
python-cybox Documentation

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The MITRE Corporation

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

Versions

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

CybOX Version	python-cybox Version
2.1	2.1.0.17 (PyPI) (GitHub)
2.0.1	2.0.1.4 (PyPI) (GitHub)
2.0	2.0.0.1 (PyPI) (GitHub)
1.0	1.0.0b3 (PyPI) (GitHub)

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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 2.1.0.17 release.
3. Extract the downloaded file. This will leave you with a directory named `cybox-2.1.0.17`.

```
$ tar -zxf cybox-2.1.0.17.tar.gz
$ ls
cybox-2.1.0.17  cybox-2.1.0.17.tar.gz
```

OR

```
$ unzip cybox-2.1.0.17.zip
$ ls
cybox-2.1.0.17  cybox-2.1.0.17.zip
```

4. Run the installation script.

```
$ cd cybox-2.1.0.17
$ 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 directly into the constructor.

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

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

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>
```

```

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

```

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

```

```

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

```

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

```

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

```

```

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

```

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) Gecko/20100101 Firefox/25.0
        </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 namespaces for the various properties are set.

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

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

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

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

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

ObservableCompositions

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



```

observables = Observables()

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

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

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

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

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

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

```

```

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

```

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

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

```

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Contributing

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

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

API Reference

Version: 2.1.0.17

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

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`cybox.common` package

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

In other words, do this:

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

rather than:

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

Submodules

Version: 2.1.0.17

`cybox.common.attribute_groups` module **Version:** 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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

offsetType: *cybox.common.properties.Integer*

XML Binding class name: Offset

Dictionary key name: offset

search_distanceType: *cybox.common.properties.Integer*

XML Binding class name: Search_Distance

Dictionary key name: search_distance

search_withinType: *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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DigitalSignatureInfoType

certificate_issuerType: *cybox.common.properties.String*

XML Binding class name: Certificate_Issuer

Dictionary key name: certificate_issuer

certificate_subjectType: *cybox.common.properties.String*

XML Binding class name: Certificate_Subject

Dictionary key name: certificate_subject

signature_descriptionType: *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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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.hashses.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: 2.1.0.17

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: 2.1.0.17

`cybox.core` package

Submodules

Version: 2.1.0.17

`cybox.core.action` module

class `cybox.core.action.Action`

Bases: `mixbox.entities.Entity`

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

action_aliases

Type: `cybox.core.action.ActionAliases`

XML Binding class name: `ActionAliases`

Dictionary key name: `action_aliases`

action_arguments

Type: `cybox.core.action.ActionArguments`

XML Binding class name: `ActionArguments`

Dictionary key name: `action_arguments`

action_status

XML Binding class name: `action_status`

Dictionary key name: `action_status`

associated_objects

Type: `cybox.core.action.AssociatedObjects`

XML Binding class name: `AssociatedObjects`

Dictionary key name: `associated_objects`

context

XML Binding class name: `context`

Dictionary key name: `context`

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: `Description`

Dictionary key name: `description`

discovery_method

Type: `cybox.common.measuresource.MeasureSource`

XML Binding class name: `Discovery_Method`

Dictionary key name: `discovery_method`

frequency

Type: `cybox.core.frequency.Frequency`

XML Binding class name: `Frequency`

Dictionary key name: `frequency`

id_

XML Binding class name: id

Dictionary key name: id

idref

XML Binding class name: idref

Dictionary key name: idref

name

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionName*

XML Binding class name: Name

Dictionary key name: name

ordinal_position

XML Binding class name: ordinal_position

Dictionary key name: ordinal_position

relationships

Type: *cybox.core.action.ActionRelationships*

XML Binding class name: Relationships

Dictionary key name: relationships

timestamp

XML Binding class name: timestamp

Dictionary key name: timestamp

type_

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionType*

XML Binding class name: Type

Dictionary key name: type

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

Bases: `mixbox.entities.EntityList`

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

action_alias

(List of values permitted)

Type: `cybox.Unicode`

XML Binding class name: Action_Alias

Dictionary key name: action_alias

class cybox.core.action.ActionArgument

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_core.ActionArgumentType

argument_name

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionArgumentName*

XML Binding class name: Argument_Name

Dictionary key name: argument_name

argument_value

XML Binding class name: Argument_Value

Dictionary key name: argument_value

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

Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.cybox_core.ActionArgumentsType

action_argument

(List of values permitted)

Type: *cybox.core.action.ActionArgument*

XML Binding class name: Action_Argument

Dictionary key name: action_argument

class cybox.core.action.ActionRelationship

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_core.ActionRelationshipType

action_references

(List of values permitted)

Type: *cybox.core.action_reference.ActionReference*

XML Binding class name: Action_Reference

Dictionary key name: action_reference

type

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionType*

XML Binding class name: Type

Dictionary key name: type

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

Bases: *mixbox.entities.EntityList*

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

relationship

(List of values permitted)

Type: *cybox.core.action.ActionRelationship*

XML Binding class name: Relationship

Dictionary key name: relationship

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

Bases: *mixbox.entities.EntityList*

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

action

(List of values permitted)

Type: *cybox.core.action.Action*

XML Binding class name: Action

Dictionary key name: action

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

Bases: *mixbox.entities.EntityList*

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

associated_object

(List of values permitted)

Type: *cybox.core.associated_object.AssociatedObject*

XML Binding class name: Associated_Object

Dictionary key name: associated_object

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cybox.core.action_reference module CyBOX Action Reference Class

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

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

action_id

XML Binding class name: `action_id`

Dictionary key name: `action_id`

Version: 2.1.0.17

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: 2.1.0.17

cybox.core.event module

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

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

actions

Type: `cybox.core.action.Actions`

XML Binding class name: `Actions`

Dictionary key name: `actions`

description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Description

Dictionary key name: description

event

(List of values permitted)

Type: *cybox.core.event.Event*

XML Binding class name: Event

Dictionary key name: event

frequency

Type: *cybox.core.frequency.Frequency*

XML Binding class name: Frequency

Dictionary key name: frequency

id_

XML Binding class name: id

Dictionary key name: id

idref

XML Binding class name: idref

Dictionary key name: idref

location

Type: *cybox.common.location.Location*

XML Binding class name: Location

Dictionary key name: location

observation_method

Type: *cybox.common.measuresource.MeasureSource*

XML Binding class name: Observation_Method

Dictionary key name: observation_method

type_

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.EventType*

XML Binding class name: Type

Dictionary key name: type

Version: 2.1.0.17

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: 2.1.0.17

cybox.core.object module

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

The Cybox DomainSpecificObjectProperties base class.

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

to_dict ()

to_obj (*ns_info=None*)

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

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

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

Notes

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

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

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

description

Type: `cybox.common.structured_text.StructuredText`

XML Binding class name: `Description`

Dictionary key name: `description`

domain_specific_object_properties

Type: `cybox.core.object.DomainSpecificObjectProperties`

XML Binding class name: `Domain_Specific_Object_Properties`

Dictionary key name: `domain_specific_object_properties`

has_changed

XML Binding class name: `has_changed`

Dictionary key name: `has_changed`

id_

XML Binding class name: `id`

Dictionary key name: `id`

idref

XML Binding class name: `idref`

Dictionary key name: `idref`

properties

Type: `cybox.common.object_properties.ObjectProperties`

XML Binding class name: `Properties`

Dictionary key name: `properties`

related_objects

Type: `cybox.core.object.RelatedObjects`

XML Binding class name: `Related_Objects`

Dictionary key name: `related_objects`

state

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.VocabString*

XML Binding class name: State

Dictionary key name: state

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

Bases: *cybox.core.object.Object*

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

classmethod `from_dict` (*cls_dict*)

classmethod `from_obj` (*cls_obj*)

get_properties ()

relationship

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ObjectRelationship*

XML Binding class name: Relationship

Dictionary key name: relationship

to_dict ()

to_obj (*ns_info=None*)

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

Bases: `mixbox.entities.EntityList`

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

related_object

(List of values permitted)

Type: *cybox.core.object.RelatedObject*

XML Binding class name: Related_Object

Dictionary key name: related_object

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

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

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

Parameters

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

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cybox.core.observable module

class cybox.core.observable.**Keywords** (*args)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.cybox_core.KeywordsType

keyword

(List of values permitted)

Type: cybox.Unicode

XML Binding class name: Keyword

Dictionary key name: keyword

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

Bases: mixbox.entities.Entity

A single Observable.

XML binding class: cybox.bindings.cybox_core.ObservableType

add_keyword (*value*)

description

Type: cybox.common.structured_text.StructuredText

XML Binding class name: Description

Dictionary key name: description

event

Type: cybox.core.event.Event

XML Binding class name: Event

Dictionary key name: event

id_

XML Binding class name: id

Dictionary key name: id

idref

XML Binding class name: idref

Dictionary key name: idref

keywords

Type: `cybox.core.observable.Keywords`

XML Binding class name: Keywords

Dictionary key name: keywords

object_

Type: `cybox.core.object.Object`

XML Binding class name: Object

Dictionary key name: object

observable_composition

Type: `cybox.core.observable.ObservableComposition`

XML Binding class name: Observable_Composition

Dictionary key name: observable_composition

observable_source

(List of values permitted)

Type: `cybox.common.measuresource.MeasureSource`

XML Binding class name: Observable_Source

Dictionary key name: observable_source

pattern_fidelity

Type: `cybox.core.pattern_fidelity.PatternFidelity`

XML Binding class name: Pattern_Fidelity

Dictionary key name: pattern_fidelity

sighting_count

XML Binding class name: sighting_count

Dictionary key name: sighting_count

title

XML Binding class name: Title

Dictionary key name: title

class `cybox.core.observable.ObservableComposition` (*operator='AND', observables=None*)

Bases: `mixbox.entities.EntityList`

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

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

add (*observable*)

observables

(List of values permitted)

Type: `cybox.core.observable.Observable`

XML Binding class name: Observable

Dictionary key name: observables

operator

XML Binding class name: operator

Dictionary key name: operator

class `cybox.core.observable.Observables` (*observables=None*)

Bases: `mixbox.entities.EntityList`

The root CyBOX Observables object.

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

add (*object_*)

observable_package_source

Type: `cybox.common.measuresource.MeasureSource`

XML Binding class name: Observable_Package_Source

Dictionary key name: observable_package_source

observables

(List of values permitted)

Type: `cybox.core.observable.Observable`

XML Binding class name: Observable

Dictionary key name: observables

pools

Type: `cybox.core.pool.Pools`

XML Binding class name: Pools

Dictionary key name: pools

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

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`cybox.objects` package

Submodules

Version: 2.1.0.17

`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

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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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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

raw_artifact

Type: *cybox.objects.artifact_object.RawArtifact*

XML Binding class name: Raw_Artifact

Dictionary key name: raw_artifact

raw_artifact_reference

XML Binding class name: Raw_Artifact_Reference

Dictionary key name: raw_artifact_reference

suspected_malicious

XML Binding class name: suspected_malicious

Dictionary key name: suspected_malicious

to_dict ()

to_obj (*ns_info=None*)

type_

XML Binding class name: type_

Dictionary key name: type

```
class cybox.objects.artifact_object.Base64Encoding (algorithm=None, character_set=None,
                                                    tom_character_set_ref=None)
```

Bases: *cybox.objects.artifact_object.Encoding*

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

pack (*data*)

unpack (*packed_data*)

```
class cybox.objects.artifact_object.Bz2Compression
```

Bases: *cybox.objects.artifact_object.Compression*

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

pack (*data*)

unpack (*packed_data*)

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

Bases: *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` (*algorithm=None, character_set=None, custom_character_set_ref=None*)

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`

character_set

XML Binding class name: `character_set`

Dictionary key name: `character_set`

custom_character_set_ref

XML Binding class name: `custom_character_set_ref`

Dictionary key name: `custom_character_set_ref`

to_dict ()

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

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

Version: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

cybox.objects.disk_object module

class cybox.objects.disk_object.**Disk**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.disk_object.DiskObjectType

disk_nameType: *cybox.common.properties.String*

XML Binding class name: Disk_Name

Dictionary key name: disk_name

disk_sizeType: *cybox.common.properties.UnsignedLong*

XML Binding class name: Disk_Size

Dictionary key name: disk_size

free_spaceType: *cybox.common.properties.UnsignedLong*

XML Binding class name: Free_Space

Dictionary key name: free_space

partition_listType: *cybox.objects.disk_object.PartitionList*

XML Binding class name: Partition_List

Dictionary key name: partition_list

type_Type: *cybox.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: 2.1.0.17**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: 2.1.0.17

cybox.objects.dns_cache_object module

class `cybox.objects.dns_cache_object.DNSCache`

Bases: *cybox.common.object_properties.ObjectProperties*

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

dns_cache_entry

(List of values permitted)

Type: *cybox.objects.dns_cache_object.DNSCacheEntry*

XML Binding class name: DNS_Cache_Entry

Dictionary key name: dns_cache_entry

class `cybox.objects.dns_cache_object.DNSCacheEntry`

Bases: `mixbox.entities.Entity`

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

dns_entry

Type: *cybox.objects.dns_record_object.DNSRecord*

XML Binding class name: DNS_Entry

Dictionary key name: dns_entry

t11

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: TTL

Dictionary key name: t11

Version: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

cybox.objects.file_object module

class `cybox.objects.file_object.EPJumpCode`
Bases: `mixbox.entities.Entity`

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

depth

Type: `cybox.common.properties.Integer`

XML Binding class name: `Depth`

Dictionary key name: `depth`

opcodes

Type: `cybox.common.properties.String`

XML Binding class name: `Opcodes`

Dictionary key name: `opcodes`

class `cybox.objects.file_object.EntryPointSignature`
Bases: `mixbox.entities.Entity`

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

name

Type: `cybox.common.properties.String`

XML Binding class name: `Name`

Dictionary key name: `name`

type_

XML Binding class name: Type

Dictionary key name: type

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

Bases: `mixbox.entities.EntityList`

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

entry_point_signature

(List of values permitted)

Type: `cybox.objects.file_object.EntryPointSignature`

XML Binding class name: `Entry_Point_Signature`

Dictionary key name: `entry_point_signature`

class `cybox.objects.file_object.File`

Bases: `cybox.common.object_properties.ObjectProperties`

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

accessed_time

Type: `cybox.common.properties.DateTime`

XML Binding class name: `Accessed_Time`

Dictionary key name: `accessed_time`

add_hash (*hash_*)

byte_runs

Type: `cybox.common.byterun.ByteRuns`

XML Binding class name: `Byte_Runs`

Dictionary key name: `byte_runs`

compression_comment

Type: `cybox.common.properties.String`

XML Binding class name: `Compression_Comment`

Dictionary key name: `compression_comment`

compression_method

Type: `cybox.common.properties.String`

XML Binding class name: `Compression_Method`

Dictionary key name: `compression_method`

compression_version

Type: `cybox.common.properties.String`

XML Binding class name: Compression_Version

Dictionary key name: compression_version

created_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Created_Time

Dictionary key name: created_time

decryption_key

Type: *cybox.common.properties.String*

XML Binding class name: Decryption_Key

Dictionary key name: decryption_key

device_path

Type: *cybox.common.properties.String*

XML Binding class name: Device_Path

Dictionary key name: device_path

digital_signatures

Type: *cybox.common.digitalsignature.DigitalSignatureList*

XML Binding class name: Digital_Signatures

Dictionary key name: digital_signatures

encryption_algorithm

Type: *cybox.common.properties.String*

XML Binding class name: Encryption_Algorithm

Dictionary key name: encryption_algorithm

extracted_features

Type: *cybox.common.extracted_features.ExtractedFeatures*

XML Binding class name: Extracted_Features

Dictionary key name: extracted_features

file_attributes_list

Type: *cybox.objects.file_object.FileAttribute*

XML Binding class name: File_Attributes_List

Dictionary key name: file_attributes_list

file_extension

Type: *cybox.common.properties.String*

XML Binding class name: File_Extension

Dictionary key name: file_extension

file_format

Type: *cybox.common.properties.String*

XML Binding class name: File_Format

Dictionary key name: file_format

file_name

Type: *cybox.common.properties.String*

XML Binding class name: File_Name

Dictionary key name: file_name

file_path

Type: *cybox.objects.file_object.FilePath*

XML Binding class name: File_Path

Dictionary key name: file_path

full_path

Type: *cybox.common.properties.String*

XML Binding class name: Full_Path

Dictionary key name: full_path

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

is_masqueraded

XML Binding class name: is_masqueraded

Dictionary key name: is_masqueraded

is_packed

XML Binding class name: is_packed

Dictionary key name: is_packed

magic_number

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Magic_Number

Dictionary key name: magic_number

modified_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Modified_Time

Dictionary key name: modified_time

packer_list

Type: *cybox.objects.file_object.PackerList*

XML Binding class name: Packer_List

Dictionary key name: packer_list

peak_entropy

Type: *cybox.common.properties.Double*

XML Binding class name: Peak_Entropy

Dictionary key name: peak_entropy

permissions

Type: *cybox.objects.file_object.FilePermissions*

XML Binding class name: Permissions

Dictionary key name: permissions

size_in_bytes

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Size_In_Bytes

Dictionary key name: size_in_bytes

sym_links

Type: *cybox.objects.file_object.SymLinksList*

XML Binding class name: Sym_Links

Dictionary key name: sym_links

user_owner

Type: *cybox.common.properties.String*

XML Binding class name: User_Owner

Dictionary key name: user_owner

class *cybox.objects.file_object.FileAttribute*

Bases: *mixbox.entities.Entity*

An abstract class for file attributes.

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

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

Bases: *cybox.common.properties.String*

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

fully_qualified

XML Binding class name: `fully_qualified`

Dictionary key name: `fully_qualified`

is_plain()

class `cybox.objects.file_object.FilePermissions`

Bases: `mixbox.entities.Entity`

An abstract class for file permissions.

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

class `cybox.objects.file_object.Packer`

Bases: `mixbox.entities.Entity`

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

detected_entrypoint_signatures

Type: `cybox.objects.file_object.EntryPointSignatureList`

XML Binding class name: `Detected_Entrypoint_Signatures`

Dictionary key name: `detected_entrypoint_signatures`

entry_point

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Entry_Point`

Dictionary key name: `entry_point`

ep_jump_codes

Type: `cybox.objects.file_object.EPJumpCode`

XML Binding class name: `EP_Jump_Codes`

Dictionary key name: `ep_jump_codes`

name

Type: `cybox.common.properties.String`

XML Binding class name: `Name`

Dictionary key name: `name`

signature

Type: `cybox.common.properties.String`

XML Binding class name: `Signature`

Dictionary key name: `signature`

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

version

Type: *cybox.common.properties.String*

XML Binding class name: Version

Dictionary key name: version

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

Bases: `mixbox.entities.EntityList`

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

packer

(List of values permitted)

Type: *cybox.objects.file_object.Packer*

XML Binding class name: Packer

Dictionary key name: packer

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

Bases: `mixbox.entities.EntityList`

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

sym_link

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Sym_Link

Dictionary key name: sym_link

Version: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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.ImageFileType`

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

cybox.objects.network_packet_object module

class `cybox.objects.network_packet_object.ARP`

Bases: `mixbox.entities.Entity`

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

hardware_addr_size

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Hardware_Addr_Size`

Dictionary key name: `hardware_addr_size`

hardware_addr_type

Type: `cybox.common.properties.String`

XML Binding class name: `Hardware_Addr_Type`

Dictionary key name: `hardware_addr_type`

op_type

Type: `cybox.common.properties.String`

XML Binding class name: `Op_Type`

Dictionary key name: `op_type`

proto_addr_size

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Proto_Addr_Size`

Dictionary key name: `proto_addr_size`

proto_addr_type

Type: `cybox.common.properties.String`

XML Binding class name: `Proto_Addr_Type`

Dictionary key name: `proto_addr_type`

recip_hardware_addr

Type: `cybox.objects.address_object.Address`

XML Binding class name: `Recip_Hardware_Addr`

Dictionary key name: `recip_hardware_addr`

recip_protocol_addr

Type: *cybox.objects.address_object.Address*
 XML Binding class name: Recip_Protocol_Addr
 Dictionary key name: recip_protocol_addr

sender_hardware_addr

Type: *cybox.objects.address_object.Address*
 XML Binding class name: Sender_Hardware_Addr
 Dictionary key name: sender_hardware_addr

sender_protocol_addr

Type: *cybox.objects.address_object.Address*
 XML Binding class name: Sender_Protocol_Addr
 Dictionary key name: sender_protocol_addr

class *cybox.objects.network_packet_object.AuthenticationHeader*
 Bases: *mixbox.entities.Entity*

XML binding class:
cybox.bindings.network_packet_object.AuthenticationHeaderType

authentication_data

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

header_ext_len

Type: *cybox.common.properties.HexBinary*
 XML Binding class name: Header_Ext_Len
 Dictionary key name: header_ext_len

next_header

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

security_parameters_index

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

sequence_number

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

Dictionary key name: `sequence_number`

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

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

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

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

authentication_data

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

next_header

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

padding

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

padding_len

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

payload_data

Type: `cybox.common.properties.HexBinary`
XML Binding class name: `Payload_Data`
Dictionary key name: `payload_data`

security_parameters_index

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

sequence_number

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Sequence_Number

Dictionary key name: sequence_number

class `cybox.objects.network_packet_object.EthernetHeader`

Bases: `mixbox.entities.Entity`

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

checksum

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Checksum

Dictionary key name: checksum

destination_mac_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Destination_MAC_Addr

Dictionary key name: destination_mac_addr

source_mac_addr

Type: *cybox.objects.address_object.Address*

XML Binding class name: Source_MAC_Addr

Dictionary key name: source_mac_addr

type_or_length

Type: *cybox.objects.network_packet_object.TypeLength*

XML Binding class name: Type_Or_Length

Dictionary key name: type_or_length

class `cybox.objects.network_packet_object.EthernetInterface`

Bases: `mixbox.entities.Entity`

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

ethernet_header

Type: *cybox.objects.network_packet_object.EthernetHeader*

XML Binding class name: Ethernet_Header

Dictionary key name: ethernet_header

class `cybox.objects.network_packet_object.Fragment`

Bases: `mixbox.entities.Entity`

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

fragment

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Fragment`

Dictionary key name: `fragment`

fragment_header

Type: `cybox.objects.network_packet_object.FragmentHeader`

XML Binding class name: `Fragment_Header`

Dictionary key name: `fragment_header`

class `cybox.objects.network_packet_object.FragmentHeader`

Bases: `mixbox.entities.Entity`

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

fragment_offset

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Fragment_Offset`

Dictionary key name: `fragment_offset`

identification

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Identification`

Dictionary key name: `identification`

m_flag

Type: `cybox.common.properties.String`

XML Binding class name: `M_Flag`

Dictionary key name: `m_flag`

next_header

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Next_Header`

Dictionary key name: `next_header`

class `cybox.objects.network_packet_object.FragmentationRequired`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.FragmentationRequiredType`

fragmentation_required

XML Binding class name: Fragmentation_Required

Dictionary key name: fragmentation_required

next_hop_mtu

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Next_Hop_MTU

Dictionary key name: next_hop_mtu

class `cybox.objects.network_packet_object.HopByHopOptions`

Bases: `cybox.objects.network_packet_object._IPv6ExtHeader`

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

class `cybox.objects.network_packet_object.ICMPv4AddressMaskReply`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv4AddressMaskReplyType`

address_mask

Type: *cybox.objects.address_object.Address*

XML Binding class name: Address_Mask

Dictionary key name: address_mask

address_mask_reply

XML Binding class name: Address_Mask_Reply

Dictionary key name: address_mask_reply

class `cybox.objects.network_packet_object.ICMPv4AddressMaskRequest`

Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv4AddressMaskRequestType`

address_mask

Type: *cybox.objects.address_object.Address*

XML Binding class name: Address_Mask

Dictionary key name: address_mask

address_mask_request

XML Binding class name: Address_Mask_Request

Dictionary key name: address_mask_request

class cybox.objects.network_packet_object.ICMPv4DestinationUnreachable

Bases: mixbox.entities.Entity

XML binding class:

cybox.bindings.network_packet_object.ICMPv4DestinationUnreachableType

communication_administratively_prohibited

XML Binding class name: Communication_Administratively_Prohibited

Dictionary key name: communication_administratively_prohibited

destination_host_unknown

XML Binding class name: Destination_Host_Unknown

Dictionary key name: destination_host_unknown

destination_host_unreachable

XML Binding class name: Destination_Host_Unreachable

Dictionary key name: destination_host_unreachable

destination_network_unknown

XML Binding class name: Destination_Network_Unknown

Dictionary key name: destination_network_unknown

destination_network_unreachable

XML Binding class name: Destination_Network_Unreachable

Dictionary key name: destination_network_unreachable

destination_port_unreachable

XML Binding class name: Destination_Port_Unreachable

Dictionary key name: destination_port_unreachable

destination_protocol_unreachable

XML Binding class name: Destination_Protocol_Unreachable

Dictionary key name: destination_protocol_unreachable

fragmentation_required

Type: *cybox.objects.network_packet_object.FragmentationRequired*

XML Binding class name: Fragmentation_Required

Dictionary key name: fragmentation_required

host_administratively_prohibited

XML Binding class name: Host_Administratively_Prohibited

Dictionary key name: host_administratively_prohibited

host_precedence_violation

XML Binding class name: Host_Precedence_Violation

Dictionary key name: host_precedence_violation

host_unreachable_for_tos

XML Binding class name: Host_Unreachable_For_TOS

Dictionary key name: host_unreachable_for_tos

network_administratively_prohibited

XML Binding class name: Network_Administratively_Prohibited

Dictionary key name: network_administratively_prohibited

network_unreachable_for_tos

XML Binding class name: Network_Unreachable_For_TOS

Dictionary key name: network_unreachable_for_tos

precedence_cutoff_in_effect

XML Binding class name: Precedence_Cutoff_In_Effect

Dictionary key name: precedence_cutoff_in_effect

source_host_isolated

XML Binding class name: Source_Host_Isolated

Dictionary key name: source_host_isolated

source_route_failed

XML Binding class name: Source_Route_Failed

Dictionary key name: source_route_failed

class cybox.objects.network_packet_object.**ICMPv4EchoReply**

Bases: cybox.objects.network_packet_object._ICMPEchoReply

XML binding class: cybox.bindings.network_packet_object.ICMPv4EchoReplyType

class cybox.objects.network_packet_object.**ICMPv4EchoRequest**

Bases: cybox.objects.network_packet_object._ICMPEchoRequest

XML binding class: cybox.bindings.network_packet_object.ICMPv4EchoRequestType

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

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

destination_unreachable

Type: `cybox.objects.network_packet_object.ICMPv4DestinationUnreachable`
XML Binding class name: `Destination_Unreachable`
Dictionary key name: `destination_unreachable`

error_msg_content

Type: `cybox.objects.network_packet_object.ICMPv4ErrorMessageContent`
XML Binding class name: `Error_Msg_Content`
Dictionary key name: `error_msg_content`

redirect_message

Type: `cybox.objects.network_packet_object.ICMPv4RedirectMessage`
XML Binding class name: `Redirect_Message`
Dictionary key name: `redirect_message`

source_quench

Type: `cybox.objects.network_packet_object.ICMPv4SourceQuench`
XML Binding class name: `Source_Quench`
Dictionary key name: `source_quench`

time_exceeded

Type: `cybox.objects.network_packet_object.ICMPv4TimeExceeded`
XML Binding class name: `Time_Exceeded`
Dictionary key name: `time_exceeded`

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

XML binding class:
`cybox.bindings.network_packet_object.ICMPv4ErrorMessageContentType`

first_eight_bytes

Type: `cybox.common.properties.HexBinary`
XML Binding class name: `First_Eight_Bytes`
Dictionary key name: `first_eight_bytes`

ip_header

Type: *cybox.objects.network_packet_object.IPv4Header*

XML Binding class name: IP_Header

Dictionary key name: ip_header

class *cybox.objects.network_packet_object.ICMPv4Header*

Bases: *cybox.objects.network_packet_object._ICMPHeader*

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

class *cybox.objects.network_packet_object.ICMPv4InfoMessage*

Bases: *mixbox.entities.Entity*

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

address_mask_reply

Type: *cybox.objects.network_packet_object.ICMPv4AddressMaskReply*

XML Binding class name: Address_Mask_Reply

Dictionary key name: address_mask_reply

address_mask_request

Type: *cybox.objects.network_packet_object.ICMPv4AddressMaskRequest*

XML Binding class name: Address_Mask_Request

Dictionary key name: address_mask_request

echo_reply

Type: *cybox.objects.network_packet_object.ICMPv4EchoReply*

XML Binding class name: Echo_Reply

Dictionary key name: echo_reply

echo_request

Type: *cybox.objects.network_packet_object.ICMPv4EchoRequest*

XML Binding class name: Echo_Request

Dictionary key name: echo_request

info_msg_content

Type: *cybox.objects.network_packet_object.ICMPv4InfoMessageContent*

XML Binding class name: Info_Msg_Content

Dictionary key name: info_msg_content

timestamp_reply

Type: *cybox.objects.network_packet_object.ICMPv4TimestampReply*
XML Binding class name: `Timestamp_Reply`
Dictionary key name: `timestamp_reply`

timestamp_request

Type: *cybox.objects.network_packet_object.ICMPv4TimestampRequest*
XML Binding class name: `Timestamp_Request`
Dictionary key name: `timestamp_request`

class `cybox.objects.network_packet_object.ICMPv4InfoMessageContent`
Bases: `cybox.objects.network_packet_object._ICMPInfoMessageContent`

XML binding class:
`cybox.bindings.network_packet_object.ICMPv4InfoMessageContentType`

class `cybox.objects.network_packet_object.ICMPv4Packet`
Bases: `mixbox.entities.Entity`

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

error_msg

Type: *cybox.objects.network_packet_object.ICMPv4ErrorMessage*
XML Binding class name: `Error_Msg`
Dictionary key name: `error_msg`

icmpv4_header

Type: *cybox.objects.network_packet_object.ICMPv4Header*
XML Binding class name: `ICMPv4_Header`
Dictionary key name: `icmpv4_header`

info_msg

Type: *cybox.objects.network_packet_object.ICMPv4InfoMessage*
XML Binding class name: `Info_Msg`
Dictionary key name: `info_msg`

traceroute

Type: *cybox.objects.network_packet_object.ICMPv4Traceroute*
XML Binding class name: `Traceroute`
Dictionary key name: `traceroute`

class `cybox.objects.network_packet_object.ICMPv4RedirectMessage`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv4RedirectMessageType`

host_redirect

XML Binding class name: `Host_Redirect`

Dictionary key name: `host_redirect`

ip_address

Type: `cybox.objects.address_object.Address`

XML Binding class name: `IP_Address`

Dictionary key name: `ip_address`

network_redirect

XML Binding class name: `Network_Redirect`

Dictionary key name: `network_redirect`

tos_host_redirect

XML Binding class name: `ToS_Host_Redirect`

Dictionary key name: `tos_host_redirect`

tos_network_redirect

XML Binding class name: `ToS_Network_Redirect`

Dictionary key name: `tos_network_redirect`

class `cybox.objects.network_packet_object.ICMPv4SourceQuench`

Bases: `mixbox.entities.Entity`

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

source_quench

XML Binding class name: `Source_Quench`

Dictionary key name: `source_quench`

class `cybox.objects.network_packet_object.ICMPv4TimeExceeded`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ICMPv4TimeExceededType`

frag_reassembly_time_exceeded

XML Binding class name: `Frag_Reassembly_Time_Exceeded`

Dictionary key name: frag_reassembly_time_exceeded

ttl_exceeded_in_transit

XML Binding class name: TTL_Exceeded_In_Transit

Dictionary key name: ttl_exceeded_in_transit

class cybox.objects.network_packet_object.ICMPv4TimestampReply
Bases: mixbox.entities.Entity

XML binding class:

cybox.bindings.network_packet_object.ICMPv4TimestampReplyType

originate_timestamp

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Originate_Timestamp

Dictionary key name: originate_timestamp

receive_timestamp

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Receive_Timestamp

Dictionary key name: receive_timestamp

timestamp_reply

XML Binding class name: Timestamp_Reply

Dictionary key name: timestamp_reply

transmit_timestamp

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Transmit_Timestamp

Dictionary key name: transmit_timestamp

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

XML binding class:

cybox.bindings.network_packet_object.ICMPv4TimestampRequestType

originate_timestamp

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: Originate_Timestamp

Dictionary key name: originate_timestamp

timestamp

XML Binding class name: Timestamp

Dictionary key name: timestamp

class cybox.objects.network_packet_object.ICMPv4Traceroute

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv4TracerouteType

identifier

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Identifier

Dictionary key name: identifier

outbound_hop_count

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Outbound_Hop_Count

Dictionary key name: outbound_hop_count

outbound_packet_forward_success

XML Binding class name: Outbound_Packet_Forward_Success

Dictionary key name: outbound_packet_forward_success

outbound_packet_no_route

XML Binding class name: Outbound_Packet_no_Route

Dictionary key name: outbound_packet_no_route

output_link_mtu

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Output_Link_MTU

Dictionary key name: output_link_mtu

output_link_speed

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Output_Link_Speed

Dictionary key name: output_link_speed

return_hop_count

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Return_Hop_Count

Dictionary key name: return_hop_count

class `cybox.objects.network_packet_object.ICMPv6DestinationUnreachable`
Bases: `mixbox.entities.Entity`

XML binding class:

`cybox.bindings.network_packet_object.ICMPv6DestinationUnreachableType`

address_unreachable

XML Binding class name: `Address_Unreachable`

Dictionary key name: `address_unreachable`

beyond_scope

XML Binding class name: `Beyond_Scope`

Dictionary key name: `beyond_scope`

comm_prohibited

XML Binding class name: `Comm_Prohibited`

Dictionary key name: `comm_prohibited`

no_route

XML Binding class name: `No_Route`

Dictionary key name: `no_route`

port_unreachable

XML Binding class name: `Port_Unreachable`

Dictionary key name: `port_unreachable`

reject_route

XML Binding class name: `Reject_Route`

Dictionary key name: `reject_route`

src_addr_failed_policy

XML Binding class name: `Src_Addr_Failed_Policy`

Dictionary key name: `src_addr_failed_policy`

class `cybox.objects.network_packet_object.ICMPv6EchoReply`
Bases: `cybox.objects.network_packet_object._ICMPEchoReply`

XML binding class: `cybox.bindings.network_packet_object.ICMPv6EchoReplyType`

class `cybox.objects.network_packet_object.ICMPv6EchoRequest`
Bases: `cybox.objects.network_packet_object._ICMPEchoRequest`

XML binding class: `cybox.bindings.network_packet_object.ICMPv6EchoRequestType`

class `cybox.objects.network_packet_object.ICMPv6ErrorMessage`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.ICMPv6ErrorMessageType`

destination_unreachable

Type: `cybox.objects.network_packet_object.ICMPv6DestinationUnreachable`

XML Binding class name: `Destination_Unreachable`

Dictionary key name: `destination_unreachable`

invoking_packet

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Invoking_Packet`

Dictionary key name: `invoking_packet`

packet_too_big

Type: `cybox.objects.network_packet_object.ICMPv6PacketTooBig`

XML Binding class name: `Packet_Too_Big`

Dictionary key name: `packet_too_big`

parameter_problem

Type: `cybox.objects.network_packet_object.ICMPv6ParameterProblem`

XML Binding class name: `Parameter_Problem`

Dictionary key name: `parameter_problem`

time_exceeded

Type: `cybox.objects.network_packet_object.ICMPv6TimeExceeded`

XML Binding class name: `Time_Exceeded`

Dictionary key name: `time_exceeded`

class `cybox.objects.network_packet_object.ICMPv6Header`

Bases: `cybox.objects.network_packet_object._ICMPHeader`

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

class `cybox.objects.network_packet_object.ICMPv6InfoMessage`

Bases: `mixbox.entities.Entity`

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

echo_reply

Type: *cybox.objects.network_packet_object.ICMPv6EchoReply*

XML Binding class name: Echo_Reply

Dictionary key name: echo_reply

echo_request

Type: *cybox.objects.network_packet_object.ICMPv6EchoRequest*

XML Binding class name: Echo_Request

Dictionary key name: echo_request

info_msg_content

Type: *cybox.objects.network_packet_object.ICMPv6InfoMessageContent*

XML Binding class name: Info_Msg_Content

Dictionary key name: info_msg_content

class *cybox.objects.network_packet_object.ICMPv6InfoMessageContent*

Bases: *cybox.objects.network_packet_object._ICMPInfoMessageContent*

XML binding class:

cybox.bindings.network_packet_object.ICMPv6InfoMessageType

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

cybox.objects.network_socket_object module

class `cybox.objects.network_socket_object.NetworkSocket`

Bases: `cybox.common.object_properties.ObjectProperties`

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

address_family

Type: *cybox.common.properties.String*

XML Binding class name: Address_Family

Dictionary key name: address_family

domain

Type: *cybox.common.properties.String*

XML Binding class name: Domain

Dictionary key name: domain

is_blocking

XML Binding class name: is_blocking

Dictionary key name: is_blocking

is_listening

XML Binding class name: is_listening

Dictionary key name: is_listening

local_address

Type: *cybox.objects.socket_address_object.SocketAddress*

XML Binding class name: Local_Address

Dictionary key name: local_address

options

Type: *cybox.objects.network_socket_object.SocketOptions*

XML Binding class name: Options

Dictionary key name: options

protocol

Type: *cybox.common.properties.String*

XML Binding class name: Protocol

Dictionary key name: protocol

remote_address

Type: *cybox.objects.socket_address_object.SocketAddress*

XML Binding class name: Remote_Address

Dictionary key name: remote_address

socket_descriptor

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Socket_Descriptor

Dictionary key name: socket_descriptor

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

class `cybox.objects.network_socket_object.SocketOptions`

Bases: `mixbox.entities.Entity`

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

ip_multicast_if

Type: *cybox.common.properties.String*

XML Binding class name: IP_MULTICAST_IF

Dictionary key name: ip_multicast_if

ip_multicast_if2

Type: *cybox.common.properties.String*

XML Binding class name: IP_MULTICAST_IF2

Dictionary key name: ip_multicast_if2

ip_multicast_loop

XML Binding class name: IP_MULTICAST_LOOP

Dictionary key name: ip_multicast_loop

ip_tos

Type: *cybox.common.properties.String*

XML Binding class name: IP_TOS

Dictionary key name: ip_tos

so_broadcast

XML Binding class name: SO_BROADCAST

Dictionary key name: so_broadcast

so_conditional_accept

XML Binding class name: SO_CONDITIONAL_ACCEPT

Dictionary key name: so_conditional_accept

so_debug

XML Binding class name: SO_DEBUG

Dictionary key name: so_debug

so_dontlinger

XML Binding class name: SO_DONTLINGER

Dictionary key name: so_dontlinger

so_dontroute

XML Binding class name: SO_DONTRROUTE

Dictionary key name: so_dontroute

so_group_priority

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_GROUP_PRIORITY

Dictionary key name: so_group_priority

so_keepalive

XML Binding class name: SO_KEEPALIVE

Dictionary key name: so_keepalive

so_linger

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_LINGER

Dictionary key name: so_linger

so_oobinline

XML Binding class name: SO_OOBINLINE

Dictionary key name: so_oobinline

so_rcvbuf

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_RCVBUF

Dictionary key name: so_rcvbuf

so_rcvtimeo

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_RCVTIMEO

Dictionary key name: so_rcvtimeo

so_reuseaddr

XML Binding class name: SO_REUSEADDR

Dictionary key name: so_reuseaddr

so_sndbuf

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_SNDBUF

Dictionary key name: so_sndbuf

so_sndtimeo

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_SNDTIMEO

Dictionary key name: so_sndtimeo

so_timeout

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_TIMEOUT

Dictionary key name: so_timeout

so_update_accept_context

Type: *cybox.common.properties.UnsignedInteger*

XML Binding class name: SO_UPDATE_ACCEPT_CONTEXT

Dictionary key name: so_update_accept_context

tcp_nodelay

XML Binding class name: TCP_NODELAY

Dictionary key name: tcp_nodelay

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cybox.objects.network_subnet_object module

class *cybox.objects.network_subnet_object*.**NetworkSubnet**

Bases: *cybox.common.object_properties.ObjectProperties*

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

description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Description

Dictionary key name: description

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

number_of_ip_addresses

Type: *cybox.common.properties.Integer*

XML Binding class name: Number_Of_IP_Addresses

Dictionary key name: number_of_ip_addresses

routes

Type: *cybox.objects.network_subnet_object.Routes*

XML Binding class name: Routes

Dictionary key name: routes

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

Bases: *mixbox.entities.EntityList*

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

route

(List of values permitted)

Type: *cybox.objects.network_route_entry_object.NetworkRouteEntry*

XML Binding class name: Route

Dictionary key name: route

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cybox.objects.pdf_file_object module

class *cybox.objects.pdf_file_object.PDFDictionary*

Bases: *mixbox.entities.Entity*

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

object_reference

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectID*

XML Binding class name: Object_Reference

Dictionary key name: object_reference

raw_contents

Type: *cybox.common.properties.String*

XML Binding class name: Raw_Contents

Dictionary key name: raw_contents

class *cybox.objects.pdf_file_object.PDFDocumentInformationDictionary*

Bases: *mixbox.entities.Entity*

XML binding class:

cybox.bindings.pdf_file_object.PDFDocumentInformationDictionaryType

author

Type: *cybox.common.properties.String*
XML Binding class name: Author
Dictionary key name: author

creationdate

Type: *cybox.common.properties.DateTime*
XML Binding class name: CreationDate
Dictionary key name: creationdate

creator

Type: *cybox.common.properties.String*
XML Binding class name: Creator
Dictionary key name: creator

keywords

Type: *cybox.common.properties.String*
XML Binding class name: Keywords
Dictionary key name: keywords

moddate

Type: *cybox.common.properties.DateTime*
XML Binding class name: ModDate
Dictionary key name: moddate

producer

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

subject

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

title

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

trapped

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

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

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

cross_reference_tables

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

indirect_objects

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

metadata

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

trailers

Type: `cybox.objects.pdf_file_object.PDFTrailerList`
XML Binding class name: `Trailers`
Dictionary key name: `trailers`

version

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

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

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

id_string

(List of values permitted)
Type: `cybox.common.properties.String`
XML Binding class name: `ID_String`
Dictionary key name: `id_string`

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

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

document_information_dictionary

Type: `cybox.objects.pdf_file_object.PDFDocumentInformationDictionary`
XML Binding class name: `Document_Information_Dictionary`
Dictionary key name: `document_information_dictionary`

encrypted

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

keyword_counts

Type: `cybox.objects.pdf_file_object.PDFKeywordCounts`
XML Binding class name: `Keyword_Counts`
Dictionary key name: `keyword_counts`

number_of_cross_reference_tables

Type: `cybox.common.properties.PositiveInteger`
XML Binding class name: `Number_Of_Cross_Reference_Tables`
Dictionary key name: `number_of_cross_reference_tables`

number_of_indirect_objects

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

number_of_trailers

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

optimized

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

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

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

contents

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectContents*

XML Binding class name: Contents

Dictionary key name: contents

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

id_

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectID*

XML Binding class name: ID

Dictionary key name: id

offset

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Offset

Dictionary key name: offset

type_

XML Binding class name: type_

Dictionary key name: type

class `cybox.objects.pdf_file_object.PDFIndirectObjectContents`

Bases: `mixbox.entities.Entity`

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

non_stream_contents

Type: *cybox.common.properties.String*

XML Binding class name: Non_Stream_Contents

Dictionary key name: non_stream_contents

stream_contents

Type: *cybox.objects.pdf_file_object.PDFStream*

XML Binding class name: Stream_Contents

Dictionary key name: stream_contents

class `cybox.objects.pdf_file_object.PDFIndirectObjectID`

Bases: `mixbox.entities.Entity`

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

generation_number

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `Generation_Number`

Dictionary key name: `generation_number`

object_number

Type: `cybox.common.properties.PositiveInteger`

XML Binding class name: `Object_Number`

Dictionary key name: `object_number`

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

Bases: `mixbox.entities.EntityList`

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

indirect_object

(List of values permitted)

Type: `cybox.objects.pdf_file_object.PDFIndirectObject`

XML Binding class name: `Indirect_Object`

Dictionary key name: `indirect_object`

class `cybox.objects.pdf_file_object.PDFKeywordCount`

Bases: `mixbox.entities.Entity`

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

non_obfuscated_count

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `Non_Obfuscated_Count`

Dictionary key name: `non_obfuscated_count`

obfuscated_count

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `Obfuscated_Count`

Dictionary key name: `obfuscated_count`

class `cybox.objects.pdf_file_object.PDFKeywordCounts`

Bases: `mixbox.entities.Entity`

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

aa_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `AA_Count`

Dictionary key name: `aa_count`

ascii85decode_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `ASCII85Decode_Count`

Dictionary key name: `ascii85decode_count`

asciihexdecode_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `ASCIHexDecode_Count`

Dictionary key name: `asciihexdecode_count`

ccittfaxdecode_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `CCITTFaxDecode_Count`

Dictionary key name: `ccittfaxdecode_count`

dctdecode_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `DCTDecode_Count`

Dictionary key name: `dctdecode_count`

encrypt_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `Encrypt_Count`

Dictionary key name: `encrypt_count`

flateddecode_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `FlateDecode_Count`

Dictionary key name: `flateddecode_count`

javascript_count

Type: `cybox.objects.pdf_file_object.PDFKeywordCount`

XML Binding class name: `JavaScript_Count`

Dictionary key name: `javascript_count`

jbig2decode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: JBIG2Decode_Count

Dictionary key name: jbig2decode_count

js_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: JS_Count

Dictionary key name: js_count

launch_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: Launch_Count

Dictionary key name: launch_count

lzwdecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: LZWDecode_Count

Dictionary key name: lzwdecode_count

objstm_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: ObjStm_Count

Dictionary key name: objstm_count

openaction_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: OpenAction_Count

Dictionary key name: openaction_count

page_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: Page_Count

Dictionary key name: page_count

richmedia_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: RichMedia_Count

Dictionary key name: richmedia_count

runlengthdecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: RunLengthDecode_Count

Dictionary key name: runlengthdecode_count

xfa_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: XFA_Count

Dictionary key name: xfa_count

class `cybox.objects.pdf_file_object.PDFStream`

Bases: `mixbox.entities.Entity`

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

decoded_stream

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Decoded_Stream

Dictionary key name: decoded_stream

decoded_stream_hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Decoded_Stream_Hashes

Dictionary key name: decoded_stream_hashes

raw_stream

Type: *cybox.common.properties.String*

XML Binding class name: Raw_Stream

Dictionary key name: raw_stream

raw_stream_hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Raw_Stream_Hashes

Dictionary key name: raw_stream_hashes

class `cybox.objects.pdf_file_object.PDFTrailer`

Bases: `mixbox.entities.Entity`

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

encrypt

Type: *cybox.objects.pdf_file_object.PDFDictionary*

XML Binding class name: Encrypt

Dictionary key name: encrypt

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

id_

Type: *cybox.objects.pdf_file_object.PDFFileID*

XML Binding class name: ID

Dictionary key name: id

info

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectID*

XML Binding class name: Info

Dictionary key name: info

last_cross_reference_offset

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Last_Cross_Reference_Offset

Dictionary key name: last_cross_reference_offset

offset

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Offset

Dictionary key name: offset

prev

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Prev

Dictionary key name: prev

root

Type: *cybox.objects.pdf_file_object.PDFIndirectObjectID*

XML Binding class name: Root

Dictionary key name: root

size

Type: *cybox.common.properties.PositiveInteger*

XML Binding class name: Size

Dictionary key name: size

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

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

trailer

(List of values permitted)

Type: `cybox.objects.pdf_file_object.PDFTrailer`

XML Binding class name: Trailer

Dictionary key name: trailer

class `cybox.objects.pdf_file_object.PDFXRefTable`

Bases: `mixbox.entities.Entity`

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

hashes

Type: `cybox.common.hashes.HashList`

XML Binding class name: Hashes

Dictionary key name: hashes

offset

Type: `cybox.common.properties.PositiveInteger`

XML Binding class name: Offset

Dictionary key name: offset

subsections

Type: `cybox.objects.pdf_file_object.PDFXrefTableSubsectionList`

XML Binding class name: Subsections

Dictionary key name: subsections

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

Bases: `mixbox.entities.EntityList`

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

cross_reference_table

(List of values permitted)

Type: `cybox.objects.pdf_file_object.PDFXRefTable`

XML Binding class name: Cross_Reference_Table

Dictionary key name: cross_reference_table

class `cybox.objects.pdf_file_object.PDFXrefEntry`

Bases: `mixbox.entities.Entity`

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

byte_offset

Type: `cybox.common.properties.Integer`

XML Binding class name: `Byte_Offset`

Dictionary key name: `byte_offset`

generation_number

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `Generation_Number`

Dictionary key name: `generation_number`

object_number

Type: `cybox.common.properties.NonNegativeInteger`

XML Binding class name: `Object_Number`

Dictionary key name: `object_number`

type_

XML Binding class name: `type_`

Dictionary key name: `type`

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

Bases: `mixbox.entities.EntityList`

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

cross_reference_entry

(List of values permitted)

Type: `cybox.objects.pdf_file_object.PDFXrefEntry`

XML Binding class name: `Cross_Reference_Entry`

Dictionary key name: `cross_reference_entry`

class `cybox.objects.pdf_file_object.PDFXrefTableSubsection`

Bases: `mixbox.entities.Entity`

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

cross_reference_entries

Type: `cybox.objects.pdf_file_object.PDFXrefEntryList`

XML Binding class name: `Cross_Reference_Entries`

Dictionary key name: `cross_reference_entries`

first_object_number

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: First_Object_Number

Dictionary key name: first_object_number

number_of_objects

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Number_Of_Objects

Dictionary key name: number_of_objects

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

Bases: `mixbox.entities.EntityList`

XML binding class:

`cybox.bindings.pdf_file_object.PDFXrefTableSubsectionListType`

subsection

(List of values permitted)

Type: *cybox.objects.pdf_file_object.PDFXrefTableSubsection*

XML Binding class name: Subsection

Dictionary key name: subsection

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

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

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

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cybox.objects.pipe_object module

class `cybox.objects.pipe_object.Pipe`

Bases: *cybox.common.object_properties.ObjectProperties*

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

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

named

XML Binding class name: named

Dictionary key name: named

Version: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

cybox.objects.user_account_object module

class `cybox.objects.user_account_object.Group`

Bases: `mixbox.entities.Entity`

An abstract class for account groups.

XML binding class: `cybox.bindings.user_account_object.GroupType`

to_dict()

class `cybox.objects.user_account_object.GroupList(*args)`
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.user_account_object.GroupListType`

group

(List of values permitted)

Type: `cybox.objects.user_account_object.Group`

XML Binding class name: `Group`

Dictionary key name: `group`

class `cybox.objects.user_account_object.Privilege`
Bases: `mixbox.entities.Entity`

An abstract class for account privileges.

XML binding class: `cybox.bindings.user_account_object.PrivilegeType`

to_dict()

class `cybox.objects.user_account_object.PrivilegeList(*args)`
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.user_account_object.PrivilegeListType`

privilege

(List of values permitted)

Type: `cybox.objects.user_account_object.Privilege`

XML Binding class name: `Privilege`

Dictionary key name: `privilege`

class `cybox.objects.user_account_object.UserAccount`
Bases: `cybox.objects.account_object.Account`

XML binding class: `cybox.bindings.user_account_object.UserAccountObjectType`

full_name

Type: `cybox.common.properties.String`

XML Binding class name: Full_Name

Dictionary key name: full_name

group_list

Type: *cybox.objects.user_account_object.GroupList*

XML Binding class name: Group_List

Dictionary key name: group_list

home_directory

Type: *cybox.common.properties.String*

XML Binding class name: Home_Directory

Dictionary key name: home_directory

last_login

Type: *cybox.common.properties.DateTime*

XML Binding class name: Last_Login

Dictionary key name: last_login

password_required

XML Binding class name: password_required

Dictionary key name: password_required

privilege_list

Type: *cybox.objects.user_account_object.PrivilegeList*

XML Binding class name: Privilege_List

Dictionary key name: privilege_list

script_path

Type: *cybox.common.properties.String*

XML Binding class name: Script_Path

Dictionary key name: script_path

user_password_age

Type: *cybox.common.properties.Duration*

XML Binding class name: User_Password_Age

Dictionary key name: user_password_age

username

Type: *cybox.common.properties.String*

XML Binding class name: Username

Dictionary key name: username

Version: 2.1.0.17

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

Version: 2.1.0.17

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

Version: 2.1.0.17

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

Version: 2.1.0.17

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: 2.1.0.17

cybox.objects.win_driver_object module

class `cybox.objects.win_driver_object.DeviceObjectList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_driver_object.DeviceObjectListType`

device_object_struct

(List of values permitted)

Type: `cybox.objects.win_driver_object.DeviceObjectStruct`

XML Binding class name: Device_Object_Struct

Dictionary key name: device_object_struct

class `cybox.objects.win_driver_object.DeviceObjectStruct`

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_driver_object.DeviceObjectStructType`

attached_device_name

Type: `cybox.common.properties.String`

XML Binding class name: Attached_Device_Name

Dictionary key name: attached_device_name

attached_device_object

Type: `cybox.common.properties.UnsignedLong`

XML Binding class name: Attached_Device_Object

Dictionary key name: attached_device_object

attached_to_device_name

Type: *cybox.common.properties.String*
XML Binding class name: Attached_To_Device_Name
Dictionary key name: attached_to_device_name

attached_to_device_object

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Attached_To_Device_Object
Dictionary key name: attached_to_device_object

attached_to_driver_name

Type: *cybox.common.properties.String*
XML Binding class name: Attached_To_Driver_Name
Dictionary key name: attached_to_driver_name

attached_to_driver_object

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Attached_To_Driver_Object
Dictionary key name: attached_to_driver_object

device_name

Type: *cybox.common.properties.String*
XML Binding class name: Device_Name
Dictionary key name: device_name

device_object

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Device_Object
Dictionary key name: device_object

class `cybox.objects.win_driver_object.WinDriver`

Bases: *cybox.objects.win_executable_file_object.WinExecutableFile*

XML binding class: `cybox.bindings.win_driver_object.WindowsDriverObjectType`

device_object_list

Type: *cybox.objects.win_driver_object.DeviceObjectList*
XML Binding class name: Device_Object_List
Dictionary key name: device_object_list

driver_init

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Driver_Init
Dictionary key name: driver_init

driver_name

Type: *cybox.common.properties.String*
XML Binding class name: Driver_Name
Dictionary key name: driver_name

driver_object_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Driver_Object_Address
Dictionary key name: driver_object_address

driver_start_io

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Driver_Start_IO
Dictionary key name: driver_start_io

driver_unload

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Driver_Unload
Dictionary key name: driver_unload

image_base

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Image_Base
Dictionary key name: image_base

image_size

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Image_Size
Dictionary key name: image_size

irp_mj_cleanup

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_CLEANUP
Dictionary key name: irp_mj_cleanup

irp_mj_close

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_CLOSE
Dictionary key name: irp_mj_close

irp_mj_create

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_CREATE

Dictionary key name: irp_mj_create

irp_mj_create_mailslot

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_CREATE_MAILSLLOT

Dictionary key name: irp_mj_create_mailslot

irp_mj_create_named_pipe

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_CREATE_NAMED_PIPE

Dictionary key name: irp_mj_create_named_pipe

irp_mj_device_change

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_DEVICE_CHANGE

Dictionary key name: irp_mj_device_change

irp_mj_device_control

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_DEVICE_CONTROL

Dictionary key name: irp_mj_device_control

irp_mj_directory_control

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_DIRECTORY_CONTROL

Dictionary key name: irp_mj_directory_control

irp_mj_file_system_control

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_FILE_SYSTEM_CONTROL

Dictionary key name: irp_mj_file_system_control

irp_mj_flush_buffers

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_FLUSH_BUFFERS

Dictionary key name: irp_mj_flush_buffers

irp_mj_internal_device_control

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_INTERNAL_DEVICE_CONTROL

Dictionary key name: irp_mj_internal_device_control

irp_mj_lock_control

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_LOCK_CONTROL

Dictionary key name: irp_mj_lock_control

irp_mj_pnp

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_PNP

Dictionary key name: irp_mj_pnp

irp_mj_power

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_POWER

Dictionary key name: irp_mj_power

irp_mj_query_ea

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_QUERY_EA

Dictionary key name: irp_mj_query_ea

irp_mj_query_information

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_QUERY_INFORMATION

Dictionary key name: irp_mj_query_information

irp_mj_query_quota

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_QUERY_QUOTA

Dictionary key name: irp_mj_query_quota

irp_mj_query_security

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_QUERY_SECURITY

Dictionary key name: irp_mj_query_security

irp_mj_query_volume_information

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_QUERY_VOLUME_INFORMATION

Dictionary key name: irp_mj_query_volume_information

irp_mj_read

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_READ

Dictionary key name: irp_mj_read

irp_mj_set_ea

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SET_EA

Dictionary key name: irp_mj_set_ea

irp_mj_set_information

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SET_INFORMATION

Dictionary key name: irp_mj_set_information

irp_mj_set_quota

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SET_QUOTA

Dictionary key name: irp_mj_set_quota

irp_mj_set_security

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SET_SECURITY

Dictionary key name: irp_mj_set_security

irp_mj_set_volume_information

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SET_VOLUME_INFORMATION

Dictionary key name: irp_mj_set_volume_information

irp_mj_shutdown

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SHUTDOWN

Dictionary key name: irp_mj_shutdown

irp_mj_system_control

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SYSTEM_CONTROL

Dictionary key name: irp_mj_system_control

irp_mj_write

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_WRITE

Dictionary key name: irp_mj_write

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cybox.objects.win_event_log_object module

class cybox.objects.win_event_log_object.**UnformattedMessageList** (*args)

Bases: mixbox.entities.EntityList

XML binding class:

cybox.bindings.win_event_log_object.UnformattedMessageListType

unformatted_message

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Unformatted_Message

Dictionary key name: unformatted_message

class cybox.objects.win_event_log_object.**WinEventLog**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:

cybox.bindings.win_event_log_object.WindowsEventLogObjectType

blob

Type: *cybox.common.properties.Base64Binary*

XML Binding class name: Blob

Dictionary key name: blob

category

Type: *cybox.common.properties.String*

XML Binding class name: Category

Dictionary key name: category

category_num

Type: *cybox.common.properties.Long*

XML Binding class name: Category_Num

Dictionary key name: category_num

correlation_activity_id

Type: *cybox.common.properties.String*

XML Binding class name: Correlation_Activity_ID

Dictionary key name: correlation_activity_id

correlation_related_activity_id

Type: *cybox.common.properties.String*
XML Binding class name: Correlation_Related_Activity_ID
Dictionary key name: correlation_related_activity_id

eid

Type: *cybox.common.properties.Long*
XML Binding class name: EID
Dictionary key name: eid

execution_process_id

Type: *cybox.common.properties.String*
XML Binding class name: Execution_Process_ID
Dictionary key name: execution_process_id

execution_thread_id

Type: *cybox.common.properties.String*
XML Binding class name: Execution_Thread_ID
Dictionary key name: execution_thread_id

generation_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: Generation_Time
Dictionary key name: generation_time

index

Type: *cybox.common.properties.Long*
XML Binding class name: Index
Dictionary key name: index

log

Type: *cybox.common.properties.String*
XML Binding class name: Log
Dictionary key name: log

machine

Type: *cybox.common.properties.String*
XML Binding class name: Machine
Dictionary key name: machine

message

Type: *cybox.common.properties.String*

XML Binding class name: Message

Dictionary key name: message

reserved

Type: *cybox.common.properties.Long*

XML Binding class name: Reserved

Dictionary key name: reserved

source

Type: *cybox.common.properties.String*

XML Binding class name: Source

Dictionary key name: source

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

unformatted_message_list

Type: *cybox.objects.win_event_log_object.UnformattedMessageList*

XML Binding class name: Unformatted_Message_List

Dictionary key name: unformatted_message_list

user

Type: *cybox.common.properties.String*

XML Binding class name: User

Dictionary key name: user

write_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Write_Time

Dictionary key name: write_time

Version: 2.1.0.17

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: 2.1.0.17

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.WindowsFileType*

drive

Type: *cybox.common.properties.String*

XML Binding class name: Drive

Dictionary key name: drive

file_attributes_list

Type: *cybox.objects.win_file_object.WindowsFileAttributes*

XML Binding class name: File_Attributes_List

Dictionary key name: file_attributes_list

filename_accessed_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Filename_Accessed_Time

Dictionary key name: filename_accessed_time

filename_created_time

Type: *cybox.common.properties.DateTime*

XML Binding class name: Filename_Created_Time

Dictionary key name: filename_created_time

filename_modified_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Filename_Modified_Time`
Dictionary key name: `filename_modified_time`

permissions

Type: *cybox.objects.win_file_object.WindowsFilePermissions*
XML Binding class name: `Permissions`
Dictionary key name: `permissions`

security_id

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

security_type

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

stream_list

Type: *cybox.objects.win_file_object.StreamList*
XML Binding class name: `Stream_List`
Dictionary key name: `stream_list`

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

XML binding class: `cybox.bindings.win_file_object.WindowsFileAttributeType`

class `cybox.objects.win_file_object.WindowsFileAttributes` (**args*)
Bases: *cybox.objects.file_object.FileAttribute*, `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_file_object.WindowsFileAttributesType`

attribute

(List of values permitted)
Type: *cybox.objects.win_file_object.WindowsFileAttribute*
XML Binding class name: `Attribute`
Dictionary key name: `attribute`

class `cybox.objects.win_file_object.WindowsFilePermissions`

Bases: `cybox.objects.file_object.FilePermissions`

XML binding class: `cybox.bindings.win_file_object.WindowsFilePermissionsType`

full_control

XML Binding class name: `Full_Control`

Dictionary key name: `full_control`

modify

XML Binding class name: `Modify`

Dictionary key name: `modify`

read

XML Binding class name: `Read`

Dictionary key name: `read`

read_and_execute

XML Binding class name: `Read_And_Execute`

Dictionary key name: `read_and_execute`

write

XML Binding class name: `Write`

Dictionary key name: `write`

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cybox.objects.win_filemapping_object module

class `cybox.objects.win_filemapping_object.WinFilemapping`

Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class:

`cybox.bindings.win_filemapping_object.WindowsFilemappingObjectType`

actual_size

Type: `cybox.common.properties.UnsignedLong`

XML Binding class name: `Actual_Size`

Dictionary key name: `actual_size`

file_handle

Type: `cybox.objects.win_handle_object.WinHandle`

XML Binding class name: File_Handle

Dictionary key name: file_handle

handle

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

maximum_size

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: Maximum_Size

Dictionary key name: maximum_size

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

page_protection_attribute

(List of values permitted)

Type: *cybox.common.properties.String*

XML Binding class name: Page_Protection_Attribute

Dictionary key name: page_protection_attribute

page_protection_value

Type: *cybox.common.properties.String*

XML Binding class name: Page_Protection_Value

Dictionary key name: page_protection_value

security_attributes

Type: *cybox.common.properties.String*

XML Binding class name: Security_Attributes

Dictionary key name: security_attributes

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cybox.objects.win_handle_object module

class `cybox.objects.win_handle_object.WinHandle`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.win_handle_object.WindowsHandleObjectType`

access_mask

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Access_Mask
Dictionary key name: access_mask

id_

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: ID
Dictionary key name: id

name

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

object_address

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Object_Address
Dictionary key name: object_address

pointer_count

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Pointer_Count
Dictionary key name: pointer_count

type_

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

class `cybox.objects.win_handle_object.WinHandleList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_handle_object.WindowsHandleListType`

handle

(List of values permitted)
Type: *cybox.objects.win_handle_object.WinHandle*
XML Binding class name: Handle
Dictionary key name: handle

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cybox.objects.win_hook_object module

class `cybox.objects.win_hook_object.WinHook`
Bases: `cybox.common.object_properties.ObjectProperties`

XML binding class: `cybox.bindings.win_hook_object.WindowsHookObjectType`

handle

Type: `cybox.objects.win_handle_object.WinHandle`
XML Binding class name: Handle
Dictionary key name: handle

hooking_function_name

Type: `cybox.common.properties.String`
XML Binding class name: Hooking_Function_Name
Dictionary key name: hooking_function_name

hooking_module

Type: `cybox.objects.library_object.Library`
XML Binding class name: Hooking_Module
Dictionary key name: hooking_module

thread_id

Type: `cybox.common.properties.NonNegativeInteger`
XML Binding class name: Thread_ID
Dictionary key name: thread_id

type_

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

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cybox.objects.win_kernel_object module

class `cybox.objects.win_kernel_object.IDTEntry`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_kernel_object.IDTEntryType`

offset_high

Type: `cybox.common.properties.HexBinary`
XML Binding class name: Offset_High

Dictionary key name: offset_high

offset_low

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Offset_Low

Dictionary key name: offset_low

offset_middle

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Offset_Middle

Dictionary key name: offset_middle

selector

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Selector

Dictionary key name: selector

type_attr

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Type_Attr

Dictionary key name: type_attr

class *cybox.objects.win_kernel_object.IDTEntryList* (*args)

Bases: *mixbox.entities.EntityList*

XML binding class: *cybox.bindings.win_kernel_object.IDTEntryListType*

idt_entry

(List of values permitted)

Type: *cybox.objects.win_kernel_object.IDTEntry*

XML Binding class name: IDT_Entry

Dictionary key name: idt_entry

class *cybox.objects.win_kernel_object.SSDTEntry*

Bases: *mixbox.entities.Entity*

XML binding class: *cybox.bindings.win_kernel_object.SSDTEntryType*

argument_table_base

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Argument_Table_Base

Dictionary key name: argument_table_base

hooked

XML Binding class name: hooked

Dictionary key name: hooked

number_of_services

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Number_Of_Services

Dictionary key name: number_of_services

service_counter_table_base

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Service_Counter_Table_Base

Dictionary key name: service_counter_table_base

service_table_base

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Service_Table_Base

Dictionary key name: service_table_base

class `cybox.objects.win_kernel_object.SSDTEntryList` (*args)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_kernel_object.SSDTEntryListType`

ssdt_entry

(List of values permitted)

Type: *cybox.objects.win_kernel_object.SSDTEntry*

XML Binding class name: SSDT_Entry

Dictionary key name: ssdt_entry

class `cybox.objects.win_kernel_object.WinKernel`
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.win_kernel_object.WindowsKernelObjectType`

idt

Type: *cybox.objects.win_kernel_object.IDTEntryList*

XML Binding class name: IDT

Dictionary key name: idt

ssdt

Type: *cybox.objects.win_kernel_object.SSDTEntryList*
XML Binding class name: SSDT
Dictionary key name: ssdt

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cybox.objects.win_kernel_hook_object module

class `cybox.objects.win_kernel_hook_object.WinKernelHook`
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:
`cybox.bindings.win_kernel_hook_object.WindowsKernelHookObjectType`

digital_signature_hooked

Type: *cybox.common.digitalsignature.DigitalSignature*
XML Binding class name: Digital_Signature_Hooked
Dictionary key name: digital_signature_hooked

digital_signature_hooking

Type: *cybox.common.digitalsignature.DigitalSignature*
XML Binding class name: Digital_Signature_Hooking
Dictionary key name: digital_signature_hooking

hook_description

Type: *cybox.common.properties.String*
XML Binding class name: Hook_Description
Dictionary key name: hook_description

hooked_function

Type: *cybox.common.properties.String*
XML Binding class name: Hooked_Function
Dictionary key name: hooked_function

hooked_module

Type: *cybox.common.properties.String*
XML Binding class name: Hooked_Module
Dictionary key name: hooked_module

hooking_address

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Hooking_Address
Dictionary key name: hooking_address

hooking_module

Type: *cybox.common.properties.String*

XML Binding class name: Hooking_Module

Dictionary key name: hooking_module

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

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cybox.objects.win_mailslot_object module

class `cybox.objects.win_mailslot_object.WinMailslot`

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.win_mailslot_object.WindowsMailslotObjectType`

handle

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: Handle

Dictionary key name: handle

max_message_size

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Max_Message_Size

Dictionary key name: max_message_size

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

read_timeout

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: Read_Timeout

Dictionary key name: read_timeout

security_attributes

Type: *cybox.common.properties.String*

XML Binding class name: Security_Attributes

Dictionary key name: security_attributes

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cybox.objects.win_memory_page_region_object module

class cybox.objects.win_memory_page_region_object.**WinMemoryPageRegion**

Bases: *cybox.objects.memory_object.Memory*

XML binding class:

cybox.bindings.win_memory_page_region_object.WindowsMemoryPageRegionObjectType

allocation_base_address

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Allocation_Base_Address

Dictionary key name: allocation_base_address

allocation_protect

Type: *cybox.common.properties.String*

XML Binding class name: Allocation_Protect

Dictionary key name: allocation_protect

block_type

Type: *cybox.common.properties.String*

XML Binding class name: Block_Type

Dictionary key name: block_type

extracted_features

Type: *cybox.common.extracted_features.ExtractedFeatures*

XML Binding class name: Extracted_Features

Dictionary key name: extracted_features

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: Hashes

Dictionary key name: hashes

is_injected

XML Binding class name: is_injected

Dictionary key name: is_injected

is_mapped

XML Binding class name: is_mapped

Dictionary key name: is_mapped

is_protected

XML Binding class name: `is_protected`

Dictionary key name: `is_protected`

is_volatile

XML Binding class name: `is_volatile`

Dictionary key name: `is_volatile`

memory_source

Type: `cybox.common.properties.String`

XML Binding class name: `Memory_Source`

Dictionary key name: `memory_source`

name

Type: `cybox.common.properties.String`

XML Binding class name: `Name`

Dictionary key name: `name`

protect

Type: `cybox.common.properties.String`

XML Binding class name: `Protect`

Dictionary key name: `protect`

region_end_address

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Region_End_Address`

Dictionary key name: `region_end_address`

region_size

Type: `cybox.common.properties.UnsignedLong`

XML Binding class name: `Region_Size`

Dictionary key name: `region_size`

region_start_address

Type: `cybox.common.properties.HexBinary`

XML Binding class name: `Region_Start_Address`

Dictionary key name: `region_start_address`

state

Type: `cybox.common.properties.String`

XML Binding class name: `State`

Dictionary key name: `state`

type_

Type: *cybox.common.properties.String*

XML Binding class name: Type

Dictionary key name: type

Version: 2.1.0.17

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

Version: 2.1.0.17

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

Version: 2.1.0.17

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

Version: 2.1.0.17

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

Version: 2.1.0.17

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

Version: 2.1.0.17

cybox.objects.win_process_object module

class `cybox.objects.win_process_object.MemorySectionList` (*args)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_process_object.MemorySectionListType`

memory_section

(List of values permitted)

Type: *cybox.objects.memory_object.Memory*
XML Binding class name: Memory_Section
Dictionary key name: memory_section

class `cybox.objects.win_process_object.StartupInfo`
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_process_object.StartupInfoType`

dwfillattribute

Type: `cybox.common.properties.Integer`
XML Binding class name: `dwFillAttribute`
Dictionary key name: `dwfillattribute`

dwflags

Type: `cybox.common.properties.Integer`
XML Binding class name: `dwFlags`
Dictionary key name: `dwflags`

dwx

Type: `cybox.common.properties.Integer`
XML Binding class name: `dwX`
Dictionary key name: `dwx`

dwxcntchars

Type: `cybox.common.properties.PositiveInteger`
XML Binding class name: `dwXCountChars`
Dictionary key name: `dwxcntchars`

dwxsize

Type: `cybox.common.properties.PositiveInteger`
XML Binding class name: `dwXSize`
Dictionary key name: `dwxsize`

dwy

Type: `cybox.common.properties.Integer`
XML Binding class name: `dwY`
Dictionary key name: `dwy`

dwycntchars

Type: `cybox.common.properties.PositiveInteger`
XML Binding class name: `dwYCountChars`
Dictionary key name: `dwycntchars`

dwysize

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: dwYSize
Dictionary key name: dwysize

hstderror

Type: *cybox.objects.win_handle_object.WinHandle*
XML Binding class name: hStdError
Dictionary key name: hstderror

hstdinput

Type: *cybox.objects.win_handle_object.WinHandle*
XML Binding class name: hStdInput
Dictionary key name: hstdinput

hstdoutput

Type: *cybox.objects.win_handle_object.WinHandle*
XML Binding class name: hStdOutput
Dictionary key name: hstdoutput

lpdesktop

Type: *cybox.common.properties.String*
XML Binding class name: lpDesktop
Dictionary key name: lpdesktop

lptitle

Type: *cybox.common.properties.String*
XML Binding class name: lpTitle
Dictionary key name: lptitle

wshowwindow

Type: *cybox.common.properties.Integer*
XML Binding class name: wShowWindow
Dictionary key name: wshowwindow

class *cybox.objects.win_process_object.WinProcess*

Bases: *cybox.objects.process_object.Process*

XML binding class: *cybox.bindings.win_process_object.WindowsProcessObjectType*

aslr_enabled

XML Binding class name: aslr_enabled
Dictionary key name: aslr_enabled

dep_enabled

XML Binding class name: dep_enabled

Dictionary key name: dep_enabled

handle_list

Type: *cybox.objects.win_handle_object.WinHandleList*

XML Binding class name: Handle_List

Dictionary key name: handle_list

priority

Type: *cybox.common.properties.String*

XML Binding class name: Priority

Dictionary key name: priority

section_list

Type: *cybox.objects.win_process_object.MemorySectionList*

XML Binding class name: Section_List

Dictionary key name: section_list

security_id

Type: *cybox.common.properties.String*

XML Binding class name: Security_ID

Dictionary key name: security_id

security_type

Type: *cybox.common.properties.String*

XML Binding class name: Security_Type

Dictionary key name: security_type

startup_info

Type: *cybox.objects.win_process_object.StartupInfo*

XML Binding class name: Startup_Info

Dictionary key name: startup_info

thread

(List of values permitted)

Type: *cybox.objects.win_thread_object.WinThread*

XML Binding class name: Thread

Dictionary key name: thread

window_title

Type: *cybox.common.properties.String*

XML Binding class name: Window_Title

Dictionary key name: window_title

Version: 2.1.0.17

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.RegistryValueType`

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`

Version: 2.1.0.17

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

Version: 2.1.0.17

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

Version: 2.1.0.17

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.IShowMessageType`

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: 2.1.0.17

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: 2.1.0.17

cybox.objects.win_user_object module

class `cybox.objects.win_user_object.WinGroup`

Bases: *cybox.objects.user_account_object.Group*

XML binding class: `cybox.bindings.win_user_account_object.WindowsGroupType`

name

Type: *cybox.common.properties.String*

XML Binding class name: Name

Dictionary key name: name

class *cybox.objects.win_user_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: *cybox.objects.user_account_object.Privilege*

XML binding class: *cybox.bindings.win_user_account_object.WindowsPrivilegeType*

user_right

Type: *cybox.common.properties.String*

XML Binding class name: User_Right

Dictionary key name: user_right

class *cybox.objects.win_user_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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

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: 2.1.0.17

cybox.utils package

Submodules

Version: 2.1.0.17

cybox.utils.autoentity module

`cybox.utils.autoentity.make_class_ref(cls)`

`cybox.utils.autoentity.setup(app)`

Version: 2.1.0.17

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: 2.1.0.17**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 presentcybox.utils.wrap_cdata(*value*)**CybOX Helper module****Version:** 2.1.0.17**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: 2.1.0.17

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	<code>cybox.core.observable.ObservableComposition</code>
Event	Partial	<code>cybox.core.event.Event</code>
Object	Partial	<code>cybox.core.object.Object</code>
Observables	Partial	<code>cybox.core.observable.Observables</code>
Observable	Partial	<code>cybox.core.observable.Observable</code>
Relationships	Partial	

CybOX Objects

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

Conti

Table 3.1 – continued from previous page

CybOX Construct	API Coverage	Documentation
Link Object	Full	<code>cybox.objects.link_object.Link</code>
Linux Package Object	Full	<code>cybox.objects.linux_package_object.LinuxPackage</code>
Memory Object	Full	<code>cybox.objects.memory_object.Memory</code>
Mutex Object	Full	<code>cybox.objects.mutex_object.Mutex</code>
Network Connection Object	Full	<code>cybox.objects.network_connection_object.NetworkConn</code>
Network Flow Object	× None	
Network Packet Object	Full	<code>cybox.objects.network_packet_object.NetworkPacket</code>
Network Route Entry Object	Full	<code>cybox.objects.network_route_entry_object.NetworkRoute</code>
Network Route Object	Full	<code>cybox.objects.network_route_object.NetRoute</code>
Network Socket Object	Full	<code>cybox.objects.network_socket_object.NetworkSocket</code>
Network Subnet Object	Full	<code>cybox.objects.network_subnet_object.NetworkSubnet</code>
PDF File Object	Full	<code>cybox.objects.pdf_file_object.PDFFile</code>
Pipe Object	Full	<code>cybox.objects.pipe_object.Pipe</code>
Port Object	Full	<code>cybox.objects.port_object.Port</code>
Process Object	Full	<code>cybox.objects.process_object.Process</code>
Product Object	Full	<code>cybox.objects.product_object.Product</code>
Semaphore Object	Full	<code>cybox.objects.semaphore_object.Semaphore</code>
SMS Message Object	Full	<code>cybox.objects.sms_message_object.SMSMessage</code>
Socket Address Object	Full	<code>cybox.objects.socket_address_object.SocketAddress</code>
System Object	Partial	<code>cybox.objects.system_object.System</code>
URI Object	Full	<code>cybox.objects.uri_object.URI</code>
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	<code>cybox.objects.user_account_object.UserAccount</code>
User Session Object	× None	
Volume Object	Full	<code>cybox.objects.volume_object.Volume</code>
Whois Object	Full	<code>cybox.objects.whois_object.WhoisEntry</code>
Win Computer Account Object	Full	<code>cybox.objects.win_computer_account_object.WinCompute</code>
Win Critical Section Object	Full	<code>cybox.objects.win_critical_section_object.WinCritica</code>
Win Driver Object	Full	<code>cybox.objects.win_driver_object.WinDriver</code>
Win Event Log Object	Full	<code>cybox.objects.win_event_log_object.WinEventLog</code>
Win Event Object	Full	<code>cybox.objects.win_event_object.WinEvent</code>
Win Executable File Object	Full	<code>cybox.objects.win_executable_file_object.WinExecutab</code>
Win File Object	Full	<code>cybox.objects.win_file_object.WinFile</code>
Win Filemapping Object	Full	<code>cybox.objects.win_filemapping_object.WinFilemapping</code>
Win Handle Object	Full	<code>cybox.objects.win_handle_object.WinHandle</code>
Win Hook Object	Full	<code>cybox.objects.win_hook_object.WinHook</code>
Win Kernel Hook Object	Full	<code>cybox.objects.win_kernel_hook_object.WinKernelHook</code>
Win Kernel Object	Full	<code>cybox.objects.win_kernel_object.WinKernel</code>
Win Mailslot Object	Full	<code>cybox.objects.win_mailslot_object.WinMailslot</code>
Win Memory Page Region Object	Full	<code>cybox.objects.win_memory_page_region_object.WinMemor</code>
Win Mutex Object	Full	<code>cybox.objects.win_mutex_object.WinMutex</code>
Win Network Route Entry Object	Full	<code>cybox.objects.win_network_route_entry_object.WinNetw</code>
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Cybox Construct	API Coverage	Documentation
Win Pipe Object	Full	<code>cybox.objects.win_pipe_object.WinPipe</code>
Win Prefetch Object	Full	<code>cybox.objects.win_prefetch_object.WinPrefetch</code>
Win Process Object	Full	<code>cybox.objects.win_process_object.WinProcess</code>
Win Registry Key Object	Full	<code>cybox.objects.win_registry_key_object.WinRegistryKey</code>
Win Semaphore Object	Full	<code>cybox.objects.win_semaphore_object.WinSemaphore</code>
Win Service Object	Full	<code>cybox.objects.win_service_object.WinService</code>
Win System Object	Full	<code>cybox.objects.win_system_object.WinSystem</code>
Win System Restore Object	Full	<code>cybox.objects.win_system_restore_object.WinSystemRes</code>
Win Task Object	Full	<code>cybox.objects.win_task_object.WinTask</code>
Win Thread Object	Full	<code>cybox.objects.win_thread_object.WinThread</code>
Win User Account Object	Full	<code>cybox.objects.win_user_object.WinUser</code>
Win Volume Object	Full	<code>cybox.objects.win_volume_object.WinVolume</code>
Win Waitable Timer Object	Full	<code>cybox.objects.win_waitable_timer_object.WinWaitable</code>
X509 Certificate Object	Full	<code>cybox.objects.x509_certificate_object.X509Certificat</code>

Cybox Vocabularies

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

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