python-cybox Documentation

Release 2.1.0.14

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.

CHAPTER 1

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	2.1.0.14 (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)

CHAPTER 2

Contents

Version: 2.1.0.14

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.

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
```

Writing Your Own Application

See the *Examples* page for more examples of using python-cybox in your own application.

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Installation

Recommended Installation

Use pip:

```
$ pip install cybox
```

You might also want to consider using a virtualenv.

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

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 2.1.0.14 release.
3. Extract the downloaded file. This will leave you with a directory named cybox-2.1.0.14.

```
$ tar -zxf cybox-2.1.0.14.tar.gz
$ ls
cybox-2.1.0.14 cybox-2.1.0.14.tar.gz
```

OR

```
$ unzip cybox-2.1.0.14.zip
$ ls
cybox-2.1.0.14 cybox-2.1.0.14.zip
```

4. Run the installation script.

```
$ cd cybox-2.1.0.14
$ 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.

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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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.

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.

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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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.

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 direcly 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>
```

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>
```

HTTP Message Body

When outputing 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
</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>
```

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>
```

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>
```

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>
```

Object Subclasses

The WindowsFile object is a subclass of the File object. As you can see, the correct namepaces 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_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:WindowsUserAccountObjectT
        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:Se
    <WinUserAccountObj:Security_Type>SidTypeUser</WinUserAccountObj:Security_Type>
</WinUserAccountObj:WindowsUserAccountObjectType>
```

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:Cor
                </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>
```

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'
```

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
```

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:OfficePasswor
    <cyboxCommon:Custom_Properties>
        <cyboxCommon:Property name="password" description="MS Office encryption password">SuP3rS3cr3
    </cyboxCommon:Custom_Properties>
    <CustomObj:Description>This is a string used as a password to protect an Microsoft Office docume
</CustomObj:CustomObjectType>
```

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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.

CHAPTER 3

API Reference

Version: 2.1.0.14

API Reference

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.commmon` package, rather than needing to remember which submodule they are defined in.

Version: 2.1.0.14

`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: 2.1.0.14

`cybox.common.attribute_groups` module **Version**: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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

value

Type: *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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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`

identifiers

(List of values permitted)
Type: *cybox.common.platform_specification.PlatformIdentifier*
XML Binding class name: `Identifier`

Dictionary key name: `identifier`

Version: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

cybox.common.tools module

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

Bases: `mixbox.entities.Entity`

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

description

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

id_

XML Binding class name: `id`
Dictionary key name: `id`

idref

XML Binding class name: `idref`
Dictionary key name: `idref`

name

XML Binding class name: `Name`
Dictionary key name: `name`

service_pack

XML Binding class name: `Service_Pack`
Dictionary key name: `service_pack`

tool_hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: `Tool_Hashes`
Dictionary key name: `tool_hashes`

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`

Version: 2.1.0.14

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*)

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: 2.1.0.14

cybox.core package

Submodules

Version: 2.1.0.14

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: `Action_Aliases`
Dictionary key name: `action_aliases`

action_arguments

Type: *cybox.core.action.ActionArguments*
XML Binding class name: `Action_Arguments`
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: `Associated_Objects`
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`

Version: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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`

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: 2.1.0.14

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: 2.1.0.14

`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*, *type_=None*, *id_=None*, *idref=None*)

Bases: `mixbox.entities.Entity`

The CybOX Object element.

Currently only supports the following data members: - id_ - idref - properties - related_objects - domain specific object properties

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

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

`domain_specific_object_properties`

Type: *cybox.core.object.DomainSpecificObjectProperties*
XML Binding class name: `Domain_Specific_Object_Properties`
Dictionary key name: `domain_specific_object_properties`

id_

XML Binding class name: `id`
Dictionary key name: `id`

idref

XML Binding class name: `idref`
Dictionary key name: `idref`

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`

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*.

Version: 2.1.0.14

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`

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.

Pools are not currently supported.

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

`add`(*observable*)

`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`

`to_dict`()

`to_obj`(*ns_info=None*)

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*)

CybOX Objects

Modules located in the base cybox.objects package

Version: 2.1.0.14

cybox.objects package

Submodules

Version: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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.common.properties.String*
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.properties.String*
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`

Version: 2.1.0.14

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`

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*)
Bases: *cybox.objects.artifact_object.Packaging*

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

to_dict()

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

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`

to_dict()

class cybox.objects.artifact_object.**Encryption**(*encryption_mechanism=None*, *encryption_key=None*)

Bases: *cybox.objects.artifact_object.Packaging*

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`

to_dict()

class cybox.objects.artifact_object.**Packaging**

Bases: `mixbox.entities.Entity`

An individual packaging layer.

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

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.**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*)

Version: 2.1.0.14

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: 2.1.0.14

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.common.properties.String*
XML Binding class name: `Type`
Dictionary key name: `type`

Version: 2.1.0.14

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: 2.1.0.14

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`

Version: 2.1.0.14

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_name

Type: *cybox.common.properties.String*
XML Binding class name: `Disk_Name`
Dictionary key name: `disk_name`

disk_size

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Disk_Size`
Dictionary key name: `disk_size`

free_space

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Free_Space`
Dictionary key name: `free_space`

partition_list

Type: *cybox.objects.disk_object.PartitionList*
XML Binding class name: `Partition_List`
Dictionary key name: `partition_list`

type_

Type: *cybox.common.properties.String*
XML Binding class name: `Type`
Dictionary key name: `type`

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: 2.1.0.14

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: 2.1.0.14

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

ttl

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: TTL
Dictionary key name: ttl

Version: 2.1.0.14

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: 2.1.0.14

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`

ttl

Type: *cybox.common.properties.Integer*
XML Binding class name: `TTL`

Dictionary key name: ttl

Version: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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

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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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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.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`

Version: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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: 2.1.0.14

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.ARPType

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

Version: 2.1.0.14

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

Version: 2.1.0.14

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: Network_Route_Entries
Dictionary key name: network_route_entries

preferred_lifetime

Type: *cybox.common.properties.Duration*
XML Binding class name: `Preferred_Lifetime`
Dictionary key name: `preferred_lifetime`

route_age

Type: *cybox.common.properties.Duration*
XML Binding class name: `Route_Age`
Dictionary key name: `route_age`

valid_lifetime

Type: *cybox.common.properties.Duration*
XML Binding class name: `Valid_Lifetime`
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`

Version: 2.1.0.14

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_DONTROUTE`
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

Version: 2.1.0.14

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`

Version: 2.1.0.14

cybox.objects.pdf_file_object module

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`

metadata

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

version

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

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.`**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: ASCIIHexDecode_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

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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

Version: 2.1.0.14

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: 2.1.0.14

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`

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`

Version: 2.1.0.14

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: 2.1.0.14

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_count

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `Current_Count`
Dictionary key name: `current_count`

maximum_count

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `Maximum_Count`
Dictionary key name: `maximum_count`

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: 2.1.0.14

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`

hostname

Type: *cybox.objects.hostname_object.Hostname*
XML Binding class name: `Hostname`
Dictionary key name: `hostname`

ip_address

Type: *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: 2.1.0.14

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: 2.1.0.14

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

(List of values permitted)
Type: *cybox.objects.system_object.IPInfo*
XML Binding class name: IP_Info_List
Dictionary key name: ip_info_list

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: mixbox.entities.Entity

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`

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

Version: 2.1.0.14

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: 2.1.0.14

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: <undefined>

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: <undefined>

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: 2.1.0.14

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.common.properties.String*
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`

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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: Fully_Qualified_Name
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: 2.1.0.14

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_MAILSLOT`
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

Version: 2.1.0.14

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`

Version: 2.1.0.14

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: 2.1.0.14

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`

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`

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`

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`

classmethod from_list(*seq*)

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

static keyword_test(*pe_resource_dict*)

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.WindowsFileObjectType`

`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_atrib

XML Binding class name: ACCESS_ATRIB
Dictionary key name: access_atrib

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`

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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

dwxcountchars

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: dwXCountChars
Dictionary key name: dwxcountchars

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

dwycountchars

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: dwYCountChars
Dictionary key name: dwycountchars

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.hashes.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`

Version: 2.1.0.14

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`

Version: 2.1.0.14

cybox.objects.win_user_object module

class cybox.objects.win_user_object.**WinGroup**

Bases: `mixbox.entities.Entity`

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_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_object.WinGroup*
XML Binding class name: `Group`

Dictionary key name: group

class cybox.objects.win_user_object.**WinPrivilege**
Bases: mixbox.entities.Entity

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_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_object.WinPrivilege*
XML Binding class name: Privilege
Dictionary key name: privilege

class cybox.objects.win_user_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_object.WinGroupList*
XML Binding class name: Group_List
Dictionary key name: group_list

privilege_list

Type: *cybox.objects.win_user_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`

Version: 2.1.0.14

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.common.properties.String*
XML Binding class name: `Drive_Type`
Dictionary key name: `drive_type`

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.common.properties.String*
XML Binding class name: `Attribute`
Dictionary key name: `attribute`

Version: 2.1.0.14

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

Version: 2.1.0.14

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*)

Utility Classes and Functions

Version: 2.1.0.14

cybox.utils package

Submodules

Version: 2.1.0.14

cybox.utils.autoentity module

cybox.utils.autoentity.**make_class_ref**(*cls*)
cybox.utils.autoentity.**setup**(*app*)

Version: 2.1.0.14

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: 2.1.0.14

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*)

CybOX Helper module

Version: 2.1.0.14

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: 2.1.0.14

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.

CybOX Features

CybOX Construct	API Coverage	Documentation
Composite Observable	Full	*cybox.core.observable.ObservableComposition*
Event	Partial	*cybox.core.event.Event*
Object	Partial	*cybox.core.object.Object*
Observables	Partial	*cybox.core.observable.Observables*
Observable	Partial	*cybox.core.observable.Observable*
Relationships	Partial	

CybOX Objects

CybOX Construct	API Coverage	Documentation
Account Object	Full	*cybox.objects.account_object.Account*
Address Object	Full	*cybox.objects.address_object.Address*
API Object	Full	*cybox.objects.api_object.API*
Archive File Object	Full	*cybox.objects.archive_file_object.ArchiveFile*
ARP Cache Object	Full	*cybox.objects.arp_cache_object.ARPCache*
Artifact Object	Full	*cybox.objects.artifact_object.Artifact*
AS Object	Full	*cybox.objects.as_object.AutonomousSystem*
Code Object	Full	*cybox.objects.code_object.Code*
Custom Object	× None	
Device Object	Full	*cybox.objects.device_object.Device*
Disk Object	Full	*cybox.objects.disk_object.Disk*
Disk Partition Object	Full	*cybox.objects.disk_partition_object.DiskPartition*
DNS Cache Object	Full	*cybox.objects.dns_cache_object.DNSCache*
DNS Query Object	Full	*cybox.objects.dns_query_object.DNSQuery*
DNS Record Object	Full	*cybox.objects.dns_record_object.DNSRecord*
Domain Name Object	Full	*cybox.objects.domain_name_object.DomainName*
Email Message Object	Full	*cybox.objects.email_message_object.EmailMessage*
File Object	Full	*cybox.objects.file_object.File*
GUI Dialogbox Object	Full	*cybox.objects.gui_dialogbox_object.GUIDialogbox*
GUI Object	Full	*cybox.objects.gui_object.GUI*
GUI Window Object	Full	*cybox.objects.gui_window_object.GUIWindow*
HTTP Session Object	Full	*cybox.objects.http_session_object.HTTPSession*
Hostname Object	Full	*cybox.objects.hostname_object.Hostname*
Image File Object	Full	*cybox.objects.image_file_object.ImageFile*
Library Object	Full	*cybox.objects.library_object.Library*
Link Object	Full	*cybox.objects.link_object.Link*
Linux Package Object	Full	*cybox.objects.linux_package_object.LinuxPackage*
Memory Object	Full	*cybox.objects.memory_object.Memory*
Mutex Object	Full	*cybox.objects.mutex_object.Mutex*

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Table 3.1 – continued from previous page

CybOX Construct	API Coverage	Documentation
Network Connection Object	Full	*cybox.objects.network_connection_object.NetworkConne*
Network Flow Object	× None	
Network Packet Object	Full	*cybox.objects.network_packet_object.NetworkPacket*
Network Route Entry Object	Full	*cybox.objects.network_route_entry_object.NetworkRout*
Network Route Object	Full	*cybox.objects.network_route_object.NetRoute*
Network Socket Object	Full	*cybox.objects.network_socket_object.NetworkSocket*
Network Subnet Object	Full	*cybox.objects.network_subnet_object.NetworkSubnet*
PDF File Object	Partial	*cybox.objects.pdf_file_object.PDFFile*
Pipe Object	Full	*cybox.objects.pipe_object.Pipe*
Port Object	Full	*cybox.objects.port_object.Port*
Process Object	Full	*cybox.objects.process_object.Process*
Product Object	Full	*cybox.objects.product_object.Product*
Semaphore Object	Full	*cybox.objects.semaphore_object.Semaphore*
SMS Message Object	Full	*cybox.objects.sms_message_object.SMSMessage*
Socket Address Object	Full	*cybox.objects.socket_address_object.SocketAddress*
System Object	Partial	*cybox.objects.system_object.System*
URI Object	Full	*cybox.objects.uri_object.URI*
URL History Object	× None	
Unix File Object	× None	
Unix Network Route Entry Object	× None	
Unix Pipe Object	× None	
Unix Process Object	× None	
Unix User Account Object	× None	
Unix Volume Object	× None	
User Account Object	Full	*cybox.objects.user_account_object.UserAccount*
User Session Object	× None	
Volume Object	Full	*cybox.objects.volume_object.Volume*
Whois Object	Full	*cybox.objects.whois_object.WhoisEntry*
Win Computer Account Object	Full	*cybox.objects.win_computer_account_object.WinCompute*
Win Critical Section Object	Full	*cybox.objects.win_critical_section_object.WinCritica*
Win Driver Object	Full	*cybox.objects.win_driver_object.WinDriver*
Win Event Log Object	Full	*cybox.objects.win_event_log_object.WinEventLog*
Win Event Object	Full	*cybox.objects.win_event_object.WinEvent*
Win Executable File Object	Full	*cybox.objects.win_executable_file_object.WinExecutab*
Win File Object	Full	*cybox.objects.win_file_object.WinFile*
Win Filemapping Object	Full	*cybox.objects.win_filemapping_object.WinFilemapping*
Win Handle Object	Full	*cybox.objects.win_handle_object.WinHandle*
Win Hook Object	Full	*cybox.objects.win_hook_object.WinHook*
Win Kernel Hook Object	Full	*cybox.objects.win_kernel_hook_object.WinKernelHook*
Win Kernel Object	Full	*cybox.objects.win_kernel_object.WinKernel*
Win Mailslot Object	Full	*cybox.objects.win_mailslot_object.WinMailslot*
Win Memory Page Region Object	Full	*cybox.objects.win_memory_page_region_object.WinMemo*
Win Mutex Object	Full	*cybox.objects.win_mutex_object.WinMutex*
Win Network Route Entry Object	Full	*cybox.objects.win_network_route_entry_object.WinNetw*
Win Network Share Object	Full	*cybox.objects.win_network_share_object.WinNetworkSha*
Win Pipe Object	Full	*cybox.objects.win_pipe_object.WinPipe*
Win Prefetch Object	Full	*cybox.objects.win_prefetch_object.WinPrefetch*
Win Process Object	Full	*cybox.objects.win_process_object.WinProcess*
Win Registry Key Object	Full	*cybox.objects.win_registry_key_object.WinRegistryKey*

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Table 3.1 – continued from previous page

CybOX Construct	API Coverage	Documentation
Win Semaphore Object	Full	*cybox.objects.win_semaphore_object.WinSemaphore*
Win Service Object	Full	*cybox.objects.win_service_object.WinService*
Win System Object	Full	*cybox.objects.win_system_object.WinSystem*
Win System Restore Object	Full	*cybox.objects.win_system_restore_object.WinSystemRes*
Win Task Object	Full	*cybox.objects.win_task_object.WinTask*
Win Thread Object	Full	*cybox.objects.win_thread_object.WinThread*
Win User Account Object	Full	*cybox.objects.win_user_object.WinUser*
Win Volume Object	Full	*cybox.objects.win_volume_object.WinVolume*
Win Waitable Timer Object	Full	*cybox.objects.win_waitable_timer_object.WinWaitable*
X509 Certificate Object	Full	*cybox.objects.x509_certificate_object.X509Certificat*

CybOX Vocabularies

CybOX Construct	API Coverage	Documentation
ActionArgumentNameVocab-1.0	Full	*cybox.common.vocabs.ActionArgumentName*
ActionNameVocab-1.0	× None *(replaced by version 1.1)*	
ActionNameVocab-1.1	Full	*cybox.common.vocabs.ActionName*
ActionObjectAssociationTypeVocab-1.0	Full	cybox.common.vocabs.AssociationType
ActionRelationshipTypeVocab-1.0	× None	
ActionTypeVocab-1.0	Full	*cybox.common.vocabs.ActionType*
CharacterEncodingVocab-1.0	Full	*cybox.common.vocabs.CharacterEncoding*
EventTypeVocab-1.0	× None *(replaced by version 1.0.1)*	
EventTypeVocab-1.0.1	Full	*cybox.common.vocabs.EventType*
HashNameVocab-1.0	Full	*cybox.common.vocabs.HashName*
InformationSourceTypeVocab-1.0	Full	*cybox.common.vocabs.InformationSourceType*
ObjectRelationshipVocab-1.0	× None *(replaced by version 1.1)*	
ObjectRelationshipVocab-1.1	Full	*cybox.common.vocabs.ObjectRelationship*
ObjectStateVocab-1.0	× None	
ToolTypeVocab-1.0	× None *(replaced by version 1.1)*	
ToolTypeVocab-1.1	Full	*cybox.common.vocabs.ToolType*

CHAPTER 4

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