom_character_set_ref

pack (*data*)

This should accept byte data and return byte data

unpack (*packed_data*)

This should accept byte data and return byte data

```
class cybox.objects.artifact_object.Encryption (encryption_mechanism=None,
                                             encryption_key=None,           encryp-
                                             tion_mechanism_ref=None,       encryp-
                                             tion_key_ref=None)
```

Bases: mixbox.entities.Entity

An encryption packaging layer.

XML binding class: cybox.bindings.artifact_object.EncryptionType

encryption_key

XML Binding class name: encryption_key

Dictionary key name: encryption_key

encryption_key_ref

XML Binding class name: encryption_key_ref

Dictionary key name: encryption_key_ref

encryption_mechanism

XML Binding class name: encryption_mechanism

Dictionary key name: encryption_mechanism

encryption_mechanism_ref

XML Binding class name: encryption_mechanism_ref

Dictionary key name: encryption_mechanism_ref

pack (*data*)

This should accept byte data and return byte data

unpack (*packed_data*)

This should accept byte data and return byte data

```
class cybox.objects.artifact_object.Packaging (is_encrypted=None, is_compressed=None,  
compression=None, encryption=None,  
encoding=None)
```

Bases: `mixbox.entities.Entity`

An individual packaging layer.

XML binding class: `cybox.bindings.artifact_object.PackagingType`

compression

(List of values permitted)

Type: `cybox.objects.artifact_object.Compression`

XML Binding class name: `Compression`

Dictionary key name: `compression`

encoding

(List of values permitted)

Type: `cybox.objects.artifact_object.Encoding`

XML Binding class name: `Encoding`

Dictionary key name: `encoding`

encryption

(List of values permitted)

Type: `cybox.objects.artifact_object.Encryption`

XML Binding class name: `Encryption`

Dictionary key name: `encryption`

is_compressed

XML Binding class name: `is_compressed`

Dictionary key name: `is_compressed`

is_encrypted

XML Binding class name: `is_encrypted`

Dictionary key name: `is_encrypted`

```
class cybox.objects.artifact_object.PasswordProtectedZipEncryption (key=None)
```

Bases: `cybox.objects.artifact_object.Encryption`

XML binding class: `cybox.bindings.artifact_object.EncryptionType`

unpack (*packed_data*)

class `cybox.objects.artifact_object.RawArtifact` (*value=None*)
Bases: `cybox.common.properties.String`

XML binding class: `cybox.bindings.artifact_object.RawArtifactType`

byte_order

XML Binding class name: `byte_order`

Dictionary key name: `byte_order`

class `cybox.objects.artifact_object.XOREncryption` (*key=None*)
Bases: `cybox.objects.artifact_object.Encryption`

XML binding class: `cybox.bindings.artifact_object.EncryptionType`

pack (*data*)

unpack (*packed_data*)

class `cybox.objects.artifact_object.ZlibCompression`
Bases: `cybox.objects.artifact_object.Compression`

XML binding class: `cybox.bindings.artifact_object.CompressionType`

pack (*data*)

unpack (*packed_data*)

`cybox.objects.artifact_object.validate_artifact_type` (*instance, value*)

`cybox.objects.artifact_object.validate_byte_order_endianness` (*instance, value*)

Version: 2.1.0.21

cybox.objects.as_object module

`cybox.objects.as_object.AS`

alias of `AutonomousSystem` | XML binding class: `cybox.bindings.as_object.ASObjectType`

class `cybox.objects.as_object.AutonomousSystem`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.as_object.ASObjectType`

handle

Type: `cybox.common.properties.String`

XML Binding class name: `Handle`

Dictionary key name: `handle`

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

number

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Number

Dictionary key name: number

regional_internet_registry

Type: *cybox.common.properties.String*

XML Binding class name: Regional_Internet_Registry

Dictionary key name: regional_internet_registry

Version: 2.1.0.21

cybox.objects.arp_cache_object module

class `cybox.objects.arp_cache_object.ARPCache`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.arp_cache_object.ARPCacheObjectType`

arp_cache_entry

(List of values permitted)

Type: *cybox.objects.arp_cache_object.ARPCacheEntry*

XML Binding class name: ARP_Cache_Entry

Dictionary key name: arp_cache_entry

class `cybox.objects.arp_cache_object.ARPCacheEntry`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.arp_cache_object.ARPCacheEntryType`

ip_address

Type: *cybox.objects.address_object.Address*

XML Binding class name: IP_Address

Dictionary key name: ip_address

network_interface

Type: *cybox.objects.system_object.NetworkInterface*

XML Binding class name: Network_Interface

Dictionary key name: network_interface

physical_address

Type: *cybox.common.properties.String*

XML Binding class name: Physical_Address

Dictionary key name: physical_address

type_

Type: *cybox.objects.arp_cache_object.ARPCacheEntryType*

XML Binding class name: Type

Dictionary key name: type

class `cybox.objects.arp_cache_object.ARPCacheEntryType` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.arp_cache_object.ARPCacheEntryTypeType`

Version: 2.1.0.21

cybox.objects.code_object module

class `cybox.objects.code_object.Code`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.code_object.CodeObjectType`

code_language

Type: *cybox.common.properties.String*

XML Binding class name: Code_Language

Dictionary key name: code_language

code_segment

Type: *cybox.common.properties.String*

XML Binding class name: Code_Segment

Dictionary key name: code_segment

code_segment_xor

Type: *cybox.objects.code_object.CodeSegmentXOR*

XML Binding class name: Code_Segment_XOR

Dictionary key name: code_segment_xor

description

Type: *cybox.common.structured_text.StructuredText*
XML Binding class name: Description
Dictionary key name: description

digital_signatures

Type: *cybox.common.digitalsignature.DigitalSignatureList*
XML Binding class name: Digital_Signatures
Dictionary key name: digital_signatures

discovery_method

Type: *cybox.common.measuresource.MeasureSource*
XML Binding class name: Discovery_Method
Dictionary key name: discovery_method

extracted_features

Type: *cybox.common.extracted_features.ExtractedFeatures*
XML Binding class name: Extracted_Features
Dictionary key name: extracted_features

processor_family

(List of values permitted)
Type: *cybox.common.properties.String*
XML Binding class name: Processor_Family
Dictionary key name: processor_family

purpose

Type: *cybox.common.properties.String*
XML Binding class name: Purpose
Dictionary key name: purpose

start_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Start_Address
Dictionary key name: start_address

targeted_platforms

Type: *cybox.objects.code_object.TargetedPlatforms*
XML Binding class name: Targeted_Platforms
Dictionary key name: targeted_platforms

type_

Type: *cybox.common.properties.String*
XML Binding class name: Type

Dictionary key name: type
class `cybox.objects.code_object.CodeSegmentXOR` (*value=None*)
Bases: `cybox.common.properties.String`

XML binding class: `cybox.bindings.code_object.CodeSegmentXORType`

is_plain()

xor_pattern

XML Binding class name: `xor_pattern`

Dictionary key name: `xor_pattern`

class `cybox.objects.code_object.TargetedPlatforms` (**args*)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.code_object.TargetedPlatformsType`

targeted_platform

(List of values permitted)

Type: `cybox.common.platform_specification.PlatformSpecification`

XML Binding class name: `Targeted_Platform`

Dictionary key name: `targeted_platform`

Version: 2.1.0.21

cybox.objects.custom_object module

class `cybox.objects.custom_object.Custom`
Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.custom_object.CustomObjectType`

custom_name

XML Binding class name: `custom_name`

Dictionary key name: `custom_name`

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: `Description`

Dictionary key name: `description`

Version: 2.1.0.21

cybox.objects.device_object module

class cybox.objects.device_object.**Device**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.device_object.DeviceObjectType

description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Description

Dictionary key name: description

device_type

Type: *cybox.common.properties.String*

XML Binding class name: Device_Type

Dictionary key name: device_type

firmware_version

Type: *cybox.common.properties.String*

XML Binding class name: Firmware_Version

Dictionary key name: firmware_version

manufacturer

Type: *cybox.common.properties.String*

XML Binding class name: Manufacturer

Dictionary key name: manufacturer

model

Type: *cybox.common.properties.String*

XML Binding class name: Model

Dictionary key name: model

serial_number

Type: *cybox.common.properties.String*

XML Binding class name: Serial_Number

Dictionary key name: serial_number

system_details

Type: *cybox.common.object_properties.ObjectProperties*

XML Binding class name: System_Details

Dictionary key name: system_details

Version: 2.1.0.21

cybox.objects.disk_object module**class** cybox.objects.disk_object.**Disk**Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.disk_object.DiskObjectType

disk_nameType: *cybox.common.properties.String*

XML Binding class name: Disk_Name

Dictionary key name: disk_name

disk_sizeType: *cybox.common.properties.UnsignedLong*

XML Binding class name: Disk_Size

Dictionary key name: disk_size

free_spaceType: *cybox.common.properties.UnsignedLong*

XML Binding class name: Free_Space

Dictionary key name: free_space

partition_listType: *cybox.objects.disk_object.PartitionList*

XML Binding class name: Partition_List

Dictionary key name: partition_list

type_Type: *cybox.objects.disk_object.DiskType*

XML Binding class name: Type

Dictionary key name: type

class cybox.objects.disk_object.**DiskType** (*value=None*)Bases: *cybox.common.properties.BaseProperty*

XML binding class: cybox.bindings.disk_object.DiskType

class cybox.objects.disk_object.**PartitionList** (**args*)Bases: *mixbox.entities.EntityList*

XML binding class: cybox.bindings.disk_object.PartitionListType

partition

(List of values permitted)

Type: *cybox.objects.disk_partition_object.DiskPartition*

XML Binding class name: Partition

Dictionary key name: partition

Version: 2.1.0.21

cybox.objects.disk_partition_object module

class `cybox.objects.disk_partition_object.DiskPartition`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.disk_partition_object.DiskPartitionObjectType`

created

Type: *cybox.common.properties.DateTime*

XML Binding class name: Created

Dictionary key name: created

device_name

Type: *cybox.common.properties.Name*

XML Binding class name: Device_Name

Dictionary key name: device_name

mount_point

Type: *cybox.common.properties.String*

XML Binding class name: Mount_Point

Dictionary key name: mount_point

partition_id

Type: *cybox.common.properties.Integer*

XML Binding class name: Partition_ID

Dictionary key name: partition_id

partition_length

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Partition_Length

Dictionary key name: partition_length

partition_offset

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Partition_Offset

Dictionary key name: partition_offset

space_left

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Space_Left

Dictionary key name: space_left

space_used

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Space_Used

Dictionary key name: space_used

total_space

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Total_Space

Dictionary key name: total_space

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

Version: 2.1.0.21

cybox.objects.dns_cache_object module

class `cybox.objects.dns_cache_object.DNSCache`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.dns_cache_object.DNSCacheObjectType`

dns_cache_entry

(List of values permitted)

Type: *cybox.objects.dns_cache_object.DNSCacheEntry*

XML Binding class name: DNS_Cache_Entry

Dictionary key name: dns_cache_entry

class `cybox.objects.dns_cache_object.DNSCacheEntry`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.dns_cache_object.DNSCacheEntryType`

dns_entry

Type: *cybox.objects.dns_record_object.DNSRecord*

XML Binding class name: DNS_Entry

Dictionary key name: dns_entry

t11

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: TTL

Dictionary key name: t11

Version: 2.1.0.21

cybox.objects.dns_query_object module

class `cybox.objects.dns_query_object.DNSQuery`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.dns_query_object.DNSQueryObjectType`

additional_records

Type: *cybox.objects.dns_query_object.DNSResourceRecords*

XML Binding class name: Additional_Records

Dictionary key name: additional_records

answer_resource_records

Type: *cybox.objects.dns_query_object.DNSResourceRecords*

XML Binding class name: Answer_Resource_Records

Dictionary key name: answer_resource_records

authority_resource_records

Type: *cybox.objects.dns_query_object.DNSResourceRecords*

XML Binding class name: Authority_Resource_Records

Dictionary key name: authority_resource_records

date_ran

Type: *cybox.common.properties.DateTime*

XML Binding class name: Date_Ran

Dictionary key name: date_ran

question

Type: *cybox.objects.dns_query_object.DNSQuestion*

XML Binding class name: Question

Dictionary key name: question

service_used

Type: *cybox.common.properties.String*
 XML Binding class name: Service_Used
 Dictionary key name: service_used

successful

XML Binding class name: successful
 Dictionary key name: successful

transaction_id

Type: *cybox.common.properties.HexBinary*
 XML Binding class name: Transaction_ID
 Dictionary key name: transaction_id

class `cybox.objects.dns_query_object.DNSQuestion`
 Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.dns_query_object.DNSQuestionType`

qclass

Type: *cybox.common.properties.String*
 XML Binding class name: QClass
 Dictionary key name: qclass

qname

Type: *cybox.objects.uri_object.URI*
 XML Binding class name: QName
 Dictionary key name: qname

qtype

Type: *cybox.common.properties.String*
 XML Binding class name: QType
 Dictionary key name: qtype

class `cybox.objects.dns_query_object.DNSResourceRecords (*args)`
 Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.dns_query_object.DNSResourceRecordsType`

resource_record

(List of values permitted)
 Type: *cybox.objects.dns_record_object.DNSRecord*
 XML Binding class name: Resource_Record

Dictionary key name: resource_record

Version: 2.1.0.21

cybox.objects.dns_record_object module

class cybox.objects.dns_record_object.DNSRecord

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.dns_record_object.DNSRecordObjectType

address_class

Type: *cybox.common.properties.String*

XML Binding class name: Address_Class

Dictionary key name: address_class

data_length

Type: *cybox.common.properties.Integer*

XML Binding class name: Data_Length

Dictionary key name: data_length

description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Description

Dictionary key name: description

domain_name

Type: *cybox.objects.uri_object.URI*

XML Binding class name: Domain_Name

Dictionary key name: domain_name

entry_type

Type: *cybox.common.properties.String*

XML Binding class name: Entry_Type

Dictionary key name: entry_type

flags

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Flags

Dictionary key name: flags

ip_address

Type: *cybox.objects.address_object.Address*

XML Binding class name: IP_Address

Dictionary key name: ip_address

queried_date

Type: *cybox.common.properties.DateTime*

XML Binding class name: Queried_Date

Dictionary key name: queried_date

record_data

XML Binding class name: Record_Data

Dictionary key name: record_data

record_name

Type: *cybox.common.properties.String*

XML Binding class name: Record_Name

Dictionary key name: record_name

record_type

Type: *cybox.common.properties.String*

XML Binding class name: Record_Type

Dictionary key name: record_type

t11

Type: *cybox.common.properties.Integer*

XML Binding class name: TTL

Dictionary key name: t11

Version: 2.1.0.21

cybox.objects.domain_name_object module

class `cybox.objects.domain_name_object.DomainName`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.domain_name_object.DomainNameObjectType`

type_

XML Binding class name: type_

Dictionary key name: type

value

Type: *cybox.common.properties.String*

XML Binding class name: Value

Dictionary key name: value

Version: 2.1.0.21

cybox.objects.email_message_object module

class cybox.objects.email_message_object.**AttachmentReference** (*object_reference=None*)
Bases: cybox.objects.email_message_object._Reference, mixbox.entities.Entity

XML binding class: cybox.bindings.email_message_object.AttachmentReferenceType

class cybox.objects.email_message_object.**Attachments** (**args*)
Bases: cybox.objects.email_message_object._ReferenceList, mixbox.entities.EntityList

XML binding class: cybox.bindings.email_message_object.AttachmentsType

file

(List of values permitted)

Type: *cybox.objects.email_message_object.AttachmentReference*

XML Binding class name: File

Dictionary key name: file

class cybox.objects.email_message_object.**EmailHeader**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.email_message_object.EmailHeaderType

bcc

Type: *cybox.objects.email_message_object.EmailRecipients*

XML Binding class name: BCC

Dictionary key name: bcc

boundary

Type: *cybox.common.properties.String*

XML Binding class name: Boundary

Dictionary key name: boundary

cc

Type: *cybox.objects.email_message_object.EmailRecipients*

XML Binding class name: CC

Dictionary key name: cc

content_type

Type: *cybox.common.properties.String*
XML Binding class name: Content_Type
Dictionary key name: content_type

date

Type: *cybox.common.properties.DateTime*
XML Binding class name: Date
Dictionary key name: date

errors_to

Type: *cybox.common.properties.String*
XML Binding class name: Errors_To
Dictionary key name: errors_to

from_

Type: *cybox.objects.address_object.EmailAddress*
XML Binding class name: From
Dictionary key name: from

in_reply_to

Type: *cybox.common.properties.String*
XML Binding class name: In_Reply_To
Dictionary key name: in_reply_to

message_id

Type: *cybox.common.properties.String*
XML Binding class name: Message_ID
Dictionary key name: message_id

mime_version

Type: *cybox.common.properties.String*
XML Binding class name: MIME_Version
Dictionary key name: mime_version

precedence

Type: *cybox.common.properties.String*
XML Binding class name: Precedence
Dictionary key name: precedence

received_lines

Type: *cybox.objects.email_message_object.ReceivedLineList*
XML Binding class name: Received_Lines
Dictionary key name: received_lines

reply_to

Type: *cybox.objects.address_object.EmailAddress*

XML Binding class name: Reply_To

Dictionary key name: reply_to

sender

Type: *cybox.objects.address_object.EmailAddress*

XML Binding class name: Sender

Dictionary key name: sender

subject

Type: *cybox.common.properties.String*

XML Binding class name: Subject

Dictionary key name: subject

to

Type: *cybox.objects.email_message_object.EmailRecipients*

XML Binding class name: To

Dictionary key name: to

user_agent

Type: *cybox.common.properties.String*

XML Binding class name: User_Agent

Dictionary key name: user_agent

x_mailer

Type: *cybox.common.properties.String*

XML Binding class name: X_Mailer

Dictionary key name: x_mailer

x_originating_ip

Type: *cybox.objects.address_object.Address*

XML Binding class name: X_Originating_IP

Dictionary key name: x_originating_ip

x_priority

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: X_Priority

Dictionary key name: x_priority

class *cybox.objects.email_message_object.EmailMessage*

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.email_message_object.EmailMessageObjectType`

attachments

Type: `cybox.objects.email_message_object.Attachments`

XML Binding class name: Attachments

Dictionary key name: attachments

email_server

Type: `cybox.common.properties.String`

XML Binding class name: Email_Server

Dictionary key name: email_server

header

Type: `cybox.objects.email_message_object.EmailHeader`

XML Binding class name: Header

Dictionary key name: header

links

Type: `cybox.objects.email_message_object.Links`

XML Binding class name: Links

Dictionary key name: links

raw_body

Type: `cybox.common.properties.String`

XML Binding class name: Raw_Body

Dictionary key name: raw_body

raw_header

Type: `cybox.common.properties.String`

XML Binding class name: Raw_Header

Dictionary key name: raw_header

class `cybox.objects.email_message_object.EmailRecipients` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.email_message_object.EmailRecipientsType`

recipient

(List of values permitted)

Type: `cybox.objects.address_object.EmailAddress`

XML Binding class name: Recipient

Dictionary key name: recipient

class `cybox.objects.email_message_object.LinkReference` (*object_reference=None*)
Bases: `cybox.objects.email_message_object._Reference`, `mixbox.entities.Entity`

XML binding class: `cybox.bindings.email_message_object.LinkReferenceType`

class `cybox.objects.email_message_object.Links` (**args*)
Bases: `cybox.objects.email_message_object._ReferenceList`,
`mixbox.entities.EntityList`

XML binding class: `cybox.bindings.email_message_object.LinksType`

link

(List of values permitted)

Type: `cybox.objects.email_message_object.LinkReference`

XML Binding class name: Link

Dictionary key name: link

class `cybox.objects.email_message_object.ReceivedLine`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.email_message_object.EmailReceivedLineType`

by

Type: `cybox.common.properties.String`

XML Binding class name: By

Dictionary key name: by

for_

Type: `cybox.common.properties.String`

XML Binding class name: For

Dictionary key name: for

from_

Type: `cybox.common.properties.String`

XML Binding class name: From

Dictionary key name: from

id_

Type: `cybox.common.properties.String`

XML Binding class name: ID

Dictionary key name: id

timestamp

Type: *cybox.common.properties.DateTime*

XML Binding class name: Timestamp

Dictionary key name: timestamp

via

Type: *cybox.common.properties.String*

XML Binding class name: Via

Dictionary key name: via

with_

Type: *cybox.common.properties.String*

XML Binding class name: With

Dictionary key name: with

class `cybox.objects.email_message_object.ReceivedLineList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class:

`cybox.bindings.email_message_object.EmailReceivedLineListType`

received

(List of values permitted)

Type: *cybox.objects.email_message_object.ReceivedLine*

XML Binding class name: Received

Dictionary key name: received

Version: 2.1.0.21

cybox.objects.file_object module

class `cybox.objects.file_object.EPJumpCode`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.file_object.EPJumpCodeType`

depth

Type: *cybox.common.properties.Integer*

XML Binding class name: Depth

Dictionary key name: depth

opcodes

Type: *cybox.common.properties.String*

XML Binding class name: Opcodes

Dictionary key name: opcodes

class `cybox.objects.file_object.EntryPointSignature`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.file_object.EntryPointSignatureType`

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

type_

XML Binding class name: Type

Dictionary key name: type_

class `cybox.objects.file_object.EntryPointSignatureList (*args)`

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.file_object.EntryPointSignatureListType`

entry_point_signature

(List of values permitted)

Type: *cybox.objects.file_object.EntryPointSignature*

XML Binding class name: Entry_Point_Signature

Dictionary key name: entry_point_signature

class `cybox.objects.file_object.File`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.file_object.FileObjectType`

accessed_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Accessed_Time

Dictionary key name: accessed_time

add_hash (hash_)

byte_runs

Type: *cybox.common.byterun.ByteRuns*

XML Binding class name: Byte_Runs

Dictionary key name: byte_runs

compression_comment

Type: *cybox.common.properties.String*

XML Binding class name: Compression_Comment

Dictionary key name: compression_comment

compression_method

Type: *cybox.common.properties.String*

XML Binding class name: Compression_Method

Dictionary key name: compression_method

compression_version

Type: *cybox.common.properties.String*

XML Binding class name: Compression_Version

Dictionary key name: compression_version

created_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Created_Time

Dictionary key name: created_time

decryption_key

Type: *cybox.common.properties.String*

XML Binding class name: Decryption_Key

Dictionary key name: decryption_key

device_path

Type: *cybox.common.properties.String*

XML Binding class name: Device_Path

Dictionary key name: device_path

digital_signatures

Type: *cybox.common.digitalsignature.DigitalSignatureList*

XML Binding class name: Digital_Signatures

Dictionary key name: digital_signatures

encryption_algorithm

Type: *cybox.common.properties.String*

XML Binding class name: Encryption_Algorithm

Dictionary key name: encryption_algorithm

extracted_features

Type: *cybox.common.extracted_features.ExtractedFeatures*

XML Binding class name: Extracted_Features

Dictionary key name: extracted_features

file_attributes_list

Type: *cybox.objects.file_object.FileAttribute*

XML Binding class name: File_Attributes_List

Dictionary key name: file_attributes_list

file_extension

Type: *cybox.common.properties.String*

XML Binding class name: File_Extension

Dictionary key name: file_extension

file_format

Type: *cybox.common.properties.String*

XML Binding class name: File_Format

Dictionary key name: file_format

file_name

Type: *cybox.common.properties.String*

XML Binding class name: File_Name

Dictionary key name: file_name

file_path

Type: *cybox.objects.file_object.FilePath*

XML Binding class name: File_Path

Dictionary key name: file_path

full_path

Type: *cybox.common.properties.String*

XML Binding class name: Full_Path

Dictionary key name: full_path

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

is_masqueraded

XML Binding class name: `is_masqueraded`

Dictionary key name: `is_masqueraded`

is_packed

XML Binding class name: `is_packed`

Dictionary key name: `is_packed`

magic_number

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Magic_Number`

Dictionary key name: `magic_number`

modified_time

Type: `cybox.common.properties.DateTime`

XML Binding class name: `Modified_Time`

Dictionary key name: `modified_time`

packer_list

Type: `cybox.objects.file_object.PackerList`

XML Binding class name: `Packer_List`

Dictionary key name: `packer_list`

peak_entropy

Type: `cybox.common.properties.Double`

XML Binding class name: `Peak_Entropy`

Dictionary key name: `peak_entropy`

permissions

Type: `cybox.objects.file_object.FilePermissions`

XML Binding class name: `Permissions`

Dictionary key name: `permissions`

size_in_bytes

Type: `cybox.common.properties.UnsignedLong`

XML Binding class name: `Size_In_Bytes`

Dictionary key name: `size_in_bytes`

sym_links

Type: `cybox.objects.file_object.SymLinksList`

XML Binding class name: `Sym_Links`

Dictionary key name: `sym_links`

user_owner

Type: *cybox.common.properties.String*

XML Binding class name: User_Owner

Dictionary key name: user_owner

class *cybox.objects.file_object.FileAttribute*

Bases: *mixbox.entities.Entity*

An abstract class for file attributes.

XML binding class: *cybox.bindings.file_object.FileAttributeType*

class *cybox.objects.file_object.FilePath* (*value=None*)

Bases: *cybox.common.properties.String*

XML binding class: *cybox.bindings.file_object.FilePathType*

fully_qualified

XML Binding class name: fully_qualified

Dictionary key name: fully_qualified

is_plain()

class *cybox.objects.file_object.FilePermissions*

Bases: *mixbox.entities.Entity*

An abstract class for file permissions.

XML binding class: *cybox.bindings.file_object.FilePermissionsType*

class *cybox.objects.file_object.Packer*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.file_object.PackerType*

detected_entrypoint_signatures

Type: *cybox.objects.file_object.EntryPointSignatureList*

XML Binding class name: Detected_Entrypoint_Signatures

Dictionary key name: detected_entrypoint_signatures

entry_point

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Entry_Point

Dictionary key name: entry_point

ep_jump_codes

Type: *cybox.objects.file_object.EPJumpCode*

XML Binding class name: EP_Jump_Codes

Dictionary key name: ep_jump_codes

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

signature

Type: *cybox.common.properties.String*

XML Binding class name: Signature

Dictionary key name: signature

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

version

Type: *cybox.common.properties.String*

XML Binding class name: Version

Dictionary key name: version

class `cybox.objects.file_object.PackerList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.file_object.PackerListType`

packer

(List of values permitted)

Type: *cybox.objects.file_object.Packer*

XML Binding class name: Packer

Dictionary key name: packer

class `cybox.objects.file_object.SymLinksList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.file_object.SymLinksListType`

sym_link

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Sym_Link

Dictionary key name: sym_link

Version: 2.1.0.21

cybox.objects.gui_dialogbox_object module

class `cybox.objects.gui_dialogbox_object.GUIDialogbox`

Bases: *cybox.objects.gui_object.GUI*

XML binding class: `cybox.bindings.gui_dialogbox_object.GUIDialogboxObjectType`

box_caption

Type: *cybox.common.properties.String*

XML Binding class name: Box_Caption

Dictionary key name: box_caption

box_text

Type: *cybox.common.properties.String*

XML Binding class name: Box_Text

Dictionary key name: box_text

Version: 2.1.0.21

cybox.objects.gui_object module

class `cybox.objects.gui_object.GUI`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.gui_object.GUIObjectType`

height

Type: *cybox.common.properties.Integer*

XML Binding class name: Height

Dictionary key name: height

width

Type: *cybox.common.properties.Integer*

XML Binding class name: Width

Dictionary key name: width

Version: 2.1.0.21

cybox.objects.gui_window_object module**class** `cybox.objects.gui_window_object.GUIWindow`Bases: `cybox.objects.gui_object.GUI`XML binding class: `cybox.bindings.gui_window_object.GUIWindowObjectType`**owner_window**Type: `cybox.common.properties.String`XML Binding class name: `Owner_Window`Dictionary key name: `owner_window`**parent_window**Type: `cybox.common.properties.String`XML Binding class name: `Parent_Window`Dictionary key name: `parent_window`**window_display_name**Type: `cybox.common.properties.String`XML Binding class name: `Window_Display_Name`Dictionary key name: `window_display_name`

Version: 2.1.0.21

cybox.objects.hostname_object module**class** `cybox.objects.hostname_object.Hostname`Bases: `cybox.common.object_properties.ObjectProperties`XML binding class: `cybox.bindings.hostname_object.HostnameObjectType`**hostname_value**Type: `cybox.common.properties.String`XML Binding class name: `Hostname_Value`Dictionary key name: `hostname_value`**is_domain_name**XML Binding class name: `is_domain_name`Dictionary key name: `is_domain_name`**naming_system**

(List of values permitted)

Type: `cybox.common.properties.String`XML Binding class name: `Naming_System`

Dictionary key name: `naming_system`

Version: 2.1.0.21

cybox.objects.http_session_object module

class `cybox.objects.http_session_object.HTTPClientRequest`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.http_session_object.HTTPClientRequestType`

http_message_body

Type: `cybox.objects.http_session_object.HTTPMessage`

XML Binding class name: `HTTP_Message_Body`

Dictionary key name: `http_message_body`

http_request_header

Type: `cybox.objects.http_session_object.HTTPRequestHeader`

XML Binding class name: `HTTP_Request_Header`

Dictionary key name: `http_request_header`

http_request_line

Type: `cybox.objects.http_session_object.HTTPRequestLine`

XML Binding class name: `HTTP_Request_Line`

Dictionary key name: `http_request_line`

class `cybox.objects.http_session_object.HTTPMessage`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.http_session_object.HTTPMessageType`

length

Type: `cybox.common.properties.PositiveInteger`

XML Binding class name: `Length`

Dictionary key name: `length`

message_body

Type: `cybox.common.properties.String`

XML Binding class name: `Message_Body`

Dictionary key name: `message_body`

class `cybox.objects.http_session_object.HTTPRequestHeader`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.http_session_object.HTTPRequestHeaderType`

parsed_header

Type: `cybox.objects.http_session_object.HTTPRequestHeaderFields`

XML Binding class name: `Parsed_Header`

Dictionary key name: `parsed_header`

raw_header

Type: `cybox.common.properties.String`

XML Binding class name: `Raw_Header`

Dictionary key name: `raw_header`

class `cybox.objects.http_session_object.HTTPRequestHeaderFields`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.http_session_object.HTTPRequestHeaderFieldsType`

accept

Type: `cybox.common.properties.String`

XML Binding class name: `Accept`

Dictionary key name: `accept`

accept_charset

Type: `cybox.common.properties.String`

XML Binding class name: `Accept_Charset`

Dictionary key name: `accept_charset`

accept_datetime

Type: `cybox.common.properties.String`

XML Binding class name: `Accept_Datetime`

Dictionary key name: `accept_datetime`

accept_encoding

Type: `cybox.common.properties.String`

XML Binding class name: `Accept_Encoding`

Dictionary key name: `accept_encoding`

accept_language

Type: `cybox.common.properties.String`

XML Binding class name: `Accept_Language`

Dictionary key name: `accept_language`

authorization

Type: `cybox.common.properties.String`

XML Binding class name: `Authorization`

Dictionary key name: `authorization`

cache_control

Type: `cybox.common.properties.String`

XML Binding class name: `Cache_Control`

Dictionary key name: `cache_control`

connection

Type: `cybox.common.properties.String`

XML Binding class name: `Connection`

Dictionary key name: `connection`

content_length

Type: `cybox.common.properties.Integer`

XML Binding class name: `Content_Length`

Dictionary key name: `content_length`

content_md5

Type: `cybox.common.properties.String`

XML Binding class name: `Content_MD5`

Dictionary key name: `content_md5`

content_type

Type: `cybox.common.properties.String`

XML Binding class name: `Content_Type`

Dictionary key name: `content_type`

cookie

Type: `cybox.common.properties.String`

XML Binding class name: `Cookie`

Dictionary key name: `cookie`

date

Type: `cybox.common.properties.DateTime`

XML Binding class name: `Date`

Dictionary key name: `date`

dnt

Type: *cybox.common.properties.String*
XML Binding class name: DNT
Dictionary key name: dnt

expect

Type: *cybox.common.properties.String*
XML Binding class name: Expect
Dictionary key name: expect

from_

Type: *cybox.objects.address_object.EmailAddress*
XML Binding class name: From
Dictionary key name: from

host

Type: *cybox.objects.http_session_object.HostField*
XML Binding class name: Host
Dictionary key name: host

if_match

Type: *cybox.common.properties.String*
XML Binding class name: If_Match
Dictionary key name: if_match

if_modified_since

Type: *cybox.common.properties.DateTime*
XML Binding class name: If_Modified_Since
Dictionary key name: if_modified_since

if_none_match

Type: *cybox.common.properties.String*
XML Binding class name: If_None_Match
Dictionary key name: if_none_match

if_range

Type: *cybox.common.properties.String*
XML Binding class name: If_Range
Dictionary key name: if_range

if_unmodified_since

Type: *cybox.common.properties.DateTime*
XML Binding class name: If_Unmodified_Since
Dictionary key name: if_unmodified_since

max_forwards

Type: *cybox.common.properties.Integer*

XML Binding class name: Max_Forwards

Dictionary key name: max_forwards

pragma

Type: *cybox.common.properties.String*

XML Binding class name: Pragma

Dictionary key name: pragma

proxy_authorization

Type: *cybox.common.properties.String*

XML Binding class name: Proxy_Authorization

Dictionary key name: proxy_authorization

range_

Type: *cybox.common.properties.String*

XML Binding class name: Range

Dictionary key name: range

referer

Type: *cybox.objects.uri_object.URI*

XML Binding class name: Referer

Dictionary key name: referer

te

Type: *cybox.common.properties.String*

XML Binding class name: TE

Dictionary key name: te

user_agent

Type: *cybox.common.properties.String*

XML Binding class name: User_Agent

Dictionary key name: user_agent

via

Type: *cybox.common.properties.String*

XML Binding class name: Via

Dictionary key name: via

warning

Type: *cybox.common.properties.String*

XML Binding class name: Warning

Dictionary key name: warning

x_att_deviceid

Type: *cybox.common.properties.String*

XML Binding class name: X_ATT_DeviceId

Dictionary key name: x_att_deviceid

x_forwarded_for

Type: *cybox.common.properties.String*

XML Binding class name: X_Forwarded_For

Dictionary key name: x_forwarded_for

x_forwarded_proto

Type: *cybox.common.properties.String*

XML Binding class name: X_Forwarded_Proto

Dictionary key name: x_forwarded_proto

x_requested_with

Type: *cybox.common.properties.String*

XML Binding class name: X_Requested_With

Dictionary key name: x_requested_with

x_wap_profile

Type: *cybox.objects.uri_object.URI*

XML Binding class name: X_Wap_Profile

Dictionary key name: x_wap_profile

class `cybox.objects.http_session_object.HTTPRequestLine`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.http_session_object.HTTPRequestLineType`

http_method

Type: *cybox.common.properties.String*

XML Binding class name: HTTP_Method

Dictionary key name: http_method

value

Type: *cybox.common.properties.String*

XML Binding class name: Value

Dictionary key name: value

version

Type: *cybox.common.properties.String*

XML Binding class name: Version

Dictionary key name: version

class *cybox.objects.http_session_object.HTTPRequestResponse*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.http_session_object.HTTPRequestResponseType*

http_client_request

Type: *cybox.objects.http_session_object.HTTPClientRequest*

XML Binding class name: HTTP_Client_Request

Dictionary key name: http_client_request

http_provisional_server_response

Type: *cybox.objects.http_session_object.HTTPServerResponse*

XML Binding class name: HTTP_Provisional_Server_Response

Dictionary key name: http_provisional_server_response

http_server_response

Type: *cybox.objects.http_session_object.HTTPServerResponse*

XML Binding class name: HTTP_Server_Response

Dictionary key name: http_server_response

ordinal_position

XML Binding class name: ordinal_position

Dictionary key name: ordinal_position

class *cybox.objects.http_session_object.HTTPResponseHeader*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.http_session_object.HTTPResponseHeaderType*

parsed_header

Type: *cybox.objects.http_session_object.HTTPResponseHeaderFields*

XML Binding class name: Parsed_Header

Dictionary key name: parsed_header

raw_header

Type: *cybox.common.properties.String*

XML Binding class name: Raw_Header

Dictionary key name: raw_header

class cybox.objects.http_session_object.HTTPResponseHeaderFields

Bases: mixbox.entities.Entity

XML binding class:

cybox.bindings.http_session_object.HTTPResponseHeaderFieldsType

accept_ranges

Type: *cybox.common.properties.String*

XML Binding class name: Accept_Ranges

Dictionary key name: accept_ranges

access_control_allow_origin

Type: *cybox.common.properties.String*

XML Binding class name: Access_Control-Allow-Origin

Dictionary key name: access_control_allow_origin

age

Type: *cybox.common.properties.Integer*

XML Binding class name: Age

Dictionary key name: age

cache_control

Type: *cybox.common.properties.String*

XML Binding class name: Cache_Control

Dictionary key name: cache_control

connection

Type: *cybox.common.properties.String*

XML Binding class name: Connection

Dictionary key name: connection

content_disposition

Type: *cybox.common.properties.String*

XML Binding class name: Content_Disposition

Dictionary key name: content_disposition

content_encoding

Type: *cybox.common.properties.String*

XML Binding class name: Content_Encoding

Dictionary key name: content_encoding

content_language

Type: *cybox.common.properties.String*

XML Binding class name: Content_Language

Dictionary key name: content_language

content_length

Type: *cybox.common.properties.Integer*

XML Binding class name: Content_Length

Dictionary key name: content_length

content_location

Type: *cybox.common.properties.String*

XML Binding class name: Content_Location

Dictionary key name: content_location

content_md5

Type: *cybox.common.properties.String*

XML Binding class name: Content_MD5

Dictionary key name: content_md5

content_range

Type: *cybox.common.properties.String*

XML Binding class name: Content_Range

Dictionary key name: content_range

content_type

Type: *cybox.common.properties.String*

XML Binding class name: Content_Type

Dictionary key name: content_type

date

Type: *cybox.common.properties.DateTime*

XML Binding class name: Date

Dictionary key name: date

etag

Type: *cybox.common.properties.String*

XML Binding class name: ETag

Dictionary key name: etag

expires

Type: *cybox.common.properties.DateTime*

XML Binding class name: Expires

Dictionary key name: expires

last_modified

Type: *cybox.common.properties.DateTime*

XML Binding class name: Last_Modified

Dictionary key name: last_modified

link

Type: *cybox.common.properties.String*

XML Binding class name: Link

Dictionary key name: link

location

Type: *cybox.objects.uri_object.URI*

XML Binding class name: Location

Dictionary key name: location

p3p

Type: *cybox.common.properties.String*

XML Binding class name: P3P

Dictionary key name: p3p

pragma

Type: *cybox.common.properties.String*

XML Binding class name: Pragma

Dictionary key name: pragma

proxy_authenticate

Type: *cybox.common.properties.String*

XML Binding class name: Proxy_Authenticate

Dictionary key name: proxy_authenticate

refresh

Type: *cybox.common.properties.String*

XML Binding class name: Refresh

Dictionary key name: refresh

retry_after

Type: *cybox.common.properties.Integer*

XML Binding class name: Retry_After

Dictionary key name: retry_after

server

Type: *cybox.common.properties.String*

XML Binding class name: Server

Dictionary key name: server

set_cookie

Type: *cybox.common.properties.String*

XML Binding class name: Set_Cookie

Dictionary key name: set_cookie

strict_transport_security

Type: *cybox.common.properties.String*

XML Binding class name: Strict_Transport_Security

Dictionary key name: strict_transport_security

trailer

Type: *cybox.common.properties.String*

XML Binding class name: Trailer

Dictionary key name: trailer

transfer_encoding

Type: *cybox.common.properties.String*

XML Binding class name: Transfer_Encoding

Dictionary key name: transfer_encoding

vary

Type: *cybox.common.properties.String*

XML Binding class name: Vary

Dictionary key name: vary

via

Type: *cybox.common.properties.String*

XML Binding class name: Via

Dictionary key name: via

warning

Type: *cybox.common.properties.String*

XML Binding class name: Warning

Dictionary key name: warning

www_authenticate

Type: *cybox.common.properties.String*

XML Binding class name: WWW_Authenticate

Dictionary key name: www_authenticate

x_content_type_options

Type: *cybox.common.properties.String*

XML Binding class name: X_Content_Type_Options

Dictionary key name: x_content_type_options

x_frame_options

Type: *cybox.common.properties.String*

XML Binding class name: X_Frame_Options

Dictionary key name: x_frame_options

x_powered_by

Type: *cybox.common.properties.String*

XML Binding class name: X_Powered_By

Dictionary key name: x_powered_by

x_ua_compatible

Type: *cybox.common.properties.String*

XML Binding class name: X_UA_Compatible

Dictionary key name: x_ua_compatible

x_xss_protection

Type: *cybox.common.properties.String*

XML Binding class name: X_XSS_Protection

Dictionary key name: x_xss_protection

class `cybox.objects.http_session_object.HTTPServerResponse`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.http_session_object.HTTPServerResponseType`

http_message_body

Type: *cybox.objects.http_session_object.HTTPMessage*

XML Binding class name: HTTP_Message_Body

Dictionary key name: http_message_body

http_response_header

Type: *cybox.objects.http_session_object.HTTPResponseHeader*

XML Binding class name: HTTP_Response_Header

Dictionary key name: http_response_header

http_status_line

Type: *cybox.objects.http_session_object.HTTPStatusLine*

XML Binding class name: HTTP_Status_Line

Dictionary key name: http_status_line

class *cybox.objects.http_session_object.HTTPSession*

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: *cybox.bindings.http_session_object.HTTPSessionObjectType*

http_request_response

(List of values permitted)

Type: *cybox.objects.http_session_object.HTTPRequestResponse*

XML Binding class name: HTTP_Request_Response

Dictionary key name: http_request_response

class *cybox.objects.http_session_object.HTTPStatusLine*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.http_session_object.HTTPStatusLineType*

reason_phrase

Type: *cybox.common.properties.String*

XML Binding class name: Reason_Phrase

Dictionary key name: reason_phrase

status_code

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Status_Code

Dictionary key name: status_code

version

Type: *cybox.common.properties.String*

XML Binding class name: Version

Dictionary key name: version

class *cybox.objects.http_session_object.HostField*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.http_session_object.HostFieldType*

domain_name

Type: *cybox.objects.uri_object.URI*

XML Binding class name: Domain_Name

Dictionary key name: domain_name

port

Type: *cybox.objects.port_object.Port*

XML Binding class name: Port

Dictionary key name: port

Version: 2.1.0.21

cybox.objects.image_file_object module

class `cybox.objects.image_file_object.ImageFile`

Bases: *cybox.objects.file_object.File*

XML binding class: `cybox.bindings.image_file_object.ImageFileObjectType`

bits_per_pixel

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Bits_Per_Pixel

Dictionary key name: bits_per_pixel

compression_algorithm

Type: *cybox.common.properties.String*

XML Binding class name: Compression_Algorithm

Dictionary key name: compression_algorithm

image_file_format

Type: *cybox.common.properties.String*

XML Binding class name: Image_File_Format

Dictionary key name: image_file_format

image_height

Type: *cybox.common.properties.Integer*

XML Binding class name: Image_Height

Dictionary key name: image_height

image_is_compressed

XML Binding class name: image_is_compressed

Dictionary key name: image_is_compressed

image_width

Type: *cybox.common.properties.Integer*

XML Binding class name: Image_Width

Dictionary key name: image_width

Version: 2.1.0.21

cybox.objects.library_object module

class `cybox.objects.library_object.Library`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.library_object.LibraryObjectType`

base_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Base_Address

Dictionary key name: base_address

extracted_features

Type: *cybox.common.extracted_features.ExtractedFeatures*

XML Binding class name: Extracted_Features

Dictionary key name: extracted_features

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

path

Type: *cybox.common.properties.String*

XML Binding class name: Path

Dictionary key name: path

size

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Size

Dictionary key name: size

type_

Type: *cybox.objects.library_object.LibraryType*

XML Binding class name: Type

Dictionary key name: type

version

Type: *cybox.common.properties.String*

XML Binding class name: Version

Dictionary key name: version

class `cybox.objects.library_object.LibraryType` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.library_object.LibraryType`

Version: 2.1.0.21

cybox.objects.link_object module

class `cybox.objects.link_object.Link` (*value=None, type_=None*)

Bases: *cybox.objects.uri_object.URI*

XML binding class: `cybox.bindings.link_object.LinkObjectType`

url_label

Type: *cybox.common.properties.String*

XML Binding class name: URL_Label

Dictionary key name: url_label

Version: 2.1.0.21

cybox.objects.linux_package_object module

class `cybox.objects.linux_package_object.LinuxPackage`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.linux_package_object.LinuxPackageObjectType`

architecture

TypedField subclass for VocabString fields.

Type: *cybox.objects.linux_package_object.LinuxPackageArchitecture*

XML Binding class name: Architecture

Dictionary key name: architecture

category

Type: *cybox.common.properties.String*

XML Binding class name: Category

Dictionary key name: category

description

Type: *cybox.common.properties.String*

XML Binding class name: Description

Dictionary key name: description

epoch

Type: *cybox.common.properties.String*

XML Binding class name: Epoch

Dictionary key name: epoch

evr

Type: *cybox.common.properties.String*

XML Binding class name: EVR

Dictionary key name: evr

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

release

Type: *cybox.common.properties.String*

XML Binding class name: Release

Dictionary key name: release

vendor

Type: *cybox.common.properties.String*

XML Binding class name: Vendor

Dictionary key name: vendor

version

Type: *cybox.common.properties.String*

XML Binding class name: Version

Dictionary key name: version

class `cybox.objects.linux_package_object.LinuxPackageArchitecture` (*value=None*)

Bases: *cybox.common.vocabs.VocabString*

XML binding class: `cybox.bindings.cybox_common.ControlledVocabularyStringType`

Version: 2.1.0.21

cybox.objects.memory_object module**class** `cybox.objects.memory_object.Memory`Bases: `cybox.common.object_properties.ObjectProperties`XML binding class: `cybox.bindings.memory_object.MemoryObjectType`**block_type**Type: `cybox.common.properties.String`XML Binding class name: `Block_Type`Dictionary key name: `block_type`**extracted_features**Type: `cybox.common.extracted_features.ExtractedFeatures`XML Binding class name: `Extracted_Features`Dictionary key name: `extracted_features`**hashes**Type: `cybox.common.hashes.HashList`XML Binding class name: `Hashes`Dictionary key name: `hashes`**is_injected**XML Binding class name: `is_injected`Dictionary key name: `is_injected`**is_mapped**XML Binding class name: `is_mapped`Dictionary key name: `is_mapped`**is_protected**XML Binding class name: `is_protected`Dictionary key name: `is_protected`**is_volatile**XML Binding class name: `is_volatile`Dictionary key name: `is_volatile`**memory_source**Type: `cybox.common.properties.String`XML Binding class name: `Memory_Source`Dictionary key name: `memory_source`

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

region_end_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Region_End_Address

Dictionary key name: region_end_address

region_size

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Region_Size

Dictionary key name: region_size

region_start_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Region_Start_Address

Dictionary key name: region_start_address

Version: 2.1.0.21

cybox.objects.mutex_object module

class `cybox.objects.mutex_object.Mutex`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.mutex_object.MutexObjectType`

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

named

XML Binding class name: named

Dictionary key name: named

Version: 2.1.0.21

cybox.objects.network_connection_object module

class `cybox.objects.network_connection_object.Layer7Connections`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_connection_object.Layer7ConnectionsType`

dns_query

(List of values permitted)

Type: `cybox.objects.dns_query_object.DNSQuery`

XML Binding class name: `DNS_Query`

Dictionary key name: `dns_query`

http_session

Type: `cybox.objects.http_session_object.HTTPSession`

XML Binding class name: `HTTP_Session`

Dictionary key name: `http_session`

class `cybox.objects.network_connection_object.NetworkConnection`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class:

`cybox.bindings.network_connection_object.NetworkConnectionObjectType`

creation_time

Type: `cybox.common.properties.DateTime`

XML Binding class name: `Creation_Time`

Dictionary key name: `creation_time`

destination_socket_address

Type: `cybox.objects.socket_address_object.SocketAddress`

XML Binding class name: `Destination_Socket_Address`

Dictionary key name: `destination_socket_address`

destination_tcp_state

XML Binding class name: `Destination_TCP_State`

Dictionary key name: `destination_tcp_state`

layer3_protocol

Type: `cybox.common.properties.String`

XML Binding class name: `Layer3_Protocol`

Dictionary key name: `layer3_protocol`

layer4_protocol

Type: `cybox.common.properties.String`

XML Binding class name: `Layer4_Protocol`

Dictionary key name: layer4_protocol

layer7_connections

Type: *cybox.objects.network_connection_object.Layer7Connections*

XML Binding class name: Layer7_Connections

Dictionary key name: layer7_connections

layer7_protocol

Type: *cybox.common.properties.String*

XML Binding class name: Layer7_Protocol

Dictionary key name: layer7_protocol

source_socket_address

Type: *cybox.objects.socket_address_object.SocketAddress*

XML Binding class name: Source_Socket_Address

Dictionary key name: source_socket_address

source_tcp_state

XML Binding class name: Source_TCP_State

Dictionary key name: source_tcp_state

tls_used

XML Binding class name: tls_used

Dictionary key name: tls_used

Version: 2.1.0.21

cybox.objects.network_flow_object module

class `cybox.objects.network_flow_object.BidirectionalRecord`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.BidirectionalRecordType`

yaf_record

Type: *cybox.objects.network_flow_object.YAFRecord*

XML Binding class name: YAF_Record

Dictionary key name: yaf_record

class `cybox.objects.network_flow_object.FlowCollectionElement`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.FlowCollectionElementType`

flow_record_field_value

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Flow_Record_Field_Value

Dictionary key name: flow_record_field_value

class `cybox.objects.network_flow_object.FlowDataRecord`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.FlowDataRecordType`

flow_record_collection_element

(List of values permitted)

Type: *cybox.objects.network_flow_object.FlowCollectionElement*

XML Binding class name: Flow_Record_Collection_Element

Dictionary key name: flow_record_collection_element

class `cybox.objects.network_flow_object.IPFIXDataRecord`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.IPFIXDataRecordType`

field_value

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Field_Value

Dictionary key name: field_value

class `cybox.objects.network_flow_object.IPFIXDataSet`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.IPFIXDataSetType`

data_record

(List of values permitted)

Type: *cybox.objects.network_flow_object.IPFIXDataRecord*

XML Binding class name: Data_Record

Dictionary key name: data_record

padding

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Padding

Dictionary key name: padding

set_header

Type: *cybox.objects.network_flow_object.IPFIXSetHeader*

XML Binding class name: Set_Header

Dictionary key name: set_header

class `cybox.objects.network_flow_object.IPFIXMessage`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.IPFIXMessageType`

message_header

Type: *cybox.objects.network_flow_object.IPFIXMessageHeader*

XML Binding class name: Message_Header

Dictionary key name: message_header

set_

(List of values permitted)

Type: *cybox.objects.network_flow_object.IPFIXSet*

XML Binding class name: Set

Dictionary key name: set

class `cybox.objects.network_flow_object.IPFIXMessageHeader`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.IPFIXMessageHeaderType`

byte_length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Byte_Length

Dictionary key name: byte_length

export_timestamp

Type: *cybox.common.properties.Integer*

XML Binding class name: Export_Timestamp

Dictionary key name: export_timestamp

observation_domain_id

Type: *cybox.common.properties.Integer*

XML Binding class name: Observation_Domain_ID

Dictionary key name: observation_domain_id

sequence_number

Type: *cybox.common.properties.Integer*

XML Binding class name: Sequence_Number

Dictionary key name: sequence_number

version

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Version

Dictionary key name: version

class `cybox.objects.network_flow_object.IPFIXOptionsTemplateRecord`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_flow_object.IPFIXOptionsTemplateRecordType`

field_specifier

(List of values permitted)

Type:

cybox.objects.network_flow_object.IPFIXTemplateRecordFieldSpecifiers

XML Binding class name: Field_Specifier

Dictionary key name: field_specifier

options_template_record_header

Type: *cybox.objects.network_flow_object.IPFIXOptionsTemplateRecordHeader*

XML Binding class name: Options_Template_Record_Header

Dictionary key name: options_template_record_header

class `cybox.objects.network_flow_object.IPFIXOptionsTemplateRecordHeader`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_flow_object.IPFIXOptionsTemplateRecordHeaderType`

field_count

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Field_Count

Dictionary key name: field_count

scope_field_count

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `Scope_Field_Count`
Dictionary key name: `scope_field_count`

template_id

Type: *cybox.common.properties.Integer*
XML Binding class name: `Template_ID`
Dictionary key name: `template_id`

class `cybox.objects.network_flow_object.IPFIXOptionsTemplateSet`
Bases: `mixbox.entities.Entity`

XML binding class:
`cybox.bindings.network_flow_object.IPFIXOptionsTemplateSetType`

options_template_record

(List of values permitted)
Type: *cybox.objects.network_flow_object.IPFIXOptionsTemplateRecord*
XML Binding class name: `Options_Template_Record`
Dictionary key name: `options_template_record`

padding

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Padding`
Dictionary key name: `padding`

set_header

Type: *cybox.objects.network_flow_object.IPFIXSetHeader*
XML Binding class name: `Set_Header`
Dictionary key name: `set_header`

class `cybox.objects.network_flow_object.IPFIXSet`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.IPFIXSetType`

data_set

Type: *cybox.objects.network_flow_object.IPFIXDataSet*
XML Binding class name: `Data_Set`
Dictionary key name: `data_set`

options_template_set

Type: *cybox.objects.network_flow_object.IPFIXOptionsTemplateSet*
XML Binding class name: Options_Template_Set
Dictionary key name: options_template_set

template_set

Type: *cybox.objects.network_flow_object.IPFIXTemplateSet*
XML Binding class name: Template_Set
Dictionary key name: template_set

class *cybox.objects.network_flow_object.IPFIXSetHeader*
Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_flow_object.IPFIXSetHeaderType*

length

Type: *cybox.common.properties.Integer*
XML Binding class name: Length
Dictionary key name: length

set_id

Type: *cybox.common.properties.Integer*
XML Binding class name: Set_ID
Dictionary key name: set_id

class *cybox.objects.network_flow_object.IPFIXTemplateRecord*
Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_flow_object.IPFIXTemplateRecordType*

field_specifier

(List of values permitted)

Type:
cybox.objects.network_flow_object.IPFIXTemplateRecordFieldSpecifiers
XML Binding class name: Field_Specifier
Dictionary key name: field_specifier

template_record_header

Type: *cybox.objects.network_flow_object.IPFIXTemplateRecordHeader*
XML Binding class name: Template_Record_Header
Dictionary key name: template_record_header

class *cybox.objects.network_flow_object.IPFIXTemplateRecordFieldSpecifiers*
Bases: *mixbox.entities.Entity*

XML binding class:

`cybox.bindings.network_flow_object.IPFIXTemplateRecordFieldSpecifiersType`

enterprise_bit

XML Binding class name: `Enterprise_Bit`

Dictionary key name: `enterprise_bit`

enterprise_number

Type: `cybox.common.properties.String`

XML Binding class name: `Enterprise_Number`

Dictionary key name: `enterprise_number`

field_length

Type: `cybox.common.properties.String`

XML Binding class name: `Field_Length`

Dictionary key name: `field_length`

information_element_id

Type: `cybox.common.properties.String`

XML Binding class name: `Information_Element_ID`

Dictionary key name: `information_element_id`

class `cybox.objects.network_flow_object.IPFIXTemplateRecordHeader`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_flow_object.IPFIXTemplateRecordHeaderType`

field_count

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Field_Count`

Dictionary key name: `field_count`

template_id

Type: `cybox.common.properties.Integer`

XML Binding class name: `Template_ID`

Dictionary key name: `template_id`

class `cybox.objects.network_flow_object.IPFIXTemplateSet`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.IPFIXTemplateSetType`

padding

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Padding

Dictionary key name: padding

set_header

Type: *cybox.objects.network_flow_object.IPFIXSetHeader*

XML Binding class name: Set_Header

Dictionary key name: set_header

template_record

(List of values permitted)

Type: *cybox.objects.network_flow_object.IPFIXTemplateRecord*

XML Binding class name: Template_Record

Dictionary key name: template_record

class `cybox.objects.network_flow_object.NetflowV5FlowHeader`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.NetflowV5FlowHeaderType`

count

Type: *cybox.common.properties.Integer*

XML Binding class name: Count

Dictionary key name: count

engine_id

Type: *cybox.common.properties.Integer*

XML Binding class name: Engine_ID

Dictionary key name: engine_id

engine_type

Type: *cybox.common.properties.String*

XML Binding class name: Engine_Type

Dictionary key name: engine_type

flow_sequence

Type: *cybox.common.properties.Integer*

XML Binding class name: Flow_Sequence

Dictionary key name: flow_sequence

sampling_interval

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Sampling_Interval`
Dictionary key name: `sampling_interval`

sys_up_time

Type: *cybox.common.properties.Integer*
XML Binding class name: `Sys_Up_Time`
Dictionary key name: `sys_up_time`

unix_nsecs

Type: *cybox.common.properties.Integer*
XML Binding class name: `Unix_Nsecs`
Dictionary key name: `unix_nsecs`

unix_secs

Type: *cybox.common.properties.Integer*
XML Binding class name: `Unix_Secs`
Dictionary key name: `unix_secs`

version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Version`
Dictionary key name: `version`

class `cybox.objects.network_flow_object.NetflowV5FlowRecord`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.NetflowV5FlowRecordType`

byte_count

Type: *cybox.common.properties.Integer*
XML Binding class name: `Byte_Count`
Dictionary key name: `byte_count`

dest_autonomous_system

Type: *cybox.common.properties.Integer*
XML Binding class name: `Dest_Autonomous_System`
Dictionary key name: `dest_autonomous_system`

dest_ip_mask_bit_count

Type: *cybox.common.properties.String*
XML Binding class name: `Dest_IP_Mask_Bit_Count`

Dictionary key name: dest_ip_mask_bit_count

nexthop_ipv4_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Nexthop_IPv4_Addr

Dictionary key name: nexthop_ipv4_addr

packet_count

Type: *cybox.common.properties.Integer*

XML Binding class name: Packet_Count

Dictionary key name: packet_count

padding1

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Padding1

Dictionary key name: padding1

padding2

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Padding2

Dictionary key name: padding2

src_autonomous_system

Type: *cybox.common.properties.Integer*

XML Binding class name: Src_Autonomous_System

Dictionary key name: src_autonomous_system

src_ip_mask_bit_count

Type: *cybox.common.properties.String*

XML Binding class name: Src_IP_Mask_Bit_Count

Dictionary key name: src_ip_mask_bit_count

sysuptime_end

Type: *cybox.common.properties.Integer*

XML Binding class name: SysUpTime_End

Dictionary key name: sysuptime_end

sysuptime_start

Type: *cybox.common.properties.Integer*

XML Binding class name: SysUpTime_Start

Dictionary key name: sysuptime_start

tcp_flags

Type: *cybox.common.properties.HexBinary*

XML Binding class name: TCP_Flags

Dictionary key name: tcp_flags

class `cybox.objects.network_flow_object.NetflowV5Packet`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.NetflowV5PacketType`

flow_header

Type: *cybox.objects.network_flow_object.NetflowV5FlowHeader*

XML Binding class name: Flow_Header

Dictionary key name: flow_header

flow_record

(List of values permitted)

Type: *cybox.objects.network_flow_object.NetflowV5FlowRecord*

XML Binding class name: Flow_Record

Dictionary key name: flow_record

class `cybox.objects.network_flow_object.NetflowV9DataFlowSet`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.NetflowV9DataFlowSetType`

data_record

(List of values permitted)

Type: *cybox.objects.network_flow_object.NetflowV9DataRecord*

XML Binding class name: Data_Record

Dictionary key name: data_record

flow_set_id_template_id

Type: *cybox.common.properties.Integer*

XML Binding class name: Flow_Set_ID_Template_ID

Dictionary key name: flow_set_id_template_id

length

Type: *cybox.common.properties.Integer*

XML Binding class name: Length

Dictionary key name: length

padding

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Padding

Dictionary key name: padding

class `cybox.objects.network_flow_object.NetflowV9DataRecord`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.NetflowV9DataRecordType`

flow_data_record

(List of values permitted)

Type: *cybox.objects.network_flow_object.FlowDataRecord*

XML Binding class name: Flow_Data_Record

Dictionary key name: flow_data_record

options_data_record

(List of values permitted)

Type: *cybox.objects.network_flow_object.OptionsDataRecord*

XML Binding class name: Options_Data_Record

Dictionary key name: options_data_record

class `cybox.objects.network_flow_object.NetflowV9ExportPacket`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.NetflowV9ExportPacketType`

flow_header

Type: *cybox.objects.network_flow_object.NetflowV9PacketHeader*

XML Binding class name: Packet_Header

Dictionary key name: packet_header

flow_set

(List of values permitted)

Type: *cybox.objects.network_flow_object.NetflowV9FlowSet*

XML Binding class name: Flow_Set

Dictionary key name: flow_set

class `cybox.objects.network_flow_object.NetflowV9Field` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.network_flow_object.NetflowV9FieldType`

class `cybox.objects.network_flow_object.NetflowV9FlowSet`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.NetflowV9FlowSetType`

data_flow_set

Type: `cybox.objects.network_flow_object.NetflowV9DataFlowSet`
XML Binding class name: `Data_Flow_Set`
Dictionary key name: `data_flow_set`

options_template_flow_set

Type: `cybox.objects.network_flow_object.NetflowV9OptionsTemplateFlowSet`
XML Binding class name: `Options_Template_Flow_Set`
Dictionary key name: `options_template_flow_set`

template_flow_set

Type: `cybox.objects.network_flow_object.NetflowV9TemplateFlowSet`
XML Binding class name: `Template_Flow_Set`
Dictionary key name: `template_flow_set`

class `cybox.objects.network_flow_object.NetflowV9OptionsTemplateFlowSet`
Bases: `mixbox.entities.Entity`

XML binding class:
`cybox.bindings.network_flow_object.NetflowV9OptionsTemplateFlowSetType`

flow_set_id

Type: `cybox.common.properties.HexBinary`
XML Binding class name: `Flow_Set_ID`
Dictionary key name: `flow_set_id`

length

Type: `cybox.common.properties.Integer`
XML Binding class name: `Length`
Dictionary key name: `length`

options_template_record

(List of values permitted)
Type: `cybox.objects.network_flow_object.NetflowV9OptionsTemplateRecord`
XML Binding class name: `Options_Template_Record`
Dictionary key name: `options_template_record`

padding

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Padding

Dictionary key name: padding

class `cybox.objects.network_flow_object.NetflowV9OptionsTemplateRecord`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_flow_object.NetflowV9OptionsTemplateRecordType`

option_field_length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Option_Field_Length

Dictionary key name: option_field_length

option_field_type

Type: *cybox.objects.network_flow_object.NetflowV9Field*

XML Binding class name: Option_Field_Type

Dictionary key name: option_field_type

option_length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Option_Length

Dictionary key name: option_length

option_scope_length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Option_Scope_Length

Dictionary key name: option_scope_length

scope_field_length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Scope_Field_Length

Dictionary key name: scope_field_length

scope_field_type

Type: *cybox.objects.network_flow_object.NetflowV9ScopeField*

XML Binding class name: Scope_Field_Type

Dictionary key name: scope_field_type

template_id

Type: *cybox.common.properties.Integer*

XML Binding class name: `Template_ID`

Dictionary key name: `template_id`

class `cybox.objects.network_flow_object.NetflowV9PacketHeader` (*version=None*)

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.NetflowV9PacketHeaderType`

record_count

Type: *cybox.common.properties.Integer*

XML Binding class name: `Record_Count`

Dictionary key name: `record_count`

sequence_number

Type: *cybox.common.properties.Integer*

XML Binding class name: `Sequence_Number`

Dictionary key name: `sequence_number`

source_id

Type: *cybox.common.properties.HexBinary*

XML Binding class name: `Source_ID`

Dictionary key name: `source_id`

sys_up_time

Type: *cybox.common.properties.Integer*

XML Binding class name: `Sys_Up_Time`

Dictionary key name: `sys_up_time`

unix_secs

Type: *cybox.common.properties.Integer*

XML Binding class name: `Unix_Seconds`

Dictionary key name: `unix_secs`

version

Type: *cybox.common.properties.HexBinary*

XML Binding class name: `Version`

Dictionary key name: `version`

class `cybox.objects.network_flow_object.NetflowV9ScopeField` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.network_flow_object.NetflowV9ScopeFieldType`

class `cybox.objects.network_flow_object.NetflowV9TemplateFlowSet`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_flow_object.NetflowV9TemplateFlowSetType`

flow_set_id

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Flow_Set_ID`

Dictionary key name: `flow_set_id`

length

Type: `cybox.common.properties.Integer`

XML Binding class name: `Length`

Dictionary key name: `length`

template_record

(List of values permitted)

Type: `cybox.objects.network_flow_object.NetflowV9TemplateRecord`

XML Binding class name: `Template_Record`

Dictionary key name: `template_record`

class `cybox.objects.network_flow_object.NetflowV9TemplateRecord`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_flow_object.NetflowV9TemplateRecordType`

field_count

Type: `cybox.common.properties.Integer`

XML Binding class name: `Field_Count`

Dictionary key name: `field_count`

field_length

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Field_Length`

Dictionary key name: `field_length`

field_type

Type: `cybox.objects.network_flow_object.NetflowV9Field`

XML Binding class name: `Field_Type`

Dictionary key name: `field_type`

template_id

Type: `cybox.common.properties.Integer`

XML Binding class name: `Template_ID`

Dictionary key name: `template_id`

class `cybox.objects.network_flow_object.NetworkFlow`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.network_flow_object.NetworkFlowObjectType`

bidirectional_flow_record

Type: `cybox.objects.network_flow_object.BidirectionalRecord`

XML Binding class name: `Bidirectional_Flow_Record`

Dictionary key name: `bidirectional_flow_record`

network_flow_label

Type: `cybox.objects.network_flow_object.NetworkFlowLabel`

XML Binding class name: `Network_Flow_Label`

Dictionary key name: `network_flow_label`

unidirectional_flow_record

Type: `cybox.objects.network_flow_object.UnidirectionalRecord`

XML Binding class name: `Unidirectional_Flow_Record`

Dictionary key name: `unidirectional_flow_record`

class `cybox.objects.network_flow_object.NetworkFlowLabel`

Bases: `cybox.objects.network_flow_object.NetworkLayerInfo`

XML binding class: `cybox.bindings.network_flow_object.NetworkFlowLabelType`

egress_interface_index

Type: `cybox.common.properties.Integer`

XML Binding class name: `Egress_Interface_Index`

Dictionary key name: `egress_interface_index`

ingress_interface_index

Type: `cybox.common.properties.Integer`

XML Binding class name: `Ingress_Interface_Index`

Dictionary key name: `ingress_interface_index`

ip_type_of_service

Type: *cybox.common.properties.HexBinary*

XML Binding class name: IP_Type_Of_Service

Dictionary key name: ip_type_of_service

class *cybox.objects.network_flow_object.NetworkLayerInfo*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_flow_object.NetworkLayerInfoType*

dest_socket_address

Type: *cybox.objects.socket_address_object.SocketAddress*

XML Binding class name: Dest_Socket_Address

Dictionary key name: dest_socket_address

ip_protocol

Type: *cybox.common.properties.String*

XML Binding class name: IP_Protocol

Dictionary key name: ip_protocol

src_socket_address

Type: *cybox.objects.socket_address_object.SocketAddress*

XML Binding class name: Src_Socket_Address

Dictionary key name: src_socket_address

class *cybox.objects.network_flow_object.OptionCollectionElement*

Bases: *mixbox.entities.Entity*

XML binding class:

cybox.bindings.network_flow_object.OptionCollectionElementType

option_record_field_value

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Option_Record_Field_Value

Dictionary key name: option_record_field_value

class *cybox.objects.network_flow_object.OptionsDataRecord*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_flow_object.OptionsDataRecordType*

option_record_collection_element

(List of values permitted)

Type: *cybox.objects.network_flow_object.OptionCollectionElement*

XML Binding class name: *Option_Record_Collection_Element*

Dictionary key name: *option_record_collection_element*

scope_field_value

Type: *cybox.common.properties.String*

XML Binding class name: *Scope_Field_Value*

Dictionary key name: *scope_field_value*

class *cybox.objects.network_flow_object.SiLKAddress* (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: *cybox.bindings.network_flow_object.SiLKAddressType*

class *cybox.objects.network_flow_object.SiLKCountryCode* (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: *cybox.bindings.network_flow_object.SiLKCountryCodeType*

class *cybox.objects.network_flow_object.SiLKFlowAttributes* (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: *cybox.bindings.network_flow_object.SiLKAddressType*

class *cybox.objects.network_flow_object.SiLKRecord*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_flow_object.SiLKRecordType*

byte_count

Type: *cybox.common.properties.Integer*

XML Binding class name: *Byte_Count*

Dictionary key name: *byte_count*

dest_country_code

Type: *cybox.objects.network_flow_object.SiLKCountryCode*

XML Binding class name: *Dest_Country_Code*

Dictionary key name: *dest_country_code*

dest_ip_type

Type: *cybox.objects.network_flow_object.SiLKAddress*

XML Binding class name: Dest_IP_Type

Dictionary key name: dest_ip_type

dest_mapname

Type: *cybox.common.properties.String*

XML Binding class name: Dest_MAPNAME

Dictionary key name: dest_mapname

duration

Type: *cybox.common.properties.Integer*

XML Binding class name: Duration

Dictionary key name: duration

end_time

Type: *cybox.common.properties.Integer*

XML Binding class name: End_Time

Dictionary key name: end_time

flow_application

Type: *cybox.common.properties.String*

XML Binding class name: Flow_Application

Dictionary key name: flow_application

flow_attributes

Type: *cybox.objects.network_flow_object.SiLKFlowAttributes*

XML Binding class name: Flow_Attributes

Dictionary key name: flow_attributes

icmp_code

Type: *cybox.common.properties.Integer*

XML Binding class name: ICMP_Code

Dictionary key name: icmp_code

icmp_type

Type: *cybox.common.properties.Integer*

XML Binding class name: ICMP_Type

Dictionary key name: icmp_type

initial_tcp_flags

Type: *cybox.objects.network_packet_object.TCPFlags*

XML Binding class name: Initial_TCP_Flags

Dictionary key name: initial_tcp_flags

packet_count

Type: *cybox.common.properties.Integer*

XML Binding class name: Packet_Count

Dictionary key name: packet_count

router_next_hop_ip

Type: *cybox.objects.address_object.Address*

XML Binding class name: Router_Next_Hop_IP

Dictionary key name: router_next_hop_ip

sensor_info

Type: *cybox.objects.network_flow_object.SiLKSensorInfo*

XML Binding class name: Sensor_Info

Dictionary key name: sensor_info

session_tcp_flags

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Session_TCP_Flags

Dictionary key name: session_tcp_flags

src_country_code

Type: *cybox.objects.network_flow_object.SiLKCountryCode*

XML Binding class name: Src_Country_Code

Dictionary key name: src_country_code

src_ip_type

Type: *cybox.objects.network_flow_object.SiLKAddress*

XML Binding class name: Src_IP_Type

Dictionary key name: src_ip_type

src_mapname

Type: *cybox.common.properties.String*

XML Binding class name: Src_MAPNAME

Dictionary key name: src_mapname

start_time

Type: *cybox.common.properties.Integer*

XML Binding class name: Start_Time

Dictionary key name: start_time

tcp_flags

Type: *cybox.common.properties.HexBinary*

XML Binding class name: TCP_Flags

Dictionary key name: tcp_flags

class `cybox.objects.network_flow_object.SiLKSensorClass` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.network_flow_object.SiLKSensorClassType`

class `cybox.objects.network_flow_object.SiLKSensorDirection` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.network_flow_object.SiLKDirectionType`

class `cybox.objects.network_flow_object.SiLKSensorInfo`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.SiLKSensorInfoType`

class_

Type: *cybox.objects.network_flow_object.SiLKSensorClass*

XML Binding class name: Class

Dictionary key name: class

sensor_id

Type: *cybox.common.properties.String*

XML Binding class name: Sensor_ID

Dictionary key name: sensor_id

type_

Type: *cybox.objects.network_flow_object.SiLKSensorDirection*

XML Binding class name: Type

Dictionary key name: type

class `cybox.objects.network_flow_object.UnidirectionalRecord`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.UnidirectionalRecordType`

ipfix_message

Type: *cybox.objects.network_flow_object.IPFIXMessage*

XML Binding class name: IPFIX_Message

Dictionary key name: ipfix_message

netflowv5_packet

Type: *cybox.objects.network_flow_object.NetflowV5Packet*

XML Binding class name: NetflowV5_Packet

Dictionary key name: netflowv5_packet

netflowv9_export_packet

Type: *cybox.objects.network_flow_object.NetflowV9ExportPacket*

XML Binding class name: NetflowV9_Export_Packet

Dictionary key name: netflowv9_export_packet

silk_record

Type: *cybox.objects.network_flow_object.SiLKRecord*

XML Binding class name: SiLK_Record

Dictionary key name: silk_record

class `cybox.objects.network_flow_object.YAFFlow`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.YAFFlowType`

first_packet_banner

Type: *cybox.common.properties.HexBinary*

XML Binding class name: First_Packet_Banner

Dictionary key name: first_packet_banner

flow_end_milliseconds

Type: *cybox.common.properties.Integer*

XML Binding class name: Flow_End_Milliseconds

Dictionary key name: flow_end_milliseconds

flow_end_reason

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Flow_End_Reason

Dictionary key name: flow_end_reason

flow_start_milliseconds

Type: *cybox.common.properties.Integer*
XML Binding class name: Flow_Start_Milliseconds
Dictionary key name: flow_start_milliseconds

ml_app_label

Type: *cybox.common.properties.HexBinary*
XML Binding class name: ML_App_Label
Dictionary key name: ml_app_label

n_bytes_payload

Type: *cybox.common.properties.HexBinary*
XML Binding class name: N_Bytes_Payload
Dictionary key name: n_bytes_payload

octet_total_count

Type: *cybox.common.properties.Integer*
XML Binding class name: Octet_Total_Count
Dictionary key name: octet_total_count

packet_total_count

Type: *cybox.common.properties.Integer*
XML Binding class name: Packet_Total_Count
Dictionary key name: packet_total_count

passive_os_fingerprinting

Type: *cybox.common.platform_specification.PlatformSpecification*
XML Binding class name: Passive_OS_Fingerprinting
Dictionary key name: passive_os_fingerprinting

payload_entropy

Type: *cybox.common.properties.Integer*
XML Binding class name: Payload_Entropy
Dictionary key name: payload_entropy

second_packet_banner

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Second_Packet_Banner
Dictionary key name: second_packet_banner

silk_app_label

Type: *cybox.common.properties.Integer*
XML Binding class name: SiLK_App_Label
Dictionary key name: silk_app_label

tcp_flow

Type: *cybox.objects.network_flow_object.YAFTCPFlow*

XML Binding class name: TCP_Flow

Dictionary key name: tcp_flow

vlan_id_mac_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Vlan_ID_MAC_Addr

Dictionary key name: vlan_id_mac_addr

class *cybox.objects.network_flow_object.YAFRecord*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_flow_object.YAFRecordType*

flow

Type: *cybox.objects.network_flow_object.YAFFlow*

XML Binding class name: Flow

Dictionary key name: flow

reverse_flow

Type: *cybox.objects.network_flow_object.YAFReverseFlow*

XML Binding class name: Reverse_Flow

Dictionary key name: reverse_flow

class *cybox.objects.network_flow_object.YAFReverseFlow*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_flow_object.YAFReverseFlowType*

reverse_first_packet

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Reverse_First_Packet

Dictionary key name: reverse_first_packet

reverse_flow_delta_milliseconds

Type: *cybox.common.properties.Integer*

XML Binding class name: Reverse_Flow_Delta_Milliseconds

Dictionary key name: reverse_flow_delta_milliseconds

reverse_n_bytes_payload

Type: *cybox.common.properties.HexBinary*
 XML Binding class name: Reverse_N_Bytes_Payload
 Dictionary key name: reverse_n_bytes_payload

reverse_octet_total_count

Type: *cybox.common.properties.Integer*
 XML Binding class name: Reverse_Octet_Total_Count
 Dictionary key name: reverse_octet_total_count

reverse_packet_total_count

Type: *cybox.common.properties.Integer*
 XML Binding class name: Reverse_Packet_Total_Count
 Dictionary key name: reverse_packet_total_count

reverse_passive_os_fingerprinting

Type: *cybox.common.platform_specification.PlatformSpecification*
 XML Binding class name: Reverse_Passive_OS_Fingerprinting
 Dictionary key name: reverse_passive_os_fingerprinting

reverse_payload_entropy

Type: *cybox.common.properties.Integer*
 XML Binding class name: Reverse_Payload_Entropy
 Dictionary key name: reverse_payload_entropy

reverse_vlan_id_mac_addr

Type: *cybox.objects.address_object.Address*
 XML Binding class name: Reverse_Vlan_ID_MAC_Addr
 Dictionary key name: reverse_vlan_id_mac_addr

tcp_reverse_flow

Type: *cybox.objects.network_flow_object.YAFTCPFlow*
 XML Binding class name: TCP_Reverse_Flow
 Dictionary key name: tcp_reverse_flow

class `cybox.objects.network_flow_object.YAFTCPFlow`
 Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_flow_object.YAFTCPFlowType`

initial_tcp_flags

Type: *cybox.objects.network_packet_object.TCPFlags*
 XML Binding class name: Initial_TCP_Flags

Dictionary key name: `initial_tcp_flags`

tcp_sequence_number

Type: `cybox.common.properties.Integer`

XML Binding class name: `TCP_Sequence_Number`

Dictionary key name: `tcp_sequence_number`

union_tcp_flags

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Union_TCP_Flags`

Dictionary key name: `union_tcp_flags`

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cybox.objects.network_packet_object module

class `cybox.objects.network_packet_object.ARP`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ARPTyp`

hardware_addr_size

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Hardware_Addr_Size`

Dictionary key name: `hardware_addr_size`

hardware_addr_type

Type: `cybox.common.properties.String`

XML Binding class name: `Hardware_Addr_Type`

Dictionary key name: `hardware_addr_type`

op_type

Type: `cybox.common.properties.String`

XML Binding class name: `Op_Type`

Dictionary key name: `op_type`

proto_addr_size

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Proto_Addr_Size`

Dictionary key name: `proto_addr_size`

proto_addr_type

Type: `cybox.common.properties.String`

XML Binding class name: Proto_Addr_Type

Dictionary key name: proto_addr_type

recip_hardware_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Recip_Hardware_Addr

Dictionary key name: recip_hardware_addr

recip_protocol_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Recip_Protocol_Addr

Dictionary key name: recip_protocol_addr

sender_hardware_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Sender_Hardware_Addr

Dictionary key name: sender_hardware_addr

sender_protocol_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Sender_Protocol_Addr

Dictionary key name: sender_protocol_addr

class `cybox.objects.network_packet_object.AuthenticationHeader`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.AuthenticationHeaderType`

authentication_data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Authentication_Data

Dictionary key name: authentication_data

header_ext_len

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Header_Ext_Len

Dictionary key name: header_ext_len

next_header

Type: *cybox.common.properties.String*

XML Binding class name: Next_Header

Dictionary key name: next_header

security_parameters_index

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Security_Parameters_Index
Dictionary key name: security_parameters_index

sequence_number

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Sequence_Number
Dictionary key name: sequence_number

class `cybox.objects.network_packet_object.DestinationOptions`
Bases: `cybox.objects.network_packet_object._IPv6ExtHeader`

XML binding class: `cybox.bindings.network_packet_object.DestinationOptionsType`

class `cybox.objects.network_packet_object.EncapsulatingSecurityPayload`
Bases: `mixbox.entities.Entity`

XML binding class:
`cybox.bindings.network_packet_object.EncapsulatingSecurityPayloadType`

authentication_data

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Authentication_Data
Dictionary key name: authentication_data

next_header

Type: *cybox.common.properties.String*
XML Binding class name: Next_Header
Dictionary key name: next_header

padding

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Padding
Dictionary key name: padding

padding_len

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Padding_Len
Dictionary key name: padding_len

payload_data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Payload_Data

Dictionary key name: payload_data

security_parameters_index

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Security_Parameters_Index

Dictionary key name: security_parameters_index

sequence_number

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Sequence_Number

Dictionary key name: sequence_number

class `cybox.objects.network_packet_object.EthernetHeader`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.EthernetHeaderType`

checksum

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Checksum

Dictionary key name: checksum

destination_mac_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Destination_MAC_Addr

Dictionary key name: destination_mac_addr

source_mac_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Source_MAC_Addr

Dictionary key name: source_mac_addr

type_or_length

Type: *cybox.objects.network_packet_object.TypeLength*

XML Binding class name: Type_Or_Length

Dictionary key name: type_or_length

class `cybox.objects.network_packet_object.EthernetInterface`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.EthernetInterfaceType`

ethernet_header

Type: `cybox.objects.network_packet_object.EthernetHeader`

XML Binding class name: `Ethernet_Header`

Dictionary key name: `ethernet_header`

class `cybox.objects.network_packet_object.Fragment`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.FragmentType`

fragment

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Fragment`

Dictionary key name: `fragment`

fragment_header

Type: `cybox.objects.network_packet_object.FragmentHeader`

XML Binding class name: `Fragment_Header`

Dictionary key name: `fragment_header`

class `cybox.objects.network_packet_object.FragmentHeader`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.FragmentHeaderType`

fragment_offset

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Fragment_Offset`

Dictionary key name: `fragment_offset`

identification

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Identification`

Dictionary key name: `identification`

m_flag

Type: `cybox.common.properties.String`

XML Binding class name: `M_Flag`

Dictionary key name: `m_flag`

next_header

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Next_Header

Dictionary key name: next_header

class `cybox.objects.network_packet_object.FragmentationRequired`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.FragmentationRequiredType`

fragmentation_required

XML Binding class name: Fragmentation_Required

Dictionary key name: fragmentation_required

next_hop_mtu

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Next_Hop_MTU

Dictionary key name: next_hop_mtu

class `cybox.objects.network_packet_object.HopByHopOptions`

Bases: `cybox.objects.network_packet_object._IPv6ExtHeader`

XML binding class: `cybox.bindings.network_packet_object.HopByHopOptionsType`

class `cybox.objects.network_packet_object.ICMPv4AddressMaskReply`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv4AddressMaskReplyType`

address_mask

Type: *cybox.objects.address_object.Address*

XML Binding class name: Address_Mask

Dictionary key name: address_mask

address_mask_reply

XML Binding class name: Address_Mask_Reply

Dictionary key name: address_mask_reply

class `cybox.objects.network_packet_object.ICMPv4AddressMaskRequest`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv4AddressMaskRequestType`

address_mask

Type: `cybox.objects.address_object.Address`

XML Binding class name: `Address_Mask`

Dictionary key name: `address_mask`

address_mask_request

XML Binding class name: `Address_Mask_Request`

Dictionary key name: `address_mask_request`

class `cybox.objects.network_packet_object.ICMPv4DestinationUnreachable`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv4DestinationUnreachableType`

communication_administratively_prohibited

XML Binding class name: `Communication_Administratively_Prohibited`

Dictionary key name: `communication_administratively_prohibited`

destination_host_unknown

XML Binding class name: `Destination_Host_Unknown`

Dictionary key name: `destination_host_unknown`

destination_host_unreachable

XML Binding class name: `Destination_Host_Unreachable`

Dictionary key name: `destination_host_unreachable`

destination_network_unknown

XML Binding class name: `Destination_Network_Unknown`

Dictionary key name: `destination_network_unknown`

destination_network_unreachable

XML Binding class name: `Destination_Network_Unreachable`

Dictionary key name: `destination_network_unreachable`

destination_port_unreachable

XML Binding class name: `Destination_Port_Unreachable`

Dictionary key name: `destination_port_unreachable`

destination_protocol_unreachable

XML Binding class name: Destination_Protocol_Unreachable

Dictionary key name: destination_protocol_unreachable

fragmentation_required

Type: *cybox.objects.network_packet_object.FragmentationRequired*

XML Binding class name: Fragmentation_Required

Dictionary key name: fragmentation_required

host_administratively_prohibited

XML Binding class name: Host_Administratively_Prohibited

Dictionary key name: host_administratively_prohibited

host_precedence_violation

XML Binding class name: Host_Precedence_Violation

Dictionary key name: host_precedence_violation

host_unreachable_for_tos

XML Binding class name: Host_Unreachable_For_TOS

Dictionary key name: host_unreachable_for_tos

network_administratively_prohibited

XML Binding class name: Network_Administratively_Prohibited

Dictionary key name: network_administratively_prohibited

network_unreachable_for_tos

XML Binding class name: Network_Unreachable_For_TOS

Dictionary key name: network_unreachable_for_tos

precedence_cutoff_in_effect

XML Binding class name: Precedence_Cutoff_In_Effect

Dictionary key name: precedence_cutoff_in_effect

source_host_isolated

XML Binding class name: Source_Host_Isolated

Dictionary key name: source_host_isolated

source_route_failed

XML Binding class name: Source_Route_Failed

Dictionary key name: source_route_failed

class `cybox.objects.network_packet_object.ICMPv4EchoReply`
Bases: `cybox.objects.network_packet_object._ICMPEchoReply`

XML binding class: `cybox.bindings.network_packet_object.ICMPv4EchoReplyType`

class `cybox.objects.network_packet_object.ICMPv4EchoRequest`
Bases: `cybox.objects.network_packet_object._ICMPEchoRequest`

XML binding class: `cybox.bindings.network_packet_object.ICMPv4EchoRequestType`

class `cybox.objects.network_packet_object.ICMPv4ErrorMessage`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ICMPv4ErrorMessageType`

destination_unreachable

Type: `cybox.objects.network_packet_object.ICMPv4DestinationUnreachable`

XML Binding class name: `Destination_Unreachable`

Dictionary key name: `destination_unreachable`

error_msg_content

Type: `cybox.objects.network_packet_object.ICMPv4ErrorMessageContent`

XML Binding class name: `Error_Msg_Content`

Dictionary key name: `error_msg_content`

redirect_message

Type: `cybox.objects.network_packet_object.ICMPv4RedirectMessage`

XML Binding class name: `Redirect_Message`

Dictionary key name: `redirect_message`

source_quench

Type: `cybox.objects.network_packet_object.ICMPv4SourceQuench`

XML Binding class name: `Source_Quench`

Dictionary key name: `source_quench`

time_exceeded

Type: `cybox.objects.network_packet_object.ICMPv4TimeExceeded`

XML Binding class name: `Time_Exceeded`

Dictionary key name: `time_exceeded`

class `cybox.objects.network_packet_object.ICMPv4ErrorMessageContent`
 Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv4ErrorMessageContentType`

first_eight_bytes

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `First_Eight_Bytes`

Dictionary key name: `first_eight_bytes`

ip_header

Type: `cybox.objects.network_packet_object.IPv4Header`

XML Binding class name: `IP_Header`

Dictionary key name: `ip_header`

class `cybox.objects.network_packet_object.ICMPv4Header`
 Bases: `cybox.objects.network_packet_object._ICMPHeader`

XML binding class: `cybox.bindings.network_packet_object.ICMPv4HeaderType`

class `cybox.objects.network_packet_object.ICMPv4InfoMessage`
 Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ICMPv4InfoMessageType`

address_mask_reply

Type: `cybox.objects.network_packet_object.ICMPv4AddressMaskReply`

XML Binding class name: `Address_Mask_Reply`

Dictionary key name: `address_mask_reply`

address_mask_request

Type: `cybox.objects.network_packet_object.ICMPv4AddressMaskRequest`

XML Binding class name: `Address_Mask_Request`

Dictionary key name: `address_mask_request`

echo_reply

Type: `cybox.objects.network_packet_object.ICMPv4EchoReply`

XML Binding class name: `Echo_Reply`

Dictionary key name: `echo_reply`

echo_request

Type: *cybox.objects.network_packet_object.ICMPv4EchoRequest*

XML Binding class name: Echo_Request

Dictionary key name: echo_request

info_msg_content

Type: *cybox.objects.network_packet_object.ICMPv4InfoMessageContent*

XML Binding class name: Info_Msg_Content

Dictionary key name: info_msg_content

timestamp_reply

Type: *cybox.objects.network_packet_object.ICMPv4TimestampReply*

XML Binding class name: Timestamp_Reply

Dictionary key name: timestamp_reply

timestamp_request

Type: *cybox.objects.network_packet_object.ICMPv4TimestampRequest*

XML Binding class name: Timestamp_Request

Dictionary key name: timestamp_request

class *cybox.objects.network_packet_object.ICMPv4InfoMessageContent*

Bases: *cybox.objects.network_packet_object._ICMPInfoMessageContent*

XML binding class:

cybox.bindings.network_packet_object.ICMPv4InfoMessageContentType

class *cybox.objects.network_packet_object.ICMPv4Packet*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_packet_object.ICMPv4PacketType*

error_msg

Type: *cybox.objects.network_packet_object.ICMPv4ErrorMessage*

XML Binding class name: Error_Msg

Dictionary key name: error_msg

icmpv4_header

Type: *cybox.objects.network_packet_object.ICMPv4Header*

XML Binding class name: ICMPv4_Header

Dictionary key name: icmpv4_header

info_msg

Type: *cybox.objects.network_packet_object.ICMPv4InfoMessage*

XML Binding class name: Info_Msg

Dictionary key name: info_msg

traceroute

Type: *cybox.objects.network_packet_object.ICMPv4Traceroute*

XML Binding class name: Traceroute

Dictionary key name: traceroute

class `cybox.objects.network_packet_object.ICMPv4RedirectMessage`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv4RedirectMessageType`

host_redirect

XML Binding class name: Host_Redirect

Dictionary key name: host_redirect

ip_address

Type: *cybox.objects.address_object.Address*

XML Binding class name: IP_Address

Dictionary key name: ip_address

network_redirect

XML Binding class name: Network_Redirect

Dictionary key name: network_redirect

tos_host_redirect

XML Binding class name: ToS_Host_Redirect

Dictionary key name: tos_host_redirect

tos_network_redirect

XML Binding class name: ToS_Network_Redirect

Dictionary key name: tos_network_redirect

class `cybox.objects.network_packet_object.ICMPv4SourceQuench`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ICMPv4SourceQuenchType`

source_quench

XML Binding class name: Source_Quench

Dictionary key name: source_quench

class cybox.objects.network_packet_object.ICMPv4TimeExceeded

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv4TimeExceededType

frag_reassembly_time_exceeded

XML Binding class name: Frag_Reassembly_Time_Exceeded

Dictionary key name: frag_reassembly_time_exceeded

ttl_exceeded_in_transit

XML Binding class name: TTL_Exceeded_In_Transit

Dictionary key name: ttl_exceeded_in_transit

class cybox.objects.network_packet_object.ICMPv4TimestampReply

Bases: mixbox.entities.Entity

XML binding class:

cybox.bindings.network_packet_object.ICMPv4TimestampReplyType

originate_timestamp

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Originate_Timestamp

Dictionary key name: originate_timestamp

receive_timestamp

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Receive_Timestamp

Dictionary key name: receive_timestamp

timestamp_reply

XML Binding class name: Timestamp_Reply

Dictionary key name: timestamp_reply

transmit_timestamp

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Transmit_Timestamp

Dictionary key name: transmit_timestamp

class `cybox.objects.network_packet_object.ICMPv4TimestampRequest`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv4TimestampRequestType`

originate_timestamp

Type: `cybox.common.properties.UnsignedInteger`

XML Binding class name: `Originate_Timestamp`

Dictionary key name: `originate_timestamp`

timestamp

XML Binding class name: `Timestamp`

Dictionary key name: `timestamp`

class `cybox.objects.network_packet_object.ICMPv4Traceroute`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ICMPv4TracerouteType`

identifier

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Identifier`

Dictionary key name: `identifier`

outbound_hop_count

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Outbound_Hop_Count`

Dictionary key name: `outbound_hop_count`

outbound_packet_forward_success

XML Binding class name: `Outbound_Packet_Forward_Success`

Dictionary key name: `outbound_packet_forward_success`

outbound_packet_no_route

XML Binding class name: `Outbound_Packet_no_Route`

Dictionary key name: `outbound_packet_no_route`

output_link_mtu

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Output_Link_MTU`

Dictionary key name: output_link_mtu

output_link_speed

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Output_Link_Speed

Dictionary key name: output_link_speed

return_hop_count

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Return_Hop_Count

Dictionary key name: return_hop_count

class `cybox.objects.network_packet_object.ICMPv6DestinationUnreachable`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv6DestinationUnreachableType`

address_unreachable

XML Binding class name: Address_Unreachable

Dictionary key name: address_unreachable

beyond_scope

XML Binding class name: Beyond_Scope

Dictionary key name: beyond_scope

comm_prohibited

XML Binding class name: Comm_Prohibited

Dictionary key name: comm_prohibited

no_route

XML Binding class name: No_Route

Dictionary key name: no_route

port_unreachable

XML Binding class name: Port_Unreachable

Dictionary key name: port_unreachable

reject_route

XML Binding class name: Reject_Route

Dictionary key name: reject_route

src_addr_failed_policy

XML Binding class name: Src_Addr_Failed_Policy

Dictionary key name: src_addr_failed_policy

class cybox.objects.network_packet_object.ICMPv6EchoReply

Bases: cybox.objects.network_packet_object._ICMPEchoReply

XML binding class: cybox.bindings.network_packet_object.ICMPv6EchoReplyType

class cybox.objects.network_packet_object.ICMPv6EchoRequest

Bases: cybox.objects.network_packet_object._ICMPEchoRequest

XML binding class: cybox.bindings.network_packet_object.ICMPv6EchoRequestType

class cybox.objects.network_packet_object.ICMPv6ErrorMessage

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv6ErrorMessageType

destination_unreachable

Type: *cybox.objects.network_packet_object.ICMPv6DestinationUnreachable*

XML Binding class name: Destination_Unreachable

Dictionary key name: destination_unreachable

invoking_packet

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Invoking_Packet

Dictionary key name: invoking_packet

packet_too_big

Type: *cybox.objects.network_packet_object.ICMPv6PacketTooBig*

XML Binding class name: Packet_Too_Big

Dictionary key name: packet_too_big

parameter_problem

Type: *cybox.objects.network_packet_object.ICMPv6ParameterProblem*

XML Binding class name: Parameter_Problem

Dictionary key name: parameter_problem

time_exceeded

Type: *cybox.objects.network_packet_object.ICMPv6TimeExceeded*

XML Binding class name: Time_Exceeded

Dictionary key name: time_exceeded

class `cybox.objects.network_packet_object.ICMPv6Header`

Bases: `cybox.objects.network_packet_object._ICMPHeader`

XML binding class: `cybox.bindings.network_packet_object.ICMPv6HeaderType`

class `cybox.objects.network_packet_object.ICMPv6InfoMessage`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ICMPv6InfoMessageType`

echo_reply

Type: *cybox.objects.network_packet_object.ICMPv6EchoReply*

XML Binding class name: Echo_Reply

Dictionary key name: echo_reply

echo_request

Type: *cybox.objects.network_packet_object.ICMPv6EchoRequest*

XML Binding class name: Echo_Request

Dictionary key name: echo_request

info_msg_content

Type: *cybox.objects.network_packet_object.ICMPv6InfoMessageContent*

XML Binding class name: Info_Msg_Content

Dictionary key name: info_msg_content

class `cybox.objects.network_packet_object.ICMPv6InfoMessageContent`

Bases: `cybox.objects.network_packet_object._ICMPInfoMessageContent`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv6InfoMessageContentType`

class `cybox.objects.network_packet_object.ICMPv6Packet`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ICMPv6PacketType`

error_msg

Type: `cybox.objects.network_packet_object.ICMPv6ErrorMessage`
XML Binding class name: `Error_Msg`
Dictionary key name: `error_msg`

icmpv6_header

Type: `cybox.objects.network_packet_object.ICMPv6Header`
XML Binding class name: `ICMPv6_Header`
Dictionary key name: `icmpv6_header`

info_msg

Type: `cybox.objects.network_packet_object.ICMPv6InfoMessage`
XML Binding class name: `Info_Msg`
Dictionary key name: `info_msg`

class `cybox.objects.network_packet_object.ICMPv6PacketTooBig`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ICMPv6PacketTooBigType`

mtu

Type: `cybox.common.properties.HexBinary`
XML Binding class name: `MTU`
Dictionary key name: `mtu`

packet_too_big

XML Binding class name: `Packet_Too_Big`
Dictionary key name: `packet_too_big`

class `cybox.objects.network_packet_object.ICMPv6ParameterProblem`

Bases: `mixbox.entities.Entity`

XML binding class:
`cybox.bindings.network_packet_object.ICMPv6ParameterProblemType`

erroneous_header_field

XML Binding class name: `Erroneous_Header_Field`
Dictionary key name: `erroneous_header_field`

pointer

Type: `cybox.common.properties.HexBinary`
XML Binding class name: `Pointer`
Dictionary key name: `pointer`

unrecognized_ipv6_option

XML Binding class name: Unrecognized_IPv6_Option

Dictionary key name: unrecognized_ipv6_option

unrecognized_next_header_type

XML Binding class name: Unrecognized_Next_Header_Type

Dictionary key name: unrecognized_next_header_type

class cybox.objects.network_packet_object.**ICMPv6TimeExceeded**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv6TimeExceededType

fragment_reassem_time_exceeded

XML Binding class name: Fragment_Reassem_Time_Exceeded

Dictionary key name: fragment_reassem_time_exceeded

hop_limit_exceeded

XML Binding class name: Hop_Limit_Exceeded

Dictionary key name: hop_limit_exceeded

class cybox.objects.network_packet_object.**IPv4Flags**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.IPv4FlagsType

do_not_fragment

Type: *cybox.common.properties.String*

XML Binding class name: Do_Not_Fragment

Dictionary key name: do_not_fragment

more_fragments

Type: *cybox.common.properties.String*

XML Binding class name: More_Fragments

Dictionary key name: more_fragments

reserved

Type: *cybox.common.properties.Integer*

XML Binding class name: Reserved

Dictionary key name: reserved

class `cybox.objects.network_packet_object.IPv4Header`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.IPv4HeaderType`

checksum

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Checksum`

Dictionary key name: `checksum`

dest_ipv4_addr

Type: `cybox.objects.address_object.Address`

XML Binding class name: `Dest_IPv4_Addr`

Dictionary key name: `dest_ipv4_addr`

dscp

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `DSCP`

Dictionary key name: `dscp`

ecn

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `ECN`

Dictionary key name: `ecn`

flags

Type: `cybox.objects.network_packet_object.IPv4Flags`

XML Binding class name: `Flags`

Dictionary key name: `flags`

fragment_offset

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Fragment_Offset`

Dictionary key name: `fragment_offset`

header_length

Type: `cybox.common.properties.Integer`

XML Binding class name: `Header_Length`

Dictionary key name: `header_length`

identification

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Identification

Dictionary key name: identification

ip_version

Type: *cybox.common.properties.String*

XML Binding class name: IP_Version

Dictionary key name: ip_version

option

(List of values permitted)

Type: *cybox.objects.network_packet_object.IPv4Option*

XML Binding class name: Option

Dictionary key name: option

protocol

Type: *cybox.common.properties.String*

XML Binding class name: Protocol

Dictionary key name: protocol

src_ipv4_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Src_IPv4_Addr

Dictionary key name: src_ipv4_addr

total_length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Total_Length

Dictionary key name: total_length

ttl

Type: *cybox.common.properties.HexBinary*

XML Binding class name: TTL

Dictionary key name: ttl

class `cybox.objects.network_packet_object.IPv4Option`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.IPv4OptionType`

class_

Type: *cybox.common.properties.String*

XML Binding class name: Class

Dictionary key name: class

copy_flag

Type: *cybox.common.properties.String*

XML Binding class name: Copy_Flag

Dictionary key name: copy_flag

option

Type: *cybox.common.properties.String*

XML Binding class name: Option

Dictionary key name: option

class `cybox.objects.network_packet_object.IPv4Packet`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.IPv4PacketType`

data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Data

Dictionary key name: data

ipv4_header

Type: *cybox.objects.network_packet_object.IPv4Header*

XML Binding class name: IPv4_Header

Dictionary key name: ipv4_header

class `cybox.objects.network_packet_object.IPv6ExtHeader`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.IPv6ExtHeaderType`

authentication_header

Type: *cybox.objects.network_packet_object.AuthenticationHeader*

XML Binding class name: Authentication_Header

Dictionary key name: authentication_header

destination_options

(List of values permitted)

Type: *cybox.objects.network_packet_object.DestinationOptions*

XML Binding class name: Destination_Options

Dictionary key name: destination_options

encapsulating_security_payload

Type: *cybox.objects.network_packet_object.EncapsulatingSecurityPayload*

XML Binding class name: Encapsulating_Security_Payload

Dictionary key name: encapsulating_security_payload

fragment

Type: *cybox.objects.network_packet_object.Fragment*

XML Binding class name: Fragment

Dictionary key name: fragment

hop_by_hop_options

Type: *cybox.objects.network_packet_object.HopByHopOptions*

XML Binding class name: Hop_by_Hop_Options

Dictionary key name: hop_by_hop_options

routing

Type: *cybox.objects.network_packet_object.Routing*

XML Binding class name: Routing

Dictionary key name: routing

class `cybox.objects.network_packet_object.IPv6Header`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.IPv6HeaderType`

dest_ipv6_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Dest_IPv6_Addr

Dictionary key name: dest_ipv6_addr

flow_label

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Flow_Label

Dictionary key name: flow_label

ip_version

Type: *cybox.common.properties.String*

XML Binding class name: IP_Version

Dictionary key name: ip_version

next_header

Type: *cybox.common.properties.String*

XML Binding class name: Next_Header

Dictionary key name: next_header

payload_length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Payload_Length

Dictionary key name: payload_length

src_ipv6_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Src_IPv6_Addr

Dictionary key name: src_ipv6_addr

traffic_class

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Traffic_Class

Dictionary key name: traffic_class

ttl

Type: *cybox.common.properties.HexBinary*

XML Binding class name: TTL

Dictionary key name: ttl

class *cybox.objects.network_packet_object.IPv6Option*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_packet_object.IPv6OptionType*

do_not_recogn_action

Type: *cybox.common.properties.String*

XML Binding class name: Do_Not_Recogn_Action

Dictionary key name: do_not_recogn_action

option_byte

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Option_Byte

Dictionary key name: option_byte

packet_change

Type: *cybox.common.properties.String*

XML Binding class name: Packet_Change

Dictionary key name: packet_change

class `cybox.objects.network_packet_object.IPv6Packet`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.IPv6PacketType`

data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Data

Dictionary key name: data

ext_headers

(List of values permitted)

Type: *cybox.objects.network_packet_object.IPv6ExtHeader*

XML Binding class name: Ext_Headers

Dictionary key name: ext_headers

ipv6_header

Type: *cybox.objects.network_packet_object.IPv6Header*

XML Binding class name: IPv6_Header

Dictionary key name: ipv6_header

class `cybox.objects.network_packet_object.InternetLayer`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.InternetLayerType`

icmpv4

Type: *cybox.objects.network_packet_object.ICMPv4Packet*

XML Binding class name: ICMPv4

Dictionary key name: icmpv4

icmpv6

Type: *cybox.objects.network_packet_object.ICMPv6Packet*

XML Binding class name: ICMPv6

Dictionary key name: icmpv6

ipv4

Type: *cybox.objects.network_packet_object.IPv4Packet*

XML Binding class name: IPv4

Dictionary key name: ipv4

ipv6

Type: *cybox.objects.network_packet_object.IPv6Packet*

XML Binding class name: IPv6

Dictionary key name: ipv6

class `cybox.objects.network_packet_object.LinkLayer`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.LinkLayerType`

logical_protocols

Type: *cybox.objects.network_packet_object.LogicalProtocol*

XML Binding class name: Logical_Protocols

Dictionary key name: logical_protocols

physical_interface

Type: *cybox.objects.network_packet_object.PhysicalInterface*

XML Binding class name: Physical_Interface

Dictionary key name: physical_interface

class `cybox.objects.network_packet_object.LogicalProtocol`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.LogicalProtocolType`

arp_rarp

Type: *cybox.objects.network_packet_object.ARP*

XML Binding class name: ARP_RARP

Dictionary key name: arp_rarp

ndp

Type: *cybox.objects.network_packet_object.NDP*

XML Binding class name: NDP

Dictionary key name: ndp

class `cybox.objects.network_packet_object.NDP`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.NDPType`

icmpv6_header

Type: *cybox.objects.network_packet_object.ICMPv6Header*

XML Binding class name: ICMPv6_Header

Dictionary key name: icmpv6_header

neighbor_advertisement

Type: *cybox.objects.network_packet_object.NeighborAdvertisement*

XML Binding class name: Neighbor_Advertisement

Dictionary key name: neighbor_advertisement

neighbor_solicitation

Type: *cybox.objects.network_packet_object.NeighborSolicitation*

XML Binding class name: Neighbor_Solicitation

Dictionary key name: neighbor_solicitation

redirect

Type: *cybox.objects.network_packet_object.Redirect*

XML Binding class name: Redirect

Dictionary key name: redirect

router_advertisement

Type: *cybox.objects.network_packet_object.RouterAdvertisement*

XML Binding class name: Router_Advertisement

Dictionary key name: router_advertisement

router_solicitation

Type: *cybox.objects.network_packet_object.RouterSolicitation*

XML Binding class name: Router_Solicitation

Dictionary key name: router_solicitation

class *cybox.objects.network_packet_object.NDPLinkAddr*

Bases: *mixbox.entities.Entity*

Abstract Type

XML binding class: *cybox.bindings.network_packet_object.NDPLinkAddrType*

length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Length

Dictionary key name: length

link_layer_mac_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Link_Layer_MAC_Addr

Dictionary key name: link_layer_mac_addr

class `cybox.objects.network_packet_object.NDPMTU`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.NDPMTUType`

length

Type: *cybox.common.properties.Integer*

XML Binding class name: Length

Dictionary key name: length

mtu

Type: *cybox.common.properties.Integer*

XML Binding class name: MTU

Dictionary key name: mtu

class `cybox.objects.network_packet_object.NDPPrefixInfo`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.NDPPrefixInfoType`

addr_config_flag

XML Binding class name: addr_config_flag

Dictionary key name: addr_config_flag

length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Length

Dictionary key name: length

link_flag

XML Binding class name: link_flag

Dictionary key name: link_flag

preferred_lifetime

Type: *cybox.common.properties.Integer*

XML Binding class name: Preferred_Lifetime

Dictionary key name: preferred_lifetime

prefix

Type: *cybox.objects.network_packet_object.Prefix*

XML Binding class name: Prefix

Dictionary key name: prefix

prefix_length

Type: *cybox.common.properties.Integer*

XML Binding class name: Prefix_Length

Dictionary key name: prefix_length

valid_lifetime

Type: *cybox.common.properties.Integer*

XML Binding class name: Valid_Lifetime

Dictionary key name: valid_lifetime

class `cybox.objects.network_packet_object.NDPRedirectedHeader`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.NDPRedirectedHeaderType`

ipheader_and_data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: IPHeader_And_Data

Dictionary key name: ipheader_and_data

length

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Length

Dictionary key name: length

class `cybox.objects.network_packet_object.NeighborAdvertisement`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.NeighborAdvertisementType`

options

Type: *cybox.objects.network_packet_object.NeighborOptions*

XML Binding class name: Options

Dictionary key name: options

override_flag

XML Binding class name: `override_flag`

Dictionary key name: `override_flag`

router_flag

XML Binding class name: `router_flag`

Dictionary key name: `router_flag`

solicited_flag

XML Binding class name: `solicited_flag`

Dictionary key name: `solicited_flag`

target_ipv6_addr

Type: `cybox.objects.address_object.Address`

XML Binding class name: `Target_IPv6_Addr`

Dictionary key name: `target_ipv6_addr`

class `cybox.objects.network_packet_object.NeighborOptions`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.NeighborOptionsType`

target_link_addr

Type: `cybox.objects.network_packet_object.NDPLinkAddr`

XML Binding class name: `Target_Link_Addr`

Dictionary key name: `target_link_addr`

class `cybox.objects.network_packet_object.NeighborSolicitation`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.NeighborSolicitationType`

options

Type: `cybox.objects.network_packet_object.NeighborSolicitationOptions`

XML Binding class name: `Options`

Dictionary key name: `options`

target_ipv6_addr

Type: `cybox.objects.address_object.Address`

XML Binding class name: `Target_IPv6_Addr`

Dictionary key name: `target_ipv6_addr`

class `cybox.objects.network_packet_object.NeighborSolicitationOptions`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.NeighborSolicitationOptionsType`

src_link_addr

Type: `cybox.objects.network_packet_object.NDPLinkAddr`

XML Binding class name: `Src_Link_Addr`

Dictionary key name: `src_link_addr`

class `cybox.objects.network_packet_object.NetworkPacket`
Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.network_packet_object.NetworkPacketObjectType`

internet_layer

Type: `cybox.objects.network_packet_object.InternetLayer`

XML Binding class name: `Internet_Layer`

Dictionary key name: `internet_layer`

link_layer

Type: `cybox.objects.network_packet_object.LinkLayer`

XML Binding class name: `Link_Layer`

Dictionary key name: `link_layer`

transport_layer

Type: `cybox.objects.network_packet_object.TransportLayer`

XML Binding class name: `Transport_Layer`

Dictionary key name: `transport_layer`

class `cybox.objects.network_packet_object.OptionData`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.OptionDataType`

option_data_len

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Option_Data_Len`

Dictionary key name: option_data_len

option_type

Type: *cybox.objects.network_packet_object.Ipv6Option*

XML Binding class name: Option_Type

Dictionary key name: option_type

pad1

Type: *cybox.objects.network_packet_object.Pad1*

XML Binding class name: Pad1

Dictionary key name: pad1

padn

Type: *cybox.objects.network_packet_object.PadN*

XML Binding class name: PadN

Dictionary key name: padn

class `cybox.objects.network_packet_object.Pad1`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.Pad1Type`

octet

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Octet

Dictionary key name: octet

class `cybox.objects.network_packet_object.PadN`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.PadNType`

octet

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Octet

Dictionary key name: octet

option_data

Type: *cybox.common.properties.Integer*

XML Binding class name: Option_Data

Dictionary key name: option_data

option_data_length

Type: *cybox.common.properties.Integer*
XML Binding class name: Option_Data_Length
Dictionary key name: option_data_length

class `cybox.objects.network_packet_object.PhysicalInterface`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.PhysicalInterfaceType`

ethernet

Type: *cybox.objects.network_packet_object.EthernetInterface*
XML Binding class name: Ethernet
Dictionary key name: ethernet

class `cybox.objects.network_packet_object.Prefix`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.PrefixType`

ip_addr_prefix

Type: *cybox.objects.address_object.Address*
XML Binding class name: IP_Addr_Prefix
Dictionary key name: ip_addr_prefix

ipv6_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: IPv6_Addr
Dictionary key name: ipv6_addr

class `cybox.objects.network_packet_object.Redirect`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.RedirectType`

dest_ipv6_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: Dest_IPv6_Addr
Dictionary key name: dest_ipv6_addr

options

Type: *cybox.objects.network_packet_object.RedirectOptions*

XML Binding class name: Options

Dictionary key name: options

target_ipv6_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Target_IPv6_Addr

Dictionary key name: target_ipv6_addr

class *cybox.objects.network_packet_object.RedirectOptions*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_packet_object.RedirectOptionsType*

redirected_header

Type: *cybox.objects.network_packet_object.NDPRedirectedHeader*

XML Binding class name: Redirected_Header

Dictionary key name: redirected_header

target_link_addr

Type: *cybox.objects.network_packet_object.NDPLinkAddr*

XML Binding class name: Target_Link_Addr

Dictionary key name: target_link_addr

class *cybox.objects.network_packet_object.RouterAdvertisement*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_packet_object.RouterAdvertisementType*

cur_hop_limit

Type: *cybox.common.properties.Integer*

XML Binding class name: Cur_Hop_Limit

Dictionary key name: cur_hop_limit

managed_address_config_flag

XML Binding class name: managed_address_config_flag

Dictionary key name: managed_address_config_flag

options

Type: *cybox.objects.network_packet_object.RouterAdvertisementOptions*

XML Binding class name: Options

Dictionary key name: options

other_config_flag

XML Binding class name: other_config_flag

Dictionary key name: other_config_flag

reachable_time

Type: *cybox.common.properties.Integer*

XML Binding class name: Reachable_Time

Dictionary key name: reachable_time

retrans_timer

Type: *cybox.common.properties.Integer*

XML Binding class name: Retrans_Timer

Dictionary key name: retrans_timer

router_lifetime

Type: *cybox.common.properties.Integer*

XML Binding class name: Router_Lifetime

Dictionary key name: router_lifetime

class `cybox.objects.network_packet_object.RouterAdvertisementOptions`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.RouterAdvertisementOptionsType`

mtu

Type: *cybox.objects.network_packet_object.NDPMTU*

XML Binding class name: MTU

Dictionary key name: mtu

prefix_info

Type: *cybox.objects.network_packet_object.NDPPrefixInfo*

XML Binding class name: Prefix_Info

Dictionary key name: prefix_info

src_link_addr

Type: *cybox.objects.network_packet_object.NDPLinkAddr*

XML Binding class name: Src_Link_Addr

Dictionary key name: src_link_addr

class `cybox.objects.network_packet_object.RouterSolicitation`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.RouterSolicitationType`

options

(List of values permitted)

Type: `cybox.objects.network_packet_object.RouterSolicitationOptions`

XML Binding class name: Options

Dictionary key name: options

class `cybox.objects.network_packet_object.RouterSolicitationOptions`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.RouterSolicitationOptionsType`

src_link_addr

Type: `cybox.objects.network_packet_object.NDPLinkAddr`

XML Binding class name: Src_Link_Addr

Dictionary key name: src_link_addr

class `cybox.objects.network_packet_object.Routing`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.RoutingType`

header_ext_len

Type: `cybox.common.properties.Integer`

XML Binding class name: Header_Ext_Len

Dictionary key name: header_ext_len

next_header

Type: `cybox.common.properties.String`

XML Binding class name: Next_Header

Dictionary key name: next_header

routing_type

Type: `cybox.common.properties.HexBinary`

XML Binding class name: Routing_Type

Dictionary key name: routing_type

segments_left

Type: *cybox.common.properties.Integer*

XML Binding class name: Segments_Left

Dictionary key name: segments_left

type_specific_data

Type: *cybox.common.properties.String*

XML Binding class name: Type_Specific_Data

Dictionary key name: type_specific_data

class `cybox.objects.network_packet_object.TCP`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.TCPType`

data

Type: *cybox.common.data_segment.DataSegment*

XML Binding class name: Data

Dictionary key name: data

options

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Options

Dictionary key name: options

tcp_header

Type: *cybox.objects.network_packet_object.TCPHeader*

XML Binding class name: TCP_Header

Dictionary key name: tcp_header

class `cybox.objects.network_packet_object.TCPFlags`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.TCPFlagsType`

ack

XML Binding class name: ack

Dictionary key name: ack

cwr

XML Binding class name: cwr

Dictionary key name: cwr

ece

XML Binding class name: ece

Dictionary key name: ece

fin

XML Binding class name: fin

Dictionary key name: fin

ns

XML Binding class name: ns

Dictionary key name: ns

psh

XML Binding class name: psh

Dictionary key name: psh

rst

XML Binding class name: rst

Dictionary key name: rst

syn

XML Binding class name: syn

Dictionary key name: syn

urg

XML Binding class name: urg

Dictionary key name: urg

class cybox.objects.network_packet_object.TCPHeader

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.TCPHeaderType

ack_num

Type: *cybox.common.properties.HexBinary*

XML Binding class name: ACK_Num

Dictionary key name: ack_num

checksum

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Checksum

Dictionary key name: checksum

data_offset

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Data_Offset

Dictionary key name: data_offset

dest_port

Type: *cybox.objects.port_object.Port*

XML Binding class name: Dest_Port

Dictionary key name: dest_port

reserved

Type: *cybox.common.properties.Integer*

XML Binding class name: Reserved

Dictionary key name: reserved

seq_num

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Seq_Num

Dictionary key name: seq_num

src_port

Type: *cybox.objects.port_object.Port*

XML Binding class name: Src_Port

Dictionary key name: src_port

tcp_flags

Type: *cybox.objects.network_packet_object.TCPFlags*

XML Binding class name: TCP_Flags

Dictionary key name: tcp_flags

urg_ptr

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Urg_Ptr

Dictionary key name: urg_ptr

window

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Window

Dictionary key name: window

class `cybox.objects.network_packet_object.TransportLayer`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.TransportLayerType`

tcp

Type: `cybox.objects.network_packet_object.TCP`

XML Binding class name: TCP

Dictionary key name: tcp

udp

Type: `cybox.objects.network_packet_object.UDP`

XML Binding class name: UDP

Dictionary key name: udp

class `cybox.objects.network_packet_object.TypeLength`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.TypeLengthType`

internet_layer_type

Type: `cybox.common.properties.String`

XML Binding class name: Internet_Layer_Type

Dictionary key name: internet_layer_type

length

Type: `cybox.common.properties.HexBinary`

XML Binding class name: Length

Dictionary key name: length

class `cybox.objects.network_packet_object.UDP`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.UDPType`

data

Type: `cybox.common.data_segment.DataSegment`

XML Binding class name: Data

Dictionary key name: data

udp_header

Type: *cybox.objects.network_packet_object.UDPHeader*

XML Binding class name: UDP_Header

Dictionary key name: udp_header

class *cybox.objects.network_packet_object.UDPHeader*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.network_packet_object.UDPHeaderType*

checksum

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Checksum

Dictionary key name: checksum

destport

Type: *cybox.objects.port_object.Port*

XML Binding class name: DestPort

Dictionary key name: destport

length

Type: *cybox.common.properties.Integer*

XML Binding class name: Length

Dictionary key name: length

srcport

Type: *cybox.objects.port_object.Port*

XML Binding class name: SrcPort

Dictionary key name: srcport

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cybox.objects.network_route_entry_object module

class *cybox.objects.network_route_entry_object.NetworkRouteEntry*

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:

cybox.bindings.network_route_entry_object.NetworkRouteEntryObjectType

destination_address

Type: *cybox.objects.address_object.Address*

XML Binding class name: Destination_Address

Dictionary key name: destination_address

gateway_address

Type: *cybox.objects.address_object.Address*

XML Binding class name: Gateway_Address

Dictionary key name: gateway_address

interface

Type: *cybox.common.properties.String*

XML Binding class name: Interface

Dictionary key name: interface

is_autoconfigure_address

XML Binding class name: is_autoconfigure_address

Dictionary key name: is_autoconfigure_address

is_immortal

XML Binding class name: is_immortal

Dictionary key name: is_immortal

is_ipv6

XML Binding class name: is_ipv6

Dictionary key name: is_ipv6

is_loopback

XML Binding class name: is_loopback

Dictionary key name: is_loopback

is_publish

XML Binding class name: is_publish

Dictionary key name: is_publish

metric

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Metric

Dictionary key name: metric

netmask

Type: *cybox.objects.address_object.Address*

XML Binding class name: Netmask

Dictionary key name: netmask

origin

Type: *cybox.objects.address_object.Address*

XML Binding class name: Origin

Dictionary key name: origin

preferred_lifetime

Type: *cybox.common.properties.Duration*

XML Binding class name: Preferred_Lifetime

Dictionary key name: preferred_lifetime

protocol

Type: *cybox.common.properties.String*

XML Binding class name: Protocol

Dictionary key name: protocol

route_age

Type: *cybox.common.properties.Duration*

XML Binding class name: Route_Age

Dictionary key name: route_age

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

valid_lifetime

Type: *cybox.common.properties.Duration*

XML Binding class name: Valid_Lifetime

Dictionary key name: valid_lifetime

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cybox.objects.network_route_object module

class `cybox.objects.network_route_object.NetRoute`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.network_route_object.NetRouteObjectType`

description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Description

Dictionary key name: description

is_autoconfigure_address

XML Binding class name: `is_autoconfigure_address`

Dictionary key name: `is_autoconfigure_address`

is_immortal

XML Binding class name: `is_immortal`

Dictionary key name: `is_immortal`

is_ipv6

XML Binding class name: `is_ipv6`

Dictionary key name: `is_ipv6`

is_loopback

XML Binding class name: `is_loopback`

Dictionary key name: `is_loopback`

is_publish

XML Binding class name: `is_publish`

Dictionary key name: `is_publish`

network_route_entries

Type: `cybox.objects.network_route_object.NetworkRouteEntries`

XML Binding class name: `NetworkRouteEntries`

Dictionary key name: `network_route_entries`

preferred_lifetime

Type: `cybox.common.properties.Duration`

XML Binding class name: `PreferredLifetime`

Dictionary key name: `preferred_lifetime`

route_age

Type: `cybox.common.properties.Duration`

XML Binding class name: `RouteAge`

Dictionary key name: `route_age`

valid_lifetime

Type: `cybox.common.properties.Duration`

XML Binding class name: `ValidLifetime`

Dictionary key name: `valid_lifetime`

class `cybox.objects.network_route_object.NetworkRouteEntries` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.network_route_object.NetworkRouteEntriesType`

network_route_entry

(List of values permitted)

Type: `cybox.objects.network_route_entry_object.NetworkRouteEntry`

XML Binding class name: `Network_Route_Entry`

Dictionary key name: `network_route_entry`

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cybox.objects.network_socket_object module

class `cybox.objects.network_socket_object.NetworkSocket`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.network_socket_object.NetworkSocketObjectType`

address_family

Type: `cybox.common.properties.String`

XML Binding class name: `Address_Family`

Dictionary key name: `address_family`

domain

Type: `cybox.common.properties.String`

XML Binding class name: `Domain`

Dictionary key name: `domain`

is_blocking

XML Binding class name: `is_blocking`

Dictionary key name: `is_blocking`

is_listening

XML Binding class name: `is_listening`

Dictionary key name: `is_listening`

local_address

Type: `cybox.objects.socket_address_object.SocketAddress`

XML Binding class name: `Local_Address`

Dictionary key name: `local_address`

options

Type: `cybox.objects.network_socket_object.SocketOptions`

XML Binding class name: Options

Dictionary key name: options

protocol

Type: *cybox.common.properties.String*

XML Binding class name: Protocol

Dictionary key name: protocol

remote_address

Type: *cybox.objects.socket_address_object.SocketAddress*

XML Binding class name: Remote_Address

Dictionary key name: remote_address

socket_descriptor

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Socket_Descriptor

Dictionary key name: socket_descriptor

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

class `cybox.objects.network_socket_object.SocketOptions`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_socket_object.SocketOptionsType`

ip_multicast_if

Type: *cybox.common.properties.String*

XML Binding class name: IP_MULTICAST_IF

Dictionary key name: ip_multicast_if

ip_multicast_if2

Type: *cybox.common.properties.String*

XML Binding class name: IP_MULTICAST_IF2

Dictionary key name: ip_multicast_if2

ip_multicast_loop

XML Binding class name: IP_MULTICAST_LOOP

Dictionary key name: ip_multicast_loop

ip_tos

Type: *cybox.common.properties.String*
XML Binding class name: IP_TOS
Dictionary key name: ip_tos

so_broadcast

XML Binding class name: SO_BROADCAST
Dictionary key name: so_broadcast

so_conditional_accept

XML Binding class name: SO_CONDITIONAL_ACCEPT
Dictionary key name: so_conditional_accept

so_debug

XML Binding class name: SO_DEBUG
Dictionary key name: so_debug

so_dontlinger

XML Binding class name: SO_DONTLINGER
Dictionary key name: so_dontlinger

so_dontroute

XML Binding class name: SO_DONTRROUTE
Dictionary key name: so_dontroute

so_group_priority

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: SO_GROUP_PRIORITY
Dictionary key name: so_group_priority

so_keepalive

XML Binding class name: SO_KEEPALIVE
Dictionary key name: so_keepalive

so_linger

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: SO_LINGER
Dictionary key name: so_linger

so_oobinline

XML Binding class name: SO_OOBINLINE
Dictionary key name: so_oobinline

so_rcvbuf

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_RCVBUF

Dictionary key name: so_rcvbuf

so_rcvtimeo

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_RCVTIMEO

Dictionary key name: so_rcvtimeo

so_reuseaddr

XML Binding class name: SO_REUSEADDR

Dictionary key name: so_reuseaddr

so_sndbuf

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_SNDBUF

Dictionary key name: so_sndbuf

so_sndtimeo

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_SNDTIMEO

Dictionary key name: so_sndtimeo

so_timeout

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_TIMEOUT

Dictionary key name: so_timeout

so_update_accept_context

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_UPDATE_ACCEPT_CONTEXT

Dictionary key name: so_update_accept_context

tcp_nodelay

XML Binding class name: TCP_NODELAY

Dictionary key name: tcp_nodelay

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cybox.objects.network_subnet_object module

class `cybox.objects.network_subnet_object.NetworkSubnet`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.network_subnet_object.NetworkSubnetObjectType`

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: Description

Dictionary key name: description

name

Type: `cybox.common.properties.String`

XML Binding class name: Name

Dictionary key name: name

number_of_ip_addresses

Type: `cybox.common.properties.Integer`

XML Binding class name: Number_Of_IP_Addresses

Dictionary key name: number_of_ip_addresses

routes

Type: `cybox.objects.network_subnet_object.Routes`

XML Binding class name: Routes

Dictionary key name: routes

class `cybox.objects.network_subnet_object.Routes` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.network_subnet_object.RoutesType`

route

(List of values permitted)

Type: `cybox.objects.network_route_entry_object.NetworkRouteEntry`

XML Binding class name: Route

Dictionary key name: route

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cybox.objects.pdf_file_object module

class `cybox.objects.pdf_file_object.PDFDictionary`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFDictionaryType`

object_reference

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectID*

XML Binding class name: Object_Reference

Dictionary key name: object_reference

raw_contents

Type: *cybox.common.properties.String*

XML Binding class name: Raw_Contents

Dictionary key name: raw_contents

class `cybox.objects.pdf_file_object.PDFDocumentInformationDictionary`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.pdf_file_object.PDFDocumentInformationDictionaryType`

author

Type: *cybox.common.properties.String*

XML Binding class name: Author

Dictionary key name: author

creationdate

Type: *cybox.common.properties.DateTime*

XML Binding class name: CreationDate

Dictionary key name: creationdate

creator

Type: *cybox.common.properties.String*

XML Binding class name: Creator

Dictionary key name: creator

keywords

Type: *cybox.common.properties.String*

XML Binding class name: Keywords

Dictionary key name: keywords

moddate

Type: *cybox.common.properties.DateTime*

XML Binding class name: ModDate

Dictionary key name: moddate

producer

Type: *cybox.common.properties.String*
XML Binding class name: Producer
Dictionary key name: producer

subject

Type: *cybox.common.properties.String*
XML Binding class name: Subject
Dictionary key name: subject

title

Type: *cybox.common.properties.String*
XML Binding class name: Title
Dictionary key name: title

trapped

Type: *cybox.common.properties.String*
XML Binding class name: Trapped
Dictionary key name: trapped

class `cybox.objects.pdf_file_object.PDFFile`
Bases: *cybox.objects.file_object.File*

XML binding class: `cybox.bindings.pdf_file_object.PDFFileObjectType`

cross_reference_tables

Type: *cybox.objects.pdf_file_object.PDFXRefTableList*
XML Binding class name: Cross_Reference_Tables
Dictionary key name: cross_reference_tables

indirect_objects

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectList*
XML Binding class name: Indirect_Objects
Dictionary key name: indirect_objects

metadata

Type: *cybox.objects.pdf_file_object.PDFFileMetadata*
XML Binding class name: Metadata
Dictionary key name: metadata

trailers

Type: *cybox.objects.pdf_file_object.PDFTrailerList*
XML Binding class name: Trailers

Dictionary key name: trailers

version

Type: *cybox.common.properties.Double*

XML Binding class name: Version

Dictionary key name: version

class `cybox.objects.pdf_file_object.PDFFileID`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFFileIDType`

id_string

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: ID_String

Dictionary key name: id_string

class `cybox.objects.pdf_file_object.PDFFileMetadata`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFFileMetadataType`

document_information_dictionary

Type: *cybox.objects.pdf_file_object.PDFDocumentInformationDictionary*

XML Binding class name: Document_Information_Dictionary

Dictionary key name: document_information_dictionary

encrypted

XML Binding class name: encrypted

Dictionary key name: encrypted

keyword_counts

Type: *cybox.objects.pdf_file_object.PDFKeywordCounts*

XML Binding class name: Keyword_Counts

Dictionary key name: keyword_counts

number_of_cross_reference_tables

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Number_Of_Cross_Reference_Tables

Dictionary key name: number_of_cross_reference_tables

number_of_indirect_objects

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: Number_Of_Indirect_Objects
Dictionary key name: number_of_indirect_objects

number_of_trailers

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: Number_Of_Trailers
Dictionary key name: number_of_trailers

optimized

XML Binding class name: optimized
Dictionary key name: optimized

class `cybox.objects.pdf_file_object.PDFIndirectObject`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFIndirectObjectType`

contents

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectContents*
XML Binding class name: Contents
Dictionary key name: contents

hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: Hashes
Dictionary key name: hashes

id_

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectID*
XML Binding class name: ID
Dictionary key name: id

offset

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: Offset
Dictionary key name: offset

type_

XML Binding class name: type_

Dictionary key name: type

class `cybox.objects.pdf_file_object.PDFIndirectObjectContents`
 Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFIndirectObjectContentsType`

non_stream_contents

Type: `cybox.common.properties.String`
 XML Binding class name: `Non_Stream_Contents`
 Dictionary key name: `non_stream_contents`

stream_contents

Type: `cybox.objects.pdf_file_object.PDFStream`
 XML Binding class name: `Stream_Contents`
 Dictionary key name: `stream_contents`

class `cybox.objects.pdf_file_object.PDFIndirectObjectID`
 Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFIndirectObjectIDType`

generation_number

Type: `cybox.common.properties.NonNegativeInteger`
 XML Binding class name: `Generation_Number`
 Dictionary key name: `generation_number`

object_number

Type: `cybox.common.properties.PositiveInteger`
 XML Binding class name: `Object_Number`
 Dictionary key name: `object_number`

class `cybox.objects.pdf_file_object.PDFIndirectObjectList (*args)`
 Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.pdf_file_object.PDFIndirectObjectListType`

indirect_object

(List of values permitted)
 Type: `cybox.objects.pdf_file_object.PDFIndirectObject`
 XML Binding class name: `Indirect_Object`

Dictionary key name: indirect_object

class `cybox.objects.pdf_file_object.PDFKeywordCount`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFKeywordCountType`

non_obfuscated_count

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `Non_Obfuscated_Count`

Dictionary key name: `non_obfuscated_count`

obfuscated_count

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `Obfuscated_Count`

Dictionary key name: `obfuscated_count`

class `cybox.objects.pdf_file_object.PDFKeywordCounts`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFKeywordCountsType`

aa_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `AA_Count`

Dictionary key name: `aa_count`

ascii85decode_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `ASCII85Decode_Count`

Dictionary key name: `ascii85decode_count`

asciihexdecode_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `ASCIHexDecode_Count`

Dictionary key name: `asciihexdecode_count`

ccittfaxdecode_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `CCITTFaxDecode_Count`

Dictionary key name: `ccittfaxdecode_count`

dctdecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: DCTDecode_Count

Dictionary key name: dctdecode_count

encrypt_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: Encrypt_Count

Dictionary key name: encrypt_count

flatedecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: FlateDecode_Count

Dictionary key name: flatedecode_count

javascript_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: JavaScript_Count

Dictionary key name: javascript_count

jbig2decode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: JBIG2Decode_Count

Dictionary key name: jbig2decode_count

js_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: JS_Count

Dictionary key name: js_count

launch_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: Launch_Count

Dictionary key name: launch_count

lzwdecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: LZWDecode_Count

Dictionary key name: lzwdecode_count

objstm_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: ObjStm_Count

Dictionary key name: objstm_count

openaction_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: OpenAction_Count

Dictionary key name: openaction_count

page_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: Page_Count

Dictionary key name: page_count

richmedia_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: RichMedia_Count

Dictionary key name: richmedia_count

runlengthdecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: RunLengthDecode_Count

Dictionary key name: runlengthdecode_count

xfa_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: XFA_Count

Dictionary key name: xfa_count

class `cybox.objects.pdf_file_object.PDFStream`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFStreamType`

decoded_stream

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Decoded_Stream

Dictionary key name: decoded_stream

decoded_stream_hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Decoded_Stream_Hashes

Dictionary key name: decoded_stream_hashes

raw_stream

Type: *cybox.common.properties.String*

XML Binding class name: Raw_Stream

Dictionary key name: raw_stream

raw_stream_hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Raw_Stream_Hashes

Dictionary key name: raw_stream_hashes

class `cybox.objects.pdf_file_object.PDFTrailer`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFTrailerType`

encrypt

Type: *cybox.objects.pdf_file_object.PDFDictionary*

XML Binding class name: Encrypt

Dictionary key name: encrypt

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

id_

Type: *cybox.objects.pdf_file_object.PDFFileID*

XML Binding class name: ID

Dictionary key name: id

info

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectID*

XML Binding class name: Info

Dictionary key name: info

last_cross_reference_offset

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Last_Cross_Reference_Offset

Dictionary key name: last_cross_reference_offset

offset

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: Offset
Dictionary key name: offset

prev

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: Prev
Dictionary key name: prev

root

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectID*
XML Binding class name: Root
Dictionary key name: root

size

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: Size
Dictionary key name: size

class `cybox.objects.pdf_file_object.PDFTrailerList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.pdf_file_object.PDFTrailerListType`

trailer

(List of values permitted)
Type: *cybox.objects.pdf_file_object.PDFTrailer*
XML Binding class name: Trailer
Dictionary key name: trailer

class `cybox.objects.pdf_file_object.PDFXRefTable`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFXRefTableType`

hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: Hashes
Dictionary key name: hashes

offset

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Offset

Dictionary key name: offset

subsections

Type: *cybox.objects.pdf_file_object.PDFXrefTableSubsectionList*

XML Binding class name: Subsections

Dictionary key name: subsections

class `cybox.objects.pdf_file_object.PDFXrefTableList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.pdf_file_object.PDFXrefTableListType`

cross_reference_table

(List of values permitted)

Type: *cybox.objects.pdf_file_object.PDFXrefTable*

XML Binding class name: Cross_Reference_Table

Dictionary key name: cross_reference_table

class `cybox.objects.pdf_file_object.PDFXrefEntry`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFXrefEntryType`

byte_offset

Type: *cybox.common.properties.Integer*

XML Binding class name: Byte_Offset

Dictionary key name: byte_offset

generation_number

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Generation_Number

Dictionary key name: generation_number

object_number

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Object_Number

Dictionary key name: object_number

type_

XML Binding class name: type_

Dictionary key name: type

class `cybox.objects.pdf_file_object.PDFXrefEntryList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.pdf_file_object.PDFXrefEntryListType`

cross_reference_entry

(List of values permitted)

Type: `cybox.objects.pdf_file_object.PDFXrefEntry`

XML Binding class name: `Cross_Reference_Entry`

Dictionary key name: `cross_reference_entry`

class `cybox.objects.pdf_file_object.PDFXrefTableSubsection`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.pdf_file_object.PDFXrefTableSubsectionType`

cross_reference_entries

Type: `cybox.objects.pdf_file_object.PDFXrefEntryList`

XML Binding class name: `Cross_Reference_Entries`

Dictionary key name: `cross_reference_entries`

first_object_number

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `First_Object_Number`

Dictionary key name: `first_object_number`

number_of_objects

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `Number_Of_Objects`

Dictionary key name: `number_of_objects`

class `cybox.objects.pdf_file_object.PDFXrefTableSubsectionList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class:
`cybox.bindings.pdf_file_object.PDFXrefTableSubsectionListType`

subsection

(List of values permitted)

Type: `cybox.objects.pdf_file_object.PDFXrefTableSubsection`

XML Binding class name: `Subsection`

Dictionary key name: subsection

`cybox.objects.pdf_file_object.validate_id_string(instance, value)`

`cybox.objects.pdf_file_object.validate_pdf_object_type(instance, value)`

`cybox.objects.pdf_file_object.validate_pdf_ref_entry_type(instance, value)`

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cybox.objects.pipe_object module

class `cybox.objects.pipe_object.Pipe`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.pipe_object.PipeObjectType`

name

Type: `cybox.common.properties.String`

XML Binding class name: Name

Dictionary key name: name

named

XML Binding class name: named

Dictionary key name: named

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cybox.objects.port_object module

class `cybox.objects.port_object.Port`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.port_object.PortObjectType`

layer4_protocol

Type: `cybox.common.properties.String`

XML Binding class name: Layer4_Protocol

Dictionary key name: layer4_protocol

port_value

Type: `cybox.common.properties.PositiveInteger`

XML Binding class name: Port_Value

Dictionary key name: port_value

Version: 2.1.0.21

cybox.objects.process_object module

class cybox.objects.process_object.**ArgumentList** (*args)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.process_object.ArgumentListType

argument

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Argument

Dictionary key name: argument

class cybox.objects.process_object.**ChildPIDList** (*args)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.process_object.ChildPIDListType

child_pid

(List of values permitted)

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Child_PID

Dictionary key name: child_pid

class cybox.objects.process_object.**ImageInfo**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.process_object.ImageInfoType

command_line

Type: *cybox.common.properties.String*

XML Binding class name: Command_Line

Dictionary key name: command_line

current_directory

Type: *cybox.common.properties.String*

XML Binding class name: Current_Directory

Dictionary key name: current_directory

file_name

Type: *cybox.common.properties.String*

XML Binding class name: File_Name

Dictionary key name: file_name

path

Type: *cybox.common.properties.String*

XML Binding class name: Path

Dictionary key name: path

class `cybox.objects.process_object.NetworkConnectionList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.process_object.NetworkConnectionListType`

network_connection

(List of values permitted)

Type: *cybox.objects.network_connection_object.NetworkConnection*

XML Binding class name: Network_Connection

Dictionary key name: network_connection

class `cybox.objects.process_object.PortList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.process_object.PortListType`

port

(List of values permitted)

Type: *cybox.objects.port_object.Port*

XML Binding class name: Port

Dictionary key name: port

class `cybox.objects.process_object.Process`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.process_object.ProcessObjectType`

argument_list

Type: *cybox.objects.process_object.ArgumentList*

XML Binding class name: Argument_List

Dictionary key name: argument_list

child_pid_list

Type: *cybox.objects.process_object.ChildPIDList*

XML Binding class name: Child_PID_List

Dictionary key name: child_pid_list

creation_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Creation_Time

Dictionary key name: creation_time

environment_variable_list

Type: *cybox.common.environment_variable.EnvironmentVariableList*

XML Binding class name: Environment_Variable_List

Dictionary key name: environment_variable_list

extracted_features

Type: *cybox.common.extracted_features.ExtractedFeatures*

XML Binding class name: Extracted_Features

Dictionary key name: extracted_features

image_info

Type: *cybox.objects.process_object.ImageInfo*

XML Binding class name: Image_Info

Dictionary key name: image_info

is_hidden

XML Binding class name: is_hidden

Dictionary key name: is_hidden

kernel_time

Type: *cybox.common.properties.Duration*

XML Binding class name: Kernel_Time

Dictionary key name: kernel_time

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

network_connection_list

Type: *cybox.objects.process_object.NetworkConnectionList*

XML Binding class name: Network_Connection_List

Dictionary key name: network_connection_list

parent_pid

Type: *cybox.common.properties.UnsignedInteger*
 XML Binding class name: Parent_PID
 Dictionary key name: parent_pid

pid

Type: *cybox.common.properties.UnsignedInteger*
 XML Binding class name: PID
 Dictionary key name: pid

port_list

Type: *cybox.objects.process_object.PortList*
 XML Binding class name: Port_List
 Dictionary key name: port_list

start_time

Type: *cybox.common.properties.DateTime*
 XML Binding class name: Start_Time
 Dictionary key name: start_time

status

Type: *cybox.objects.process_object.ProcessStatus*
 XML Binding class name: Status
 Dictionary key name: status

user_time

Type: *cybox.common.properties.Duration*
 XML Binding class name: User_Time
 Dictionary key name: user_time

username

Type: *cybox.common.properties.String*
 XML Binding class name: Username
 Dictionary key name: username

class `cybox.objects.process_object.ProcessStatus`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.process_object.ProcessStatusType`

static lookup_class (*xsi_type*)

to_dict ()

Version: 2.1.0.21

cybox.objects.product_object module

class cybox.objects.product_object.**Product**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.product_object.ProductObjectType

device_details

Type: *cybox.common.object_properties.ObjectProperties*

XML Binding class name: Device_Details

Dictionary key name: device_details

edition

Type: *cybox.common.properties.String*

XML Binding class name: Edition

Dictionary key name: edition

language

Type: *cybox.common.properties.String*

XML Binding class name: Language

Dictionary key name: language

product

Type: *cybox.common.properties.String*

XML Binding class name: Product

Dictionary key name: product

update

Type: *cybox.common.properties.String*

XML Binding class name: Update

Dictionary key name: update

vendor

Type: *cybox.common.properties.String*

XML Binding class name: Vendor

Dictionary key name: vendor

version

Type: *cybox.common.properties.String*

XML Binding class name: Version

Dictionary key name: version

Version: 2.1.0.21

cybox.objects.semaphore_object module**class** cybox.objects.semaphore_object.**Semaphore**Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.semaphore_object.SemaphoreObjectType

current_countType: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Current_Count

Dictionary key name: current_count

maximum_countType: *cybox.common.properties.PositiveInteger*

XML Binding class name: Maximum_Count

Dictionary key name: maximum_count

nameType: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

named

XML Binding class name: named

Dictionary key name: named

Version: 2.1.0.21**cybox.objects.socket_address_object module****class** cybox.objects.socket_address_object.**SocketAddress**Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.socket_address_object.SocketAddressObjectType

hostnameType: *cybox.objects.hostname_object.Hostname*

XML Binding class name: Hostname

Dictionary key name: hostname

ip_addressType: *cybox.objects.address_object.Address*

XML Binding class name: IP_Address

Dictionary key name: ip_address

port

Type: *cybox.objects.port_object.Port*

XML Binding class name: Port

Dictionary key name: port

Version: 2.1.0.21

cybox.objects.sms_message_object module

class *cybox.objects.sms_message_object.SMSMessage*

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: *cybox.bindings.sms_message_object.SMSMessageObjectType*

bits_per_character

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Bits_Per_Character

Dictionary key name: bits_per_character

body

Type: *cybox.common.properties.String*

XML Binding class name: Body

Dictionary key name: body

encoding

Type: *cybox.common.properties.String*

XML Binding class name: Encoding

Dictionary key name: encoding

is_premium

XML Binding class name: is_premium

Dictionary key name: is_premium

length

Type: *cybox.common.properties.Integer*

XML Binding class name: Length

Dictionary key name: length

recipient_phone_number

Type: *cybox.common.properties.String*

XML Binding class name: Recipient_Phone_Number

Dictionary key name: recipient_phone_number

sender_phone_number

Type: *cybox.common.properties.String*
XML Binding class name: Sender_Phone_Number
Dictionary key name: sender_phone_number

sent_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: Sent_DateTime
Dictionary key name: sent_datetime

size

Type: *cybox.common.properties.Integer*
XML Binding class name: Size
Dictionary key name: size

user_data_header

Type: *cybox.common.properties.HexBinary*
XML Binding class name: User_Data_Header
Dictionary key name: user_data_header

Version: 2.1.0.21

cybox.objects.system_object module

class `cybox.objects.system_object.BIOSInfo`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.system_object.BIOSInfoType`

bios_date

Type: *cybox.common.properties.Date*
XML Binding class name: BIOS_Date
Dictionary key name: bios_date

bios_manufacturer

Type: *cybox.common.properties.String*
XML Binding class name: BIOS_Manufacturer
Dictionary key name: bios_manufacturer

bios_release_date

Type: *cybox.common.properties.Date*
XML Binding class name: BIOS_Release_Date
Dictionary key name: bios_release_date

bios_serial_number

Type: *cybox.common.properties.String*
XML Binding class name: BIOS_Serial_Number
Dictionary key name: bios_serial_number

bios_version

Type: *cybox.common.properties.String*
XML Binding class name: BIOS_Version
Dictionary key name: bios_version

class *cybox.objects.system_object.DHCPServerList* (*args)
Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.system_object.DHCPServerListType*

dhcp_server_address

(List of values permitted)
Type: *cybox.objects.address_object.Address*
XML Binding class name: DHCP_Server_Address
Dictionary key name: dhcp_server_address

class *cybox.objects.system_object.IPGatewayList* (*args)
Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.system_object.IPGatewayListType*

ip_gateway_address

(List of values permitted)
Type: *cybox.objects.address_object.Address*
XML Binding class name: IP_Gateway_Address
Dictionary key name: ip_gateway_address

class *cybox.objects.system_object.IPInfo*
Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.system_object.IPInfoType*

ip_address

Type: *cybox.objects.address_object.Address*
XML Binding class name: IP_Address
Dictionary key name: ip_address

subnet_mask

Type: *cybox.objects.address_object.Address*

XML Binding class name: Subnet_Mask

Dictionary key name: subnet_mask

class *cybox.objects.system_object.IPInfoList* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.system_object.IPInfoListType*

ip_info

(List of values permitted)

Type: *cybox.objects.system_object.IPInfo*

XML Binding class name: IP_Info

Dictionary key name: ip_info

class *cybox.objects.system_object.NetworkInterface*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.system_object.NetworkInterfaceType*

adapter

Type: *cybox.common.properties.String*

XML Binding class name: Adapter

Dictionary key name: adapter

description

Type: *cybox.common.properties.String*

XML Binding class name: Description

Dictionary key name: description

dhcp_lease_expires

Type: *cybox.common.properties.DateTime*

XML Binding class name: DHCP_Lease_Expires

Dictionary key name: dhcp_lease_expires

dhcp_lease_obtained

Type: *cybox.common.properties.DateTime*

XML Binding class name: DHCP_Lease_Obtained

Dictionary key name: dhcp_lease_obtained

dhcp_server_list

Type: *cybox.objects.system_object.DHCPServerList*

XML Binding class name: DHCP_Server_List

Dictionary key name: dhcp_server_list

ip_gateway_list

Type: *cybox.objects.system_object.IPGatewayList*

XML Binding class name: IP_Gateway_List

Dictionary key name: ip_gateway_list

ip_list

Type: *cybox.objects.system_object.IPInfoList*

XML Binding class name: IP_List

Dictionary key name: ip_list

mac

Type: *cybox.common.properties.String*

XML Binding class name: MAC

Dictionary key name: mac

class *cybox.objects.system_object.NetworkInterfaceList* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.system_object.NetworkInterfaceListType*

network_interface

(List of values permitted)

Type: *cybox.objects.system_object.NetworkInterface*

XML Binding class name: Network_Interface

Dictionary key name: network_interface

class *cybox.objects.system_object.OS*

Bases: *cybox.common.platform_specification.PlatformSpecification*

XML binding class: *cybox.bindings.system_object.OSType*

bitness

Type: *cybox.common.properties.String*

XML Binding class name: Bitness

Dictionary key name: bitness

build_number

Type: *cybox.common.properties.String*

XML Binding class name: Build_Number

Dictionary key name: build_number

environment_variable_list

Type: *cybox.common.environment_variable.EnvironmentVariableList*

XML Binding class name: Environment_Variable_List

Dictionary key name: environment_variable_list

install_date

Type: *cybox.common.properties.Date*

XML Binding class name: Install_Date

Dictionary key name: install_date

patch_level

Type: *cybox.common.properties.String*

XML Binding class name: Patch_Level

Dictionary key name: patch_level

platform

Type: *cybox.common.platform_specification.PlatformSpecification*

XML Binding class name: Platform

Dictionary key name: platform

class `cybox.objects.system_object.System`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.system_object.SystemObjectType`

available_physical_memory

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Available_Physical_Memory

Dictionary key name: available_physical_memory

bios_info

Type: *cybox.objects.system_object.BIOSInfo*

XML Binding class name: BIOS_Info

Dictionary key name: bios_info

date

Type: *cybox.common.properties.Date*
XML Binding class name: Date
Dictionary key name: date

hostname

Type: *cybox.common.properties.String*
XML Binding class name: Hostname
Dictionary key name: hostname

local_time

Type: *cybox.common.properties.Time*
XML Binding class name: Local_Time
Dictionary key name: local_time

network_interface_list

Type: *cybox.objects.system_object.NetworkInterfaceList*
XML Binding class name: Network_Interface_List
Dictionary key name: network_interface_list

os

Type: *cybox.objects.system_object.OS*
XML Binding class name: OS
Dictionary key name: os

processor

Type: *cybox.common.properties.String*
XML Binding class name: Processor
Dictionary key name: processor

processor_architecture

Type: *cybox.common.properties.String*
XML Binding class name: Processor_Architecture
Dictionary key name: processor_architecture

system_time

Type: *cybox.common.properties.Time*
XML Binding class name: System_Time
Dictionary key name: system_time

timezone_dst

Type: *cybox.common.properties.String*
XML Binding class name: Timezone_DST
Dictionary key name: timezone_dst

timezone_standard

Type: *cybox.common.properties.String*
XML Binding class name: Timezone_Standard
Dictionary key name: timezone_standard

total_physical_memory

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Total_Physical_Memory
Dictionary key name: total_physical_memory

uptime

Type: *cybox.common.properties.Duration*
XML Binding class name: Uptime
Dictionary key name: uptime

username

Type: *cybox.common.properties.String*
XML Binding class name: Username
Dictionary key name: username

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cybox.objects.unix_file_object module

class `cybox.objects.unix_file_object.UnixFile`

Bases: *cybox.objects.file_object.File*

XML binding class: `cybox.bindings.unix_file_object.UnixFileObjectType`

group_owner

Type: *cybox.common.properties.String*
XML Binding class name: Group_Owner
Dictionary key name: group_owner

inode

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: INode
Dictionary key name: inode

permissions

Type: *cybox.objects.unix_file_object.UnixFilePermissions*
XML Binding class name: Permissions
Dictionary key name: permissions

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

class *cybox.objects.unix_file_object.UnixFilePermissions*

Bases: *cybox.objects.file_object.FilePermissions*

XML binding class: *cybox.bindings.unix_file_object.UnixFilePermissionsType*

gexec

XML Binding class name: gexec

Dictionary key name: gexec

gread

XML Binding class name: gread

Dictionary key name: gread

gwrite

XML Binding class name: gwrite

Dictionary key name: gwrite

oexec

XML Binding class name: oexec

Dictionary key name: oexec

oread

XML Binding class name: oread

Dictionary key name: oread

owrite

XML Binding class name: owrite

Dictionary key name: owrite

sgid

XML Binding class name: sgid

Dictionary key name: sgid

suid

XML Binding class name: suid

Dictionary key name: suid

uexec

XML Binding class name: uexec

Dictionary key name: uexec

uread

XML Binding class name: uread

Dictionary key name: uread

uwrite

XML Binding class name: uwrite

Dictionary key name: uwrite

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cybox.objects.unix_network_route_entry_object module

class `cybox.objects.unix_network_route_entry_object.UnixNetworkRouteEntry`

Bases: `cybox.objects.network_route_entry_object.NetworkRouteEntry`

XML binding class:

`cybox.bindings.unix_network_route_entry_object.UnixNetworkRouteEntryObjectType`

flags

Type: `cybox.common.properties.String`

XML Binding class name: Flags

Dictionary key name: flags

mss

Type: `cybox.common.properties.UnsignedInteger`

XML Binding class name: MSS

Dictionary key name: mss

ref

Type: `cybox.common.properties.UnsignedLong`

XML Binding class name: Ref

Dictionary key name: ref

use

Type: `cybox.common.properties.UnsignedLong`

XML Binding class name: Use

Dictionary key name: use

window

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Window

Dictionary key name: window

Version: 2.1.0.21

cybox.objects.unix_pipe_object module

class `cybox.objects.unix_pipe_object.UnixPipe`

Bases: *cybox.objects.pipe_object.Pipe*

XML binding class: `cybox.bindings.unix_pipe_object.UnixPipeObjectType`

permission_mode

Type: *cybox.common.properties.String*

XML Binding class name: Permission_Mode

Dictionary key name: permission_mode

Version: 2.1.0.21

cybox.objects.unix_process_object module

class `cybox.objects.unix_process_object.FileDescriptorList (*args)`

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.unix_process_object.FileDescriptorListType`

file_descriptor

(List of values permitted)

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: File_Descriptor

Dictionary key name: file_descriptor

class `cybox.objects.unix_process_object.UnixProcess`

Bases: *cybox.objects.process_object.Process*

XML binding class: `cybox.bindings.unix_process_object.UnixProcessObjectType`

open_file_descriptor_list

Type: *cybox.objects.unix_process_object.FileDescriptorList*

XML Binding class name: Open_File_Descriptor_List

Dictionary key name: open_file_descriptor_list

priority

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Priority

Dictionary key name: priority

ruid

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: RUID

Dictionary key name: ruid

session_id

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Session_ID

Dictionary key name: session_id

class `cybox.objects.unix_process_object.UnixProcessState` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.unix_process_object.UnixProcessStateType`

class `cybox.objects.unix_process_object.UnixProcessStatus`

Bases: *cybox.objects.process_object.ProcessStatus*

XML binding class: `cybox.bindings.unix_process_object.UnixProcessStatusType`

current_status

Type: *cybox.objects.unix_process_object.UnixProcessState*

XML Binding class name: Current_Status

Dictionary key name: current_status

timestamp

Type: *cybox.common.properties.DateTime*

XML Binding class name: Timestamp

Dictionary key name: timestamp

Version: 2.1.0.21

cybox.objects.unix_user_account_object module

class `cybox.objects.unix_user_account_object.UnixGroup`

Bases: *cybox.objects.user_account_object.Group*

XML binding class: `cybox.bindings.unix_user_account_object.UnixGroupType`

group_id

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Group_ID

Dictionary key name: group_id

class *cybox.objects.unix_user_account_object.UnixGroupList* (*args)

Bases: *cybox.objects.user_account_object.GroupList*

XML binding class: *cybox.bindings.user_account_object.GroupListType*

group

(List of values permitted)

Type: *cybox.objects.unix_user_account_object.UnixGroup*

XML Binding class name: Group

Dictionary key name: group

class *cybox.objects.unix_user_account_object.UnixPrivilege*

Bases: *cybox.objects.user_account_object.Privilege*

XML binding class: *cybox.bindings.unix_user_account_object.UnixPrivilegeType*

permissions_mask

Type: *cybox.common.properties.String*

XML Binding class name: Permissions_Mask

Dictionary key name: permissions_mask

class *cybox.objects.unix_user_account_object.UnixPrivilegeList* (*args)

Bases: *cybox.objects.user_account_object.PrivilegeList*

XML binding class: *cybox.bindings.user_account_object.PrivilegeListType*

privilege

(List of values permitted)

Type: *cybox.objects.unix_user_account_object.UnixPrivilege*

XML Binding class name: Privilege

Dictionary key name: privilege

class *cybox.objects.unix_user_account_object.UnixUserAccount*

Bases: *cybox.objects.user_account_object.UserAccount*

XML binding class:

cybox.bindings.unix_user_account_object.UnixUserAccountObjectType

group_id

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Group_ID

Dictionary key name: group_id

group_list

Type: *cybox.objects.unix_user_account_object.UnixGroupList*

XML Binding class name: Group_List

Dictionary key name: group_list

login_shell

Type: *cybox.common.properties.String*

XML Binding class name: Login_Shell

Dictionary key name: login_shell

privilege_list

Type: *cybox.objects.unix_user_account_object.UnixPrivilegeList*

XML Binding class name: Privilege_List

Dictionary key name: privilege_list

user_id

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: User_ID

Dictionary key name: user_id

Version: 2.1.0.21

cybox.objects.unix_volume_object module

class *cybox.objects.unix_volume_object.UnixVolume*

Bases: *cybox.objects.volume_object.Volume*

XML binding class: *cybox.bindings.unix_volume_object.UnixVolumeObjectType*

mount_point

Type: *cybox.common.properties.String*

XML Binding class name: Mount_Point

Dictionary key name: mount_point

options

Type: *cybox.common.properties.String*

XML Binding class name: Options

Dictionary key name: options

Version: 2.1.0.21

cybox.objects.uri_object module

class cybox.objects.uri_object.**URI** (*value=None, type_=None*)

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.uri_object.URIObjectType`

type_

XML Binding class name: `type_`

Dictionary key name: `type`

value

Type: *cybox.common.properties.AnyURI*

XML Binding class name: `Value`

Dictionary key name: `value`

Version: 2.1.0.21

cybox.objects.url_history_object module

class cybox.objects.url_history_object.**URLHistory**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.url_history_object.URLHistoryObjectType`

browser_information

Type: *cybox.common.tools.ToolInformation*

XML Binding class name: `Browser_Information`

Dictionary key name: `browser_information`

url_history_entry

(List of values permitted)

Type: *cybox.objects.url_history_object.URLHistoryEntry*

XML Binding class name: `URL_History_Entry`

Dictionary key name: `url_history_entry`

class cybox.objects.url_history_object.**URLHistoryEntry**

Bases: *mixbox.entities.Entity*

XML binding class: `cybox.bindings.url_history_object.URLHistoryEntryType`

expiration_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: Expiration_DateTime
Dictionary key name: expiration_datetime

first_visit_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: First_Visit_DateTime
Dictionary key name: first_visit_datetime

hostname

Type: *cybox.objects.hostname_object.Hostname*
XML Binding class name: Hostname
Dictionary key name: hostname

last_visit_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: Last_Visit_DateTime
Dictionary key name: last_visit_datetime

manually_entered_count

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: Manually_Entered_Count
Dictionary key name: manually_entered_count

modification_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: Modification_DateTime
Dictionary key name: modification_datetime

page_title

Type: *cybox.common.properties.String*
XML Binding class name: Page_Title
Dictionary key name: page_title

referrer_url

Type: *cybox.objects.uri_object.URI*
XML Binding class name: Referrer_URL
Dictionary key name: referrer_url

url

Type: *cybox.objects.uri_object.URI*

XML Binding class name: URL

Dictionary key name: url

user_profile_name

Type: *cybox.common.properties.String*

XML Binding class name: User_Profile_Name

Dictionary key name: user_profile_name

visit_count

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Visit_Count

Dictionary key name: visit_count

Version: 2.1.0.21

cybox.objects.user_account_object module

class `cybox.objects.user_account_object.Group`

Bases: `mixbox.entities.Entity`

An abstract class for account groups.

XML binding class: `cybox.bindings.user_account_object.GroupType`

to_dict ()

class `cybox.objects.user_account_object.GroupList (*args)`

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.user_account_object.GroupListType`

group

(List of values permitted)

Type: *cybox.objects.user_account_object.Group*

XML Binding class name: Group

Dictionary key name: group

class `cybox.objects.user_account_object.Privilege`

Bases: `mixbox.entities.Entity`

An abstract class for account privileges.

XML binding class: `cybox.bindings.user_account_object.PrivilegeType`

to_dict ()

class `cybox.objects.user_account_object.PrivilegeList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.user_account_object.PrivilegeListType`

privilege

(List of values permitted)

Type: `cybox.objects.user_account_object.Privilege`

XML Binding class name: `Privilege`

Dictionary key name: `privilege`

class `cybox.objects.user_account_object.UserAccount`
Bases: `cybox.objects.account_object.Account`

XML binding class: `cybox.bindings.user_account_object.UserAccountObjectType`

full_name

Type: `cybox.common.properties.String`

XML Binding class name: `Full_Name`

Dictionary key name: `full_name`

group_list

Type: `cybox.objects.user_account_object.GroupList`

XML Binding class name: `Group_List`

Dictionary key name: `group_list`

home_directory

Type: `cybox.common.properties.String`

XML Binding class name: `Home_Directory`

Dictionary key name: `home_directory`

last_login

Type: `cybox.common.properties.DateTime`

XML Binding class name: `Last_Login`

Dictionary key name: `last_login`

password_required

XML Binding class name: `password_required`

Dictionary key name: `password_required`

privilege_list

Type: *cybox.objects.user_account_object.PrivilegeList*
XML Binding class name: `Privilege_List`
Dictionary key name: `privilege_list`

script_path

Type: *cybox.common.properties.String*
XML Binding class name: `Script_Path`
Dictionary key name: `script_path`

user_password_age

Type: *cybox.common.properties.Duration*
XML Binding class name: `User_Password_Age`
Dictionary key name: `user_password_age`

username

Type: *cybox.common.properties.String*
XML Binding class name: `Username`
Dictionary key name: `username`

Version: 2.1.0.21

cybox.objects.user_session_object module

class `cybox.objects.user_session_object.UserSession`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.user_session_object.UserSessionObjectType`

effective_group

Type: *cybox.common.properties.String*
XML Binding class name: `Effective_Group`
Dictionary key name: `effective_group`

effective_group_id

Type: *cybox.common.properties.String*
XML Binding class name: `Effective_Group_ID`
Dictionary key name: `effective_group_id`

effective_user

Type: *cybox.common.properties.String*
XML Binding class name: `Effective_User`
Dictionary key name: `effective_user`

effective_user_id

Type: *cybox.common.properties.String*
 XML Binding class name: Effective_User_ID
 Dictionary key name: effective_user_id

login_time

Type: *cybox.common.properties.DateTime*
 XML Binding class name: Login_Time
 Dictionary key name: login_time

logout_time

Type: *cybox.common.properties.DateTime*
 XML Binding class name: Logout_Time
 Dictionary key name: logout_time

Version: 2.1.0.21

cybox.objects.volume_object module

class `cybox.objects.volume_object.FileSystemFlagList` (*args)
 Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.volume_object.FileSystemFlagListType`

file_system_flag

(List of values permitted)

Type: *cybox.objects.volume_object.VolumeFileSystemFlag*
 XML Binding class name: File_System_Flag
 Dictionary key name: file_system_flag

class `cybox.objects.volume_object.Volume`
 Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.volume_object.VolumeObjectType`

actual_available_allocation_units

Type: *cybox.common.properties.UnsignedLong*
 XML Binding class name: Actual_Available_Allocation_Units
 Dictionary key name: actual_available_allocation_units

bytes_per_sector

Type: *cybox.common.properties.PositiveInteger*
 XML Binding class name: Bytes_Per_Sector
 Dictionary key name: bytes_per_sector

creation_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Creation_Time

Dictionary key name: creation_time

device_path

Type: *cybox.common.properties.String*

XML Binding class name: Device_Path

Dictionary key name: device_path

file_system_flag_list

Type: *cybox.objects.volume_object.FileSystemFlagList*

XML Binding class name: File_System_Flag_List

Dictionary key name: file_system_flag_list

file_system_type

Type: *cybox.common.properties.String*

XML Binding class name: File_System_Type

Dictionary key name: file_system_type

is_mounted

XML Binding class name: is_mounted

Dictionary key name: is_mounted

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

sectors_per_allocation_unit

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Sectors_Per_Allocation_Unit

Dictionary key name: sectors_per_allocation_unit

serial_number

Type: *cybox.common.properties.String*

XML Binding class name: Serial_Number

Dictionary key name: serial_number

total_allocation_units

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Total_Allocation_Units

Dictionary key name: `total_allocation_units`

class `cybox.objects.volume_object.VolumeFileSystemFlag` (*value=None*)

Bases: `cybox.common.properties.BaseProperty`

XML binding class: `cybox.bindings.volume_object.VolumeFileSystemFlagType`

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cybox.objects.whois_object module

class `cybox.objects.whois_object.WhoisContact`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.whois_object.WhoisContactType`

address

Type: `cybox.common.properties.String`

XML Binding class name: `Address`

Dictionary key name: `address`

contact_id

Type: `cybox.common.properties.String`

XML Binding class name: `Contact_ID`

Dictionary key name: `contact_id`

contact_type

XML Binding class name: `contact_type`

Dictionary key name: `contact_type`

email_address

Type: `cybox.objects.address_object.EmailAddress`

XML Binding class name: `Email_Address`

Dictionary key name: `email_address`

fax_number

Type: `cybox.common.properties.String`

XML Binding class name: `Fax_Number`

Dictionary key name: `fax_number`

name

Type: `cybox.common.properties.String`

XML Binding class name: `Name`

Dictionary key name: name

organization

Type: *cybox.common.properties.String*

XML Binding class name: Organization

Dictionary key name: organization

phone_number

Type: *cybox.common.properties.String*

XML Binding class name: Phone_Number

Dictionary key name: phone_number

class `cybox.objects.whois_object.WhoisContacts` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.whois_object.WhoisContactsType`

contact

(List of values permitted)

Type: *cybox.objects.whois_object.WhoisContact*

XML Binding class name: Contact

Dictionary key name: contact

class `cybox.objects.whois_object.WhoisEntry`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.whois_object.WhoisObjectType`

contact_info

Type: *cybox.objects.whois_object.WhoisContact*

XML Binding class name: Contact_Info

Dictionary key name: contact_info

creation_date

Type: *cybox.common.properties.Date*

XML Binding class name: Creation_Date

Dictionary key name: creation_date

dnssec

XML Binding class name: DNSSEC

Dictionary key name: dnssec

domain_id

Type: *cybox.common.properties.String*

XML Binding class name: Domain_ID

Dictionary key name: domain_id

domain_name

Type: *cybox.objects.uri_object.URI*

XML Binding class name: Domain_Name

Dictionary key name: domain_name

expiration_date

Type: *cybox.common.properties.Date*

XML Binding class name: Expiration_Date

Dictionary key name: expiration_date

ip_address

Type: *cybox.objects.address_object.Address*

XML Binding class name: IP_Address

Dictionary key name: ip_address

lookup_date

Type: *cybox.common.properties.DateTime*

XML Binding class name: Lookup_Date

Dictionary key name: lookup_date

nameservers

Type: *cybox.objects.whois_object.WhoisNameservers*

XML Binding class name: Nameservers

Dictionary key name: nameservers

regional_internet_registry

Type: *cybox.common.properties.String*

XML Binding class name: Regional_Internet_Registry

Dictionary key name: regional_internet_registry

registrants

Type: *cybox.objects.whois_object.WhoisRegistrants*

XML Binding class name: Registrants

Dictionary key name: registrants

registrar_info

Type: *cybox.objects.whois_object.WhoisRegistrar*

XML Binding class name: Registrar_Info

Dictionary key name: registrar_info

remarks

Type: *cybox.common.properties.String*

XML Binding class name: Remarks

Dictionary key name: remarks

server_name

Type: *cybox.objects.uri_object.URI*

XML Binding class name: Server_Name

Dictionary key name: server_name

sponsoring_registrar

Type: *cybox.common.properties.String*

XML Binding class name: Sponsoring_Registrar

Dictionary key name: sponsoring_registrar

status

Type: *cybox.objects.whois_object.WhoisStatuses*

XML Binding class name: Status

Dictionary key name: status

updated_date

Type: *cybox.common.properties.Date*

XML Binding class name: Updated_Date

Dictionary key name: updated_date

class `cybox.objects.whois_object.WhoisNameservers` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.whois_object.WhoisNameserversType`

nameserver

(List of values permitted)

Type: *cybox.objects.uri_object.URI*

XML Binding class name: Nameserver

Dictionary key name: nameserver

class `cybox.objects.whois_object.WhoisRegistrant`

Bases: *cybox.objects.whois_object.WhoisContact*

XML binding class: `cybox.bindings.whois_object.WhoisRegistrantInfoType`

registrant_id

Type: *cybox.common.properties.String*

XML Binding class name: Registrant_ID

Dictionary key name: registrant_id

class *cybox.objects.whois_object*.**WhoisRegistrants** (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.whois_object*.WhoisRegistrantsType

registrant

(List of values permitted)

Type: *cybox.objects.whois_object*.WhoisRegistrant

XML Binding class name: Registrant

Dictionary key name: registrant

class *cybox.objects.whois_object*.**WhoisRegistrar**

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.whois_object*.WhoisRegistrarInfoType

address

Type: *cybox.common.properties.String*

XML Binding class name: Address

Dictionary key name: address

contacts

Type: *cybox.objects.whois_object*.WhoisContacts

XML Binding class name: Contacts

Dictionary key name: contacts

email_address

Type: *cybox.objects.address_object*.EmailAddress

XML Binding class name: Email_Address

Dictionary key name: email_address

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

phone_number

Type: *cybox.common.properties.String*

XML Binding class name: Phone_Number

Dictionary key name: phone_number

referral_url

Type: *cybox.objects.uri_object.URI*

XML Binding class name: Referral_URL

Dictionary key name: referral_url

registrar_guid

Type: *cybox.common.properties.String*

XML Binding class name: Registrar_GUID

Dictionary key name: registrar_guid

registrar_id

Type: *cybox.common.properties.String*

XML Binding class name: Registrar_ID

Dictionary key name: registrar_id

whois_server

Type: *cybox.objects.uri_object.URI*

XML Binding class name: Whois_Server

Dictionary key name: whois_server

class `cybox.objects.whois_object.WhoisStatus` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.whois_object.WhoisStatusType`

class `cybox.objects.whois_object.WhoisStatuses` (**args*)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.whois_object.WhoisStatusesType`

status

(List of values permitted)

Type: *cybox.objects.whois_object.WhoisStatus*

XML Binding class name: Status

Dictionary key name: status

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cybox.objects.win_computer_account_object module

class `cybox.objects.win_computer_account_object.FullyQualifiedName`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.win_computer_account_object.FullyQualifiedNameType`

full_name

Type: `cybox.common.properties.String`

XML Binding class name: `Full_Name`

Dictionary key name: `full_name`

netbeui_name

Type: `cybox.common.properties.String`

XML Binding class name: `NetBEUI_Name`

Dictionary key name: `netbeui_name`

class `cybox.objects.win_computer_account_object.Kerberos`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_computer_account_object.KerberosType`

delegation

Type: `cybox.objects.win_computer_account_object.KerberosDelegation`

XML Binding class name: `Delegation`

Dictionary key name: `delegation`

ticket

Type: `cybox.common.properties.UnsignedLong`

XML Binding class name: `Ticket`

Dictionary key name: `ticket`

class `cybox.objects.win_computer_account_object.KerberosDelegation`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.win_computer_account_object.KerberosDelegationType`

bitmask

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Bitmask`

Dictionary key name: bitmask

service

Type: *cybox.objects.win_computer_account_object.KerberosService*

XML Binding class name: Service

Dictionary key name: service

class `cybox.objects.win_computer_account_object.KerberosService`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.win_computer_account_object.KerberosServiceType`

computer

Type: *cybox.common.properties.String*

XML Binding class name: Computer

Dictionary key name: computer

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

port

Type: *cybox.objects.port_object.Port*

XML Binding class name: Port

Dictionary key name: port

user

Type: *cybox.common.properties.String*

XML Binding class name: User

Dictionary key name: user

class `cybox.objects.win_computer_account_object.WinComputerAccount`

Bases: *cybox.objects.account_object.Account*

XML binding class:

`cybox.bindings.win_computer_account_object.WindowsComputerAccountObjectType`

fully_qualified_name

Type: *cybox.objects.win_computer_account_object.FullyQualifiedName*

XML Binding class name: FullyQualifiedName

Dictionary key name: `fully_qualified_name`

kerberos

Type: `cybox.objects.win_computer_account_object.Kerberos`

XML Binding class name: `Kerberos`

Dictionary key name: `kerberos`

security_id

Type: `cybox.common.properties.String`

XML Binding class name: `Security_ID`

Dictionary key name: `security_id`

type_

Type: `cybox.common.properties.String`

XML Binding class name: `Type`

Dictionary key name: `type`

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cybox.objects.win_critical_section_object module

class `cybox.objects.win_critical_section_object.WinCriticalSection`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class:

`cybox.bindings.win_critical_section_object.WindowsCriticalSectionObjectType`

address

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Address`

Dictionary key name: `address`

spin_count

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `Spin_Count`

Dictionary key name: `spin_count`

Version: 2.1.0.21

cybox.objects.win_driver_object module

class `cybox.objects.win_driver_object.DeviceObjectList (*args)`

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_driver_object.DeviceObjectListType`

device_object_struct

(List of values permitted)

Type: *cybox.objects.win_driver_object.DeviceObjectStruct*

XML Binding class name: Device_Object_Struct

Dictionary key name: device_object_struct

class `cybox.objects.win_driver_object.DeviceObjectStruct`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_driver_object.DeviceObjectStructType`

attached_device_name

Type: *cybox.common.properties.String*

XML Binding class name: Attached_Device_Name

Dictionary key name: attached_device_name

attached_device_object

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Attached_Device_Object

Dictionary key name: attached_device_object

attached_to_device_name

Type: *cybox.common.properties.String*

XML Binding class name: Attached_To_Device_Name

Dictionary key name: attached_to_device_name

attached_to_device_object

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Attached_To_Device_Object

Dictionary key name: attached_to_device_object

attached_to_driver_name

Type: *cybox.common.properties.String*

XML Binding class name: Attached_To_Driver_Name

Dictionary key name: attached_to_driver_name

attached_to_driver_object

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Attached_To_Driver_Object

Dictionary key name: attached_to_driver_object

device_name

Type: *cybox.common.properties.String*
 XML Binding class name: Device_Name
 Dictionary key name: device_name

device_object

Type: *cybox.common.properties.UnsignedLong*
 XML Binding class name: Device_Object
 Dictionary key name: device_object

class `cybox.objects.win_driver_object.WinDriver`

Bases: *cybox.objects.win_executable_file_object.WinExecutableFile*

XML binding class: `cybox.bindings.win_driver_object.WindowsDriverObjectType`

device_object_list

Type: *cybox.objects.win_driver_object.DeviceObjectList*
 XML Binding class name: Device_Object_List
 Dictionary key name: device_object_list

driver_init

Type: *cybox.common.properties.UnsignedLong*
 XML Binding class name: Driver_Init
 Dictionary key name: driver_init

driver_name

Type: *cybox.common.properties.String*
 XML Binding class name: Driver_Name
 Dictionary key name: driver_name

driver_object_address

Type: *cybox.common.properties.HexBinary*
 XML Binding class name: Driver_Object_Address
 Dictionary key name: driver_object_address

driver_start_io

Type: *cybox.common.properties.HexBinary*
 XML Binding class name: Driver_Start_IO
 Dictionary key name: driver_start_io

driver_unload

Type: *cybox.common.properties.HexBinary*
 XML Binding class name: Driver_Unload

Dictionary key name: driver_unload

image_base

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Image_Base

Dictionary key name: image_base

image_size

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Image_Size

Dictionary key name: image_size

irp_mj_cleanup

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_CLEANUP

Dictionary key name: irp_mj_cleanup

irp_mj_close

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_CLOSE

Dictionary key name: irp_mj_close

irp_mj_create

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_CREATE

Dictionary key name: irp_mj_create

irp_mj_create_mailslot

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_CREATE_MAILSLLOT

Dictionary key name: irp_mj_create_mailslot

irp_mj_create_named_pipe

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_CREATE_NAMED_PIPE

Dictionary key name: irp_mj_create_named_pipe

irp_mj_device_change

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_DEVICE_CHANGE

Dictionary key name: irp_mj_device_change

irp_mj_device_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_DEVICE_CONTROL
Dictionary key name: irp_mj_device_control

irp_mj_directory_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_DIRECTORY_CONTROL
Dictionary key name: irp_mj_directory_control

irp_mj_file_system_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_FILE_SYSTEM_CONTROL
Dictionary key name: irp_mj_file_system_control

irp_mj_flush_buffers

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_FLUSH_BUFFERS
Dictionary key name: irp_mj_flush_buffers

irp_mj_internal_device_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_INTERNAL_DEVICE_CONTROL
Dictionary key name: irp_mj_internal_device_control

irp_mj_lock_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_LOCK_CONTROL
Dictionary key name: irp_mj_lock_control

irp_mj_pnp

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_PNP
Dictionary key name: irp_mj_pnp

irp_mj_power

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_POWER
Dictionary key name: irp_mj_power

irp_mj_query_ea

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_QUERY_EA
Dictionary key name: irp_mj_query_ea

irp_mj_query_information

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_QUERY_INFORMATION
Dictionary key name: irp_mj_query_information

irp_mj_query_quota

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_QUERY_QUOTA
Dictionary key name: irp_mj_query_quota

irp_mj_query_security

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_QUERY_SECURITY
Dictionary key name: irp_mj_query_security

irp_mj_query_volume_information

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_QUERY_VOLUME_INFORMATION
Dictionary key name: irp_mj_query_volume_information

irp_mj_read

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_READ
Dictionary key name: irp_mj_read

irp_mj_set_ea

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_SET_EA
Dictionary key name: irp_mj_set_ea

irp_mj_set_information

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_SET_INFORMATION
Dictionary key name: irp_mj_set_information

irp_mj_set_quota

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_SET_QUOTA
Dictionary key name: irp_mj_set_quota

irp_mj_set_security

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SET_SECURITY

Dictionary key name: irp_mj_set_security

irp_mj_set_volume_information

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SET_VOLUME_INFORMATION

Dictionary key name: irp_mj_set_volume_information

irp_mj_shutdown

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SHUTDOWN

Dictionary key name: irp_mj_shutdown

irp_mj_system_control

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SYSTEM_CONTROL

Dictionary key name: irp_mj_system_control

irp_mj_write

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_WRITE

Dictionary key name: irp_mj_write

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cybox.objects.win_event_log_object module

class `cybox.objects.win_event_log_object.UnformattedMessageList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class:

`cybox.bindings.win_event_log_object.UnformattedMessageListType`

unformatted_message

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Unformatted_Message

Dictionary key name: unformatted_message

class `cybox.objects.win_event_log_object.WinEventLog`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:

`cybox.bindings.win_event_log_object.WindowsEventLogObjectType`

blob

Type: *cybox.common.properties.Base64Binary*

XML Binding class name: Blob

Dictionary key name: blob

category

Type: *cybox.common.properties.String*

XML Binding class name: Category

Dictionary key name: category

category_num

Type: *cybox.common.properties.Long*

XML Binding class name: Category_Num

Dictionary key name: category_num

correlation_activity_id

Type: *cybox.common.properties.String*

XML Binding class name: Correlation_Activity_ID

Dictionary key name: correlation_activity_id

correlation_related_activity_id

Type: *cybox.common.properties.String*

XML Binding class name: Correlation_Related_Activity_ID

Dictionary key name: correlation_related_activity_id

eid

Type: *cybox.common.properties.Long*

XML Binding class name: EID

Dictionary key name: eid

execution_process_id

Type: *cybox.common.properties.String*

XML Binding class name: Execution_Process_ID

Dictionary key name: execution_process_id

execution_thread_id

Type: *cybox.common.properties.String*

XML Binding class name: Execution_Thread_ID

Dictionary key name: execution_thread_id

generation_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: `Generation_Time`

Dictionary key name: `generation_time`

index

Type: `cybox.common.properties.Long`

XML Binding class name: `Index`

Dictionary key name: `index`

log

Type: `cybox.common.properties.String`

XML Binding class name: `Log`

Dictionary key name: `log`

machine

Type: `cybox.common.properties.String`

XML Binding class name: `Machine`

Dictionary key name: `machine`

message

Type: `cybox.common.properties.String`

XML Binding class name: `Message`

Dictionary key name: `message`

reserved

Type: `cybox.common.properties.Long`

XML Binding class name: `Reserved`

Dictionary key name: `reserved`

source

Type: `cybox.common.properties.String`

XML Binding class name: `Source`

Dictionary key name: `source`

type_

Type: `cybox.common.properties.String`

XML Binding class name: `Type`

Dictionary key name: `type`

unformatted_message_list

Type: `cybox.objects.win_event_log_object.UnformattedMessageList`

XML Binding class name: `Unformatted_Message_List`

Dictionary key name: `unformatted_message_list`

user

Type: *cybox.common.properties.String*

XML Binding class name: User

Dictionary key name: user

write_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Write_Time

Dictionary key name: write_time

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cybox.objects.win_event_object module

class `cybox.objects.win_event_object.WinEvent`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.win_event_object.WindowsEventObjectType`

handle

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

Version: 2.1.0.21

cybox.objects.win_executable_file_object module

class `cybox.objects.win_executable_file_object.DOSHeader`

Bases: *mixbox.entities.Entity*

XML binding class: `cybox.bindings.win_executable_file_object.DOSHeaderType`

e_cblp

Type: *cybox.common.properties.HexBinary*
XML Binding class name: e_cblp
Dictionary key name: e_cblp

e_cp

Type: *cybox.common.properties.HexBinary*
XML Binding class name: e_cp
Dictionary key name: e_cp

e_cparhdr

Type: *cybox.common.properties.HexBinary*
XML Binding class name: e_cparhdr
Dictionary key name: e_cparhdr

e_crlc

Type: *cybox.common.properties.HexBinary*
XML Binding class name: e_crlc
Dictionary key name: e_crlc

e_cs

Type: *cybox.common.properties.HexBinary*
XML Binding class name: e_cs
Dictionary key name: e_cs

e_csum

Type: *cybox.common.properties.HexBinary*
XML Binding class name: e_csum
Dictionary key name: e_csum

e_ip

Type: *cybox.common.properties.HexBinary*
XML Binding class name: e_ip
Dictionary key name: e_ip

e_lfanew

Type: *cybox.common.properties.HexBinary*
XML Binding class name: e_lfanew
Dictionary key name: e_lfanew

e_lfarlc

Type: *cybox.common.properties.HexBinary*
XML Binding class name: e_lfarlc
Dictionary key name: e_lfarlc

e_magic

Type: *cybox.common.properties.HexBinary*

XML Binding class name: e_magic

Dictionary key name: e_magic

e_maxalloc

Type: *cybox.common.properties.HexBinary*

XML Binding class name: e_maxalloc

Dictionary key name: e_maxalloc

e_minalloc

Type: *cybox.common.properties.HexBinary*

XML Binding class name: e_minalloc

Dictionary key name: e_minalloc

e_oemid

Type: *cybox.common.properties.HexBinary*

XML Binding class name: e_oemid

Dictionary key name: e_oemid

e_oeminfo

Type: *cybox.common.properties.HexBinary*

XML Binding class name: e_oeminfo

Dictionary key name: e_oeminfo

e_ovro

Type: *cybox.common.properties.HexBinary*

XML Binding class name: e_ovro

Dictionary key name: e_ovro

e_sp

Type: *cybox.common.properties.HexBinary*

XML Binding class name: e_sp

Dictionary key name: e_sp

e_ss

Type: *cybox.common.properties.HexBinary*

XML Binding class name: e_ss

Dictionary key name: e_ss

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

reserved1

(List of values permitted)

Type: *cybox.common.properties.HexBinary*

XML Binding class name: reserved1

Dictionary key name: reserved1

reserved2

Type: *cybox.common.properties.HexBinary*

XML Binding class name: reserved2

Dictionary key name: reserved2

class `cybox.objects.win_executable_file_object.DataDirectory`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.DataDirectoryType`

architecture

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Architecture

Dictionary key name: architecture

base_relocation_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Base_Relocation_Table

Dictionary key name: base_relocation_table

bound_import

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Bound_Import

Dictionary key name: bound_import

certificate_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Certificate_Table

Dictionary key name: certificate_table

clr_runtime_header

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: CLR_Runtime_Header

Dictionary key name: clr_runtime_header

debug

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Debug

Dictionary key name: debug

delay_import_descriptor

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Delay_Import_Descriptor

Dictionary key name: delay_import_descriptor

exception_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Exception_Table

Dictionary key name: exception_table

export_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Export_Table

Dictionary key name: export_table

global_ptr

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Global_Ptr

Dictionary key name: global_ptr

import_address_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Import_Address_Table

Dictionary key name: import_address_table

import_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Import_Table

Dictionary key name: import_table

load_config_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Load_Config_Table

Dictionary key name: load_config_table

reserved

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Reserved

Dictionary key name: reserved

resource_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: Resource_Table

Dictionary key name: resource_table

tls_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: TLS_Table

Dictionary key name: tls_table

class *cybox.objects.win_executable_file_object.Entropy*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.win_executable_file_object.EntropyType*

max

Type: *cybox.common.properties.Float*

XML Binding class name: Max

Dictionary key name: max

min

Type: *cybox.common.properties.Float*

XML Binding class name: Min

Dictionary key name: min

value

Type: *cybox.common.properties.Float*

XML Binding class name: Value

Dictionary key name: value

class *cybox.objects.win_executable_file_object.PEBuildInformation*

Bases: *mixbox.entities.Entity*

XML binding class:

cybox.bindings.win_executable_file_object.PEBuildInformationType

compiler_name

Type: *cybox.common.properties.String*

XML Binding class name: Compiler_Name

Dictionary key name: `compiler_name`

compiler_version

Type: `cybox.common.properties.String`

XML Binding class name: `Compiler_Version`

Dictionary key name: `compiler_version`

linker_name

Type: `cybox.common.properties.String`

XML Binding class name: `Linker_Name`

Dictionary key name: `linker_name`

linker_version

Type: `cybox.common.properties.String`

XML Binding class name: `Linker_Version`

Dictionary key name: `linker_version`

class `cybox.objects.win_executable_file_object.PEChecksum`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PEChecksumType`

pe_computed_api

Type: `cybox.common.properties.Long`

XML Binding class name: `PE_Computed_API`

Dictionary key name: `pe_computed_api`

pe_file_api

Type: `cybox.common.properties.Long`

XML Binding class name: `PE_File_API`

Dictionary key name: `pe_file_api`

pe_file_raw

Type: `cybox.common.properties.Long`

XML Binding class name: `PE_File_Raw`

Dictionary key name: `pe_file_raw`

class `cybox.objects.win_executable_file_object.PEDataDirectoryStruct`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.win_executable_file_object.PEDataDirectoryStructType`

size

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Size

Dictionary key name: size

virtual_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Virtual_Address

Dictionary key name: virtual_address

class `cybox.objects.win_executable_file_object.PEExportedFunction`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.win_executable_file_object.PEExportedFunctionType`

entry_point

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Entry_Point

Dictionary key name: entry_point

function_name

Type: *cybox.common.properties.String*

XML Binding class name: Function_Name

Dictionary key name: function_name

ordinal

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Ordinal

Dictionary key name: ordinal

class `cybox.objects.win_executable_file_object.PEExportedFunctions (*args)`

Bases: `mixbox.entities.EntityList`

XML binding class:

`cybox.bindings.win_executable_file_object.PEExportedFunctionsType`

exported_function

(List of values permitted)

Type: *cybox.objects.win_executable_file_object.PEExportedFunction*

XML Binding class name: Exported_Function

Dictionary key name: `exported_function`

class `cybox.objects.win_executable_file_object.PEExports`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PEExportsType`

exported_functions

Type: `cybox.objects.win_executable_file_object.PEExportedFunctions`

XML Binding class name: `Exported_Functions`

Dictionary key name: `exported_functions`

exports_time_stamp

Type: `cybox.common.properties.DateTime`

XML Binding class name: `Exports_Time_Stamp`

Dictionary key name: `exports_time_stamp`

name

Type: `cybox.common.properties.String`

XML Binding class name: `Name`

Dictionary key name: `name`

number_of_addresses

Type: `cybox.common.properties.Long`

XML Binding class name: `Number_Of_Addresses`

Dictionary key name: `number_of_addresses`

number_of_functions

Type: `cybox.common.properties.Integer`

XML Binding class name: `Number_Of_Functions`

Dictionary key name: `number_of_functions`

number_of_names

Type: `cybox.common.properties.Long`

XML Binding class name: `Number_Of_Names`

Dictionary key name: `number_of_names`

class `cybox.objects.win_executable_file_object.PEFileHeader`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PEFileHeaderType`

characteristics

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Characteristics

Dictionary key name: characteristics

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

machine

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Machine

Dictionary key name: machine

number_of_sections

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Number_Of_Sections

Dictionary key name: number_of_sections

number_of_symbols

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Number_Of_Symbols

Dictionary key name: number_of_symbols

pointer_to_symbol_table

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Pointer_To_Symbol_Table

Dictionary key name: pointer_to_symbol_table

size_of_optional_header

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Size_Of_Optional_Header

Dictionary key name: size_of_optional_header

time_date_stamp

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Time_Date_Stamp

Dictionary key name: time_date_stamp

class `cybox.objects.win_executable_file_object.PEHeaders`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PEHeadersType`

dos_header

Type: `cybox.objects.win_executable_file_object.DOSHeader`

XML Binding class name: `DOS_Header`

Dictionary key name: `dos_header`

entropy

Type: `cybox.objects.win_executable_file_object.Entropy`

XML Binding class name: `Entropy`

Dictionary key name: `entropy`

file_header

Type: `cybox.objects.win_executable_file_object.PEFileHeader`

XML Binding class name: `File_Header`

Dictionary key name: `file_header`

hashes

Type: `cybox.common.hashes.HashList`

XML Binding class name: `Hashes`

Dictionary key name: `hashes`

optional_header

Type: `cybox.objects.win_executable_file_object.PEOptionalHeader`

XML Binding class name: `Optional_Header`

Dictionary key name: `optional_header`

signature

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Signature`

Dictionary key name: `signature`

class `cybox.objects.win_executable_file_object.PEImport`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PEImportType`

delay_load

XML Binding class name: `delay_load`

Dictionary key name: `delay_load`

file_name

Type: *cybox.common.properties.String*

XML Binding class name: File_Name

Dictionary key name: file_name

imported_functions

Type: *cybox.objects.win_executable_file_object.PEImportedFunctions*

XML Binding class name: Imported_Functions

Dictionary key name: imported_functions

initially_visible

XML Binding class name: initially_visible

Dictionary key name: initially_visible

virtual_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Virtual_Address

Dictionary key name: virtual_address

class *cybox.objects.win_executable_file_object.PEImportList* (*args)
 Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.win_executable_file_object.PEImportListType*

import_

(List of values permitted)

Type: *cybox.objects.win_executable_file_object.PEImport*

XML Binding class name: Import

Dictionary key name: import

class *cybox.objects.win_executable_file_object.PEImportedFunction*
 Bases: *mixbox.entities.Entity*

XML binding class:

cybox.bindings.win_executable_file_object.PEImportedFunctionType

bound

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Bound

Dictionary key name: bound

function_name

Type: *cybox.common.properties.String*

XML Binding class name: Function_Name

Dictionary key name: function_name

hint

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Hint

Dictionary key name: hint

ordinal

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Ordinal

Dictionary key name: ordinal

virtual_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Virtual_Address

Dictionary key name: virtual_address

class `cybox.objects.win_executable_file_object.PEImportedFunctions` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class:

`cybox.bindings.win_executable_file_object.PEImportedFunctionsType`

imported_function

(List of values permitted)

Type: *cybox.objects.win_executable_file_object.PEImportedFunction*

XML Binding class name: Imported_Function

Dictionary key name: imported_function

class `cybox.objects.win_executable_file_object.PEOptionalHeader`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.win_executable_file_object.PEOptionalHeaderType`

address_of_entry_point

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Address_Of_Entry_Point

Dictionary key name: address_of_entry_point

base_of_code

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Base_Of_Code

Dictionary key name: base_of_code

base_of_data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Base_Of_Data

Dictionary key name: base_of_data

checksum

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Checksum

Dictionary key name: checksum

data_directory

Type: *cybox.objects.win_executable_file_object.DataDirectory*

XML Binding class name: Data_Directory

Dictionary key name: data_directory

dll_characteristics

Type: *cybox.common.properties.HexBinary*

XML Binding class name: DLL_Characteristics

Dictionary key name: dll_characteristics

file_alignment

Type: *cybox.common.properties.HexBinary*

XML Binding class name: File_Alignment

Dictionary key name: file_alignment

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

image_base

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Image_Base

Dictionary key name: image_base

loader_flags

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Loader_Flags
Dictionary key name: loader_flags

magic

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Magic
Dictionary key name: magic

major_image_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Major_Image_Version
Dictionary key name: major_image_version

major_linker_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Major_Linker_Version
Dictionary key name: major_linker_version

major_os_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Major_OS_Version
Dictionary key name: major_os_version

major_subsystem_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Major_Subsystem_Version
Dictionary key name: major_subsystem_version

minor_image_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Minor_Image_Version
Dictionary key name: minor_image_version

minor_linker_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Minor_Linker_Version
Dictionary key name: minor_linker_version

minor_os_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Minor_OS_Version
Dictionary key name: minor_os_version

minor_subsystem_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Minor_Subsystem_Version
Dictionary key name: minor_subsystem_version

number_of_rva_and_sizes

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Number_Of_Rva_And_Sizes
Dictionary key name: number_of_rva_and_sizes

section_alignment

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Section_Alignment
Dictionary key name: section_alignment

size_of_code

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Size_Of_Code
Dictionary key name: size_of_code

size_of_headers

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Size_Of_Headers
Dictionary key name: size_of_headers

size_of_heap_commit

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Size_Of_Heap_Commit
Dictionary key name: size_of_heap_commit

size_of_heap_reserve

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Size_Of_Heap_Reserve
Dictionary key name: size_of_heap_reserve

size_of_image

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Size_Of_Image
Dictionary key name: size_of_image

size_of_initialized_data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: `Size_Of_Initialized_Data`

Dictionary key name: `size_of_initialized_data`

size_of_stack_commit

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Size_Of_Stack_Commit`

Dictionary key name: `size_of_stack_commit`

size_of_stack_reserve

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Size_Of_Stack_Reserve`

Dictionary key name: `size_of_stack_reserve`

size_of_uninitialized_data

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Size_Of_Uninitialized_Data`

Dictionary key name: `size_of_uninitialized_data`

subsystem

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Subsystem`

Dictionary key name: `subsystem`

win32_version_value

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Win32_Version_Value`

Dictionary key name: `win32_version_value`

class `cybox.objects.win_executable_file_object.PEResource`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PEResourceType`

data

Type: `cybox.common.properties.String`

XML Binding class name: `Data`

Dictionary key name: `data`

hashes

Type: `cybox.common.hashes.HashList`

XML Binding class name: `Hashes`

Dictionary key name: `hashes`

language

Type: *cybox.common.properties.String*

XML Binding class name: Language

Dictionary key name: language

static lookup_class (*xsi_type*)

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

size

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Size

Dictionary key name: size

sub_language

Type: *cybox.common.properties.String*

XML Binding class name: Sub_Language

Dictionary key name: sub_language

to_dict ()

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

virtual_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Virtual_Address

Dictionary key name: virtual_address

class `cybox.objects.win_executable_file_object.PEResourceList` (**args*)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_executable_file_object.PEResourceListType`

resource

(List of values permitted)

Type: *cybox.objects.win_executable_file_object.PEResource*

XML Binding class name: Resource

Dictionary key name: resource

class `cybox.objects.win_executable_file_object.PESection`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PESectionType`

data_hashes

Type: `cybox.common.hashes.HashList`

XML Binding class name: Data_Hashes

Dictionary key name: data_hashes

entropy

Type: `cybox.objects.win_executable_file_object.Entropy`

XML Binding class name: Entropy

Dictionary key name: entropy

header_hashes

Type: `cybox.common.hashes.HashList`

XML Binding class name: Header_Hashes

Dictionary key name: header_hashes

section_header

Type: `cybox.objects.win_executable_file_object.PESectionHeaderStruct`

XML Binding class name: Section_Header

Dictionary key name: section_header

class `cybox.objects.win_executable_file_object.PESectionHeaderStruct`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.win_executable_file_object.PESectionHeaderStructType`

characteristics

Type: `cybox.common.properties.HexBinary`

XML Binding class name: Characteristics

Dictionary key name: characteristics

name

Type: `cybox.common.properties.String`

XML Binding class name: Name

Dictionary key name: name

number_of_linenumbers

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Number_Of_Linenumbers

Dictionary key name: number_of_linenumbers

number_of_relocations

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Number_Of_Relocations

Dictionary key name: number_of_relocations

pointer_to_linenumbers

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Pointer_To_Linenumbers

Dictionary key name: pointer_to_linenumbers

pointer_to_raw_data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Pointer_To_Raw_Data

Dictionary key name: pointer_to_raw_data

pointer_to_relocations

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Pointer_To_Relocations

Dictionary key name: pointer_to_relocations

size_of_raw_data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Size_Of_Raw_Data

Dictionary key name: size_of_raw_data

virtual_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Virtual_Address

Dictionary key name: virtual_address

virtual_size

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Virtual_Size

Dictionary key name: virtual_size

class `cybox.objects.win_executable_file_object.PESectionList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_executable_file_object.PESectionListType`

section

(List of values permitted)

Type: `cybox.objects.win_executable_file_object.PESection`

XML Binding class name: Section

Dictionary key name: section

class `cybox.objects.win_executable_file_object.PEVersionInfoResource`

Bases: `cybox.objects.win_executable_file_object.PEResource`

XML binding class:

`cybox.bindings.win_executable_file_object.PEVersionInfoResourceType`

comments

Type: `cybox.common.properties.String`

XML Binding class name: Comments

Dictionary key name: comments

companyname

Type: `cybox.common.properties.String`

XML Binding class name: CompanyName

Dictionary key name: companyname

filedescription

Type: `cybox.common.properties.String`

XML Binding class name: FileDescription

Dictionary key name: filedescription

fileversion

Type: `cybox.common.properties.String`

XML Binding class name: FileVersion

Dictionary key name: fileversion

internalname

Type: `cybox.common.properties.String`

XML Binding class name: InternalName

Dictionary key name: internalname

langid

Type: `cybox.common.properties.String`

XML Binding class name: LangID

Dictionary key name: langid

legalcopyright

Type: *cybox.common.properties.String*

XML Binding class name: LegalCopyright

Dictionary key name: legalcopyright

legaltrademarks

Type: *cybox.common.properties.String*

XML Binding class name: LegalTrademarks

Dictionary key name: legaltrademarks

originalfilename

Type: *cybox.common.properties.String*

XML Binding class name: OriginalFilename

Dictionary key name: originalfilename

privatebuild

Type: *cybox.common.properties.String*

XML Binding class name: PrivateBuild

Dictionary key name: privatebuild

productname

Type: *cybox.common.properties.String*

XML Binding class name: ProductName

Dictionary key name: productname

productversion

Type: *cybox.common.properties.String*

XML Binding class name: ProductVersion

Dictionary key name: productversion

specialbuild

Type: *cybox.common.properties.String*

XML Binding class name: SpecialBuild

Dictionary key name: specialbuild

class `cybox.objects.win_executable_file_object.WinExecutableFile`

Bases: *cybox.objects.win_file_object.WinFile*

XML binding class:

`cybox.bindings.win_executable_file_object.WindowsExecutableFileObjectType`

build_information

Type: *cybox.objects.win_executable_file_object.PEBuildInformation*

XML Binding class name: Build_Information

Dictionary key name: build_information

digital_signature

Type: *cybox.common.digitalsignature.DigitalSignature*

XML Binding class name: Digital_Signature

Dictionary key name: digital_signature

exports

Type: *cybox.objects.win_executable_file_object.PEExports*

XML Binding class name: Exports

Dictionary key name: exports

extraneous_bytes

Type: *cybox.common.properties.Integer*

XML Binding class name: Extraneous_Bytes

Dictionary key name: extraneous_bytes

headers

Type: *cybox.objects.win_executable_file_object.PEHeaders*

XML Binding class name: Headers

Dictionary key name: headers

imports

Type: *cybox.objects.win_executable_file_object.PEImportList*

XML Binding class name: Imports

Dictionary key name: imports

pe_checksum

Type: *cybox.objects.win_executable_file_object.PEChecksum*

XML Binding class name: PE_Checksum

Dictionary key name: pe_checksum

resources

Type: *cybox.objects.win_executable_file_object.PEResourceList*

XML Binding class name: Resources

Dictionary key name: resources

sections

Type: *cybox.objects.win_executable_file_object.PESectionList*

XML Binding class name: Sections

Dictionary key name: sections

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

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cybox.objects.win_file_object module

class `cybox.objects.win_file_object.Stream`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_file_object.StreamObjectType`

hashes

(List of values permitted)

Type: *cybox.common.hashes.Hash*

XML Binding class name: Hash

Dictionary key name: hashes

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

size_in_bytes

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Size_In_Bytes

Dictionary key name: size_in_bytes

class `cybox.objects.win_file_object.StreamList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_file_object.StreamListType`

stream

(List of values permitted)

Type: *cybox.objects.win_file_object.Stream*

XML Binding class name: Stream

Dictionary key name: stream

class `cybox.objects.win_file_object.WinFile`

Bases: `cybox.objects.file_object.File`

XML binding class: `cybox.bindings.win_file_object.WindowsFileType`

drive

Type: `cybox.common.properties.String`

XML Binding class name: Drive

Dictionary key name: drive

file_attributes_list

Type: `cybox.objects.win_file_object.WindowsFileAttributes`

XML Binding class name: File_Attributes_List

Dictionary key name: file_attributes_list

filename_accessed_time

Type: `cybox.common.properties.DateTime`

XML Binding class name: Filename_Accessed_Time

Dictionary key name: filename_accessed_time

filename_created_time

Type: `cybox.common.properties.DateTime`

XML Binding class name: Filename_Created_Time

Dictionary key name: filename_created_time

filename_modified_time

Type: `cybox.common.properties.DateTime`

XML Binding class name: Filename_Modified_Time

Dictionary key name: filename_modified_time

permissions

Type: `cybox.objects.win_file_object.WindowsFilePermissions`

XML Binding class name: Permissions

Dictionary key name: permissions

security_id

Type: `cybox.common.properties.String`

XML Binding class name: Security_ID

Dictionary key name: security_id

security_type

Type: *cybox.common.properties.String*
 XML Binding class name: Security_Type
 Dictionary key name: security_type

stream_list

Type: *cybox.objects.win_file_object.StreamList*
 XML Binding class name: Stream_List
 Dictionary key name: stream_list

class *cybox.objects.win_file_object.WindowsFileAttribute* (*value=None*)
 Bases: *cybox.common.properties.String*

XML binding class: *cybox.bindings.win_file_object.WindowsFileAttributeType*

class *cybox.objects.win_file_object.WindowsFileAttributes* (**args*)
 Bases: *cybox.objects.file_object.FileAttribute*, *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.win_file_object.WindowsFileAttributesType*

attribute

(List of values permitted)
 Type: *cybox.objects.win_file_object.WindowsFileAttribute*
 XML Binding class name: Attribute
 Dictionary key name: attribute

class *cybox.objects.win_file_object.WindowsFilePermissions*
 Bases: *cybox.objects.file_object.FilePermissions*

XML binding class: *cybox.bindings.win_file_object.WindowsFilePermissionsType*

full_control

XML Binding class name: Full_Control
 Dictionary key name: full_control

modify

XML Binding class name: Modify
 Dictionary key name: modify

read

XML Binding class name: Read
 Dictionary key name: read

read_and_execute

XML Binding class name: Read_And_Execute

Dictionary key name: read_and_execute

write

XML Binding class name: Write

Dictionary key name: write

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cybox.objects.win_filemapping_object module

class `cybox.objects.win_filemapping_object.WinFilemapping`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class:

`cybox.bindings.win_filemapping_object.WindowsFilemappingObjectType`

actual_size

Type: `cybox.common.properties.UnsignedLong`

XML Binding class name: Actual_Size

Dictionary key name: actual_size

file_handle

Type: `cybox.objects.win_handle_object.WinHandle`

XML Binding class name: File_Handle

Dictionary key name: file_handle

handle

Type: `cybox.objects.win_handle_object.WinHandle`

XML Binding class name: Handle

Dictionary key name: handle

maximum_size

Type: `cybox.common.properties.UnsignedLong`

XML Binding class name: Maximum_Size

Dictionary key name: maximum_size

name

Type: `cybox.common.properties.String`

XML Binding class name: Name

Dictionary key name: name

page_protection_attribute

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Page_Protection_Attribute

Dictionary key name: page_protection_attribute

page_protection_value

Type: *cybox.common.properties.String*

XML Binding class name: Page_Protection_Value

Dictionary key name: page_protection_value

security_attributes

Type: *cybox.common.properties.String*

XML Binding class name: Security_Attributes

Dictionary key name: security_attributes

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cybox.objects.win_handle_object module

class cybox.objects.win_handle_object.**WinHandle**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.win_handle_object.WindowsHandleObjectType

access_mask

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Access_Mask

Dictionary key name: access_mask

id_

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: ID

Dictionary key name: id

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

object_address

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Object_Address

Dictionary key name: object_address

pointer_count

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Pointer_Count

Dictionary key name: pointer_count

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

class `cybox.objects.win_handle_object.WinHandleList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_handle_object.WindowsHandleListType`

handle

(List of values permitted)

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

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cybox.objects.win_hook_object module

class `cybox.objects.win_hook_object.WinHook`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.win_hook_object.WindowsHookObjectType`

handle

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

hooking_function_name

Type: *cybox.common.properties.String*

XML Binding class name: Hooking_Function_Name

Dictionary key name: hooking_function_name

hooking_module

Type: *cybox.objects.library_object.Library*
XML Binding class name: `Hooking_Module`
Dictionary key name: `hooking_module`

thread_id

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Thread_ID`
Dictionary key name: `thread_id`

type_

Type: *cybox.common.properties.String*
XML Binding class name: `Type`
Dictionary key name: `type`

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cybox.objects.win_kernel_object module

class `cybox.objects.win_kernel_object.IDTEntry`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_kernel_object.IDTEntryType`

offset_high

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Offset_High`
Dictionary key name: `offset_high`

offset_low

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Offset_Low`
Dictionary key name: `offset_low`

offset_middle

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Offset_Middle`
Dictionary key name: `offset_middle`

selector

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Selector`
Dictionary key name: `selector`

type_attr

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Type_Attr

Dictionary key name: type_attr

class *cybox.objects.win_kernel_object.IDTEntryList* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.win_kernel_object.IDTEntryListType*

idt_entry

(List of values permitted)

Type: *cybox.objects.win_kernel_object.IDTEntry*

XML Binding class name: IDT_Entry

Dictionary key name: idt_entry

class *cybox.objects.win_kernel_object.SSDTEntry*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.win_kernel_object.SSDTEntryType*

argument_table_base

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Argument_Table_Base

Dictionary key name: argument_table_base

hooked

XML Binding class name: hooked

Dictionary key name: hooked

number_of_services

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Number_Of_Services

Dictionary key name: number_of_services

service_counter_table_base

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Service_Counter_Table_Base

Dictionary key name: service_counter_table_base

service_table_base

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Service_Table_Base

Dictionary key name: `service_table_base`

class `cybox.objects.win_kernel_object.SSDTEntryList` (*args)
 Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_kernel_object.SSDTEntryListType`

ssdt_entry

(List of values permitted)

Type: `cybox.objects.win_kernel_object.SSDTEntry`

XML Binding class name: `SSDT_Entry`

Dictionary key name: `ssdt_entry`

class `cybox.objects.win_kernel_object.WinKernel`
 Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.win_kernel_object.WindowsKernelObjectType`

idt

Type: `cybox.objects.win_kernel_object.IDTEntryList`

XML Binding class name: `IDT`

Dictionary key name: `idt`

ssdt

Type: `cybox.objects.win_kernel_object.SSDTEntryList`

XML Binding class name: `SSDT`

Dictionary key name: `ssdt`

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cybox.objects.win_kernel_hook_object module

class `cybox.objects.win_kernel_hook_object.WinKernelHook`
 Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class:

`cybox.bindings.win_kernel_hook_object.WindowsKernelHookObjectType`

digital_signature_hooked

Type: `cybox.common.digitalsignature.DigitalSignature`

XML Binding class name: `Digital_Signature_Hooked`

Dictionary key name: `digital_signature_hooked`

digital_signature_hooking

Type: *cybox.common.digitalsignature.DigitalSignature*

XML Binding class name: Digital_Signature_Hooking

Dictionary key name: digital_signature_hooking

hook_description

Type: *cybox.common.properties.String*

XML Binding class name: Hook_Description

Dictionary key name: hook_description

hooked_function

Type: *cybox.common.properties.String*

XML Binding class name: Hooked_Function

Dictionary key name: hooked_function

hooked_module

Type: *cybox.common.properties.String*

XML Binding class name: Hooked_Module

Dictionary key name: hooked_module

hooking_address

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Hooking_Address

Dictionary key name: hooking_address

hooking_module

Type: *cybox.common.properties.String*

XML Binding class name: Hooking_Module

Dictionary key name: hooking_module

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

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cybox.objects.win_mailslot_object module

class cybox.objects.win_mailslot_object.**WinMailslot**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.win_mailslot_object.WindowsMailslotObjectType

handle

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

max_message_size

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Max_Message_Size

Dictionary key name: max_message_size

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

read_timeout

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Read_Timeout

Dictionary key name: read_timeout

security_attributes

Type: *cybox.common.properties.String*

XML Binding class name: Security_Attributes

Dictionary key name: security_attributes

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cybox.objects.win_memory_page_region_object module

class *cybox.objects.win_memory_page_region_object.WinMemoryPageRegion*

Bases: *cybox.objects.memory_object.Memory*

XML binding class:

cybox.bindings.win_memory_page_region_object.WindowsMemoryPageRegionObjectType

allocation_base_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Allocation_Base_Address

Dictionary key name: allocation_base_address

allocation_protect

Type: *cybox.common.properties.String*

XML Binding class name: Allocation_Protect

Dictionary key name: allocation_protect

block_type

Type: *cybox.common.properties.String*

XML Binding class name: Block_Type

Dictionary key name: block_type

extracted_features

Type: *cybox.common.extracted_features.ExtractedFeatures*

XML Binding class name: Extracted_Features

Dictionary key name: extracted_features

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

is_injected

XML Binding class name: is_injected

Dictionary key name: is_injected

is_mapped

XML Binding class name: is_mapped

Dictionary key name: is_mapped

is_protected

XML Binding class name: is_protected

Dictionary key name: is_protected

is_volatile

XML Binding class name: is_volatile

Dictionary key name: is_volatile

memory_source

Type: *cybox.common.properties.String*

XML Binding class name: Memory_Source

Dictionary key name: memory_source

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

protect

Type: *cybox.common.properties.String*

XML Binding class name: Protect

Dictionary key name: protect

region_end_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Region_End_Address

Dictionary key name: region_end_address

region_size

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Region_Size

Dictionary key name: region_size

region_start_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Region_Start_Address

Dictionary key name: region_start_address

state

Type: *cybox.common.properties.String*

XML Binding class name: State

Dictionary key name: state

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

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cybox.objects.win_mutex_object module

class `cybox.objects.win_mutex_object.WinMutex`

Bases: *cybox.objects.mutex_object.Mutex*

XML binding class: `cybox.bindings.win_mutex_object.WindowsMutexObjectType`

handle

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

security_attributes

Type: *cybox.common.properties.String*
XML Binding class name: Security_Attributes
Dictionary key name: security_attributes

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cybox.objects.win_network_route_entry_object module

class `cybox.objects.win_network_route_entry_object.WinNetworkRouteEntry`
Bases: *cybox.objects.network_route_entry_object.NetworkRouteEntry*

XML binding class:
`cybox.bindings.win_network_route_entry_object.WindowsNetworkRouteEntryObjectType`

nl_route_origin

Type: *cybox.common.properties.String*
XML Binding class name: NL_ROUTE_ORIGIN
Dictionary key name: nl_route_origin

nl_route_protocol

Type: *cybox.common.properties.String*
XML Binding class name: NL_ROUTE_PROTOCOL
Dictionary key name: nl_route_protocol

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cybox.objects.win_network_share_object module

class `cybox.objects.win_network_share_object.WinNetworkShare`
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:
`cybox.bindings.win_network_share_object.WindowsNetworkShareObjectType`

access_all

XML Binding class name: ACCESS_ALL
Dictionary key name: access_all

access_attrib

XML Binding class name: ACCESS_ATTRIB
Dictionary key name: access_attrib

access_create

XML Binding class name: ACCESS_CREATE
Dictionary key name: access_create

access_delete

XML Binding class name: ACCESS_DELETE
Dictionary key name: access_delete

access_exec

XML Binding class name: ACCESS_EXEC
Dictionary key name: access_exec

access_perm

XML Binding class name: ACCESS_PERM
Dictionary key name: access_perm

access_read

XML Binding class name: ACCESS_READ
Dictionary key name: access_read

access_write

XML Binding class name: ACCESS_WRITE
Dictionary key name: access_write

current_uses

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: Current_Uses
Dictionary key name: current_uses

local_path

Type: *cybox.common.properties.String*
XML Binding class name: Local_Path
Dictionary key name: local_path

max_uses

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: Max_Uses
Dictionary key name: max_uses

netname

Type: *cybox.common.properties.String*
XML Binding class name: Netname
Dictionary key name: netname

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

Version: 2.1.0.21

cybox.objects.win_pipe_object module

class `cybox.objects.win_pipe_object.WinPipe`

Bases: *cybox.objects.pipe_object.Pipe*

XML binding class: `cybox.bindings.win_pipe_object.WindowsPipeObjectType`

default_time_out

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Default_Time_Out

Dictionary key name: default_time_out

handle

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

in_buffer_size

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: In_Buffer_Size

Dictionary key name: in_buffer_size

max_instances

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Max_Instances

Dictionary key name: max_instances

open_mode

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Open_Mode

Dictionary key name: open_mode

out_buffer_size

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Out_Buffer_Size

Dictionary key name: out_buffer_size

pipe_mode

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Pipe_Mode

Dictionary key name: pipe_mode

security_attributes

Type: *cybox.common.properties.String*

XML Binding class name: Security_Attributes

Dictionary key name: security_attributes

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cybox.objects.win_prefetch_object module

class `cybox.objects.win_prefetch_object.AccessedDirectoryList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_prefetch_object.AccessedDirectoryListType`

accessed_directory

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Accessed_Directory

Dictionary key name: accessed_directory

class `cybox.objects.win_prefetch_object.AccessedFileList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_prefetch_object.AccessedFileListType`

accessed_file

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Accessed_File

Dictionary key name: accessed_file

class `cybox.objects.win_prefetch_object.Volume`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_prefetch_object.VolumeType`

deviceitem

(List of values permitted)

Type: *cybox.objects.device_object.Device*

XML Binding class name: DeviceItem

Dictionary key name: deviceitem

volumeitem

(List of values permitted)

Type: *cybox.objects.win_volume_object.WinVolume*

XML Binding class name: VolumeItem

Dictionary key name: volumeitem

class *cybox.objects.win_prefetch_object.WinPrefetch*

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: *cybox.bindings.win_prefetch_object.WindowsPrefetchObjectType*

accessed_directory_list

Type: *cybox.objects.win_prefetch_object.AccessedDirectoryList*

XML Binding class name: Accessed_Directory_List

Dictionary key name: accessed_directory_list

accessed_file_list

Type: *cybox.objects.win_prefetch_object.AccessedFileList*

XML Binding class name: Accessed_File_List

Dictionary key name: accessed_file_list

application_file_name

Type: *cybox.common.properties.String*

XML Binding class name: Application_File_Name

Dictionary key name: application_file_name

first_run

Type: *cybox.common.properties.DateTime*

XML Binding class name: First_Run

Dictionary key name: first_run

last_run

Type: *cybox.common.properties.DateTime*

XML Binding class name: Last_Run

Dictionary key name: last_run

prefetch_hash

Type: *cybox.common.properties.String*
XML Binding class name: Prefetch_Hash
Dictionary key name: prefetch_hash

times_executed

Type: *cybox.common.properties.Long*
XML Binding class name: Times_Executed
Dictionary key name: times_executed

volume

Type: *cybox.objects.win_volume_object.WinVolume*
XML Binding class name: Volume
Dictionary key name: volume

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cybox.objects.win_process_object module

class `cybox.objects.win_process_object.MemorySectionList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_process_object.MemorySectionListType`

memory_section

(List of values permitted)
Type: *cybox.objects.memory_object.Memory*
XML Binding class name: Memory_Section
Dictionary key name: memory_section

class `cybox.objects.win_process_object.StartupInfo`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_process_object.StartupInfoType`

dwfillattribute

Type: *cybox.common.properties.Integer*
XML Binding class name: dwFillAttribute
Dictionary key name: dwfillattribute

dwflags

Type: *cybox.common.properties.Integer*
XML Binding class name: dwFlags
Dictionary key name: dwflags

dwx

Type: *cybox.common.properties.Integer*

XML Binding class name: dwX

Dictionary key name: dwx

dwxcntchars

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: dwXCountChars

Dictionary key name: dwxcntchars

dwxsize

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: dwXSize

Dictionary key name: dwxsize

dwy

Type: *cybox.common.properties.Integer*

XML Binding class name: dwY

Dictionary key name: dwy

dwycntchars

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: dwYCountChars

Dictionary key name: dwycntchars

dwysize

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: dwYSize

Dictionary key name: dwysize

hstderror

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: hStdError

Dictionary key name: hstderror

hstdinput

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: hStdInput

Dictionary key name: hstdinput

hstdoutput

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: `hStdOutput`

Dictionary key name: `hstdoutput`

lpdesktop

Type: `cybox.common.properties.String`

XML Binding class name: `lpDesktop`

Dictionary key name: `lpdesktop`

lptitle

Type: `cybox.common.properties.String`

XML Binding class name: `lpTitle`

Dictionary key name: `lptitle`

wshowwindow

Type: `cybox.common.properties.Integer`

XML Binding class name: `wShowWindow`

Dictionary key name: `wshowwindow`

class `cybox.objects.win_process_object.WinProcess`

Bases: `cybox.objects.process_object.Process`

XML binding class: `cybox.bindings.win_process_object.WindowsProcessObjectType`

aslr_enabled

XML Binding class name: `aslr_enabled`

Dictionary key name: `aslr_enabled`

dep_enabled

XML Binding class name: `dep_enabled`

Dictionary key name: `dep_enabled`

handle_list

Type: `cybox.objects.win_handle_object.WinHandleList`

XML Binding class name: `Handle_List`

Dictionary key name: `handle_list`

priority

Type: `cybox.common.properties.String`

XML Binding class name: `Priority`

Dictionary key name: `priority`

section_list

Type: *cybox.objects.win_process_object.MemorySectionList*
XML Binding class name: `Section_List`
Dictionary key name: `section_list`

security_id

Type: *cybox.common.properties.String*
XML Binding class name: `Security_ID`
Dictionary key name: `security_id`

security_type

Type: *cybox.common.properties.String*
XML Binding class name: `Security_Type`
Dictionary key name: `security_type`

startup_info

Type: *cybox.objects.win_process_object.StartupInfo*
XML Binding class name: `Startup_Info`
Dictionary key name: `startup_info`

thread

(List of values permitted)
Type: *cybox.objects.win_thread_object.WinThread*
XML Binding class name: `Thread`
Dictionary key name: `thread`

window_title

Type: *cybox.common.properties.String*
XML Binding class name: `Window_Title`
Dictionary key name: `window_title`

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cybox.objects.win_registry_key_object module

class `cybox.objects.win_registry_key_object.RegistrySubkeys` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_registry_key_object.RegistrySubkeysType`

subkey

(List of values permitted)
Type: *cybox.objects.win_registry_key_object.WinRegistryKey*
XML Binding class name: `Subkey`
Dictionary key name: `subkey`

class `cybox.objects.win_registry_key_object.RegistryValue`
 Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_registry_key_object.RegistryValueType`

byte_runs

Type: `cybox.common.byterun.ByteRuns`
 XML Binding class name: `Byte_Runs`
 Dictionary key name: `byte_runs`

data

Type: `cybox.common.properties.String`
 XML Binding class name: `Data`
 Dictionary key name: `data`

datatype

Type: `cybox.common.properties.String`
 XML Binding class name: `Datatype`
 Dictionary key name: `datatype`

name

Type: `cybox.common.properties.String`
 XML Binding class name: `Name`
 Dictionary key name: `name`

class `cybox.objects.win_registry_key_object.RegistryValues` (*args)
 Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_registry_key_object.RegistryValuesType`

value

(List of values permitted)
 Type: `cybox.objects.win_registry_key_object.RegistryValue`
 XML Binding class name: `Value`
 Dictionary key name: `value`

class `cybox.objects.win_registry_key_object.WinRegistryKey`
 Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class:
`cybox.bindings.win_registry_key_object.WindowsRegistryKeyObjectType`

byte_runs

Type: *cybox.common.byterun.ByteRuns*

XML Binding class name: Byte_Runs

Dictionary key name: byte_runs

creator_username

Type: *cybox.common.properties.String*

XML Binding class name: Creator_Username

Dictionary key name: creator_username

handle_list

Type: *cybox.objects.win_handle_object.WinHandleList*

XML Binding class name: Handle_List

Dictionary key name: handle_list

hive

Type: *cybox.common.properties.String*

XML Binding class name: Hive

Dictionary key name: hive

key

Type: *cybox.common.properties.String*

XML Binding class name: Key

Dictionary key name: key

modified_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Modified_Time

Dictionary key name: modified_time

number_subkeys

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Number_Subkeys

Dictionary key name: number_subkeys

number_values

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Number_Values

Dictionary key name: number_values

subkeys

Type: *cybox.objects.win_registry_key_object.RegistrySubkeys*

XML Binding class name: Subkeys

Dictionary key name: subkeys

values

Type: *cybox.objects.win_registry_key_object.RegistryValues*

XML Binding class name: Values

Dictionary key name: values

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cybox.objects.win_service_object module

class *cybox.objects.win_service_object.ServiceDescriptionList* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.win_service_object.ServiceDescriptionListType*

description

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Description

Dictionary key name: description

class *cybox.objects.win_service_object.WinService*

Bases: *cybox.objects.win_process_object.WinProcess*

XML binding class: *cybox.bindings.win_service_object.WindowsServiceObjectType*

description_list

Type: *cybox.objects.win_service_object.ServiceDescriptionList*

XML Binding class name: Description_List

Dictionary key name: description_list

display_name

Type: *cybox.common.properties.String*

XML Binding class name: Display_Name

Dictionary key name: display_name

group_name

Type: *cybox.common.properties.String*

XML Binding class name: Group_Name

Dictionary key name: group_name

service_dll

Type: *cybox.common.properties.String*

XML Binding class name: Service_DLL

Dictionary key name: service_dll

service_dll_certificate_issuer

Type: *cybox.common.properties.String*

XML Binding class name: Service_DLL_Certificate_Issuer

Dictionary key name: service_dll_certificate_issuer

service_dll_certificate_subject

Type: *cybox.common.properties.String*

XML Binding class name: Service_DLL_Certificate_Subject

Dictionary key name: service_dll_certificate_subject

service_dll_hashes

Type: *cybox.common.hashses.HashList*

XML Binding class name: Service_DLL_Hashes

Dictionary key name: service_dll_hashes

service_dll_signature_description

Type: *cybox.common.properties.String*

XML Binding class name: Service_DLL_Signature_Description

Dictionary key name: service_dll_signature_description

service_dll_signature_exists

XML Binding class name: service_dll_signature_exists

Dictionary key name: service_dll_signature_exists

service_dll_signature_verified

XML Binding class name: service_dll_signature_verified

Dictionary key name: service_dll_signature_verified

service_name

Type: *cybox.common.properties.String*

XML Binding class name: Service_Name

Dictionary key name: service_name

service_status

Type: *cybox.common.properties.String*

XML Binding class name: Service_Status

Dictionary key name: service_status

service_type

Type: *cybox.common.properties.String*

XML Binding class name: Service_Type

Dictionary key name: service_type

started_as

Type: *cybox.common.properties.String*

XML Binding class name: Started_As

Dictionary key name: started_as

startup_command_line

Type: *cybox.common.properties.String*

XML Binding class name: Startup_Command_Line

Dictionary key name: startup_command_line

startup_type

Type: *cybox.common.properties.String*

XML Binding class name: Startup_Type

Dictionary key name: startup_type

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cybox.objects.win_semaphore_object module

class `cybox.objects.win_semaphore_object.WinSemaphore`

Bases: *cybox.objects.semaphore_object.Semaphore*

XML binding class:

`cybox.bindings.win_semaphore_object.WindowsSemaphoreObjectType`

handle

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

security_attributes

Type: *cybox.common.properties.String*

XML Binding class name: Security_Attributes

Dictionary key name: security_attributes

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cybox.objects.win_system_object module

class `cybox.objects.win_system_object.GlobalFlag`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_system_object.GlobalFlagType`

abbreviation

Type: `cybox.common.properties.String`
XML Binding class name: `Abbreviation`
Dictionary key name: `abbreviation`

destination

Type: `cybox.common.properties.String`
XML Binding class name: `Destination`
Dictionary key name: `destination`

hexadecimal_value

Type: `cybox.common.properties.HexBinary`
XML Binding class name: `Hexadecimal_Value`
Dictionary key name: `hexadecimal_value`

symbolic_name

Type: `cybox.common.properties.String`
XML Binding class name: `Symbolic_Name`
Dictionary key name: `symbolic_name`

class `cybox.objects.win_system_object.GlobalFlagList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_system_object.GlobalFlagListType`

global_flag

(List of values permitted)
Type: `cybox.objects.win_system_object.GlobalFlag`
XML Binding class name: `Global_Flag`
Dictionary key name: `global_flag`

class `cybox.objects.win_system_object.WinSystem`
Bases: `cybox.objects.system_object.System`

XML binding class: `cybox.bindings.win_system_object.WindowsSystemObjectType`

domain

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Domain

Dictionary key name: domain

global_flag_list

Type: *cybox.objects.win_system_object.GlobalFlagList*

XML Binding class name: Global_Flag_List

Dictionary key name: global_flag_list

netbios_name

Type: *cybox.common.properties.String*

XML Binding class name: NetBIOS_Name

Dictionary key name: netbios_name

open_handle_list

Type: *cybox.objects.win_handle_object.WinHandleList*

XML Binding class name: Open_Handle_List

Dictionary key name: open_handle_list

product_id

Type: *cybox.common.properties.String*

XML Binding class name: Product_ID

Dictionary key name: product_id

product_name

Type: *cybox.common.properties.String*

XML Binding class name: Product_Name

Dictionary key name: product_name

registered_organization

Type: *cybox.common.properties.String*

XML Binding class name: Registered_Organization

Dictionary key name: registered_organization

registered_owner

Type: *cybox.common.properties.String*

XML Binding class name: Registered_Owner

Dictionary key name: registered_owner

windows_directory

Type: *cybox.common.properties.String*
XML Binding class name: Windows_Directory
Dictionary key name: windows_directory

windows_system_directory

Type: *cybox.common.properties.String*
XML Binding class name: Windows_System_Directory
Dictionary key name: windows_system_directory

windows_temp_directory

Type: *cybox.common.properties.String*
XML Binding class name: Windows_Temp_Directory
Dictionary key name: windows_temp_directory

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cybox.objects.win_system_restore_object module

class `cybox.objects.win_system_restore_object.HiveList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_system_restore_object.HiveListType`

hive

(List of values permitted)
Type: *cybox.common.properties.String*
XML Binding class name: Hive
Dictionary key name: hive

class `cybox.objects.win_system_restore_object.WinSystemRestore`
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:
`cybox.bindings.win_system_restore_object.WindowsSystemRestoreObjectType`

acl_change_sid

Type: *cybox.common.properties.String*
XML Binding class name: ACL_Change_SID
Dictionary key name: acl_change_sid

acl_change_username

Type: *cybox.common.properties.String*
XML Binding class name: ACL_Change_Username
Dictionary key name: acl_change_username

backup_file_name

Type: *cybox.common.properties.String*

XML Binding class name: Backup_File_Name

Dictionary key name: backup_file_name

change_event

Type: *cybox.common.properties.String*

XML Binding class name: Change_Event

Dictionary key name: change_event

changelog_entry_flags

Type: *cybox.common.properties.String*

XML Binding class name: ChangeLog_Entry_Flags

Dictionary key name: changelog_entry_flags

changelog_entry_sequence_number

Type: *cybox.common.properties.Long*

XML Binding class name: ChangeLog_Entry_Sequence_Number

Dictionary key name: changelog_entry_sequence_number

changelog_entry_type

Type: *cybox.common.properties.String*

XML Binding class name: ChangeLog_Entry_Type

Dictionary key name: changelog_entry_type

created

Type: *cybox.common.properties.DateTime*

XML Binding class name: Created

Dictionary key name: created

file_attributes

Type: *cybox.common.properties.String*

XML Binding class name: File_Attributes

Dictionary key name: file_attributes

new_file_name

Type: *cybox.common.properties.String*

XML Binding class name: New_File_Name

Dictionary key name: new_file_name

original_file_name

Type: *cybox.common.properties.String*

XML Binding class name: Original_File_Name

Dictionary key name: original_file_name

original_short_file_name

Type: *cybox.common.properties.String*

XML Binding class name: Original_Short_File_Name

Dictionary key name: original_short_file_name

process_name

Type: *cybox.common.properties.String*

XML Binding class name: Process_Name

Dictionary key name: process_name

registry_hive_list

Type: *cybox.objects.win_system_restore_object.HiveList*

XML Binding class name: Registry_Hive_List

Dictionary key name: registry_hive_list

restore_point_description

Type: *cybox.common.properties.String*

XML Binding class name: Restore_Point_Description

Dictionary key name: restore_point_description

restore_point_full_path

Type: *cybox.common.properties.String*

XML Binding class name: Restore_Point_Full_Path

Dictionary key name: restore_point_full_path

restore_point_name

Type: *cybox.common.properties.String*

XML Binding class name: Restore_Point_Name

Dictionary key name: restore_point_name

restore_point_type

Type: *cybox.common.properties.String*

XML Binding class name: Restore_Point_Type

Dictionary key name: restore_point_type

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cybox.objects.win_task_object module

class cybox.objects.win_task_object.IComHandlerAction

Bases: *mixbox.entities.Entity*

XML binding class: `cybox.bindings.win_task_object.IComHandlerActionType`

com_class_id

Type: `cybox.common.properties.String`

XML Binding class name: `COM_Class_ID`

Dictionary key name: `com_class_id`

com_data

Type: `cybox.common.properties.String`

XML Binding class name: `COM_Data`

Dictionary key name: `com_data`

class `cybox.objects.win_task_object.IExecAction`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_task_object.IExecActionType`

exec_arguments

Type: `cybox.common.properties.String`

XML Binding class name: `Exec_Arguments`

Dictionary key name: `exec_arguments`

exec_program_hashes

Type: `cybox.common.hashes.HashList`

XML Binding class name: `Exec_Program_Hashes`

Dictionary key name: `exec_program_hashes`

exec_program_path

Type: `cybox.common.properties.String`

XML Binding class name: `Exec_Program_Path`

Dictionary key name: `exec_program_path`

exec_working_directory

Type: `cybox.common.properties.String`

XML Binding class name: `Exec_Working_Directory`

Dictionary key name: `exec_working_directory`

class `cybox.objects.win_task_object.IShowMessageAction`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_task_object.IShowMessageActionType`

show_message_body

Type: *cybox.common.properties.String*
XML Binding class name: Show_Message_Body
Dictionary key name: show_message_body

show_message_title

Type: *cybox.common.properties.String*
XML Binding class name: Show_Message_Title
Dictionary key name: show_message_title

class `cybox.objects.win_task_object.TaskAction`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_task_object.TaskActionType`

action_id

Type: *cybox.common.properties.String*
XML Binding class name: Action_ID
Dictionary key name: action_id

action_type

Type: *cybox.common.properties.String*
XML Binding class name: Action_Type
Dictionary key name: action_type

icomhandleraction

Type: *cybox.objects.win_task_object.IComHandlerAction*
XML Binding class name: IComHandlerAction
Dictionary key name: icomhandleraction

iemailaction

Type: *cybox.objects.email_message_object.EmailMessage*
XML Binding class name: IEmailAction
Dictionary key name: iemailaction

iexecaction

Type: *cybox.objects.win_task_object.IExecAction*
XML Binding class name: IExecAction
Dictionary key name: iexecaction

ishowmessageaction

Type: *cybox.objects.win_task_object.IShowMessageAction*

XML Binding class name: *IShowMessageAction*

Dictionary key name: *ishowmessageaction*

class *cybox.objects.win_task_object.TaskActionList* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.win_task_object.TaskActionListType*

action

(List of values permitted)

Type: *cybox.objects.win_task_object.TaskAction*

XML Binding class name: *Action*

Dictionary key name: *action*

class *cybox.objects.win_task_object.Trigger*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.win_task_object.TriggerType*

trigger_begin

Type: *cybox.common.properties.DateTime*

XML Binding class name: *Trigger_Begin*

Dictionary key name: *trigger_begin*

trigger_delay

Type: *cybox.common.properties.Duration*

XML Binding class name: *Trigger_Delay*

Dictionary key name: *trigger_delay*

trigger_end

Type: *cybox.common.properties.DateTime*

XML Binding class name: *Trigger_End*

Dictionary key name: *trigger_end*

trigger_frequency

Type: *cybox.common.properties.String*

XML Binding class name: *Trigger_Frequency*

Dictionary key name: *trigger_frequency*

trigger_max_run_time

Type: *cybox.common.properties.Duration*

XML Binding class name: `Trigger_Max_Run_Time`

Dictionary key name: `trigger_max_run_time`

trigger_session_change_type

Type: `cybox.common.properties.String`

XML Binding class name: `Trigger_Session_Change_Type`

Dictionary key name: `trigger_session_change_type`

trigger_type

Type: `cybox.common.properties.String`

XML Binding class name: `Trigger_Type`

Dictionary key name: `trigger_type`

class `cybox.objects.win_task_object.TriggerList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_task_object.TriggerListType`

trigger

(List of values permitted)

Type: `cybox.objects.win_task_object.Trigger`

XML Binding class name: `Trigger`

Dictionary key name: `trigger`

class `cybox.objects.win_task_object.WinTask`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.win_task_object.WindowsTaskObjectType`

account_logon_type

Type: `cybox.common.properties.String`

XML Binding class name: `Account_Logon_Type`

Dictionary key name: `account_logon_type`

account_name

Type: `cybox.common.properties.String`

XML Binding class name: `Account_Name`

Dictionary key name: `account_name`

account_run_level

Type: `cybox.common.properties.String`

XML Binding class name: `Account_Run_Level`

Dictionary key name: account_run_level

action_list

Type: *cybox.objects.win_task_object.TaskActionList*

XML Binding class name: Action_List

Dictionary key name: action_list

application_name

Type: *cybox.common.properties.String*

XML Binding class name: Application_Name

Dictionary key name: application_name

comment

Type: *cybox.common.properties.String*

XML Binding class name: Comment

Dictionary key name: comment

creation_date

Type: *cybox.common.properties.DateTime*

XML Binding class name: Creation_Date

Dictionary key name: creation_date

creator

Type: *cybox.common.properties.String*

XML Binding class name: Creator

Dictionary key name: creator

exit_code

Type: *cybox.common.properties.Long*

XML Binding class name: Exit_Code

Dictionary key name: exit_code

flags

Type: *cybox.common.properties.String*

XML Binding class name: Flags

Dictionary key name: flags

max_run_time

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Max_Run_Time

Dictionary key name: max_run_time

most_recent_run_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: Most_Recent_Run_Time
Dictionary key name: most_recent_run_time

name

Type: *cybox.common.properties.String*
XML Binding class name: Name
Dictionary key name: name

next_run_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: Next_Run_Time
Dictionary key name: next_run_time

parameters

Type: *cybox.common.properties.String*
XML Binding class name: Parameters
Dictionary key name: parameters

priority

Type: *cybox.common.properties.String*
XML Binding class name: Priority
Dictionary key name: priority

status

Type: *cybox.common.properties.String*
XML Binding class name: Status
Dictionary key name: status

trigger_list

Type: *cybox.objects.win_task_object.TriggerList*
XML Binding class name: Trigger_List
Dictionary key name: trigger_list

work_item_data

Type: *cybox.common.properties.Base64Binary*
XML Binding class name: Work_Item_Data
Dictionary key name: work_item_data

working_directory

Type: *cybox.common.properties.String*
XML Binding class name: Working_Directory
Dictionary key name: working_directory

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cybox.objects.win_thread_object module

class cybox.objects.win_thread_object.**WinThread**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.win_thread_object.WindowsThreadObjectType

context

Type: *cybox.common.properties.String*

XML Binding class name: Context

Dictionary key name: context

creation_flags

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Creation_Flags

Dictionary key name: creation_flags

creation_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Creation_Time

Dictionary key name: creation_time

handle

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

parameter_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Parameter_Address

Dictionary key name: parameter_address

priority

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Priority

Dictionary key name: priority

running_status

Type: *cybox.common.properties.String*

XML Binding class name: Running_Status

Dictionary key name: running_status

security_attributes

Type: *cybox.common.properties.String*
XML Binding class name: Security_Attributes
Dictionary key name: security_attributes

stack_size

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: Stack_Size
Dictionary key name: stack_size

start_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Start_Address
Dictionary key name: start_address

thread_id

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: Thread_ID
Dictionary key name: thread_id

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cybox.objects.win_user_account_object module

class `cybox.objects.win_user_account_object.WinGroup`

Bases: *cybox.objects.user_account_object.Group*

XML binding class: `cybox.bindings.win_user_account_object.WindowsGroupType`

name

Type: *cybox.common.properties.String*
XML Binding class name: Name
Dictionary key name: name

class `cybox.objects.win_user_account_object.WinGroupList (*args)`

Bases: *cybox.objects.user_account_object.GroupList*

XML binding class: `cybox.bindings.user_account_object.GroupListType`

group

(List of values permitted)

Type: *cybox.objects.win_user_account_object.WinGroup*
XML Binding class name: Group

Dictionary key name: group

class `cybox.objects.win_user_account_object.WinPrivilege`
Bases: `cybox.objects.user_account_object.Privilege`

XML binding class: `cybox.bindings.win_user_account_object.WindowsPrivilegeType`

user_right

Type: `cybox.common.properties.String`

XML Binding class name: User_Right

Dictionary key name: user_right

class `cybox.objects.win_user_account_object.WinPrivilegeList (*args)`
Bases: `cybox.objects.user_account_object.PrivilegeList`

XML binding class: `cybox.bindings.user_account_object.PrivilegeListType`

privilege

(List of values permitted)

Type: `cybox.objects.win_user_account_object.WinPrivilege`

XML Binding class name: Privilege

Dictionary key name: privilege

class `cybox.objects.win_user_account_object.WinUser`
Bases: `cybox.objects.user_account_object.UserAccount`

XML binding class:
`cybox.bindings.win_user_account_object.WindowsUserAccountObjectType`

group_list

Type: `cybox.objects.win_user_account_object.WinGroupList`

XML Binding class name: Group_List

Dictionary key name: group_list

privilege_list

Type: `cybox.objects.win_user_account_object.WinPrivilegeList`

XML Binding class name: Privilege_List

Dictionary key name: privilege_list

security_id

Type: `cybox.common.properties.String`

XML Binding class name: Security_ID

Dictionary key name: security_id

security_type

Type: *cybox.common.properties.String*

XML Binding class name: Security_Type

Dictionary key name: security_type

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cybox.objects.win_volume_object module

class `cybox.objects.win_volume_object.WinVolume`

Bases: *cybox.objects.volume_object.Volume*

XML binding class: `cybox.bindings.win_volume_object.WindowsVolumeObjectType`

attributes_list

Type: *cybox.objects.win_volume_object.WindowsVolumeAttributesList*

XML Binding class name: Attributes_List

Dictionary key name: attributes_list

drive_letter

Type: *cybox.common.properties.String*

XML Binding class name: Drive_Letter

Dictionary key name: drive_letter

drive_type

Type: *cybox.objects.win_volume_object.WindowsDrive*

XML Binding class name: Drive_Type

Dictionary key name: drive_type

class `cybox.objects.win_volume_object.WindowsDrive` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.win_volume_object.WindowsDriveType`

class `cybox.objects.win_volume_object.WindowsVolumeAttribute` (*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.win_volume_object.WindowsVolumeAttributeType`

class `cybox.objects.win_volume_object.WindowsVolumeAttributesList` (**args*)

Bases: `mixbox.entities.EntityList`

XML binding class:

`cybox.bindings.win_volume_object.WindowsVolumeAttributesListType`

attribute

(List of values permitted)

Type: `cybox.objects.win_volume_object.WindowsVolumeAttribute`

XML Binding class name: Attribute

Dictionary key name: attribute

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cybox.objects.win_waitable_timer_object module

class `cybox.objects.win_waitable_timer_object.WinWaitableTimer`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class:

`cybox.bindings.win_waitable_timer_object.WindowsWaitableTimerObjectType`

name

Type: `cybox.common.properties.String`

XML Binding class name: Name

Dictionary key name: name

security_attributes

Type: `cybox.common.properties.String`

XML Binding class name: Security_Attributes

Dictionary key name: security_attributes

type_

Type: `cybox.common.properties.String`

XML Binding class name: Type

Dictionary key name: type

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cybox.objects.x509_certificate_object module

class `cybox.objects.x509_certificate_object.RSAPublicKey`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.x509_certificate_object.RSAPublicKeyType`

exponent

Type: *cybox.common.properties.Integer*

XML Binding class name: Exponent

Dictionary key name: exponent

modulus

Type: *cybox.common.properties.String*

XML Binding class name: Modulus

Dictionary key name: modulus

class `cybox.objects.x509_certificate_object.SubjectPublicKey`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.x509_certificate_object.SubjectPublicKeyType`

public_key_algorithm

Type: *cybox.common.properties.String*

XML Binding class name: Public_Key_Algorithm

Dictionary key name: public_key_algorithm

rsa_public_key

Type: *cybox.objects.x509_certificate_object.RSAPublicKey*

XML Binding class name: RSA_Public_Key

Dictionary key name: rsa_public_key

class `cybox.objects.x509_certificate_object.Validity`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.x509_certificate_object.ValidityType`

not_after

Type: *cybox.common.properties.DateTime*

XML Binding class name: Not_After

Dictionary key name: not_after

not_before

Type: *cybox.common.properties.DateTime*

XML Binding class name: Not_Before

Dictionary key name: not_before

class `cybox.objects.x509_certificate_object.X509Cert`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.x509_certificate_object.X509CertificateContentsType`

issuer

Type: `cybox.common.properties.String`

XML Binding class name: Issuer

Dictionary key name: issuer

non_standard_extensions

Type: `cybox.objects.x509_certificate_object.X509NonStandardExtensions`

XML Binding class name: Non_Standard_Extensions

Dictionary key name: non_standard_extensions

serial_number

Type: `cybox.common.properties.String`

XML Binding class name: Serial_Number

Dictionary key name: serial_number

signature_algorithm

Type: `cybox.common.properties.String`

XML Binding class name: Signature_Algorithm

Dictionary key name: signature_algorithm

standard_extensions

Type: `cybox.objects.x509_certificate_object.X509V3Extensions`

XML Binding class name: Standard_Extensions

Dictionary key name: standard_extensions

subject

Type: `cybox.common.properties.String`

XML Binding class name: Subject

Dictionary key name: subject

subject_public_key

Type: `cybox.objects.x509_certificate_object.SubjectPublicKey`

XML Binding class name: Subject_Public_Key

Dictionary key name: subject_public_key

validity

Type: `cybox.objects.x509_certificate_object.Validity`

XML Binding class name: Validity

Dictionary key name: validity

version

Type: *cybox.common.properties.Integer*

XML Binding class name: Version

Dictionary key name: version

class `cybox.objects.x509_certificate_object.X509Certificate`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:

`cybox.bindings.x509_certificate_object.X509CertificateObjectType`

certificate

Type: *cybox.objects.x509_certificate_object.X509Cert*

XML Binding class name: Certificate

Dictionary key name: certificate

certificate_signature

Type: *cybox.objects.x509_certificate_object.X509CertificateSignature*

XML Binding class name: Certificate_Signature

Dictionary key name: certificate_signature

raw_certificate

Type: *cybox.common.properties.String*

XML Binding class name: Raw_Certificate

Dictionary key name: raw_certificate

class `cybox.objects.x509_certificate_object.X509CertificateSignature`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.x509_certificate_object.X509CertificateSignatureType`

signature

Type: *cybox.common.properties.String*

XML Binding class name: Signature

Dictionary key name: signature

signature_algorithm

Type: *cybox.common.properties.String*

XML Binding class name: Signature_Algorithm

Dictionary key name: signature_algorithm

class `cybox.objects.x509_certificate_object.X509NonStandardExtensions`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.x509_certificate_object.X509NonStandardExtensionsType`

netscape_certificate_type

Type: `cybox.common.properties.String`

XML Binding class name: `Netscape_Certificate_Type`

Dictionary key name: `netscape_certificate_type`

netscape_comment

Type: `cybox.common.properties.String`

XML Binding class name: `Netscape_Comment`

Dictionary key name: `netscape_comment`

old_authority_key_identifier

Type: `cybox.common.properties.String`

XML Binding class name: `Old_Authority_Key_Identifier`

Dictionary key name: `old_authority_key_identifier`

old_primary_key_attributes

Type: `cybox.common.properties.String`

XML Binding class name: `Old_Primary_Key_Attributes`

Dictionary key name: `old_primary_key_attributes`

class `cybox.objects.x509_certificate_object.X509V3Extensions`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.x509_certificate_object.X509V3ExtensionsType`

authority_key_identifier

Type: `cybox.common.properties.String`

XML Binding class name: `Authority_Key_Identifier`

Dictionary key name: `authority_key_identifier`

basic_constraints

Type: `cybox.common.properties.String`

XML Binding class name: `Basic_Constraints`

Dictionary key name: `basic_constraints`

certificate_policies

Type: *cybox.common.properties.String*
XML Binding class name: Certificate_Policies
Dictionary key name: certificate_policies

crl_distribution_points

Type: *cybox.common.properties.String*
XML Binding class name: CRL_Distribution_Points
Dictionary key name: crl_distribution_points

extended_key_usage

Type: *cybox.common.properties.String*
XML Binding class name: Extended_Key_Usage
Dictionary key name: extended_key_usage

inhibit_any_policy

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: Inhibit_Any_Policy
Dictionary key name: inhibit_any_policy

issuer_alternative_name

Type: *cybox.common.properties.String*
XML Binding class name: Issuer_Alternative_Name
Dictionary key name: issuer_alternative_name

key_usage

Type: *cybox.common.properties.String*
XML Binding class name: Key_Usage
Dictionary key name: key_usage

name_constraints

Type: *cybox.common.properties.String*
XML Binding class name: Name_Constraints
Dictionary key name: name_constraints

policy_constraints

Type: *cybox.common.properties.String*
XML Binding class name: Policy_Constraints
Dictionary key name: policy_constraints

policy_mappings

Type: *cybox.common.properties.String*

XML Binding class name: Policy_Mappings

Dictionary key name: policy_mappings

private_key_usage_period

Type: *cybox.objects.x509_certificate_object.Validity*

XML Binding class name: Private_Key_Usage_Period

Dictionary key name: private_key_usage_period

subject_alternative_name

Type: *cybox.common.properties.String*

XML Binding class name: Subject_Alternative_Name

Dictionary key name: subject_alternative_name

subject_directory_attributes

Type: *cybox.common.properties.String*

XML Binding class name: Subject_Directory_Attributes

Dictionary key name: subject_directory_attributes

subject_key_identifier

Type: *cybox.common.properties.String*

XML Binding class name: Subject_Key_Identifier

Dictionary key name: subject_key_identifier

Module contents

exception `cybox.objects.UnknownObjectType`

Bases: `exceptions.Exception`

`cybox.objects.get_class_for_object_type(object_type)`

3.1.4 Utility Classes and Functions

Version: 2.1.0.21

cybox.utils package

Submodules

Version: 2.1.0.21

cybox.utils.autoentity module

`cybox.utils.autoentity.make_class_ref(cls)`

`cybox.utils.autoentity.setup(app)`

Version: 2.1.0.21

cybox.utils.caches module

exception `cybox.utils.caches.CacheMiss`

Bases: `exceptions.Exception`

Item was not found in a cache.

`cybox.utils.caches.cache_clear()`

Clear the global cache

`cybox.utils.caches.cache_count()`

Get the number of items in the global cache

`cybox.utils.caches.cache_get(id_)`

Retrieve a value from the global cache

`cybox.utils.caches.cache_put(value, id_=None)`

Save a value in the global cache

Version: 2.1.0.21

cybox.utils.nsparser module

Module contents

Common utility methods

`cybox.utils.denormalize_from_xml(value, delimiter)`

`cybox.utils.normalize_to_xml(value, delimiter)`

`cybox.utils.unwrap_cdata(value)`

Remove CDATA wrapping from *value* if present

`cybox.utils.wrap_cdata(value)`

3.1.5 CybOX Helper module

Version: 2.1.0.21

cybox.helper module

CybOX Common Indicator API

An api for creating observables for common indicators: ipv4 addresses, domain names, file hashes, and urls.

`cybox.helper.create_domain_name_observable(domain_name)`

Create a CybOX Observable representing a domain name.

`cybox.helper.create_email_address_observable(email_address)`

Create a CybOX Observable representing an IPv4 address

`cybox.helper.create_file_hash_observable(fn, hash_value)`

Create a CybOX Observable representing a file hash.

`cybox.helper.create_ipv4_list_observables(list_ipv4_addresses)`

Create a list of CybOX Observables, each representing an IPv4 address

`cybox.helper.create_ipv4_observable(ipv4_address)`

Create a CybOX Observable representing an IPv4 address

`cybox.helper.create_url_observable(url)`

Version: 2.1.0.21

3.2 API Coverage

The *python-cybox* APIs currently provide partial coverage of all CybOX-defined constructs. Development is ongoing toward the goal of providing full CybOX language support in the APIs. Until such time that full coverage is provided, an overview of which constructs are available in these APIs will be maintained below.

3.2.1 CybOX Features

CybOX Construct	API Coverage	Documentation
Composite Observable	Full	<code>cybox.core.observable.ObservableComposition</code>
Event	Full	<code>cybox.core.event.Event</code>
Object	Full	<code>cybox.core.object.Object</code>
Observables	Full	<code>cybox.core.observable.Observables</code>
Observable	Full	<code>cybox.core.observable.Observable</code>
Relationships	Full	<code>cybox.core.object.RelatedObject</code>

3.2.2 CybOX Objects

CybOX Construct	API Coverage	Documentation
Account Object	Full	<code>cybox.objects.account_object.Account</code>
Address Object	Full	<code>cybox.objects.address_object.Address</code>
API Object	Full	<code>cybox.objects.api_object.API</code>
Archive File Object	Full	<code>cybox.objects.archive_file_object.ArchiveFile</code>
ARP Cache Object	Full	<code>cybox.objects.arp_cache_object.ARPCache</code>
Artifact Object	Full	<code>cybox.objects.artifact_object.Artifact</code>
AS Object	Full	<code>cybox.objects.as_object.AutonomousSystem</code>
Code Object	Full	<code>cybox.objects.code_object.Code</code>
Custom Object	Full	<code>cybox.objects.custom_object.Custom</code>
Device Object	Full	<code>cybox.objects.device_object.Device</code>
Disk Object	Full	<code>cybox.objects.disk_object.Disk</code>
Disk Partition Object	Full	<code>cybox.objects.disk_partition_object.DiskPartition</code>
DNS Cache Object	Full	<code>cybox.objects.dns_cache_object.DNSCache</code>
DNS Query Object	Full	<code>cybox.objects.dns_query_object.DNSQuery</code>
DNS Record Object	Full	<code>cybox.objects.dns_record_object.DNSRecord</code>
Domain Name Object	Full	<code>cybox.objects.domain_name_object.DomainName</code>
Email Message Object	Full	<code>cybox.objects.email_message_object.EmailMessage</code>
File Object	Full	<code>cybox.objects.file_object.File</code>
GUI Dialogbox Object	Full	<code>cybox.objects.gui_dialogbox_object.GUIDialogbox</code>
GUI Object	Full	<code>cybox.objects.gui_object.GUI</code>
GUI Window Object	Full	<code>cybox.objects.gui_window_object.GUIWindow</code>
HTTP Session Object	Full	<code>cybox.objects.http_session_object.HTTPSession</code>
Hostname Object	Full	<code>cybox.objects.hostname_object.Hostname</code>
Image File Object	Full	<code>cybox.objects.image_file_object.ImageFile</code>
Library Object	Full	<code>cybox.objects.library_object.Library</code>

Table 3.1 – continued from previous page

CybOX Construct	API Coverage	Documentation
Link Object	Full	<code>cybox.objects.link_object.Link</code>
Linux Package Object	Full	<code>cybox.objects.linux_package_object.LinuxPackage</code>
Memory Object	Full	<code>cybox.objects.memory_object.Memory</code>
Mutex Object	Full	<code>cybox.objects.mutex_object.Mutex</code>
Network Connection Object	Full	<code>cybox.objects.network_connection_object.NetworkConn</code>
Network Flow Object	Full	<code>cybox.objects.network_flow_object.NetworkFlow</code>
Network Packet Object	Full	<code>cybox.objects.network_packet_object.NetworkPacket</code>
Network Route Entry Object	Full	<code>cybox.objects.network_route_entry_object.NetworkRoute</code>
Network Route Object	Full	<code>cybox.objects.network_route_object.NetRoute</code>
Network Socket Object	Full	<code>cybox.objects.network_socket_object.NetworkSocket</code>
Network Subnet Object	Full	<code>cybox.objects.network_subnet_object.NetworkSubnet</code>
PDF File Object	Full	<code>cybox.objects.pdf_file_object.PDFFile</code>
Pipe Object	Full	<code>cybox.objects.pipe_object.Pipe</code>
Port Object	Full	<code>cybox.objects.port_object.Port</code>
Process Object	Full	<code>cybox.objects.process_object.Process</code>
Product Object	Full	<code>cybox.objects.product_object.Product</code>
Semaphore Object	Full	<code>cybox.objects.semaphore_object.Semaphore</code>
SMS Message Object	Full	<code>cybox.objects.sms_message_object.SMSMessage</code>
Socket Address Object	Full	<code>cybox.objects.socket_address_object.SocketAddress</code>
System Object	Full	<code>cybox.objects.system_object.System</code>
URI Object	Full	<code>cybox.objects.uri_object.URI</code>
URL History Object	Full	<code>cybox.objects.url_history.URLHistory</code>
Unix File Object	Full	<code>cybox.objects.unix_file_object.UnixFile</code>
Unix Network Route Entry Object	Full	<code>cybox.objects.unix_network_route_entry_object.UnixNe</code>
Unix Pipe Object	Full	<code>cybox.objects.unix_pipe_object.UnixPipe</code>
Unix Process Object	Full	<code>cybox.objects.unix_process_object.UnixProcess</code>
Unix User Account Object	Full	<code>cybox.objects.unix_user_account_object.UnixUserAcco</code>
Unix Volume Object	Full	<code>cybox.objects.unix_volume_object.UnixVolume</code>
User Account Object	Full	<code>cybox.objects.user_account_object.UserAccount</code>
User Session Object	Full	<code>cybox.objects.user_session_object.UserSession</code>
Volume Object	Full	<code>cybox.objects.volume_object.Volume</code>
Whois Object	Full	<code>cybox.objects.whois_object.WhoisEntry</code>
Win Computer Account Object	Full	<code>cybox.objects.win_computer_account_object.WinCompute</code>
Win Critical Section Object	Full	<code>cybox.objects.win_critical_section_object.WinCritica</code>
Win Driver Object	Full	<code>cybox.objects.win_driver_object.WinDriver</code>
Win Event Log Object	Full	<code>cybox.objects.win_event_log_object.WinEventLog</code>
Win Event Object	Full	<code>cybox.objects.win_event_object.WinEvent</code>
Win Executable File Object	Full	<code>cybox.objects.win_executable_file_object.WinExecutak</code>
Win File Object	Full	<code>cybox.objects.win_file_object.WinFile</code>
Win Filemapping Object	Full	<code>cybox.objects.win_filemapping_object.WinFilemapping</code>
Win Handle Object	Full	<code>cybox.objects.win_handle_object.WinHandle</code>
Win Hook Object	Full	<code>cybox.objects.win_hook_object.WinHook</code>
Win Kernel Hook Object	Full	<code>cybox.objects.win_kernel_hook_object.WinKernelHook</code>
Win Kernel Object	Full	<code>cybox.objects.win_kernel_object.WinKernel</code>
Win Mailslot Object	Full	<code>cybox.objects.win_mailslot_object.WinMailslot</code>
Win Memory Page Region Object	Full	<code>cybox.objects.win_memory_page_region_object.WinMemor</code>
Win Mutex Object	Full	<code>cybox.objects.win_mutex_object.WinMutex</code>
Win Network Route Entry Object	Full	<code>cybox.objects.win_network_route_entry_object.WinNetw</code>
Win Network Share Object	Full	<code>cybox.objects.win_network_share_object.WinNetworkSha</code>

Table 3.1 – continued from previous page

Cybox Construct	API Coverage	Documentation
Win Pipe Object	Full	<code>cybox.objects.win_pipe_object.WinPipe</code>
Win Prefetch Object	Full	<code>cybox.objects.win_prefetch_object.WinPrefetch</code>
Win Process Object	Full	<code>cybox.objects.win_process_object.WinProcess</code>
Win Registry Key Object	Full	<code>cybox.objects.win_registry_key_object.WinRegistryKey</code>
Win Semaphore Object	Full	<code>cybox.objects.win_semaphore_object.WinSemaphore</code>
Win Service Object	Full	<code>cybox.objects.win_service_object.WinService</code>
Win System Object	Full	<code>cybox.objects.win_system_object.WinSystem</code>
Win System Restore Object	Full	<code>cybox.objects.win_system_restore_object.WinSystemRes</code>
Win Task Object	Full	<code>cybox.objects.win_task_object.WinTask</code>
Win Thread Object	Full	<code>cybox.objects.win_thread_object.WinThread</code>
Win User Account Object	Full	<code>cybox.objects.win_user_account_object.WinUser</code>
Win Volume Object	Full	<code>cybox.objects.win_volume_object.WinVolume</code>
Win Waitable Timer Object	Full	<code>cybox.objects.win_waitable_timer_object.WinWaitable</code>
X509 Certificate Object	Full	<code>cybox.objects.x509_certificate_object.X509Certificat</code>

3.2.3 Cybox Vocabularies

Cybox Construct	API Coverage	Documentation
ActionArgumentNameVocab-1.0	Full	<code>cybox.common.vocabs.ActionArgumentName</code>
ActionNameVocab-1.0	× None (replaced by version 1.1)	
ActionNameVocab-1.1	Full	<code>cybox.common.vocabs.ActionName</code>
ActionObjectAssociationTypeVocab-1.0	Full	<code>cybox.common.vocabs.AssociationType</code>
ActionRelationshipTypeVocab-1.0	× None	
ActionTypeVocab-1.0	Full	<code>cybox.common.vocabs.ActionType</code>
CharacterEncodingVocab-1.0	Full	<code>cybox.common.vocabs.CharacterEncoding</code>
EventTypeVocab-1.0	× None (replaced by version 1.0.1)	
EventTypeVocab-1.0.1	Full	<code>cybox.common.vocabs.EventType</code>
HashNameVocab-1.0	Full	<code>cybox.common.vocabs.HashName</code>
InformationSourceTypeVocab-1.0	Full	<code>cybox.common.vocabs.InformationSourceType</code>
ObjectRelationshipVocab-1.0	× None (replaced by version 1.1)	
ObjectRelationshipVocab-1.1	Full	<code>cybox.common.vocabs.ObjectRelationship</code>
ObjectStateVocab-1.0	Full	<code>cybox.common.vocabs.ObjectState</code>
ToolTypeVocab-1.0	× None (replaced by version 1.1)	
ToolTypeVocab-1.1	Full	<code>cybox.common.vocabs.ToolType</code>

FAQ

- **My RAM consumption rises when processing a large amount of files.** This is a known behavior caused the caching mechanism built into the `cybox.core.object.Object` class. To prevent this issue from happening use the `cybox.utils.caches.cache_clear` method in your code/script to release the cached resources as appropriate. For example, it could be every time you parse or serialize a document.

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