python-cybox Documentation

Release 2.1.0.21

The MITRE Corporation

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Contents

1 Versions **3**

2 Contents **5**
- 2.1 Getting Started with python-cybox . . . 5
- 2.2 Installation . . . 5
- 2.3 Overview . . . 7
- 2.4 Examples . . . 7
- 2.5 Contributing . . . 15

3 API Reference **17**
- 3.1 API Reference . . . 17
- 3.2 API Coverage . . . 327

4 FAQ **331**

5 Indices and tables **333**

Python Module Index **335**

Version: 2.1.0.21

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

CHAPTER 1

Versions

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

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

CHAPTER 2

Contents

Version: 2.1.0.21

2.1 Getting Started with python-cybox

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

Other users should look at existing tools that support CybOX.

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

First, you should follow the *Installation* procedures.

2.1.1 Example Scripts

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

```
$ python simple_email_instance.py
```

2.1.2 Writing Your Own Application

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

Version: 2.1.0.21

2.2 Installation

2.2.1 Recommended Installation

Use pip:

```
$ pip install cybox
```

You might also want to consider using a virtualenv.

2.2.2 Dependencies

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

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

Note: `importlib` is built into Python 2.7, and is available on PyPI for Python 2.6.

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

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

2.2.3 Manual Installation

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

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

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

OR

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

4. Run the installation script.

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

5. Test the installation.

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

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

2.2.4 Further Information

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

Version: 2.1.0.21

2.3 Overview

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

2.3.1 CybOX Entities

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

Note: Not all CybOX types have yet been implemented.

2.3.2 Controlled Vocabulary Strings

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

Version: 2.1.0.21

2.4 Examples

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

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

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

2.4.1 Creating Objects

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

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

Which outputs:

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

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

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

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

2.4.2 Creating Observables

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

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

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

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

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

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

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

2.4.3 HTTP Message Body

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

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

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

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

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

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

2.4.4 HTTP User Agent

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

header = HTTPRequestHeader()
header.parsed_header = fields

request = HTTPClientRequest()
request.http_request_header = header

req_res = HTTPRequestResponse()
req_res.http_client_request = request

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

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

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

2.4.5 Objects with DateTime properties

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

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

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

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

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

2.4.6 Hashes

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

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

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

This can easily be incorporated into constructing objects as well.

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

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

2.4.7 Object Subclasses

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

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

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

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

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

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

2.4.8 ObservableCompositions

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

```
observables = Observables()

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

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

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

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

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

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

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

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

2.4.9 Parsing example

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

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

2.4.10 Comparisons

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

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

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

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

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

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

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

2.4.11 Custom Objects

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

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

c = Custom()

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

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

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

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

Version: 2.1.0.21

2.5 Contributing

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

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

CHAPTER 3

API Reference

Version: 2.1.0.21

3.1 API Reference

3.1.1 CybOX Common

Modules located in the base `cybox.common` package

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

Version: 2.1.0.21

`cybox.common` package

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

In other words, do this:

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

rather than:

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

Submodules

Version: 2.1.0.21

`cybox.common.attribute_groups` module **Version**: 2.1.0.21

cybox.common.build module

class cybox.common.build.**BuildConfiguration**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.BuildConfigurationType

configuration_setting_description

(List of values permitted)
XML Binding class name: Configuration_Setting_Description
Dictionary key name: configuration_setting_description

configuration_settings

Type: *cybox.common.configuration_settings.ConfigurationSettings*
XML Binding class name: Configuration_Settings
Dictionary key name: configuration_settings

class cybox.common.build.**BuildInformation**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.BuildInformationType

build_configuration

Type: *cybox.common.build.BuildConfiguration*
XML Binding class name: Build_Configuration
Dictionary key name: build_configuration

build_id

XML Binding class name: Build_ID
Dictionary key name: build_id

build_label

XML Binding class name: Build_Label
Dictionary key name: build_label

build_output_log

XML Binding class name: Build_Output_Log
Dictionary key name: build_output_log

build_project

XML Binding class name: Build_Project
Dictionary key name: build_project

build_script

XML Binding class name: `Build_Script`
Dictionary key name: `build_script`

build_utility

Type: *cybox.common.build.BuildUtility*
XML Binding class name: `Build_Utility`
Dictionary key name: `build_utility`

build_version

XML Binding class name: `Build_Version`
Dictionary key name: `build_version`

compilation_date

Type: *cybox.common.datetimewithprecision.DateTimeWithPrecision*
XML Binding class name: `Compilation_Date`
Dictionary key name: `compilation_date`

compilers

Type: *cybox.common.compilers.Compilers*
XML Binding class name: `Compilers`
Dictionary key name: `compilers`

libraries

Type: *cybox.common.libraries.Libraries*
XML Binding class name: `Libraries`
Dictionary key name: `libraries`

class `cybox.common.build.`**BuildUtility**
Bases: `mixbox.entities.Entity`

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

build_utility_name

XML Binding class name: `Build_Utility_Name`
Dictionary key name: `build_utility_name`

build_utility_platform_specification

Type: *cybox.common.platform_specification.PlatformSpecification*
XML Binding class name: `Build_Utility_Platform_Specification`
Dictionary key name: `build_utility_platform_specification`

Version: 2.1.0.21

cybox.common.byterun module

class cybox.common.byterun.**ByteRun**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.ByteRunType

byte_order

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

byte_run_data

XML Binding class name: Byte_Run_Data
Dictionary key name: byte_run_data

file_system_offset

Type: *cybox.common.properties.Integer*
XML Binding class name: File_System_Offset
Dictionary key name: file_system_offset

hashes

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

image_offset

Type: *cybox.common.properties.Integer*
XML Binding class name: Image_Offset
Dictionary key name: image_offset

length

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

offset

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

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

XML binding class: cybox.bindings.cybox_common.ByteRunsType

byte_run

(List of values permitted)
Type: *cybox.common.byterun.ByteRun*
XML Binding class name: Byte_Run
Dictionary key name: byte_run

Version: 2.1.0.21

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

XML binding class: cybox.bindings.cybox_common.CipherType

Version: 2.1.0.21

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

XML binding class: cybox.bindings.cybox_common.CompensationModelType

Version: 2.1.0.21

cybox.common.compilers module
class cybox.common.compilers.**Compiler**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.CompilerType

compiler_informal_description

Type: *cybox.common.compilers.CompilerInformalDescription*
XML Binding class name: Compiler_Informal_Description
Dictionary key name: compiler_informal_description

compiler_platform_specification

Type: *cybox.common.platform_specification.PlatformSpecification*
XML Binding class name: Compiler_Platform_Specification
Dictionary key name: compiler_platform_specification

class cybox.common.compilers.**CompilerInformalDescription**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.CompilerInformalDescriptionType

compiler_name

XML Binding class name: Compiler_Name
Dictionary key name: compiler_name

compiler_version

XML Binding class name: Compiler_Version
Dictionary key name: compiler_version

class cybox.common.compilers.**Compilers**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.CompilersType

compiler

(List of values permitted)
Type: *cybox.common.compilers.Compiler*
XML Binding class name: Compiler
Dictionary key name: compiler

Version: 2.1.0.21

cybox.common.configuration_settings module
class cybox.common.configuration_settings.**ConfigurationSetting**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.ConfigurationSettingType

item_description

XML Binding class name: Item_Description
Dictionary key name: item_description

item_name

XML Binding class name: Item_Name

Dictionary key name: item_name

item_type

XML Binding class name: Item_Type
Dictionary key name: item_type

item_value

XML Binding class name: Item_Value
Dictionary key name: item_value

class cybox.common.configuration_settings.**ConfigurationSettings**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.ConfigurationSettingsType

configuration_setting

(List of values permitted)
Type: *cybox.common.configuration_settings.ConfigurationSetting*
XML Binding class name: Configuration_Setting
Dictionary key name: configuration_setting

Version: 2.1.0.21

cybox.common.contributor module

class cybox.common.contributor.**Contributor**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.ContributorType

contribution_location

XML Binding class name: Contribution_Location
Dictionary key name: contribution_location

date

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

email

XML Binding class name: Email
Dictionary key name: email

name

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

organization

XML Binding class name: `Organization`
Dictionary key name: `organization`

phone

XML Binding class name: `Phone`
Dictionary key name: `phone`

role

XML Binding class name: `Role`
Dictionary key name: `role`

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

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

contributor

(List of values permitted)
Type: *cybox.common.contributor.Contributor*
XML Binding class name: `Contributor`
Dictionary key name: `contributor`

Version: 2.1.0.21

cybox.common.data_segment module

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

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

byte_order

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

data_format

XML Binding class name: `Data_Format`
Dictionary key name: `data_format`

data_segment

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

data_size

Type: *cybox.common.data_segment.DataSize*
XML Binding class name: `Data_Size`
Dictionary key name: `data_size`

id_

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

offset

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

search_distance

Type: *cybox.common.properties.Integer*
XML Binding class name: `Search_Distance`
Dictionary key name: `search_distance`

search_within

Type: *cybox.common.properties.Integer*
XML Binding class name: `Search_Within`
Dictionary key name: `search_within`

class `cybox.common.data_segment.`**DataSize**(*value=None*)
Bases: *cybox.common.properties.String*

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

is_plain()

units

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

Version: 2.1.0.21

cybox.common.daterange module

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

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DateRangeType

end_date

Type: *cybox.common.datetimewithprecision.DateWithPrecision*
XML Binding class name: End_Date
Dictionary key name: end_date

start_date

Type: *cybox.common.datetimewithprecision.DateWithPrecision*
XML Binding class name: Start_Date
Dictionary key name: start_date

Version: 2.1.0.21

cybox.common.datetimewithprecision module

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

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DateTimeWithPrecisionType

precision

XML Binding class name: precision
Dictionary key name: precision

to_dict()

value

XML Binding class name: valueOf_
Dictionary key name: value

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

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DateWithPrecisionType

precision

XML Binding class name: precision

Dictionary key name: precision

to_dict()

value

XML Binding class name: valueOf_
Dictionary key name: value

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

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

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

Version: 2.1.0.21

cybox.common.dependencies module

class cybox.common.dependencies.**Dependencies**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DependenciesType

dependency

(List of values permitted)
Type: *cybox.common.dependencies.Dependency*
XML Binding class name: Dependency
Dictionary key name: dependency

class cybox.common.dependencies.**Dependency**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DependencyType

dependency_description

Type: *cybox.common.structured_text.StructuredText*
XML Binding class name: Dependency_Description
Dictionary key name: dependency_description

dependency_type

XML Binding class name: Dependency_Type
Dictionary key name: dependency_type

Version: 2.1.0.21

cybox.common.digitalsignature module

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

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.DigitalSignatureInfoType

certificate_issuer

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

certificate_subject

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

signature_description

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

signature_exists

XML Binding class name: signature_exists
Dictionary key name: signature_exists

signature_verified

XML Binding class name: signature_verified
Dictionary key name: signature_verified

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

Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.cybox_common.DigitalSignaturesType

digital_signature

(List of values permitted)
Type: *cybox.common.digitalsignature.DigitalSignature*
XML Binding class name: Digital_Signature
Dictionary key name: digital_signature

Version: 2.1.0.21

cybox.common.environment_variable module

class cybox.common.environment_variable.**EnvironmentVariable**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.EnvironmentVariableType

name

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

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: 2.1.0.21

cybox.common.errors module

class cybox.common.errors.**Error**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.ErrorType

error_count

XML Binding class name: Error_Count
Dictionary key name: error_count

error_instances

Type: *cybox.common.errors.ErrorInstances*

XML Binding class name: `Error_Instances`
Dictionary key name: `error_instances`

error_type

XML Binding class name: `Error_Type`
Dictionary key name: `error_type`

class `cybox.common.errors.`**ErrorInstances**
Bases: `mixbox.entities.Entity`

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

error_instance

(List of values permitted)
XML Binding class name: `Error_Instance`
Dictionary key name: `error_instance`

class `cybox.common.errors.`**Errors**
Bases: `mixbox.entities.Entity`

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

error

(List of values permitted)
Type: *cybox.common.errors.Error*
XML Binding class name: `Error`
Dictionary key name: `error`

Version: 2.1.0.21

`cybox.common.execution_environment` module

class `cybox.common.execution_environment.`**ExecutionEnvironment**
Bases: `mixbox.entities.Entity`

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

command_line

XML Binding class name: `Command_Line`
Dictionary key name: `command_line`

start_time

Type: *cybox.common.datetimewithprecision.DateTimeWithPrecision*

XML Binding class name: `Start_Time`
Dictionary key name: `start_time`

system

Type: *cybox.common.object_properties.ObjectProperties*
XML Binding class name: `System`
Dictionary key name: `system`

user_account_info

Type: *cybox.common.object_properties.ObjectProperties*
XML Binding class name: `User_Account_Info`
Dictionary key name: `user_account_info`

Version: 2.1.0.21

cybox.common.extracted_features module

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

Bases: `mixbox.entities.EntityList`

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

code_snippet

(List of values permitted)
Type: *cybox.common.object_properties.ObjectProperties*
XML Binding class name: `Code_Snippet`
Dictionary key name: `code_snippet`

class cybox.common.extracted_features.**ExtractedFeatures**

Bases: `mixbox.entities.Entity`

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

code_snippets

Type: *cybox.common.extracted_features.CodeSnippets*
XML Binding class name: `Code_Snippets`
Dictionary key name: `code_snippets`

functions

Type: *cybox.common.extracted_features.Functions*
XML Binding class name: `Functions`
Dictionary key name: `functions`

imports

Type: *cybox.common.extracted_features.Imports*
XML Binding class name: `Imports`
Dictionary key name: `imports`

strings

Type: *cybox.common.extracted_string.ExtractedStrings*
XML Binding class name: `Strings`
Dictionary key name: `strings`

class `cybox.common.extracted_features.`**Functions**(**args*)
Bases: `mixbox.entities.EntityList`

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

function

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

class `cybox.common.extracted_features.`**Imports**(**args*)
Bases: `mixbox.entities.EntityList`

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

import_

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

Version: 2.1.0.21

cybox.common.extracted_string module

class `cybox.common.extracted_string.`**ExtractedString**(*string_value=None*)
Bases: `mixbox.entities.Entity`

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

address

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

Dictionary key name: address

byte_string_value

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Byte_String_Value
Dictionary key name: byte_string_value

encoding
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.CharacterEncoding*
XML Binding class name: Encoding
Dictionary key name: encoding

english_translation

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

hashes

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

language

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

length

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

string_value

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

class cybox.common.extracted_string.**ExtractedStrings**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.cybox_common.ExtractedStringsType

extracted_string

(List of values permitted)
Type: *cybox.common.extracted_string.ExtractedString*
XML Binding class name: `String`
Dictionary key name: `string`

Version: 2.1.0.21

cybox.common.hashes module

class cybox.common.hashes.**Hash**(*hash_value=None*, *type_=None*, *exact=False*)
Bases: `mixbox.entities.Entity`

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

fuzzy_hash_value

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

simple_hash_value

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Simple_Hash_Value`
Dictionary key name: `simple_hash_value`

type_
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.HashName*
XML Binding class name: `Type`
Dictionary key name: `type`

class cybox.common.hashes.**HashList**(**args*)
Bases: `mixbox.entities.EntityList`

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

hashes

(List of values permitted)
Type: *cybox.common.hashes.Hash*
XML Binding class name: `Hash`
Dictionary key name: `hash`

Version: 2.1.0.21

cybox.common.internationalization_settings module

class cybox.common.internationalization_settings.**InternalStrings**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.InternalStringsType

content

XML Binding class name: Content
Dictionary key name: content

key

XML Binding class name: Key
Dictionary key name: key

class cybox.common.internationalization_settings.**InternationalizationSettings**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.InternationalizationSettingsType

internal_strings

(List of values permitted)
Type: *cybox.common.internationalization_settings.InternalStrings*
XML Binding class name: Internal_Strings
Dictionary key name: internal_strings

Version: 2.1.0.21

cybox.common.libraries module

class cybox.common.libraries.**Libraries**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.LibrariesType

library

Type: *cybox.common.libraries.Library*
XML Binding class name: Library
Dictionary key name: library

class cybox.common.libraries.**Library**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.LibraryType

name

XML Binding class name: name
Dictionary key name: name

version

XML Binding class name: version
Dictionary key name: version

Version: 2.1.0.21

cybox.common.location module

class cybox.common.location.**Location**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.LocationType

id_

XML Binding class name: id
Dictionary key name: id

idref

XML Binding class name: idref
Dictionary key name: idref

static lookup_class(*xsi_type*)

name

XML Binding class name: Name
Dictionary key name: name

to_dict()

Version: 2.1.0.21

cybox.common.measuresource module

class cybox.common.measuresource.**MeasureSource**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_common.MeasureSourceType

class_

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

contributors

Type: *cybox.common.contributor.Personnel*
XML Binding class name: `Contributors`
Dictionary key name: `contributors`

description

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

information_source_type

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.InformationSourceType*
XML Binding class name: `Information_Source_Type`
Dictionary key name: `information_source_type`

instance

Type: *cybox.common.object_properties.ObjectProperties*
XML Binding class name: `Instance`
Dictionary key name: `instance`

name

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

platform

Type: *cybox.common.platform_specification.PlatformSpecification*
XML Binding class name: `Platform`
Dictionary key name: `platform`

sighting_count

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

source_type

XML Binding class name: `source_type`

Dictionary key name: source_type

system

Type: *cybox.common.object_properties.ObjectProperties*
XML Binding class name: System
Dictionary key name: system

time

Type: *cybox.common.time.Time*
XML Binding class name: Time
Dictionary key name: time

tool_type
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ToolType*
XML Binding class name: Tool_Type
Dictionary key name: tool_type

tools

Type: *cybox.common.tools.ToolInformationList*
XML Binding class name: Tools
Dictionary key name: tools

Version: 2.1.0.21

cybox.common.object_properties module

class cybox.common.object_properties.**CustomProperties**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.cybox_common.CustomPropertiesType

property_

(List of values permitted)
Type: *cybox.common.object_properties.Property*
XML Binding class name: Property
Dictionary key name: property

class cybox.common.object_properties.**ObjectProperties**
Bases: mixbox.entities.Entity

The Cybox ObjectProperties base class.

XML binding class: cybox.bindings.cybox_common.ObjectPropertiesType

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

custom_properties

Type: *cybox.common.object_properties.CustomProperties*
XML Binding class name: `Custom_Properties`
Dictionary key name: `custom_properties`

object_reference

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

to_dict()

to_obj(*ns_info=None*)

class cybox.common.object_properties.**Property**(*value=None*)
Bases: *cybox.common.properties.String*

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

description

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

is_plain()
Whether the Property can be represented as a single value.

name

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

Version: 2.1.0.21

cybox.common.platform_specification module
class cybox.common.platform_specification.**PlatformIdentifier**(*value=None*)
Bases: *cybox.common.properties.String*

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

system

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

system_ref

XML Binding class name: `system_ref`
Dictionary key name: `system-ref`

class `cybox.common.platform_specification.`**`PlatformSpecification`**
Bases: `mixbox.entities.Entity`

CybOX Common PlatformSpecification object representation

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

`description`

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

`identifier`

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

Version: 2.1.0.21

`cybox.common.properties` module

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

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

`is_plain`()
Whether the Property can be represented as a single value.

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

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

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

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

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

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

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

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

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

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

XML binding class: cybox.bindings.cybox_common.DoubleObjectPropertyType

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

XML binding class: cybox.bindings.cybox_common.DurationObjectPropertyType

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

XML binding class: cybox.bindings.cybox_common.FloatObjectPropertyType

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

XML binding class: cybox.bindings.cybox_common.HexBinaryObjectPropertyType

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

XML binding class: cybox.bindings.cybox_common.IntegerObjectPropertyType

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

XML binding class: cybox.bindings.cybox_common.LongObjectPropertyType

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

XML binding class: cybox.bindings.cybox_common.NameObjectPropertyType

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

XML binding class:
cybox.bindings.cybox_common.NonNegativeIntegerObjectPropertyType

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

XML binding class:
cybox.bindings.cybox_common.PositiveIntegerObjectPropertyType

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

XML binding class: cybox.bindings.cybox_common.StringObjectPropertyType

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

XML binding class: cybox.bindings.cybox_common.TimeObjectPropertyType

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

XML binding class:
cybox.bindings.cybox_common.UnsignedIntegerObjectPropertyType

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

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

Version: 2.1.0.21

cybox.common.structured_text module

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

Bases: `mixbox.entities.Entity`

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

is_plain()

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

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

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

structuring_format

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

to_dict()

value

XML Binding class name: `valueOf_`
Dictionary key name: `value`

Version: 2.1.0.21

cybox.common.time module

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

Bases: `mixbox.entities.Entity`

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

end_time

Type: *cybox.common.datetimewithprecision.DateTimeWithPrecision*
XML Binding class name: `End_Time`
Dictionary key name: `end_time`

produced_time

Type: *cybox.common.datetimewithprecision.DateTimeWithPrecision*
XML Binding class name: `Produced_Time`
Dictionary key name: `produced_time`

received_time

Type: *cybox.common.datetimewithprecision.DateTimeWithPrecision*
XML Binding class name: `Received_Time`
Dictionary key name: `received_time`

start_time

Type: *cybox.common.datetimewithprecision.DateTimeWithPrecision*
XML Binding class name: `Start_Time`
Dictionary key name: `start_time`

Version: 2.1.0.21

cybox.common.tools module

class `cybox.common.tools.`**ToolConfiguration**
Bases: `mixbox.entities.Entity`

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

build_information

XML Binding class name: `Build_Information`
Dictionary key name: `build_information`

configuration_settings

XML Binding class name: `Configuration_Settings`
Dictionary key name: `configuration_settings`

dependencies

XML Binding class name: `Dependencies`
Dictionary key name: `dependencies`

internationalization_settings

XML Binding class name: `Internationalization_Settings`
Dictionary key name: `internationalization_settings`

usage_context_assumptions

XML Binding class name: `Usage_Context_Assumptions`
Dictionary key name: `usage_context_assumptions`

class `cybox.common.tools.`**ToolInformation**(*tool_name=None*, *tool_vendor=None*)
Bases: `mixbox.entities.Entity`

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

compensation_model

Type: *cybox.common.compensation_model.CompensationModel*
XML Binding class name: `Compensation_Model`
Dictionary key name: `compensation_model`

description

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

errors

Type: *cybox.common.errors.Errors*
XML Binding class name: `Errors`
Dictionary key name: `errors`

execution_environment

Type: *cybox.common.execution_environment.ExecutionEnvironment*
XML Binding class name: `Execution_Environment`
Dictionary key name: `execution_environment`

id_

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

idref

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

metadata

(List of values permitted)
Type: `cybox.common.metadata.Metadata`
XML Binding class name: `Metadata`
Dictionary key name: `metadata`

name

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

references

Type: *cybox.common.tools.ToolReferences*
XML Binding class name: `References`
Dictionary key name: `references`

service_pack

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

tool_configuration

Type: *cybox.common.tools.ToolConfiguration*
XML Binding class name: `Tool_Configuration`
Dictionary key name: `tool_configuration`

tool_hashes

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

tool_specific_data

Type: *cybox.common.tools.ToolSpecificData*
XML Binding class name: `Tool_Specific_Data`
Dictionary key name: `tool_specific_data`

type_
TypedField subclass for VocabString fields.

(List of values permitted)
Type: *cybox.common.vocabs.ToolType*
XML Binding class name: `Type`
Dictionary key name: `type`

vendor

XML Binding class name: `Vendor`
Dictionary key name: `vendor`

version

XML Binding class name: `Version`
Dictionary key name: `version`

class `cybox.common.tools.`**`ToolInformationList`**(**args*)
Bases: `mixbox.entities.EntityList`

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

tool

(List of values permitted)
Type: *cybox.common.tools.ToolInformation*
XML Binding class name: `Tool`
Dictionary key name: `tool`

class `cybox.common.tools.`**`ToolReference`**
Bases: `mixbox.entities.Entity`

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

`reference_type`

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

`value`

XML Binding class name: `valueOf_`
Dictionary key name: `value`

class `cybox.common.tools.`**`ToolReferences`**
Bases: `mixbox.entities.Entity`

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

`reference`

(List of values permitted)
Type: *cybox.common.tools.ToolReference*
XML Binding class name: `Reference`
Dictionary key name: `reference`

class `cybox.common.tools.`**`ToolSpecificData`**
Bases: `mixbox.entities.Entity`

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

static `lookup_class`(*xsi_type*)

`to_dict`()

Version: 2.1.0.21

`cybox.common.usage_context` module

class `cybox.common.usage_context.`**`UsageContextAssumptions`**
Bases: `mixbox.entities.Entity`

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

usage_context_assumption

(List of values permitted)
Type: *cybox.common.structured_text.StructuredText*
XML Binding class name: `Usage_Context_Assumption`
Dictionary key name: `usage_context_assumption`

Version: 2.1.0.21

cybox.common.vocabs module

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

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

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

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

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

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

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

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

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

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

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

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

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

XML binding class: cybox.bindings.cybox_common.ControlledVocabularyStringType

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

XML binding class: cybox.bindings.cybox_common.ControlledVocabularyStringType

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

XML binding class: cybox.bindings.cybox_common.ControlledVocabularyStringType

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

XML binding class: cybox.bindings.cybox_common.ControlledVocabularyStringType

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

XML binding class: cybox.bindings.cybox_common.ControlledVocabularyStringType

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

XML binding class: cybox.bindings.cybox_common.ControlledVocabularyStringType

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

XML binding class: cybox.bindings.cybox_common.ControlledVocabularyStringType

classmethod from_obj(*cls_obj*)

is_plain()
Whether the VocabString can be represented as a single value.

to_dict()

to_obj(*ns_info=None*)

value

XML Binding class name: `valueOf_`
Dictionary key name: `value`

vocab_name

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

vocab_reference

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

xsi_type

XML Binding class name: `xsi_type`
Dictionary key name: `xsi:type`

cybox.common.vocabs.**register_vocab**(*cls*)
Register a VocabString subclass.

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

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

3.1.2 CybOX Core

Modules located in the base `cybox.core` package

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

Version: 2.1.0.21

cybox.core package

Submodules

Version: 2.1.0.21

cybox.core.action module
class cybox.core.action.**Action**
Bases: `mixbox.entities.Entity`

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

action_aliases

Type: *cybox.core.action.ActionAliases*
XML Binding class name: `Action_Aliases`
Dictionary key name: `action_aliases`

action_arguments

Type: *cybox.core.action.ActionArguments*
XML Binding class name: `Action_Arguments`
Dictionary key name: `action_arguments`

action_status

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

associated_objects

Type: *cybox.core.action.AssociatedObjects*
XML Binding class name: `Associated_Objects`
Dictionary key name: `associated_objects`

context

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

description

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

discovery_method

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

frequency

Type: *cybox.core.frequency.Frequency*
XML Binding class name: `Frequency`
Dictionary key name: `frequency`

id_

XML Binding class name: id
Dictionary key name: id

idref

XML Binding class name: idref
Dictionary key name: idref

name
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionName*
XML Binding class name: Name
Dictionary key name: name

ordinal_position

XML Binding class name: ordinal_position
Dictionary key name: ordinal_position

relationships

Type: *cybox.core.action.ActionRelationships*
XML Binding class name: Relationships
Dictionary key name: relationships

timestamp

XML Binding class name: timestamp
Dictionary key name: timestamp

type_
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionType*
XML Binding class name: Type
Dictionary key name: type

class cybox.core.action.**ActionAliases**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.cybox_core.ActionAliasesType

action_alias

(List of values permitted)
Type: cybox.Unicode

XML Binding class name: `Action_Alias`
Dictionary key name: `action_alias`

class `cybox.core.action.`**`ActionArgument`**
Bases: `mixbox.entities.Entity`

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

`argument_name`
TypedField subclass for VocabString fields.

Type: *`cybox.common.vocabs.ActionArgumentName`*
XML Binding class name: `Argument_Name`
Dictionary key name: `argument_name`

`argument_value`

XML Binding class name: `Argument_Value`
Dictionary key name: `argument_value`

class `cybox.core.action.`**`ActionArguments`**`(`**args*`)`
Bases: `mixbox.entities.EntityList`

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

`action_argument`

(List of values permitted)
Type: *`cybox.core.action.ActionArgument`*
XML Binding class name: `Action_Argument`
Dictionary key name: `action_argument`

class `cybox.core.action.`**`ActionRelationship`**
Bases: `mixbox.entities.Entity`

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

`action_references`

(List of values permitted)
Type: *`cybox.core.action_reference.ActionReference`*
XML Binding class name: `Action_Reference`
Dictionary key name: `action_reference`

type
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionType*
XML Binding class name: `Type`
Dictionary key name: `type`

class cybox.core.action.**ActionRelationships**(**args*)
Bases: mixbox.entities.EntityList

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

relationship

(List of values permitted)
Type: *cybox.core.action.ActionRelationship*
XML Binding class name: `Relationship`
Dictionary key name: `relationship`

class cybox.core.action.**Actions**(**args*)
Bases: mixbox.entities.EntityList

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

action

(List of values permitted)
Type: *cybox.core.action.Action*
XML Binding class name: `Action`
Dictionary key name: `action`

class cybox.core.action.**AssociatedObjects**(**args*)
Bases: mixbox.entities.EntityList

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

associated_object

(List of values permitted)
Type: *cybox.core.associated_object.AssociatedObject*
XML Binding class name: `Associated_Object`
Dictionary key name: `associated_object`

Version: 2.1.0.21

cybox.core.action_reference module CybOX Action Reference Class

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

XML binding class: cybox.bindings.cybox_core.ActionReferenceType

action_id

XML Binding class name: action_id
Dictionary key name: action_id

Version: 2.1.0.21

cybox.core.associated_object module
class cybox.core.associated_object.**AssociatedObject**(*defined_object=None*, *type_=None*, *association_type=None*)
Bases: *cybox.core.object.Object*

The CybOX Associated Object element.

Currently only supports the id, association_type and ObjectProperties properties

XML binding class: cybox.bindings.cybox_core.AssociatedObjectType

association_type
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ActionObjectAssociationType*
XML Binding class name: Association_Type
Dictionary key name: association_type

Version: 2.1.0.21

cybox.core.event module
class cybox.core.event.**Event**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_core.EventType

actions

Type: *cybox.core.action.Actions*
XML Binding class name: Actions
Dictionary key name: actions

description

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

event

(List of values permitted)
Type: *cybox.core.event.Event*
XML Binding class name: `Event`
Dictionary key name: `event`

frequency

Type: *cybox.core.frequency.Frequency*
XML Binding class name: `Frequency`
Dictionary key name: `frequency`

id_

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

idref

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

location

Type: *cybox.common.location.Location*
XML Binding class name: `Location`
Dictionary key name: `location`

observation_method

Type: *cybox.common.measuresource.MeasureSource*
XML Binding class name: `Observation_Method`
Dictionary key name: `observation_method`

type_

TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.EventType*
XML Binding class name: `Type`
Dictionary key name: `type`

Version: 2.1.0.21

cybox.core.frequency module

class cybox.core.frequency.**Frequency**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.cybox_core.FrequencyType

rate

XML Binding class name: rate
Dictionary key name: rate

scale

XML Binding class name: scale
Dictionary key name: scale

trend

XML Binding class name: trend
Dictionary key name: trend

units

XML Binding class name: units
Dictionary key name: units

Version: 2.1.0.21

cybox.core.object module

class cybox.core.object.**DomainSpecificObjectProperties**

Bases: mixbox.entities.Entity

The Cybox DomainSpecificObjectProperties base class.

XML binding class: cybox.bindings.cybox_core.DomainSpecificObjectPropertiesType

to_dict()

to_obj(*ns_info=None*)

class cybox.core.object.**Object**(*properties=None*, *id_=None*, *idref=None*)

Bases: mixbox.entities.Entity

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

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

Notes

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

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

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

defined_effect

Type: `cybox.core.effect.DefinedEffect`
XML Binding class name: `Defined_Effect`
Dictionary key name: `defined_effect`

description

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

discovery_method

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

domain_specific_object_properties

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

has_changed

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

id_

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

idref

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

location

Type: *cybox.common.location.Location*
XML Binding class name: `Location`
Dictionary key name: `location`

properties

Type: *cybox.common.object_properties.ObjectProperties*
XML Binding class name: `Properties`
Dictionary key name: `properties`

related_objects

Type: *cybox.core.object.RelatedObjects*
XML Binding class name: `Related_Objects`
Dictionary key name: `related_objects`

state
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.VocabString*
XML Binding class name: `State`
Dictionary key name: `state`

class cybox.core.object.**RelatedObject**(**args*, ***kwargs*)
Bases: *cybox.core.object.Object*

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

classmethod from_dict(*cls_dict*)

classmethod from_obj(*cls_obj*)

get_properties()

relationship
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.ObjectRelationship*
XML Binding class name: `Relationship`
Dictionary key name: `relationship`

to_dict()

to_obj(*ns_info=None*)

class cybox.core.object.**RelatedObjects**(**args*)
Bases: `mixbox.entities.EntityList`

XML binding class: cybox.bindings.cybox_core.RelatedObjectsType

related_object

(List of values permitted)
Type: *cybox.core.object.RelatedObject*
XML Binding class name: Related_Object
Dictionary key name: related_object

cybox.core.object.**add_external_class**(*klass*, *xsi_type*)
Adds a class implementation to this binding's globals() dict.

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

Parameters

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

Version: 2.1.0.21

cybox.core.observable module

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

XML binding class: cybox.bindings.cybox_core.KeywordsType

keyword

(List of values permitted)
Type: cybox.Unicode
XML Binding class name: Keyword
Dictionary key name: keyword

class cybox.core.observable.**Observable**(*item=None*, *id_=None*, *idref=None*, *title=None*, *description=None*)
Bases: mixbox.entities.Entity

A single Observable.

XML binding class: cybox.bindings.cybox_core.ObservableType

add_keyword(*value*)

description

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

event

Type: *cybox.core.event.Event*
XML Binding class name: `Event`
Dictionary key name: `event`

id_

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

idref

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

keywords

Type: *cybox.core.observable.Keywords*
XML Binding class name: `Keywords`
Dictionary key name: `keywords`

negate

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

object_

Type: *cybox.core.object.Object*
XML Binding class name: `Object`
Dictionary key name: `object`

observable_composition

Type: *cybox.core.observable.ObservableComposition*
XML Binding class name: `Observable_Composition`
Dictionary key name: `observable_composition`

observable_source

(List of values permitted)
Type: *cybox.common.measuresource.MeasureSource*
XML Binding class name: `Observable_Source`
Dictionary key name: `observable_source`

pattern_fidelity

Type: *cybox.core.pattern_fidelity.PatternFidelity*
XML Binding class name: `Pattern_Fidelity`
Dictionary key name: `pattern_fidelity`

sighting_count

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

title

XML Binding class name: `Title`
Dictionary key name: `title`

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

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

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

add(*observable*)

observables

(List of values permitted)
Type: *cybox.core.observable.Observable*
XML Binding class name: `Observable`
Dictionary key name: `observables`

operator

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

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

The root CybOX Observables object.

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

add(*object_*)

cybox_major_version

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

cybox_minor_version

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

cybox_update_version

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

observable_package_source

Type: *cybox.common.measuresource.MeasureSource*
XML Binding class name: `Observable_Package_Source`
Dictionary key name: `observable_package_source`

observables

(List of values permitted)
Type: *cybox.core.observable.Observable*
XML Binding class name: `Observable`
Dictionary key name: `observables`

pools

Type: *cybox.core.pool.Pools*
XML Binding class name: `Pools`
Dictionary key name: `pools`

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

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

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

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

Version: 2.1.0.21

cybox.core.pattern_fidelity module

class cybox.core.pattern_fidelity.**ObfuscationTechnique**

Bases: `mixbox.entities.Entity`

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

description

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

observables

Type: *cybox.core.observable.Observables*
XML Binding class name: `Observables`
Dictionary key name: `observables`

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

XML binding class: cybox.bindings.cybox_core.ObfuscationTechniquesType

obfuscation_technique

(List of values permitted)
Type: *cybox.core.pattern_fidelity.ObfuscationTechnique*
XML Binding class name: Obfuscation_Technique
Dictionary key name: obfuscation_technique

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

XML binding class: cybox.bindings.cybox_core.PatternFidelityType

ease_of_evasion

XML Binding class name: Ease_of_Evasion
Dictionary key name: ease_of_evasion

evasion_techniques

Type: *cybox.core.pattern_fidelity.ObfuscationTechniques*
XML Binding class name: Evasion_Techniques
Dictionary key name: evasion_techniques

noisiness

XML Binding class name: Noisiness
Dictionary key name: noisiness

Version: 2.1.0.21

cybox.core.pool module

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

XML binding class: cybox.bindings.cybox_core.ActionPoolType

actions

(List of values permitted)
Type: *cybox.core.action.Action*

XML Binding class name: Action
Dictionary key name: actions

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

XML binding class: cybox.bindings.cybox_core.EventPoolType

events

(List of values permitted)
Type: *cybox.core.event.Event*
XML Binding class name: Event
Dictionary key name: events

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

XML binding class: cybox.bindings.cybox_core.ObjectPoolType

objects

(List of values permitted)
Type: *cybox.core.object.Object*
XML Binding class name: Object
Dictionary key name: objects

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

XML binding class: cybox.bindings.cybox_core.PoolsType

action_pool

Type: *cybox.core.pool.ActionPool*
XML Binding class name: Action_Pool
Dictionary key name: action_pool

event_pool

Type: *cybox.core.pool.EventPool*
XML Binding class name: Event_Pool
Dictionary key name: event_pool

object_pool

Type: *cybox.core.pool.ObjectPool*

XML Binding class name: `Object_Pool`
Dictionary key name: `object_pool`

property_pool

Type: *cybox.core.pool.PropertyPool*
XML Binding class name: `Property_Pool`
Dictionary key name: `property_pool`

class `cybox.core.pool.`**PropertyPool**
Bases: `mixbox.entities.Entity`

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

properties

(List of values permitted)
Type: *cybox.common.object_properties.Property*
XML Binding class name: `Property`
Dictionary key name: `properties`

3.1.3 CybOX Objects

Modules located in the base `cybox.objects` package

Version: 2.1.0.21

cybox.objects package

Submodules

Version: 2.1.0.21

cybox.objects.account_object module
class `cybox.objects.account_object.`**Account**
Bases: *cybox.common.object_properties.ObjectProperties*

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

authentication

(List of values permitted)
Type: *cybox.objects.account_object.Authentication*
XML Binding class name: `Authentication`
Dictionary key name: `authentication`

creation_date

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Creation_Date`
Dictionary key name: `creation_date`

description

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

disabled

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

domain

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

last_accessed_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Last_Accessed_Time`
Dictionary key name: `last_accessed_time`

locked_out

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

modified_date

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Modified_Date`
Dictionary key name: `modified_date`

class `cybox.objects.account_object.`**Authentication**

Bases: `mixbox.entities.Entity`

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

authentication_data

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

authentication_token_protection_mechanism
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.VocabString*
XML Binding class name: `Authentication_Token_Protection_Mechanism`
Dictionary key name: `authentication_token_protection_mechanism`

authentication_type
TypedField subclass for VocabString fields.

Type: *cybox.common.vocabs.VocabString*
XML Binding class name: `Authentication_Type`
Dictionary key name: `authentication_type`

structured_authentication_mechanism

Type: *cybox.objects.account_object.StructuredAuthenticationMechanism*
XML Binding class name: `Structured_Authentication_Mechanism`
Dictionary key name: `structured_authentication_mechanism`

class `cybox.objects.account_object.`**StructuredAuthenticationMechanism**
Bases: `mixbox.entities.Entity`

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

description

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

Version: 2.1.0.21

cybox.objects.address_object module
class `cybox.objects.address_object.`**Address**(*address_value=None*, *category=None*)
Bases: *cybox.common.object_properties.ObjectProperties*

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

address_value

Type: *cybox.common.properties.String*

XML Binding class name: `Address_Value`
Dictionary key name: `address_value`

category

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

is_destination

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

is_source

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

is_spoofed

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

vlan_name

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

vlan_num

Type: *cybox.common.properties.Integer*
XML Binding class name: `VLAN_Num`
Dictionary key name: `vlan_num`

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

Convenience class for creating email addresses.

Note that this is not an actual CybOX type.

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

classmethod istypeof(*obj*)

Version: 2.1.0.21

cybox.objects.api_object module

class `cybox.objects.api_object.`**API**
Bases: *cybox.common.object_properties.ObjectProperties*

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

address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Address`
Dictionary key name: `address`

description

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

function_name

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

normalized_function_name

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

platform

Type: *cybox.common.platform_specification.PlatformSpecification*
XML Binding class name: `Platform`
Dictionary key name: `platform`

Version: 2.1.0.21

cybox.objects.archive_file_object module

class `cybox.objects.archive_file_object.`**ArchiveFile**

Bases: *cybox.objects.file_object.File*

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

archive_format

Type: *cybox.objects.archive_file_object.ArchiveFileFormat*
XML Binding class name: `Archive_Format`
Dictionary key name: `archive_format`

archived_file

(List of values permitted)
Type: *cybox.objects.file_object.File*
XML Binding class name: `Archived_File`
Dictionary key name: `archived_file`

comment

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

decryption_key

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

encryption_algorithm

Type: *cybox.common.cipher.Cipher*
XML Binding class name: `Encryption_Algorithm`
Dictionary key name: `encryption_algorithm`

file_count

Type: *cybox.common.properties.Integer*
XML Binding class name: `File_Count`
Dictionary key name: `file_count`

version

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

class `cybox.objects.archive_file_object.`**`ArchiveFileFormat`**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

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

Version: 2.1.0.21

`cybox.objects.artifact_object` module

class `cybox.objects.artifact_object.`**`Artifact`**(*data=None*, *type_=None*)
Bases: *cybox.common.object_properties.ObjectProperties*

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

content_type

XML Binding class name: content_type
Dictionary key name: content_type

content_type_version

XML Binding class name: content_type_version
Dictionary key name: content_type_version

classmethod from_dict(*cls_dict*)

classmethod from_obj(*cls_obj*)

hashes

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

packaging

Type: *cybox.objects.artifact_object.Packaging*
XML Binding class name: Packaging
Dictionary key name: packaging

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**

Bases: *cybox.objects.artifact_object.Encoding*

XML binding class: cybox.bindings.artifact_object.EncodingType

pack(*data*)

unpack(*packed_data*)

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

XML binding class: cybox.bindings.artifact_object.CompressionType

pack(*data*)

unpack(*packed_data*)

class cybox.objects.artifact_object.**Compression**(*compression_mechanism=None*, *compression_mechanism_ref=None*)
Bases: mixbox.entities.Entity

A Compression packaging layer

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

XML binding class: cybox.bindings.artifact_object.CompressionType

compression_mechanism

XML Binding class name: compression_mechanism
Dictionary key name: compression_mechanism

compression_mechanism_ref

XML Binding class name: compression_mechanism_ref
Dictionary key name: compression_mechanism_ref

pack(*data*)
This should accept byte data and return byte data

unpack(*packed_data*)
This should accept byte data and return byte data

class cybox.objects.artifact_object.**Encoding**(*algorithm=None*, *character_set=None*, *custom_character_set_ref=None*)
Bases: mixbox.entities.Entity

An encoding packaging layer.

Currently only base64 with a standard alphabet is supported.

XML binding class: cybox.bindings.artifact_object.EncodingType

algorithm

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

character_set

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

custom_character_set_ref

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

pack(*data*)
This should accept byte data and return byte data

unpack(*packed_data*)
This should accept byte data and return byte data

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

Bases: `mixbox.entities.Entity`

An encryption packaging layer.

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

encryption_key

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

encryption_key_ref

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

encryption_mechanism

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

encryption_mechanism_ref

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

pack(*data*)
This should accept byte data and return byte data

unpack(*packed_data*)
This should accept byte data and return byte data

class cybox.objects.artifact_object.**Packaging**(*is_encrypted=None*, *is_compressed=None*, *compression=None*, *encryption=None*, *encoding=None*)
Bases: mixbox.entities.Entity

An individual packaging layer.

XML binding class: cybox.bindings.artifact_object.PackagingType

compression

(List of values permitted)
Type: *cybox.objects.artifact_object.Compression*
XML Binding class name: Compression
Dictionary key name: compression

encoding

(List of values permitted)
Type: *cybox.objects.artifact_object.Encoding*
XML Binding class name: Encoding
Dictionary key name: encoding

encryption

(List of values permitted)
Type: *cybox.objects.artifact_object.Encryption*
XML Binding class name: Encryption
Dictionary key name: encryption

is_compressed

XML Binding class name: is_compressed
Dictionary key name: is_compressed

is_encrypted

XML Binding class name: is_encrypted
Dictionary key name: is_encrypted

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

XML binding class: cybox.bindings.artifact_object.EncryptionType

unpack(*packed_data*)

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

XML binding class: cybox.bindings.artifact_object.RawArtifactType

byte_order

XML Binding class name: byte_order
Dictionary key name: byte_order

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

XML binding class: cybox.bindings.artifact_object.EncryptionType

pack(*data*)

unpack(*packed_data*)

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

XML binding class: cybox.bindings.artifact_object.CompressionType

pack(*data*)

unpack(*packed_data*)

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

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

Version: 2.1.0.21

cybox.objects.as_object module

cybox.objects.as_object.**AS**
alias of *AutonomousSystem* | XML binding class: cybox.bindings.as_object.ASObjectType

class cybox.objects.as_object.**AutonomousSystem**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.as_object.ASObjectType

handle

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

name

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

number

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Number`
Dictionary key name: `number`

regional_internet_registry

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

Version: 2.1.0.21

cybox.objects.arp_cache_object module

class cybox.objects.arp_cache_object.**ARPCache**
Bases: *cybox.common.object_properties.ObjectProperties*

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

arp_cache_entry

(List of values permitted)
Type: *cybox.objects.arp_cache_object.ARPCacheEntry*
XML Binding class name: `ARP_Cache_Entry`
Dictionary key name: `arp_cache_entry`

class cybox.objects.arp_cache_object.**ARPCacheEntry**
Bases: `mixbox.entities.Entity`

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

ip_address

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

network_interface

Type: *cybox.objects.system_object.NetworkInterface*

XML Binding class name: `Network_Interface`
Dictionary key name: `network_interface`

physical_address

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

type_

Type: *cybox.objects.arp_cache_object.ARPCacheEntryType*
XML Binding class name: `Type`
Dictionary key name: `type`

class `cybox.objects.arp_cache_object.`**ARPCacheEntryType**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

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

Version: 2.1.0.21

cybox.objects.code_object module
class `cybox.objects.code_object.`**Code**
Bases: *cybox.common.object_properties.ObjectProperties*

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

code_language

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

code_segment

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

code_segment_xor

Type: *cybox.objects.code_object.CodeSegmentXOR*
XML Binding class name: `Code_Segment_XOR`
Dictionary key name: `code_segment_xor`

description

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

digital_signatures

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

discovery_method

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

extracted_features

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

processor_family

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

purpose

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

start_address

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

targeted_platforms

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

type_

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

Dictionary key name: type

class cybox.objects.code_object.**CodeSegmentXOR**(*value=None*)

Bases: *cybox.common.properties.String*

XML binding class: cybox.bindings.code_object.CodeSegmentXORType

is_plain()

xor_pattern

XML Binding class name: xor_pattern

Dictionary key name: xor_pattern

class cybox.objects.code_object.**TargetedPlatforms**(**args*)

Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.code_object.TargetedPlatformsType

targeted_platform

(List of values permitted)

Type: *cybox.common.platform_specification.PlatformSpecification*

XML Binding class name: Targeted_Platform

Dictionary key name: targeted_platform

Version: 2.1.0.21

cybox.objects.custom_object module

class cybox.objects.custom_object.**Custom**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.custom_object.CustomObjectType

custom_name

XML Binding class name: custom_name

Dictionary key name: custom_name

description

Type: *cybox.common.structured_text.StructuredText*

XML Binding class name: Description

Dictionary key name: description

Version: 2.1.0.21

cybox.objects.device_object module

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

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.device_object.DeviceObjectType

description

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

device_type

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

firmware_version

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

manufacturer

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

model

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

serial_number

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

system_details

Type: *cybox.common.object_properties.ObjectProperties*
XML Binding class name: System_Details
Dictionary key name: system_details

Version: 2.1.0.21

cybox.objects.disk_object module

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

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.disk_object.DiskObjectType

disk_name

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

disk_size

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

free_space

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

partition_list

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

type_

Type: *cybox.objects.disk_object.DiskType*
XML Binding class name: Type
Dictionary key name: type

class cybox.objects.disk_object.**DiskType**(*value=None*)

Bases: *cybox.common.properties.BaseProperty*

XML binding class: cybox.bindings.disk_object.DiskType

class cybox.objects.disk_object.**PartitionList**(**args*)

Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.disk_object.PartitionListType

partition

(List of values permitted)
Type: *cybox.objects.disk_partition_object.DiskPartition*
XML Binding class name: `Partition`
Dictionary key name: `partition`

Version: 2.1.0.21

cybox.objects.disk_partition_object module

class `cybox.objects.disk_partition_object.`**DiskPartition**
Bases: *cybox.common.object_properties.ObjectProperties*

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

created

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Created`
Dictionary key name: `created`

device_name

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

mount_point

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

partition_id

Type: *cybox.common.properties.Integer*
XML Binding class name: `Partition_ID`
Dictionary key name: `partition_id`

partition_length

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Partition_Length`
Dictionary key name: `partition_length`

partition_offset

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Partition_Offset`

Dictionary key name: partition_offset

space_left

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Space_Left
Dictionary key name: space_left

space_used

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Space_Used
Dictionary key name: space_used

total_space

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Total_Space
Dictionary key name: total_space

type_

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

Version: 2.1.0.21

cybox.objects.dns_cache_object module

class cybox.objects.dns_cache_object.**DNSCache**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.dns_cache_object.DNSCacheObjectType

dns_cache_entry

(List of values permitted)
Type: *cybox.objects.dns_cache_object.DNSCacheEntry*
XML Binding class name: DNS_Cache_Entry
Dictionary key name: dns_cache_entry

class cybox.objects.dns_cache_object.**DNSCacheEntry**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.dns_cache_object.DNSCacheEntryType

dns_entry

Type: *cybox.objects.dns_record_object.DNSRecord*

XML Binding class name: DNS_Entry
Dictionary key name: dns_entry

ttl

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

Version: 2.1.0.21

cybox.objects.dns_query_object module

class cybox.objects.dns_query_object.**DNSQuery**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.dns_query_object.DNSQueryObjectType

additional_records

Type: *cybox.objects.dns_query_object.DNSResourceRecords*
XML Binding class name: Additional_Records
Dictionary key name: additional_records

answer_resource_records

Type: *cybox.objects.dns_query_object.DNSResourceRecords*
XML Binding class name: Answer_Resource_Records
Dictionary key name: answer_resource_records

authority_resource_records

Type: *cybox.objects.dns_query_object.DNSResourceRecords*
XML Binding class name: Authority_Resource_Records
Dictionary key name: authority_resource_records

date_ran

Type: *cybox.common.properties.DateTime*
XML Binding class name: Date_Ran
Dictionary key name: date_ran

question

Type: *cybox.objects.dns_query_object.DNSQuestion*
XML Binding class name: Question
Dictionary key name: question

service_used

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

successful

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

transaction_id

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

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

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

qclass

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

qname

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

qtype

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

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

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

resource_record

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

Dictionary key name: `resource_record`

Version: 2.1.0.21

cybox.objects.dns_record_object module

class cybox.objects.dns_record_object.**DNSRecord**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.dns_record_object.DNSRecordObjectType`

address_class

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

data_length

Type: *cybox.common.properties.Integer*
XML Binding class name: `Data_Length`
Dictionary key name: `data_length`

description

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

domain_name

Type: *cybox.objects.uri_object.URI*
XML Binding class name: `Domain_Name`
Dictionary key name: `domain_name`

entry_type

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

flags

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Flags`
Dictionary key name: `flags`

ip_address

Type: *cybox.objects.address_object.Address*

XML Binding class name: IP_Address
Dictionary key name: ip_address

queried_date

Type: *cybox.common.properties.DateTime*
XML Binding class name: Queried_Date
Dictionary key name: queried_date

record_data

XML Binding class name: Record_Data
Dictionary key name: record_data

record_name

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

record_type

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

ttl

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

Version: 2.1.0.21

cybox.objects.domain_name_object module

class cybox.objects.domain_name_object.**DomainName**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.domain_name_object.DomainNameObjectType

type_

XML Binding class name: type_
Dictionary key name: type

value

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

Version: 2.1.0.21

cybox.objects.email_message_object module

class cybox.objects.email_message_object.**AttachmentReference**(*object_reference=None*)

Bases: cybox.objects.email_message_object._Reference, mixbox.entities.Entity

XML binding class: cybox.bindings.email_message_object.AttachmentReferenceType

class cybox.objects.email_message_object.**Attachments**(**args*)

Bases: cybox.objects.email_message_object._ReferenceList, mixbox.entities.EntityList

XML binding class: cybox.bindings.email_message_object.AttachmentsType

file

(List of values permitted)

Type: *cybox.objects.email_message_object.AttachmentReference*

XML Binding class name: File

Dictionary key name: file

class cybox.objects.email_message_object.**EmailHeader**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.email_message_object.EmailHeaderType

bcc

Type: *cybox.objects.email_message_object.EmailRecipients*

XML Binding class name: BCC

Dictionary key name: bcc

boundary

Type: *cybox.common.properties.String*

XML Binding class name: Boundary

Dictionary key name: boundary

cc

Type: *cybox.objects.email_message_object.EmailRecipients*

XML Binding class name: CC

Dictionary key name: cc

content_type

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

date

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

errors_to

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

from_

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

in_reply_to

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

message_id

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

mime_version

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

precedence

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

received_lines

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

reply_to

Type: *cybox.objects.address_object.EmailAddress*
XML Binding class name: `Reply_To`
Dictionary key name: `reply_to`

sender

Type: *cybox.objects.address_object.EmailAddress*
XML Binding class name: `Sender`
Dictionary key name: `sender`

subject

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

to

Type: *cybox.objects.email_message_object.EmailRecipients*
XML Binding class name: `To`
Dictionary key name: `to`

user_agent

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

x_mailer

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

x_originating_ip

Type: *cybox.objects.address_object.Address*
XML Binding class name: `X_Originating_IP`
Dictionary key name: `x_originating_ip`

x_priority

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `X_Priority`
Dictionary key name: `x_priority`

class `cybox.objects.email_message_object.`**EmailMessage**
Bases: *cybox.common.object_properties.ObjectProperties*

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

attachments

Type: *cybox.objects.email_message_object.Attachments*
XML Binding class name: `Attachments`
Dictionary key name: `attachments`

email_server

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

header

Type: *cybox.objects.email_message_object.EmailHeader*
XML Binding class name: `Header`
Dictionary key name: `header`

links

Type: *cybox.objects.email_message_object.Links*
XML Binding class name: `Links`
Dictionary key name: `links`

raw_body

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

raw_header

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

class `cybox.objects.email_message_object.`**`EmailRecipients`**(**args*)
Bases: `mixbox.entities.EntityList`

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

recipient

(List of values permitted)
Type: *cybox.objects.address_object.EmailAddress*
XML Binding class name: `Recipient`

Dictionary key name: recipient

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

XML binding class: cybox.bindings.email_message_object.LinkReferenceType

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

XML binding class: cybox.bindings.email_message_object.LinksType

link

(List of values permitted)
Type: *cybox.objects.email_message_object.LinkReference*
XML Binding class name: Link
Dictionary key name: link

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

XML binding class: cybox.bindings.email_message_object.EmailReceivedLineType

by

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

for_

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

from_

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

id_

Type: *cybox.common.properties.String*

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

timestamp

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Timestamp`
Dictionary key name: `timestamp`

via

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

with_

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

class cybox.objects.email_message_object.**ReceivedLineList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class:
cybox.bindings.email_message_object.EmailReceivedLineListType

received

(List of values permitted)
Type: *cybox.objects.email_message_object.ReceivedLine*
XML Binding class name: `Received`
Dictionary key name: `received`

Version: 2.1.0.21

cybox.objects.file_object module

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

XML binding class: cybox.bindings.file_object.EPJumpCodeType

depth

Type: *cybox.common.properties.Integer*
XML Binding class name: `Depth`
Dictionary key name: `depth`

opcodes

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

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

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

name

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

type_

XML Binding class name: `Type`
Dictionary key name: `type`

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

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

entry_point_signature

(List of values permitted)
Type: *cybox.objects.file_object.EntryPointSignature*
XML Binding class name: `Entry_Point_Signature`
Dictionary key name: `entry_point_signature`

class `cybox.objects.file_object.`**File**
Bases: *cybox.common.object_properties.ObjectProperties*

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

accessed_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Accessed_Time`
Dictionary key name: `accessed_time`

add_hash(*hash_*)

byte_runs

Type: *cybox.common.byterun.ByteRuns*
XML Binding class name: `Byte_Runs`
Dictionary key name: `byte_runs`

compression_comment

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

compression_method

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

compression_version

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

created_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Created_Time`
Dictionary key name: `created_time`

decryption_key

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

device_path

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

digital_signatures

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

encryption_algorithm

Type: *cybox.common.properties.String*

XML Binding class name: `Encryption_Algorithm`
Dictionary key name: `encryption_algorithm`

extracted_features

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

file_attributes_list

Type: *cybox.objects.file_object.FileAttribute*
XML Binding class name: `File_Attributes_List`
Dictionary key name: `file_attributes_list`

file_extension

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

file_format

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

file_name

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

file_path

Type: *cybox.objects.file_object.FilePath*
XML Binding class name: `File_Path`
Dictionary key name: `file_path`

full_path

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

hashes

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

is_masqueraded

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

is_packed

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

magic_number

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Magic_Number`
Dictionary key name: `magic_number`

modified_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Modified_Time`
Dictionary key name: `modified_time`

packer_list

Type: *cybox.objects.file_object.PackerList*
XML Binding class name: `Packer_List`
Dictionary key name: `packer_list`

peak_entropy

Type: *cybox.common.properties.Double*
XML Binding class name: `Peak_Entropy`
Dictionary key name: `peak_entropy`

permissions

Type: *cybox.objects.file_object.FilePermissions*
XML Binding class name: `Permissions`
Dictionary key name: `permissions`

size_in_bytes

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Size_In_Bytes`
Dictionary key name: `size_in_bytes`

sym_links

Type: *cybox.objects.file_object.SymLinksList*
XML Binding class name: `Sym_Links`
Dictionary key name: `sym_links`

user_owner

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

class cybox.objects.file_object.**FileAttribute**
Bases: mixbox.entities.Entity

An abstract class for file attributes.

XML binding class: cybox.bindings.file_object.FileAttributeType

class cybox.objects.file_object.**FilePath**(*value=None*)
Bases: *cybox.common.properties.String*

XML binding class: cybox.bindings.file_object.FilePathType

fully_qualified

XML Binding class name: fully_qualified
Dictionary key name: fully_qualified

is_plain()

class cybox.objects.file_object.**FilePermissions**
Bases: mixbox.entities.Entity

An abstract class for file permissions.

XML binding class: cybox.bindings.file_object.FilePermissionsType

class cybox.objects.file_object.**Packer**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.file_object.PackerType

detected_entrypoint_signatures

Type: *cybox.objects.file_object.EntryPointSignatureList*
XML Binding class name: Detected_Entrypoint_Signatures
Dictionary key name: detected_entrypoint_signatures

entry_point

Type: *cybox.common.properties.HexBinary*

XML Binding class name: `Entry_Point`
Dictionary key name: `entry_point`

ep_jump_codes

Type: *cybox.objects.file_object.EPJumpCode*
XML Binding class name: `EP_Jump_Codes`
Dictionary key name: `ep_jump_codes`

name

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

signature

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

type_

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

version

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

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

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

packer

(List of values permitted)
Type: *cybox.objects.file_object.Packer*
XML Binding class name: `Packer`
Dictionary key name: `packer`

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

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

sym_link

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

Version: 2.1.0.21

cybox.objects.gui_dialogbox_object module

class `cybox.objects.gui_dialogbox_object.`**GUIDialogbox**
Bases: *cybox.objects.gui_object.GUI*

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

box_caption

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

box_text

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

Version: 2.1.0.21

cybox.objects.gui_object module

class `cybox.objects.gui_object.`**GUI**
Bases: *cybox.common.object_properties.ObjectProperties*

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

height

Type: *cybox.common.properties.Integer*
XML Binding class name: `Height`
Dictionary key name: `height`

width

Type: *cybox.common.properties.Integer*
XML Binding class name: `Width`
Dictionary key name: `width`

Version: 2.1.0.21

cybox.objects.gui_window_object module
class cybox.objects.gui_window_object.**GUIWindow**
Bases: *cybox.objects.gui_object.GUI*

XML binding class: cybox.bindings.gui_window_object.GUIWindowObjectType

owner_window

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

parent_window

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

window_display_name

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

Version: 2.1.0.21

cybox.objects.hostname_object module
class cybox.objects.hostname_object.**Hostname**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.hostname_object.HostnameObjectType

hostname_value

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

is_domain_name

XML Binding class name: is_domain_name
Dictionary key name: is_domain_name

naming_system

(List of values permitted)
Type: *cybox.common.properties.String*
XML Binding class name: Naming_System

Dictionary key name: naming_system

Version: 2.1.0.21

cybox.objects.http_session_object module

class cybox.objects.http_session_object.**HTTPClientRequest**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.http_session_object.HTTPClientRequestType

http_message_body

Type: *cybox.objects.http_session_object.HTTPMessage*
XML Binding class name: HTTP_Message_Body
Dictionary key name: http_message_body

http_request_header

Type: *cybox.objects.http_session_object.HTTPRequestHeader*
XML Binding class name: HTTP_Request_Header
Dictionary key name: http_request_header

http_request_line

Type: *cybox.objects.http_session_object.HTTPRequestLine*
XML Binding class name: HTTP_Request_Line
Dictionary key name: http_request_line

class cybox.objects.http_session_object.**HTTPMessage**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.http_session_object.HTTPMessageType

length

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

message_body

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

class cybox.objects.http_session_object.**HTTPRequestHeader**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.http_session_object.HTTPRequestHeaderType

parsed_header

Type: *cybox.objects.http_session_object.HTTPRequestHeaderFields*
XML Binding class name: Parsed_Header
Dictionary key name: parsed_header

raw_header

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

class cybox.objects.http_session_object.**HTTPRequestHeaderFields**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.http_session_object.HTTPRequestHeaderFieldsType

accept

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

accept_charset

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

accept_datetime

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

accept_encoding

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

accept_language

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

Dictionary key name: `accept_language`

authorization

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

cache_control

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

connection

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

content_length

Type: *cybox.common.properties.Integer*
XML Binding class name: `Content_Length`
Dictionary key name: `content_length`

content_md5

Type: *cybox.common.properties.String*
XML Binding class name: `Content_MD5`
Dictionary key name: `content_md5`

content_type

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

cookie

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

date

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

dnt

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

expect

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

from_

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

host

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

if_match

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

if_modified_since

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

if_none_match

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

if_range

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

if_unmodified_since

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

max_forwards

Type: *cybox.common.properties.Integer*
XML Binding class name: `Max_Forwards`
Dictionary key name: `max_forwards`

pragma

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

proxy_authorization

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

range_

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

referer

Type: *cybox.objects.uri_object.URI*
XML Binding class name: `Referer`
Dictionary key name: `referer`

te

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

user_agent

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

via

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

warning

Type: *cybox.common.properties.String*

XML Binding class name: `Warning`
Dictionary key name: `warning`

x_att_deviceid

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

x_forwarded_for

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

x_forwarded_proto

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

x_requested_with

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

x_wap_profile

Type: *cybox.objects.uri_object.URI*
XML Binding class name: `X_Wap_Profile`
Dictionary key name: `x_wap_profile`

class `cybox.objects.http_session_object.`**HTTPRequestLine**
Bases: `mixbox.entities.Entity`

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

http_method

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

value

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

version

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

class cybox.objects.http_session_object.**HTTPRequestResponse**
Bases: mixbox.entities.Entity

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

http_client_request

Type: *cybox.objects.http_session_object.HTTPClientRequest*
XML Binding class name: `HTTP_Client_Request`
Dictionary key name: `http_client_request`

http_provisional_server_response

Type: *cybox.objects.http_session_object.HTTPServerResponse*
XML Binding class name: `HTTP_Provisional_Server_Response`
Dictionary key name: `http_provisional_server_response`

http_server_response

Type: *cybox.objects.http_session_object.HTTPServerResponse*
XML Binding class name: `HTTP_Server_Response`
Dictionary key name: `http_server_response`

ordinal_position

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

class cybox.objects.http_session_object.**HTTPResponseHeader**
Bases: mixbox.entities.Entity

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

parsed_header

Type: *cybox.objects.http_session_object.HTTPResponseHeaderFields*
XML Binding class name: `Parsed_Header`
Dictionary key name: `parsed_header`

raw_header

Type: *cybox.common.properties.String*

XML Binding class name: Raw_Header
Dictionary key name: raw_header

class cybox.objects.http_session_object.**HTTPResponseHeaderFields**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.http_session_object.HTTPResponseHeaderFieldsType

accept_ranges

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

access_control_allow_origin

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

age

Type: *cybox.common.properties.Integer*
XML Binding class name: Age
Dictionary key name: age

cache_control

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

connection

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

content_disposition

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

content_encoding

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

content_language

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

content_length

Type: *cybox.common.properties.Integer*
XML Binding class name: `Content_Length`
Dictionary key name: `content_length`

content_location

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

content_md5

Type: *cybox.common.properties.String*
XML Binding class name: `Content_MD5`
Dictionary key name: `content_md5`

content_range

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

content_type

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

date

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

etag

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

expires

Type: *cybox.common.properties.DateTime*

XML Binding class name: `Expires`
Dictionary key name: `expires`

last_modified

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Last_Modified`
Dictionary key name: `last_modified`

link

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

location

Type: *cybox.objects.uri_object.URI*
XML Binding class name: `Location`
Dictionary key name: `location`

p3p

Type: *cybox.common.properties.String*
XML Binding class name: `P3P`
Dictionary key name: `p3p`

pragma

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

proxy_authenticate

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

refresh

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

retry_after

Type: *cybox.common.properties.Integer*
XML Binding class name: `Retry_After`
Dictionary key name: `retry_after`

server

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

set_cookie

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

strict_transport_security

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

trailer

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

transfer_encoding

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

vary

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

via

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

warning

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

www_authenticate

Type: *cybox.common.properties.String*

XML Binding class name: WWW_Authenticate
Dictionary key name: www_authenticate

x_content_type_options

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

x_frame_options

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

x_powered_by

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

x_ua_compatible

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

x_xss_protection

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

class cybox.objects.http_session_object.**HTTPServerResponse**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.http_session_object.HTTPServerResponseType

http_message_body

Type: *cybox.objects.http_session_object.HTTPMessage*
XML Binding class name: HTTP_Message_Body
Dictionary key name: http_message_body

http_response_header

Type: *cybox.objects.http_session_object.HTTPResponseHeader*
XML Binding class name: HTTP_Response_Header
Dictionary key name: http_response_header

http_status_line

Type: *cybox.objects.http_session_object.HTTPStatusLine*
XML Binding class name: `HTTP_Status_Line`
Dictionary key name: `http_status_line`

class `cybox.objects.http_session_object.`**HTTPSession**
Bases: *cybox.common.object_properties.ObjectProperties*

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

http_request_response

(List of values permitted)
Type: *cybox.objects.http_session_object.HTTPRequestResponse*
XML Binding class name: `HTTP_Request_Response`
Dictionary key name: `http_request_response`

class `cybox.objects.http_session_object.`**HTTPStatusLine**
Bases: `mixbox.entities.Entity`

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

reason_phrase

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

status_code

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `Status_Code`
Dictionary key name: `status_code`

version

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

class `cybox.objects.http_session_object.`**HostField**
Bases: `mixbox.entities.Entity`

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

domain_name

Type: *cybox.objects.uri_object.URI*
XML Binding class name: `Domain_Name`
Dictionary key name: `domain_name`

port

Type: *cybox.objects.port_object.Port*
XML Binding class name: `Port`
Dictionary key name: `port`

Version: 2.1.0.21

cybox.objects.image_file_object module

class `cybox.objects.image_file_object.`**ImageFile**

Bases: *cybox.objects.file_object.File*

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

bits_per_pixel

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `Bits_Per_Pixel`
Dictionary key name: `bits_per_pixel`

compression_algorithm

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

image_file_format

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

image_height

Type: *cybox.common.properties.Integer*
XML Binding class name: `Image_Height`
Dictionary key name: `image_height`

image_is_compressed

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

image_width

Type: *cybox.common.properties.Integer*
XML Binding class name: `Image_Width`
Dictionary key name: `image_width`

Version: 2.1.0.21

cybox.objects.library_object module

class `cybox.objects.library_object.`**Library**

Bases: *cybox.common.object_properties.ObjectProperties*

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

base_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Base_Address`
Dictionary key name: `base_address`

extracted_features

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

name

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

path

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

size

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

type_

Type: *cybox.objects.library_object.LibraryType*
XML Binding class name: `Type`
Dictionary key name: `type`

version

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

class `cybox.objects.library_object.`**LibraryType**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

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

Version: 2.1.0.21

cybox.objects.link_object module

class `cybox.objects.link_object.`**Link**(*value=None*, *type_=None*)
Bases: *cybox.objects.uri_object.URI*

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

url_label

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

Version: 2.1.0.21

cybox.objects.linux_package_object module

class `cybox.objects.linux_package_object.`**LinuxPackage**
Bases: *cybox.common.object_properties.ObjectProperties*

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

architecture
TypedField subclass for VocabString fields.

Type: *cybox.objects.linux_package_object.LinuxPackageArchitecture*
XML Binding class name: `Architecture`
Dictionary key name: `architecture`

category

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

Dictionary key name: `category`

description

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

epoch

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

evr

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

name

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

release

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

vendor

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

version

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

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

Bases: *cybox.common.vocabs.VocabString*

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

Version: 2.1.0.21

cybox.objects.memory_object module

class cybox.objects.memory_object.**Memory**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.memory_object.MemoryObjectType

block_type

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

extracted_features

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

hashes

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

is_injected

XML Binding class name: is_injected
Dictionary key name: is_injected

is_mapped

XML Binding class name: is_mapped
Dictionary key name: is_mapped

is_protected

XML Binding class name: is_protected
Dictionary key name: is_protected

is_volatile

XML Binding class name: is_volatile
Dictionary key name: is_volatile

memory_source

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

name

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

region_end_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Region_End_Address`
Dictionary key name: `region_end_address`

region_size

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Region_Size`
Dictionary key name: `region_size`

region_start_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Region_Start_Address`
Dictionary key name: `region_start_address`

Version: 2.1.0.21

cybox.objects.mutex_object module

class cybox.objects.mutex_object.**Mutex**

Bases: *cybox.common.object_properties.ObjectProperties*

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

name

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

named

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

Version: 2.1.0.21

cybox.objects.network_connection_object module

class cybox.objects.network_connection_object.**Layer7Connections**

Bases: `mixbox.entities.Entity`

XML binding class:
cybox.bindings.network_connection_object.Layer7ConnectionsType

dns_query

(List of values permitted)
Type: *cybox.objects.dns_query_object.DNSQuery*
XML Binding class name: DNS_Query
Dictionary key name: dns_query

http_session

Type: *cybox.objects.http_session_object.HTTPSession*
XML Binding class name: HTTP_Session
Dictionary key name: http_session

class cybox.objects.network_connection_object.**NetworkConnection**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:
cybox.bindings.network_connection_object.NetworkConnectionObjectType

creation_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: Creation_Time
Dictionary key name: creation_time

destination_socket_address

Type: *cybox.objects.socket_address_object.SocketAddress*
XML Binding class name: Destination_Socket_Address
Dictionary key name: destination_socket_address

destination_tcp_state

XML Binding class name: Destination_TCP_State
Dictionary key name: destination_tcp_state

layer3_protocol

Type: *cybox.common.properties.String*
XML Binding class name: Layer3_Protocol
Dictionary key name: layer3_protocol

layer4_protocol

Type: *cybox.common.properties.String*
XML Binding class name: Layer4_Protocol

Dictionary key name: layer4_protocol

layer7_connections

Type: *cybox.objects.network_connection_object.Layer7Connections*
XML Binding class name: Layer7_Connections
Dictionary key name: layer7_connections

layer7_protocol

Type: *cybox.common.properties.String*
XML Binding class name: Layer7_Protocol
Dictionary key name: layer7_protocol

source_socket_address

Type: *cybox.objects.socket_address_object.SocketAddress*
XML Binding class name: Source_Socket_Address
Dictionary key name: source_socket_address

source_tcp_state

XML Binding class name: Source_TCP_State
Dictionary key name: source_tcp_state

tls_used

XML Binding class name: tls_used
Dictionary key name: tls_used

Version: 2.1.0.21

cybox.objects.network_flow_object module

class cybox.objects.network_flow_object.**BidirectionalRecord**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_flow_object.BidirectionalRecordType

yaf_record

Type: *cybox.objects.network_flow_object.YAFRecord*
XML Binding class name: YAF_Record
Dictionary key name: yaf_record

class cybox.objects.network_flow_object.**FlowCollectionElement**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_flow_object.FlowCollectionElementType

flow_record_field_value

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

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

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

flow_record_collection_element

(List of values permitted)
Type: *cybox.objects.network_flow_object.FlowCollectionElement*
XML Binding class name: `Flow_Record_Collection_Element`
Dictionary key name: `flow_record_collection_element`

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

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

field_value

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

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

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

data_record

(List of values permitted)
Type: *cybox.objects.network_flow_object.IPFIXDataRecord*
XML Binding class name: `Data_Record`
Dictionary key name: `data_record`

padding

Type: *cybox.common.properties.HexBinary*

XML Binding class name: Padding
Dictionary key name: padding

set_header

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

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

XML binding class: cybox.bindings.network_flow_object.IPFIXMessageType

message_header

Type: *cybox.objects.network_flow_object.IPFIXMessageHeader*
XML Binding class name: Message_Header
Dictionary key name: message_header

set_

(List of values permitted)
Type: *cybox.objects.network_flow_object.IPFIXSet*
XML Binding class name: Set
Dictionary key name: set

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

XML binding class: cybox.bindings.network_flow_object.IPFIXMessageHeaderType

byte_length

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Byte_Length
Dictionary key name: byte_length

export_timestamp

Type: *cybox.common.properties.Integer*
XML Binding class name: Export_Timestamp
Dictionary key name: export_timestamp

observation_domain_id

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

Dictionary key name: observation_domain_id

sequence_number

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

version

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

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

XML binding class:
cybox.bindings.network_flow_object.IPFIXOptionsTemplateRecordType

field_specifier

(List of values permitted)
Type:
cybox.objects.network_flow_object.IPFIXTemplateRecordFieldSpecifiers
XML Binding class name: Field_Specifier
Dictionary key name: field_specifier

options_template_record_header

Type: *cybox.objects.network_flow_object.IPFIXOptionsTemplateRecordHeader*
XML Binding class name: Options_Template_Record_Header
Dictionary key name: options_template_record_header

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

XML binding class:
cybox.bindings.network_flow_object.IPFIXOptionsTemplateRecordHeaderType

field_count

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Field_Count
Dictionary key name: field_count

scope_field_count

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

template_id

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

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

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

options_template_record

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

padding

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

set_header

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

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

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

data_set

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

options_template_set

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

template_set

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

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

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

length

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

set_id

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

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

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

field_specifier

(List of values permitted)
Type:
cybox.objects.network_flow_object.IPFIXTemplateRecordFieldSpecifiers
XML Binding class name: `Field_Specifier`
Dictionary key name: `field_specifier`

template_record_header

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

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

XML binding class:
cybox.bindings.network_flow_object.IPFIXTemplateRecordFieldSpecifiersType

enterprise_bit

XML Binding class name: Enterprise_Bit
Dictionary key name: enterprise_bit

enterprise_number

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

field_length

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

information_element_id

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

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

XML binding class:
cybox.bindings.network_flow_object.IPFIXTemplateRecordHeaderType

field_count

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Field_Count
Dictionary key name: field_count

template_id

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

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

XML binding class: cybox.bindings.network_flow_object.IPFIXTemplateSetType

padding

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

set_header

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

template_record

(List of values permitted)
Type: *cybox.objects.network_flow_object.IPFIXTemplateRecord*
XML Binding class name: `Template_Record`
Dictionary key name: `template_record`

class `cybox.objects.network_flow_object.`**NetflowV5FlowHeader**
Bases: `mixbox.entities.Entity`

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

count

Type: *cybox.common.properties.Integer*
XML Binding class name: `Count`
Dictionary key name: `count`

engine_id

Type: *cybox.common.properties.Integer*
XML Binding class name: `Engine_ID`
Dictionary key name: `engine_id`

engine_type

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

flow_sequence

Type: *cybox.common.properties.Integer*
XML Binding class name: `Flow_Sequence`
Dictionary key name: `flow_sequence`

sampling_interval

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

sys_up_time

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

unix_nsecs

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

unix_secs

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

version

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

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

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

byte_count

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

dest_autonomous_system

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

dest_ip_mask_bit_count

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

Dictionary key name: `dest_ip_mask_bit_count`

nexthop_ipv4_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Nexthop_IPv4_Addr`
Dictionary key name: `nexthop_ipv4_addr`

packet_count

Type: *cybox.common.properties.Integer*
XML Binding class name: `Packet_Count`
Dictionary key name: `packet_count`

padding1

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Padding1`
Dictionary key name: `padding1`

padding2

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Padding2`
Dictionary key name: `padding2`

src_autonomous_system

Type: *cybox.common.properties.Integer*
XML Binding class name: `Src_Autonomous_System`
Dictionary key name: `src_autonomous_system`

src_ip_mask_bit_count

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

sysuptime_end

Type: *cybox.common.properties.Integer*
XML Binding class name: `SysUpTime_End`
Dictionary key name: `sysuptime_end`

sysuptime_start

Type: *cybox.common.properties.Integer*
XML Binding class name: `SysUpTime_Start`
Dictionary key name: `sysuptime_start`

tcp_flags

Type: *cybox.common.properties.HexBinary*
XML Binding class name: TCP_Flags
Dictionary key name: tcp_flags

class cybox.objects.network_flow_object.**NetflowV5Packet**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_flow_object.NetflowV5PacketType

flow_header

Type: *cybox.objects.network_flow_object.NetflowV5FlowHeader*
XML Binding class name: Flow_Header
Dictionary key name: flow_header

flow_record

(List of values permitted)
Type: *cybox.objects.network_flow_object.NetflowV5FlowRecord*
XML Binding class name: Flow_Record
Dictionary key name: flow_record

class cybox.objects.network_flow_object.**NetflowV9DataFlowSet**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_flow_object.NetflowV9DataFlowSetType

data_record

(List of values permitted)
Type: *cybox.objects.network_flow_object.NetflowV9DataRecord*
XML Binding class name: Data_Record
Dictionary key name: data_record

flow_set_id_template_id

Type: *cybox.common.properties.Integer*
XML Binding class name: Flow_Set_ID_Template_ID
Dictionary key name: flow_set_id_template_id

length

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

padding

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

class cybox.objects.network_flow_object.**NetflowV9DataRecord**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_flow_object.NetflowV9DataRecordType

flow_data_record

(List of values permitted)
Type: *cybox.objects.network_flow_object.FlowDataRecord*
XML Binding class name: `Flow_Data_Record`
Dictionary key name: `flow_data_record`

options_data_record

(List of values permitted)
Type: *cybox.objects.network_flow_object.OptionsDataRecord*
XML Binding class name: `Options_Data_Record`
Dictionary key name: `options_data_record`

class cybox.objects.network_flow_object.**NetflowV9ExportPacket**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_flow_object.NetflowV9ExportPacketType

flow_header

Type: *cybox.objects.network_flow_object.NetflowV9PacketHeader*
XML Binding class name: `Packet_Header`
Dictionary key name: `packet_header`

flow_set

(List of values permitted)
Type: *cybox.objects.network_flow_object.NetflowV9FlowSet*
XML Binding class name: `Flow_Set`
Dictionary key name: `flow_set`

class cybox.objects.network_flow_object.**NetflowV9Field**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

XML binding class: cybox.bindings.network_flow_object.NetflowV9FieldType

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

XML binding class: cybox.bindings.network_flow_object.NetflowV9FlowSetType

data_flow_set

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

options_template_flow_set

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

template_flow_set

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

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

XML binding class:
cybox.bindings.network_flow_object.NetflowV9OptionsTemplateFlowSetType

flow_set_id

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

length

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

options_template_record

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

padding

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

class `cybox.objects.network_flow_object.`**NetflowV9OptionsTemplateRecord**
Bases: `mixbox.entities.Entity`

XML binding class:
`cybox.bindings.network_flow_object.NetflowV9OptionsTemplateRecordType`

option_field_length

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Option_Field_Length`
Dictionary key name: `option_field_length`

option_field_type

Type: *cybox.objects.network_flow_object.NetflowV9Field*
XML Binding class name: `Option_Field_Type`
Dictionary key name: `option_field_type`

option_length

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Option_Length`
Dictionary key name: `option_length`

option_scope_length

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Option_Scope_Length`
Dictionary key name: `option_scope_length`

scope_field_length

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Scope_Field_Length`
Dictionary key name: `scope_field_length`

scope_field_type

Type: *cybox.objects.network_flow_object.NetflowV9ScopeField*
XML Binding class name: `Scope_Field_Type`
Dictionary key name: `scope_field_type`

template_id

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

class `cybox.objects.network_flow_object.`**`NetflowV9PacketHeader`**(*version=None*)
Bases: `mixbox.entities.Entity`

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

`record_count`

Type: *cybox.common.properties.Integer*
XML Binding class name: `Record_Count`
Dictionary key name: `record_count`

`sequence_number`

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

`source_id`

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Source_ID`
Dictionary key name: `source_id`

`sys_up_time`

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

`unix_secs`

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

`version`

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

class `cybox.objects.network_flow_object.`**`NetflowV9ScopeField`**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

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

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

XML binding class:
cybox.bindings.network_flow_object.NetflowV9TemplateFlowSetType

flow_set_id

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

length

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

template_record

(List of values permitted)
Type: *cybox.objects.network_flow_object.NetflowV9TemplateRecord*
XML Binding class name: Template_Record
Dictionary key name: template_record

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

XML binding class:
cybox.bindings.network_flow_object.NetflowV9TemplateRecordType

field_count

Type: *cybox.common.properties.Integer*
XML Binding class name: Field_Count
Dictionary key name: field_count

field_length

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Field_Length
Dictionary key name: field_length

field_type

Type: *cybox.objects.network_flow_object.NetflowV9Field*
XML Binding class name: Field_Type

Dictionary key name: field_type

template_id

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

class cybox.objects.network_flow_object.**NetworkFlow**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.network_flow_object.NetworkFlowObjectType

bidirectional_flow_record

Type: *cybox.objects.network_flow_object.BidirectionalRecord*
XML Binding class name: Bidirectional_Flow_Record
Dictionary key name: bidirectional_flow_record

network_flow_label

Type: *cybox.objects.network_flow_object.NetworkFlowLabel*
XML Binding class name: Network_Flow_Label
Dictionary key name: network_flow_label

unidirectional_flow_record

Type: *cybox.objects.network_flow_object.UnidirectionalRecord*
XML Binding class name: Unidirectional_Flow_Record
Dictionary key name: unidirectional_flow_record

class cybox.objects.network_flow_object.**NetworkFlowLabel**
Bases: *cybox.objects.network_flow_object.NetworkLayerInfo*

XML binding class: cybox.bindings.network_flow_object.NetworkFlowLabelType

egress_interface_index

Type: *cybox.common.properties.Integer*
XML Binding class name: Egress_Interface_Index
Dictionary key name: egress_interface_index

ingress_interface_index

Type: *cybox.common.properties.Integer*
XML Binding class name: Ingress_Interface_Index
Dictionary key name: ingress_interface_index

ip_type_of_service

Type: *cybox.common.properties.HexBinary*
XML Binding class name: IP_Type_Of_Service
Dictionary key name: ip_type_of_service

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

XML binding class: cybox.bindings.network_flow_object.NetworkLayerInfoType

dest_socket_address

Type: *cybox.objects.socket_address_object.SocketAddress*
XML Binding class name: Dest_Socket_Address
Dictionary key name: dest_socket_address

ip_protocol

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

src_socket_address

Type: *cybox.objects.socket_address_object.SocketAddress*
XML Binding class name: Src_Socket_Address
Dictionary key name: src_socket_address

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

XML binding class:
cybox.bindings.network_flow_object.OptionCollectionElementType

option_record_field_value

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

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

XML binding class: cybox.bindings.network_flow_object.OptionsDataRecordType

option_record_collection_element

(List of values permitted)
Type: *cybox.objects.network_flow_object.OptionCollectionElement*
XML Binding class name: Option_Record_Collection_Element
Dictionary key name: option_record_collection_element

scope_field_value

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

class cybox.objects.network_flow_object.**SiLKAddress**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

XML binding class: cybox.bindings.network_flow_object.SiLKAddressType

class cybox.objects.network_flow_object.**SiLKCountryCode**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

XML binding class: cybox.bindings.network_flow_object.SiLKCountryCodeType

class cybox.objects.network_flow_object.**SiLKFlowAttributes**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

XML binding class: cybox.bindings.network_flow_object.SiLKAddressType

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

XML binding class: cybox.bindings.network_flow_object.SiLKRecordType

byte_count

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

dest_country_code

Type: *cybox.objects.network_flow_object.SiLKCountryCode*
XML Binding class name: Dest_Country_Code
Dictionary key name: dest_country_code

dest_ip_type

Type: *cybox.objects.network_flow_object.SiLKAddress*
XML Binding class name: `Dest_IP_Type`
Dictionary key name: `dest_ip_type`

dest_mapname

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

duration

Type: *cybox.common.properties.Integer*
XML Binding class name: `Duration`
Dictionary key name: `duration`

end_time

Type: *cybox.common.properties.Integer*
XML Binding class name: `End_Time`
Dictionary key name: `end_time`

flow_application

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

flow_attributes

Type: *cybox.objects.network_flow_object.SiLKFlowAttributes*
XML Binding class name: `Flow_Attributes`
Dictionary key name: `flow_attributes`

icmp_code

Type: *cybox.common.properties.Integer*
XML Binding class name: `ICMP_Code`
Dictionary key name: `icmp_code`

icmp_type

Type: *cybox.common.properties.Integer*
XML Binding class name: `ICMP_Type`
Dictionary key name: `icmp_type`

initial_tcp_flags

Type: *cybox.objects.network_packet_object.TCPFlags*

XML Binding class name: `Initial_TCP_Flags`
Dictionary key name: `initial_tcp_flags`

packet_count

Type: *cybox.common.properties.Integer*
XML Binding class name: `Packet_Count`
Dictionary key name: `packet_count`

router_next_hop_ip

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Router_Next_Hop_IP`
Dictionary key name: `router_next_hop_ip`

sensor_info

Type: *cybox.objects.network_flow_object.SiLKSensorInfo*
XML Binding class name: `Sensor_Info`
Dictionary key name: `sensor_info`

session_tcp_flags

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Session_TCP_Flags`
Dictionary key name: `session_tcp_flags`

src_country_code

Type: *cybox.objects.network_flow_object.SiLKCountryCode*
XML Binding class name: `Src_Country_Code`
Dictionary key name: `src_country_code`

src_ip_type

Type: *cybox.objects.network_flow_object.SiLKAddress*
XML Binding class name: `Src_IP_Type`
Dictionary key name: `src_ip_type`

src_mapname

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

start_time

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

tcp_flags

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `TCP_Flags`
Dictionary key name: `tcp_flags`

class cybox.objects.network_flow_object.**SiLKSensorClass**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

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

class cybox.objects.network_flow_object.**SiLKSensorDirection**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

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

class cybox.objects.network_flow_object.**SiLKSensorInfo**
Bases: `mixbox.entities.Entity`

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

class_

Type: *cybox.objects.network_flow_object.SiLKSensorClass*
XML Binding class name: `Class`
Dictionary key name: `class`

sensor_id

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

type_

Type: *cybox.objects.network_flow_object.SiLKSensorDirection*
XML Binding class name: `Type`
Dictionary key name: `type`

class cybox.objects.network_flow_object.**UnidirectionalRecord**
Bases: `mixbox.entities.Entity`

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

ipfix_message

Type: *cybox.objects.network_flow_object.IPFIXMessage*
XML Binding class name: IPFIX_Message
Dictionary key name: ipfix_message

netflowv5_packet

Type: *cybox.objects.network_flow_object.NetflowV5Packet*
XML Binding class name: NetflowV5_Packet
Dictionary key name: netflowv5_packet

netflowv9_export_packet

Type: *cybox.objects.network_flow_object.NetflowV9ExportPacket*
XML Binding class name: NetflowV9_Export_Packet
Dictionary key name: netflowv9_export_packet

silk_record

Type: *cybox.objects.network_flow_object.SiLKRecord*
XML Binding class name: SiLK_Record
Dictionary key name: silk_record

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

XML binding class: cybox.bindings.network_flow_object.YAFFlowType

first_packet_banner

Type: *cybox.common.properties.HexBinary*
XML Binding class name: First_Packet_Banner
Dictionary key name: first_packet_banner

flow_end_milliseconds

Type: *cybox.common.properties.Integer*
XML Binding class name: Flow_End_Milliseconds
Dictionary key name: flow_end_milliseconds

flow_end_reason

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Flow_End_Reason
Dictionary key name: flow_end_reason

flow_start_milliseconds

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

ml_app_label

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

n_bytes_payload

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

octet_total_count

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

packet_total_count

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

passive_os_fingerprinting

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

payload_entropy

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

second_packet_banner

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

silk_app_label

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

tcp_flow

Type: *cybox.objects.network_flow_object.YAFTCPFlow*
XML Binding class name: `TCP_Flow`
Dictionary key name: `tcp_flow`

vlan_id_mac_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Vlan_ID_MAC_Addr`
Dictionary key name: `vlan_id_mac_addr`

class `cybox.objects.network_flow_object.`**YAFRecord**
Bases: `mixbox.entities.Entity`

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

flow

Type: *cybox.objects.network_flow_object.YAFFlow*
XML Binding class name: `Flow`
Dictionary key name: `flow`

reverse_flow

Type: *cybox.objects.network_flow_object.YAFReverseFlow*
XML Binding class name: `Reverse_Flow`
Dictionary key name: `reverse_flow`

class `cybox.objects.network_flow_object.`**YAFReverseFlow**
Bases: `mixbox.entities.Entity`

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

reverse_first_packet

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Reverse_First_Packet`
Dictionary key name: `reverse_first_packet`

reverse_flow_delta_milliseconds

Type: *cybox.common.properties.Integer*
XML Binding class name: `Reverse_Flow_Delta_Milliseconds`
Dictionary key name: `reverse_flow_delta_milliseconds`

reverse_n_bytes_payload

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

reverse_octet_total_count

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

reverse_packet_total_count

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

reverse_passive_os_fingerprinting

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

reverse_payload_entropy

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

reverse_vlan_id_mac_addr

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

tcp_reverse_flow

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

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

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

initial_tcp_flags

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

Dictionary key name: initial_tcp_flags

tcp_sequence_number

Type: *cybox.common.properties.Integer*
XML Binding class name: TCP_Sequence_Number
Dictionary key name: tcp_sequence_number

union_tcp_flags

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Union_TCP_Flags
Dictionary key name: union_tcp_flags

Version: 2.1.0.21

cybox.objects.network_packet_object module

class cybox.objects.network_packet_object.**ARP**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ARPType

hardware_addr_size

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Hardware_Addr_Size
Dictionary key name: hardware_addr_size

hardware_addr_type

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

op_type

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

proto_addr_size

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Proto_Addr_Size
Dictionary key name: proto_addr_size

proto_addr_type

Type: *cybox.common.properties.String*

XML Binding class name: Proto_Addr_Type
Dictionary key name: proto_addr_type

recip_hardware_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: Recip_Hardware_Addr
Dictionary key name: recip_hardware_addr

recip_protocol_addr

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

sender_hardware_addr

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

sender_protocol_addr

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

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

XML binding class:
cybox.bindings.network_packet_object.AuthenticationHeaderType

authentication_data

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

header_ext_len

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

next_header

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

security_parameters_index

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

sequence_number

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

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

XML binding class: cybox.bindings.network_packet_object.DestinationOptionsType

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

XML binding class:
cybox.bindings.network_packet_object.EncapsulatingSecurityPayloadType

authentication_data

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

next_header

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

padding

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

padding_len

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

payload_data

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

security_parameters_index

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

sequence_number

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

class `cybox.objects.network_packet_object.`**EthernetHeader**
Bases: `mixbox.entities.Entity`

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

checksum

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Checksum`
Dictionary key name: `checksum`

destination_mac_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Destination_MAC_Addr`
Dictionary key name: `destination_mac_addr`

source_mac_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Source_MAC_Addr`
Dictionary key name: `source_mac_addr`

type_or_length

Type: *cybox.objects.network_packet_object.TypeLength*
XML Binding class name: `Type_Or_Length`
Dictionary key name: `type_or_length`

class `cybox.objects.network_packet_object.`**EthernetInterface**
Bases: `mixbox.entities.Entity`

XML binding class: cybox.bindings.network_packet_object.EthernetInterfaceType

ethernet_header

Type: *cybox.objects.network_packet_object.EthernetHeader*
XML Binding class name: Ethernet_Header
Dictionary key name: ethernet_header

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

XML binding class: cybox.bindings.network_packet_object.FragmentType

fragment

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Fragment
Dictionary key name: fragment

fragment_header

Type: *cybox.objects.network_packet_object.FragmentHeader*
XML Binding class name: Fragment_Header
Dictionary key name: fragment_header

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

XML binding class: cybox.bindings.network_packet_object.FragmentHeaderType

fragment_offset

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Fragment_Offset
Dictionary key name: fragment_offset

identification

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Identification
Dictionary key name: identification

m_flag

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

next_header

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

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

XML binding class:
cybox.bindings.network_packet_object.FragmentationRequiredType

fragmentation_required

XML Binding class name: Fragmentation_Required
Dictionary key name: fragmentation_required

next_hop_mtu

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Next_Hop_MTU
Dictionary key name: next_hop_mtu

class cybox.objects.network_packet_object.**HopByHopOptions**
Bases: cybox.objects.network_packet_object._IPv6ExtHeader

XML binding class: cybox.bindings.network_packet_object.HopByHopOptionsType

class cybox.objects.network_packet_object.**ICMPv4AddressMaskReply**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.network_packet_object.ICMPv4AddressMaskReplyType

address_mask

Type: *cybox.objects.address_object.Address*
XML Binding class name: Address_Mask
Dictionary key name: address_mask

address_mask_reply

XML Binding class name: Address_Mask_Reply
Dictionary key name: address_mask_reply

class cybox.objects.network_packet_object.**ICMPv4AddressMaskRequest**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.network_packet_object.ICMPv4AddressMaskRequestType

address_mask

Type: *cybox.objects.address_object.Address*
XML Binding class name: Address_Mask
Dictionary key name: address_mask

address_mask_request

XML Binding class name: Address_Mask_Request
Dictionary key name: address_mask_request

class cybox.objects.network_packet_object.**ICMPv4DestinationUnreachable**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.network_packet_object.ICMPv4DestinationUnreachableType

communication_administratively_prohibited

XML Binding class name: Communication_Administratively_Prohibited
Dictionary key name: communication_administratively_prohibited

destination_host_unknown

XML Binding class name: Destination_Host_Unknown
Dictionary key name: destination_host_unknown

destination_host_unreachable

XML Binding class name: Destination_Host_Unreachable
Dictionary key name: destination_host_unreachable

destination_network_unknown

XML Binding class name: Destination_Network_Unknown
Dictionary key name: destination_network_unknown

destination_network_unreachable

XML Binding class name: Destination_Network_Unreachable
Dictionary key name: destination_network_unreachable

destination_port_unreachable

XML Binding class name: Destination_Port_Unreachable
Dictionary key name: destination_port_unreachable

destination_protocol_unreachable

XML Binding class name: `Destination_Protocol_Unreachable`
Dictionary key name: `destination_protocol_unreachable`

fragmentation_required

Type: *cybox.objects.network_packet_object.FragmentationRequired*
XML Binding class name: `Fragmentation_Required`
Dictionary key name: `fragmentation_required`

host_administratively_prohibited

XML Binding class name: `Host_Administratively_Prohibited`
Dictionary key name: `host_administratively_prohibited`

host_precedence_violation

XML Binding class name: `Host_Precedence_Violation`
Dictionary key name: `host_precedence_violation`

host_unreachable_for_tos

XML Binding class name: `Host_Unreachable_For_TOS`
Dictionary key name: `host_unreachable_for_tos`

network_administratively_prohibited

XML Binding class name: `Network_Administratively_Prohibited`
Dictionary key name: `network_administratively_prohibited`

network_unreachable_for_tos

XML Binding class name: `Network_Unreachable_For_TOS`
Dictionary key name: `network_unreachable_for_tos`

precedence_cutoff_in_effect

XML Binding class name: `Precedence_Cutoff_In_Effect`
Dictionary key name: `precedence_cutoff_in_effect`

source_host_isolated

XML Binding class name: `Source_Host_Isolated`
Dictionary key name: `source_host_isolated`

source_route_failed

XML Binding class name: `Source_Route_Failed`
Dictionary key name: `source_route_failed`

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

XML binding class: cybox.bindings.network_packet_object.ICMPv4EchoReplyType

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

XML binding class: cybox.bindings.network_packet_object.ICMPv4EchoRequestType

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

XML binding class: cybox.bindings.network_packet_object.ICMPv4ErrorMessageType

destination_unreachable

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

error_msg_content

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

redirect_message

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

source_quench

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

time_exceeded

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

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

XML binding class:
cybox.bindings.network_packet_object.ICMPv4ErrorMessageContentType

first_eight_bytes

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

ip_header

Type: *cybox.objects.network_packet_object.IPv4Header*
XML Binding class name: IP_Header
Dictionary key name: ip_header

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

XML binding class: cybox.bindings.network_packet_object.ICMPv4HeaderType

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

XML binding class: cybox.bindings.network_packet_object.ICMPv4InfoMessageType

address_mask_reply

Type: *cybox.objects.network_packet_object.ICMPv4AddressMaskReply*
XML Binding class name: Address_Mask_Reply
Dictionary key name: address_mask_reply

address_mask_request

Type: *cybox.objects.network_packet_object.ICMPv4AddressMaskRequest*
XML Binding class name: Address_Mask_Request
Dictionary key name: address_mask_request

echo_reply

Type: *cybox.objects.network_packet_object.ICMPv4EchoReply*
XML Binding class name: Echo_Reply
Dictionary key name: echo_reply

echo_request

Type: *cybox.objects.network_packet_object.ICMPv4EchoRequest*
XML Binding class name: Echo_Request
Dictionary key name: echo_request

info_msg_content

Type: *cybox.objects.network_packet_object.ICMPv4InfoMessageContent*
XML Binding class name: Info_Msg_Content
Dictionary key name: info_msg_content

timestamp_reply

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

timestamp_request

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

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

XML binding class:
cybox.bindings.network_packet_object.ICMPv4InfoMessageContentType

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

XML binding class: cybox.bindings.network_packet_object.ICMPv4PacketType

error_msg

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

icmpv4_header

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

info_msg

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

traceroute

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

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

XML binding class:
cybox.bindings.network_packet_object.ICMPv4RedirectMessageType

host_redirect

XML Binding class name: Host_Redirect
Dictionary key name: host_redirect

ip_address

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

network_redirect

XML Binding class name: Network_Redirect
Dictionary key name: network_redirect

tos_host_redirect

XML Binding class name: ToS_Host_Redirect
Dictionary key name: tos_host_redirect

tos_network_redirect

XML Binding class name: ToS_Network_Redirect
Dictionary key name: tos_network_redirect

class cybox.objects.network_packet_object.**ICMPv4SourceQuench**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv4SourceQuenchType

source_quench

XML Binding class name: Source_Quench
Dictionary key name: source_quench

class cybox.objects.network_packet_object.**ICMPv4TimeExceeded**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv4TimeExceededType

frag_reassembly_time_exceeded

XML Binding class name: Frag_Reassembly_Time_Exceeded
Dictionary key name: frag_reassembly_time_exceeded

ttl_exceeded_in_transit

XML Binding class name: TTL_Exceeded_In_Transit
Dictionary key name: ttl_exceeded_in_transit

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

XML binding class:
cybox.bindings.network_packet_object.ICMPv4TimestampReplyType

originate_timestamp

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: Originate_Timestamp
Dictionary key name: originate_timestamp

receive_timestamp

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: Receive_Timestamp
Dictionary key name: receive_timestamp

timestamp_reply

XML Binding class name: Timestamp_Reply
Dictionary key name: timestamp_reply

transmit_timestamp

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: Transmit_Timestamp
Dictionary key name: transmit_timestamp

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

XML binding class:
cybox.bindings.network_packet_object.ICMPv4TimestampRequestType

originate_timestamp

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: Originate_Timestamp
Dictionary key name: originate_timestamp

timestamp

XML Binding class name: Timestamp
Dictionary key name: timestamp

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

XML binding class: cybox.bindings.network_packet_object.ICMPv4TracerouteType

identifier

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Identifier
Dictionary key name: identifier

outbound_hop_count

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Outbound_Hop_Count
Dictionary key name: outbound_hop_count

outbound_packet_forward_success

XML Binding class name: Outbound_Packet_Forward_Success
Dictionary key name: outbound_packet_forward_success

outbound_packet_no_route

XML Binding class name: Outbound_Packet_no_Route
Dictionary key name: outbound_packet_no_route

output_link_mtu

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

Dictionary key name: output_link_mtu

output_link_speed

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Output_Link_Speed
Dictionary key name: output_link_speed

return_hop_count

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Return_Hop_Count
Dictionary key name: return_hop_count

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

XML binding class:
cybox.bindings.network_packet_object.ICMPv6DestinationUnreachableType

address_unreachable

XML Binding class name: Address_Unreachable
Dictionary key name: address_unreachable

beyond_scope

XML Binding class name: Beyond_Scope
Dictionary key name: beyond_scope

comm_prohibited

XML Binding class name: Comm_Prohibited
Dictionary key name: comm_prohibited

no_route

XML Binding class name: No_Route
Dictionary key name: no_route

port_unreachable

XML Binding class name: Port_Unreachable
Dictionary key name: port_unreachable

reject_route

XML Binding class name: Reject_Route
Dictionary key name: reject_route

src_addr_failed_policy

XML Binding class name: Src_Addr_Failed_Policy
Dictionary key name: src_addr_failed_policy

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

XML binding class: cybox.bindings.network_packet_object.ICMPv6EchoReplyType

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

XML binding class: cybox.bindings.network_packet_object.ICMPv6EchoRequestType

class cybox.objects.network_packet_object.**ICMPv6ErrorMessage**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv6ErrorMessageType

destination_unreachable

Type: *cybox.objects.network_packet_object.ICMPv6DestinationUnreachable*
XML Binding class name: Destination_Unreachable
Dictionary key name: destination_unreachable

invoking_packet

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Invoking_Packet
Dictionary key name: invoking_packet

packet_too_big

Type: *cybox.objects.network_packet_object.ICMPv6PacketTooBig*
XML Binding class name: Packet_Too_Big
Dictionary key name: packet_too_big

parameter_problem

Type: *cybox.objects.network_packet_object.ICMPv6ParameterProblem*
XML Binding class name: Parameter_Problem
Dictionary key name: parameter_problem

time_exceeded

Type: *cybox.objects.network_packet_object.ICMPv6TimeExceeded*
XML Binding class name: `Time_Exceeded`
Dictionary key name: `time_exceeded`

class cybox.objects.network_packet_object.**ICMPv6Header**
Bases: cybox.objects.network_packet_object._ICMPHeader

XML binding class: cybox.bindings.network_packet_object.ICMPv6HeaderType

class cybox.objects.network_packet_object.**ICMPv6InfoMessage**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv6InfoMessageType

echo_reply

Type: *cybox.objects.network_packet_object.ICMPv6EchoReply*
XML Binding class name: `Echo_Reply`
Dictionary key name: `echo_reply`

echo_request

Type: *cybox.objects.network_packet_object.ICMPv6EchoRequest*
XML Binding class name: `Echo_Request`
Dictionary key name: `echo_request`

info_msg_content

Type: *cybox.objects.network_packet_object.ICMPv6InfoMessageContent*
XML Binding class name: `Info_Msg_Content`
Dictionary key name: `info_msg_content`

class cybox.objects.network_packet_object.**ICMPv6InfoMessageContent**
Bases: cybox.objects.network_packet_object._ICMPInfoMessageContent

XML binding class:
cybox.bindings.network_packet_object.ICMPv6InfoMessageContentType

class cybox.objects.network_packet_object.**ICMPv6Packet**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv6PacketType

error_msg

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

icmpv6_header

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

info_msg

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

class cybox.objects.network_packet_object.**ICMPv6PacketTooBig**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv6PacketTooBigType

mtu

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

packet_too_big

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

class cybox.objects.network_packet_object.**ICMPv6ParameterProblem**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.network_packet_object.ICMPv6ParameterProblemType

erroneous_header_field

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

pointer

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

unrecognized_ipv6_option

XML Binding class name: Unrecognized_IPv6_Option
Dictionary key name: unrecognized_ipv6_option

unrecognized_next_header_type

XML Binding class name: Unrecognized_Next_Header_Type
Dictionary key name: unrecognized_next_header_type

class cybox.objects.network_packet_object.**ICMPv6TimeExceeded**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.ICMPv6TimeExceededType

fragment_reassem_time_exceeded

XML Binding class name: Fragment_Reassem_Time_Exceeded
Dictionary key name: fragment_reassem_time_exceeded

hop_limit_exceeded

XML Binding class name: Hop_Limit_Exceeded
Dictionary key name: hop_limit_exceeded

class cybox.objects.network_packet_object.**IPv4Flags**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.IPv4FlagsType

do_not_fragment

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

more_fragments

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

reserved

Type: *cybox.common.properties.Integer*
XML Binding class name: Reserved
Dictionary key name: reserved

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

XML binding class: cybox.bindings.network_packet_object.IPv4HeaderType

checksum

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Checksum
Dictionary key name: checksum

dest_ipv4_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: Dest_IPv4_Addr
Dictionary key name: dest_ipv4_addr

dscp

Type: *cybox.common.properties.HexBinary*
XML Binding class name: DSCP
Dictionary key name: dscp

ecn

Type: *cybox.common.properties.HexBinary*
XML Binding class name: ECN
Dictionary key name: ecn

flags

Type: *cybox.objects.network_packet_object.IPv4Flags*
XML Binding class name: Flags
Dictionary key name: flags

fragment_offset

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Fragment_Offset
Dictionary key name: fragment_offset

header_length

Type: *cybox.common.properties.Integer*
XML Binding class name: Header_Length
Dictionary key name: header_length

identification

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `Identification`
Dictionary key name: `identification`

ip_version

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

option

(List of values permitted)
Type: *cybox.objects.network_packet_object.IPv4Option*
XML Binding class name: `Option`
Dictionary key name: `option`

protocol

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

src_ipv4_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Src_IPv4_Addr`
Dictionary key name: `src_ipv4_addr`

total_length

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Total_Length`
Dictionary key name: `total_length`

ttl

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

class `cybox.objects.network_packet_object.`**IPv4Option**
Bases: `mixbox.entities.Entity`

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

class_

Type: *cybox.common.properties.String*

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

copy_flag

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

option

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

class `cybox.objects.network_packet_object.`**IPv4Packet**
Bases: `mixbox.entities.Entity`

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

data

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Data`
Dictionary key name: `data`

ipv4_header

Type: *cybox.objects.network_packet_object.IPv4Header*
XML Binding class name: `IPv4_Header`
Dictionary key name: `ipv4_header`

class `cybox.objects.network_packet_object.`**IPv6ExtHeader**
Bases: `mixbox.entities.Entity`

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

authentication_header

Type: *cybox.objects.network_packet_object.AuthenticationHeader*
XML Binding class name: `Authentication_Header`
Dictionary key name: `authentication_header`

destination_options

(List of values permitted)
Type: *cybox.objects.network_packet_object.DestinationOptions*
XML Binding class name: `Destination_Options`

Dictionary key name: destination_options

encapsulating_security_payload

Type: *cybox.objects.network_packet_object.EncapsulatingSecurityPayload*
XML Binding class name: Encapsulating_Security_Payload
Dictionary key name: encapsulating_security_payload

fragment

Type: *cybox.objects.network_packet_object.Fragment*
XML Binding class name: Fragment
Dictionary key name: fragment

hop_by_hop_options

Type: *cybox.objects.network_packet_object.HopByHopOptions*
XML Binding class name: Hop_by_Hop_Options
Dictionary key name: hop_by_hop_options

routing

Type: *cybox.objects.network_packet_object.Routing*
XML Binding class name: Routing
Dictionary key name: routing

class cybox.objects.network_packet_object.**IPv6Header**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.IPv6HeaderType

dest_ipv6_addr

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

flow_label

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Flow_Label
Dictionary key name: flow_label

ip_version

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

next_header

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

payload_length

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Payload_Length`
Dictionary key name: `payload_length`

src_ipv6_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Src_IPv6_Addr`
Dictionary key name: `src_ipv6_addr`

traffic_class

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Traffic_Class`
Dictionary key name: `traffic_class`

ttl

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

class `cybox.objects.network_packet_object.`**IPv6Option**
Bases: `mixbox.entities.Entity`

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

do_not_recogn_action

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

option_byte

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Option_Byte`
Dictionary key name: `option_byte`

packet_change

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

class `cybox.objects.network_packet_object.`**IPv6Packet**
Bases: `mixbox.entities.Entity`

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

data

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Data`
Dictionary key name: `data`

ext_headers

(List of values permitted)
Type: *cybox.objects.network_packet_object.IPv6ExtHeader*
XML Binding class name: `Ext_Headers`
Dictionary key name: `ext_headers`

ipv6_header

Type: *cybox.objects.network_packet_object.IPv6Header*
XML Binding class name: `IPv6_Header`
Dictionary key name: `ipv6_header`

class `cybox.objects.network_packet_object.`**InternetLayer**
Bases: `mixbox.entities.Entity`

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

icmpv4

Type: *cybox.objects.network_packet_object.ICMPv4Packet*
XML Binding class name: `ICMPv4`
Dictionary key name: `icmpv4`

icmpv6

Type: *cybox.objects.network_packet_object.ICMPv6Packet*
XML Binding class name: `ICMPv6`
Dictionary key name: `icmpv6`

ipv4

Type: *cybox.objects.network_packet_object.IPv4Packet*

XML Binding class name: IPv4
Dictionary key name: ipv4

ipv6

Type: *cybox.objects.network_packet_object.IPv6Packet*
XML Binding class name: IPv6
Dictionary key name: ipv6

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

XML binding class: cybox.bindings.network_packet_object.LinkLayerType

logical_protocols

Type: *cybox.objects.network_packet_object.LogicalProtocol*
XML Binding class name: Logical_Protocols
Dictionary key name: logical_protocols

physical_interface

Type: *cybox.objects.network_packet_object.PhysicalInterface*
XML Binding class name: Physical_Interface
Dictionary key name: physical_interface

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

XML binding class: cybox.bindings.network_packet_object.LogicalProtocolType

arp_rarp

Type: *cybox.objects.network_packet_object.ARP*
XML Binding class name: ARP_RARP
Dictionary key name: arp_rarp

ndp

Type: *cybox.objects.network_packet_object.NDP*
XML Binding class name: NDP
Dictionary key name: ndp

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

XML binding class: cybox.bindings.network_packet_object.NDPType

icmpv6_header

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

neighbor_advertisement

Type: *cybox.objects.network_packet_object.NeighborAdvertisement*
XML Binding class name: `Neighbor_Advertisement`
Dictionary key name: `neighbor_advertisement`

neighbor_solicitation

Type: *cybox.objects.network_packet_object.NeighborSolicitation*
XML Binding class name: `Neighbor_Solicitation`
Dictionary key name: `neighbor_solicitation`

redirect

Type: *cybox.objects.network_packet_object.Redirect*
XML Binding class name: `Redirect`
Dictionary key name: `redirect`

router_advertisement

Type: *cybox.objects.network_packet_object.RouterAdvertisement*
XML Binding class name: `Router_Advertisement`
Dictionary key name: `router_advertisement`

router_solicitation

Type: *cybox.objects.network_packet_object.RouterSolicitation*
XML Binding class name: `Router_Solicitation`
Dictionary key name: `router_solicitation`

class `cybox.objects.network_packet_object.`**NDPLinkAddr**
Bases: `mixbox.entities.Entity`

Abstract Type

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

length

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

link_layer_mac_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: Link_Layer_MAC_Addr
Dictionary key name: link_layer_mac_addr

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

XML binding class: cybox.bindings.network_packet_object.NDPMTUType

length

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

mtu

Type: *cybox.common.properties.Integer*
XML Binding class name: MTU
Dictionary key name: mtu

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

XML binding class: cybox.bindings.network_packet_object.NDPPrefixInfoType

addr_config_flag

XML Binding class name: addr_config_flag
Dictionary key name: addr_config_flag

length

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

link_flag

XML Binding class name: link_flag
Dictionary key name: link_flag

preferred_lifetime

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

Dictionary key name: preferred_lifetime

prefix

Type: *cybox.objects.network_packet_object.Prefix*
XML Binding class name: Prefix
Dictionary key name: prefix

prefix_length

Type: *cybox.common.properties.Integer*
XML Binding class name: Prefix_Length
Dictionary key name: prefix_length

valid_lifetime

Type: *cybox.common.properties.Integer*
XML Binding class name: Valid_Lifetime
Dictionary key name: valid_lifetime

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

XML binding class: cybox.bindings.network_packet_object.NDPRedirectedHeaderType

ipheader_and_data

Type: *cybox.common.properties.HexBinary*
XML Binding class name: IPHeader_And_Data
Dictionary key name: ipheader_and_data

length

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

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

XML binding class:
cybox.bindings.network_packet_object.NeighborAdvertisementType

options

Type: *cybox.objects.network_packet_object.NeighborOptions*
XML Binding class name: Options
Dictionary key name: options

override_flag

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

router_flag

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

solicited_flag

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

target_ipv6_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Target_IPv6_Addr`
Dictionary key name: `target_ipv6_addr`

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

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

target_link_addr

Type: *cybox.objects.network_packet_object.NDPLinkAddr*
XML Binding class name: `Target_Link_Addr`
Dictionary key name: `target_link_addr`

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

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

options

Type: *cybox.objects.network_packet_object.NeighborSolicitationOptions*
XML Binding class name: `Options`
Dictionary key name: `options`

target_ipv6_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Target_IPv6_Addr`

Dictionary key name: target_ipv6_addr

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

XML binding class:
cybox.bindings.network_packet_object.NeighborSolicitationOptionsType

src_link_addr

Type: *cybox.objects.network_packet_object.NDPLinkAddr*
XML Binding class name: Src_Link_Addr
Dictionary key name: src_link_addr

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

XML binding class: cybox.bindings.network_packet_object.NetworkPacketObjectType

internet_layer

Type: *cybox.objects.network_packet_object.InternetLayer*
XML Binding class name: Internet_Layer
Dictionary key name: internet_layer

link_layer

Type: *cybox.objects.network_packet_object.LinkLayer*
XML Binding class name: Link_Layer
Dictionary key name: link_layer

transport_layer

Type: *cybox.objects.network_packet_object.TransportLayer*
XML Binding class name: Transport_Layer
Dictionary key name: transport_layer

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

XML binding class: cybox.bindings.network_packet_object.OptionDataType

option_data_len

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

Dictionary key name: `option_data_len`

option_type

Type: *cybox.objects.network_packet_object.IPv6Option*
XML Binding class name: `Option_Type`
Dictionary key name: `option_type`

pad1

Type: *cybox.objects.network_packet_object.Pad1*
XML Binding class name: `Pad1`
Dictionary key name: `pad1`

padn

Type: *cybox.objects.network_packet_object.PadN*
XML Binding class name: `PadN`
Dictionary key name: `padn`

class `cybox.objects.network_packet_object.`**Pad1**
Bases: `mixbox.entities.Entity`

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

octet

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Octet`
Dictionary key name: `octet`

class `cybox.objects.network_packet_object.`**PadN**
Bases: `mixbox.entities.Entity`

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

octet

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Octet`
Dictionary key name: `octet`

option_data

Type: *cybox.common.properties.Integer*
XML Binding class name: `Option_Data`
Dictionary key name: `option_data`

option_data_length

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

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

XML binding class: cybox.bindings.network_packet_object.PhysicalInterfaceType

ethernet

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

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

XML binding class: cybox.bindings.network_packet_object.PrefixType

ip_addr_prefix

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

ipv6_addr

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

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

XML binding class: cybox.bindings.network_packet_object.RedirectType

dest_ipv6_addr

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

options

Type: *cybox.objects.network_packet_object.RedirectOptions*
XML Binding class name: `Options`
Dictionary key name: `options`

target_ipv6_addr

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Target_IPv6_Addr`
Dictionary key name: `target_ipv6_addr`

class `cybox.objects.network_packet_object.`**RedirectOptions**
Bases: `mixbox.entities.Entity`

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

redirected_header

Type: *cybox.objects.network_packet_object.NDPRedirectedHeader*
XML Binding class name: `Redirected_Header`
Dictionary key name: `redirected_header`

target_link_addr

Type: *cybox.objects.network_packet_object.NDPLinkAddr*
XML Binding class name: `Target_Link_Addr`
Dictionary key name: `target_link_addr`

class `cybox.objects.network_packet_object.`**RouterAdvertisement**
Bases: `mixbox.entities.Entity`

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

cur_hop_limit

Type: *cybox.common.properties.Integer*
XML Binding class name: `Cur_Hop_Limit`
Dictionary key name: `cur_hop_limit`

managed_address_config_flag

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

options

Type: *cybox.objects.network_packet_object.RouterAdvertisementOptions*

XML Binding class name: Options
Dictionary key name: options

other_config_flag

XML Binding class name: other_config_flag
Dictionary key name: other_config_flag

reachable_time

Type: *cybox.common.properties.Integer*
XML Binding class name: Reachable_Time
Dictionary key name: reachable_time

retrans_timer

Type: *cybox.common.properties.Integer*
XML Binding class name: Retrans_Timer
Dictionary key name: retrans_timer

router_lifetime

Type: *cybox.common.properties.Integer*
XML Binding class name: Router_Lifetime
Dictionary key name: router_lifetime

class cybox.objects.network_packet_object.**RouterAdvertisementOptions**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.network_packet_object.RouterAdvertisementOptionsType

mtu

Type: *cybox.objects.network_packet_object.NDPMTU*
XML Binding class name: MTU
Dictionary key name: mtu

prefix_info

Type: *cybox.objects.network_packet_object.NDPPrefixInfo*
XML Binding class name: Prefix_Info
Dictionary key name: prefix_info

src_link_addr

Type: *cybox.objects.network_packet_object.NDPLinkAddr*
XML Binding class name: Src_Link_Addr
Dictionary key name: src_link_addr

class cybox.objects.network_packet_object.**RouterSolicitation**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.RouterSolicitationType

options

(List of values permitted)
Type: *cybox.objects.network_packet_object.RouterSolicitationOptions*
XML Binding class name: Options
Dictionary key name: options

class cybox.objects.network_packet_object.**RouterSolicitationOptions**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.network_packet_object.RouterSolicitationOptionsType

src_link_addr

Type: *cybox.objects.network_packet_object.NDPLinkAddr*
XML Binding class name: Src_Link_Addr
Dictionary key name: src_link_addr

class cybox.objects.network_packet_object.**Routing**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.RoutingType

header_ext_len

Type: *cybox.common.properties.Integer*
XML Binding class name: Header_Ext_Len
Dictionary key name: header_ext_len

next_header

Type: *cybox.common.properties.String*
XML Binding class name: Next_Header
Dictionary key name: next_header

routing_type

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Routing_Type
Dictionary key name: routing_type

segments_left

Type: *cybox.common.properties.Integer*
XML Binding class name: `Segments_Left`
Dictionary key name: `segments_left`

type_specific_data

Type: *cybox.common.properties.String*
XML Binding class name: `Type_Specific_Data`
Dictionary key name: `type_specific_data`

class `cybox.objects.network_packet_object.`**TCP**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.TCPType`

data

Type: *cybox.common.data_segment.DataSegment*
XML Binding class name: `Data`
Dictionary key name: `data`

options

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Options`
Dictionary key name: `options`

tcp_header

Type: *cybox.objects.network_packet_object.TCPHeader*
XML Binding class name: `TCP_Header`
Dictionary key name: `tcp_header`

class `cybox.objects.network_packet_object.`**TCPFlags**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.TCPFlagsType`

ack

XML Binding class name: `ack`
Dictionary key name: `ack`

cwr

XML Binding class name: `cwr`

Dictionary key name: cwr

ece

XML Binding class name: ece
Dictionary key name: ece

fin

XML Binding class name: fin
Dictionary key name: fin

ns

XML Binding class name: ns
Dictionary key name: ns

psh

XML Binding class name: psh
Dictionary key name: psh

rst

XML Binding class name: rst
Dictionary key name: rst

syn

XML Binding class name: syn
Dictionary key name: syn

urg

XML Binding class name: urg
Dictionary key name: urg

class cybox.objects.network_packet_object.**TCPHeader**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.TCPHeaderType

ack_num

Type: *cybox.common.properties.HexBinary*
XML Binding class name: ACK_Num
Dictionary key name: ack_num

checksum

Type: *cybox.common.properties.HexBinary*

XML Binding class name: `Checksum`
Dictionary key name: `checksum`

data_offset

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Data_Offset`
Dictionary key name: `data_offset`

dest_port

Type: *cybox.objects.port_object.Port*
XML Binding class name: `Dest_Port`
Dictionary key name: `dest_port`

reserved

Type: *cybox.common.properties.Integer*
XML Binding class name: `Reserved`
Dictionary key name: `reserved`

seq_num

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Seq_Num`
Dictionary key name: `seq_num`

src_port

Type: *cybox.objects.port_object.Port*
XML Binding class name: `Src_Port`
Dictionary key name: `src_port`

tcp_flags

Type: *cybox.objects.network_packet_object.TCPFlags*
XML Binding class name: `TCP_Flags`
Dictionary key name: `tcp_flags`

urg_ptr

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Urg_Ptr`
Dictionary key name: `urg_ptr`

window

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Window`
Dictionary key name: `window`

class cybox.objects.network_packet_object.**TransportLayer**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.TransportLayerType

tcp

Type: *cybox.objects.network_packet_object.TCP*
XML Binding class name: TCP
Dictionary key name: tcp

udp

Type: *cybox.objects.network_packet_object.UDP*
XML Binding class name: UDP
Dictionary key name: udp

class cybox.objects.network_packet_object.**TypeLength**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.TypeLengthType

internet_layer_type

Type: *cybox.common.properties.String*
XML Binding class name: Internet_Layer_Type
Dictionary key name: internet_layer_type

length

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Length
Dictionary key name: length

class cybox.objects.network_packet_object.**UDP**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.network_packet_object.UDPType

data

Type: *cybox.common.data_segment.DataSegment*
XML Binding class name: Data
Dictionary key name: data

udp_header

Type: *cybox.objects.network_packet_object.UDPHeader*
XML Binding class name: `UDP_Header`
Dictionary key name: `udp_header`

class `cybox.objects.network_packet_object.`**UDPHeader**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_packet_object.UDPHeaderType`

checksum

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Checksum`
Dictionary key name: `checksum`

destport

Type: *cybox.objects.port_object.Port*
XML Binding class name: `DestPort`
Dictionary key name: `destport`

length

Type: *cybox.common.properties.Integer*
XML Binding class name: `Length`
Dictionary key name: `length`

srcport

Type: *cybox.objects.port_object.Port*
XML Binding class name: `SrcPort`
Dictionary key name: `srcport`

Version: 2.1.0.21

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: 2.1.0.21

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: 2.1.0.21

cybox.objects.network_socket_object module

class cybox.objects.network_socket_object.**NetworkSocket**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.network_socket_object.NetworkSocketObjectType

address_family

Type: *cybox.common.properties.String*
XML Binding class name: Address_Family
Dictionary key name: address_family

domain

Type: *cybox.common.properties.String*
XML Binding class name: Domain
Dictionary key name: domain

is_blocking

XML Binding class name: is_blocking
Dictionary key name: is_blocking

is_listening

XML Binding class name: is_listening
Dictionary key name: is_listening

local_address

Type: *cybox.objects.socket_address_object.SocketAddress*
XML Binding class name: Local_Address
Dictionary key name: local_address

options

Type: *cybox.objects.network_socket_object.SocketOptions*

XML Binding class name: `Options`
Dictionary key name: `options`

protocol

Type: *cybox.common.properties.String*
XML Binding class name: `Protocol`
Dictionary key name: `protocol`

remote_address

Type: *cybox.objects.socket_address_object.SocketAddress*
XML Binding class name: `Remote_Address`
Dictionary key name: `remote_address`

socket_descriptor

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Socket_Descriptor`
Dictionary key name: `socket_descriptor`

type_

Type: *cybox.common.properties.String*
XML Binding class name: `Type`
Dictionary key name: `type`

class cybox.objects.network_socket_object.**SocketOptions**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.network_socket_object.SocketOptionsType`

ip_multicast_if

Type: *cybox.common.properties.String*
XML Binding class name: `IP_MULTICAST_IF`
Dictionary key name: `ip_multicast_if`

ip_multicast_if2

Type: *cybox.common.properties.String*
XML Binding class name: `IP_MULTICAST_IF2`
Dictionary key name: `ip_multicast_if2`

ip_multicast_loop

XML Binding class name: `IP_MULTICAST_LOOP`
Dictionary key name: `ip_multicast_loop`

ip_tos

Type: *cybox.common.properties.String*
XML Binding class name: IP_TOS
Dictionary key name: ip_tos

so_broadcast

XML Binding class name: SO_BROADCAST
Dictionary key name: so_broadcast

so_conditional_accept

XML Binding class name: SO_CONDITIONAL_ACCEPT
Dictionary key name: so_conditional_accept

so_debug

XML Binding class name: SO_DEBUG
Dictionary key name: so_debug

so_dontlinger

XML Binding class name: SO_DONTLINGER
Dictionary key name: so_dontlinger

so_dontroute

XML Binding class name: SO_DONTROUTE
Dictionary key name: so_dontroute

so_group_priority

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: SO_GROUP_PRIORITY
Dictionary key name: so_group_priority

so_keepalive

XML Binding class name: SO_KEEPALIVE
Dictionary key name: so_keepalive

so_linger

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: SO_LINGER
Dictionary key name: so_linger

so_oobinline

XML Binding class name: SO_OOBINLINE
Dictionary key name: so_oobinline

so_rcvbuf

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `SO_RCVBUF`
Dictionary key name: `so_rcvbuf`

so_rcvtimeo

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `SO_RCVTIMEO`
Dictionary key name: `so_rcvtimeo`

so_reuseaddr

XML Binding class name: `SO_REUSEADDR`
Dictionary key name: `so_reuseaddr`

so_sndbuf

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `SO_SNDBUF`
Dictionary key name: `so_sndbuf`

so_sndtimeo

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `SO_SNDTIMEO`
Dictionary key name: `so_sndtimeo`

so_timeout

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `SO_TIMEOUT`
Dictionary key name: `so_timeout`

so_update_accept_context

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `SO_UPDATE_ACCEPT_CONTEXT`
Dictionary key name: `so_update_accept_context`

tcp_nodelay

XML Binding class name: `TCP_NODELAY`
Dictionary key name: `tcp_nodelay`

Version: 2.1.0.21

cybox.objects.network_subnet_object module

class cybox.objects.network_subnet_object.**NetworkSubnet**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.network_subnet_object.NetworkSubnetObjectType

description

Type: *cybox.common.structured_text.StructuredText*
XML Binding class name: Description
Dictionary key name: description

name

Type: *cybox.common.properties.String*
XML Binding class name: Name
Dictionary key name: name

number_of_ip_addresses

Type: *cybox.common.properties.Integer*
XML Binding class name: Number_Of_IP_Addresses
Dictionary key name: number_of_ip_addresses

routes

Type: *cybox.objects.network_subnet_object.Routes*
XML Binding class name: Routes
Dictionary key name: routes

class cybox.objects.network_subnet_object.**Routes**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.network_subnet_object.RoutesType

route

(List of values permitted)
Type: *cybox.objects.network_route_entry_object.NetworkRouteEntry*
XML Binding class name: Route
Dictionary key name: route

Version: 2.1.0.21

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: ASCIIHexDecode_Count
Dictionary key name: asciihexdecode_count

ccittfaxdecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: CCITTFaxDecode_Count
Dictionary key name: ccittfaxdecode_count

dctdecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: DCTDecode_Count
Dictionary key name: dctdecode_count

encrypt_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: Encrypt_Count
Dictionary key name: encrypt_count

flatedecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: FlateDecode_Count
Dictionary key name: flatedecode_count

javascript_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: JavaScript_Count
Dictionary key name: javascript_count

jbig2decode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: JBIG2Decode_Count
Dictionary key name: jbig2decode_count

js_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: JS_Count
Dictionary key name: js_count

launch_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: Launch_Count
Dictionary key name: launch_count

lzwdecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: LZWDecode_Count
Dictionary key name: lzwdecode_count

objstm_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*

XML Binding class name: ObjStm_Count
Dictionary key name: objstm_count

openaction_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: OpenAction_Count
Dictionary key name: openaction_count

page_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: Page_Count
Dictionary key name: page_count

richmedia_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: RichMedia_Count
Dictionary key name: richmedia_count

runlengthdecode_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: RunLengthDecode_Count
Dictionary key name: runlengthdecode_count

xfa_count

Type: *cybox.objects.pdf_file_object.PDFKeywordCount*
XML Binding class name: XFA_Count
Dictionary key name: xfa_count

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*)

Version: 2.1.0.21

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: 2.1.0.21

cybox.objects.port_object module

class cybox.objects.port_object.**Port**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.port_object.PortObjectType

layer4_protocol

Type: *cybox.common.properties.String*
XML Binding class name: Layer4_Protocol
Dictionary key name: layer4_protocol

port_value

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: Port_Value
Dictionary key name: port_value

Version: 2.1.0.21

cybox.objects.process_object module

class cybox.objects.process_object.**ArgumentList**(**args*)

Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.process_object.ArgumentListType

argument

(List of values permitted)
Type: *cybox.common.properties.String*
XML Binding class name: Argument
Dictionary key name: argument

class cybox.objects.process_object.**ChildPIDList**(**args*)

Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.process_object.ChildPIDListType

child_pid

(List of values permitted)
Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: Child_PID
Dictionary key name: child_pid

class cybox.objects.process_object.**ImageInfo**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.process_object.ImageInfoType

command_line

Type: *cybox.common.properties.String*
XML Binding class name: Command_Line
Dictionary key name: command_line

current_directory

Type: *cybox.common.properties.String*
XML Binding class name: Current_Directory
Dictionary key name: current_directory

file_name

Type: *cybox.common.properties.String*
XML Binding class name: File_Name

Dictionary key name: file_name

path

Type: *cybox.common.properties.String*
XML Binding class name: Path
Dictionary key name: path

class cybox.objects.process_object.**NetworkConnectionList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.process_object.NetworkConnectionListType

network_connection

(List of values permitted)
Type: *cybox.objects.network_connection_object.NetworkConnection*
XML Binding class name: Network_Connection
Dictionary key name: network_connection

class cybox.objects.process_object.**PortList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.process_object.PortListType

port

(List of values permitted)
Type: *cybox.objects.port_object.Port*
XML Binding class name: Port
Dictionary key name: port

class cybox.objects.process_object.**Process**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.process_object.ProcessObjectType

argument_list

Type: *cybox.objects.process_object.ArgumentList*
XML Binding class name: Argument_List
Dictionary key name: argument_list

child_pid_list

Type: *cybox.objects.process_object.ChildPIDList*

XML Binding class name: `Child_PID_List`
Dictionary key name: `child_pid_list`

creation_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Creation_Time`
Dictionary key name: `creation_time`

environment_variable_list

Type: *cybox.common.environment_variable.EnvironmentVariableList*
XML Binding class name: `Environment_Variable_List`
Dictionary key name: `environment_variable_list`

extracted_features

Type: *cybox.common.extracted_features.ExtractedFeatures*
XML Binding class name: `Extracted_Features`
Dictionary key name: `extracted_features`

image_info

Type: *cybox.objects.process_object.ImageInfo*
XML Binding class name: `Image_Info`
Dictionary key name: `image_info`

is_hidden

XML Binding class name: `is_hidden`
Dictionary key name: `is_hidden`

kernel_time

Type: *cybox.common.properties.Duration*
XML Binding class name: `Kernel_Time`
Dictionary key name: `kernel_time`

name

Type: *cybox.common.properties.String*
XML Binding class name: `Name`
Dictionary key name: `name`

network_connection_list

Type: *cybox.objects.process_object.NetworkConnectionList*
XML Binding class name: `Network_Connection_List`
Dictionary key name: `network_connection_list`

parent_pid

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `Parent_PID`
Dictionary key name: `parent_pid`

pid

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `PID`
Dictionary key name: `pid`

port_list

Type: *cybox.objects.process_object.PortList*
XML Binding class name: `Port_List`
Dictionary key name: `port_list`

start_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Start_Time`
Dictionary key name: `start_time`

status

Type: *cybox.objects.process_object.ProcessStatus*
XML Binding class name: `Status`
Dictionary key name: `status`

user_time

Type: *cybox.common.properties.Duration*
XML Binding class name: `User_Time`
Dictionary key name: `user_time`

username

Type: *cybox.common.properties.String*
XML Binding class name: `Username`
Dictionary key name: `username`

class `cybox.objects.process_object.`**`ProcessStatus`**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.process_object.ProcessStatusType`

static `lookup_class`(*xsi_type*)

`to_dict`()

Version: 2.1.0.21

cybox.objects.product_object module

class cybox.objects.product_object.**Product**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.product_object.ProductObjectType

device_details

Type: *cybox.common.object_properties.ObjectProperties*
XML Binding class name: Device_Details
Dictionary key name: device_details

edition

Type: *cybox.common.properties.String*
XML Binding class name: Edition
Dictionary key name: edition

language

Type: *cybox.common.properties.String*
XML Binding class name: Language
Dictionary key name: language

product

Type: *cybox.common.properties.String*
XML Binding class name: Product
Dictionary key name: product

update

Type: *cybox.common.properties.String*
XML Binding class name: Update
Dictionary key name: update

vendor

Type: *cybox.common.properties.String*
XML Binding class name: Vendor
Dictionary key name: vendor

version

Type: *cybox.common.properties.String*
XML Binding class name: Version
Dictionary key name: version

Version: 2.1.0.21

cybox.objects.semaphore_object module

class cybox.objects.semaphore_object.**Semaphore**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.semaphore_object.SemaphoreObjectType

current_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: 2.1.0.21

cybox.objects.socket_address_object module

class cybox.objects.socket_address_object.**SocketAddress**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.socket_address_object.SocketAddressObjectType

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: 2.1.0.21

cybox.objects.sms_message_object module

class `cybox.objects.sms_message_object.`**SMSMessage**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.sms_message_object.SMSMessageObjectType`

bits_per_character

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `Bits_Per_Character`
Dictionary key name: `bits_per_character`

body

Type: *cybox.common.properties.String*
XML Binding class name: `Body`
Dictionary key name: `body`

encoding

Type: *cybox.common.properties.String*
XML Binding class name: `Encoding`
Dictionary key name: `encoding`

is_premium

XML Binding class name: `is_premium`
Dictionary key name: `is_premium`

length

Type: *cybox.common.properties.Integer*
XML Binding class name: `Length`
Dictionary key name: `length`

recipient_phone_number

Type: *cybox.common.properties.String*
XML Binding class name: `Recipient_Phone_Number`
Dictionary key name: `recipient_phone_number`

sender_phone_number

Type: *cybox.common.properties.String*
XML Binding class name: `Sender_Phone_Number`
Dictionary key name: `sender_phone_number`

sent_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Sent_DateTime`
Dictionary key name: `sent_datetime`

size

Type: *cybox.common.properties.Integer*
XML Binding class name: `Size`
Dictionary key name: `size`

user_data_header

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `User_Data_Header`
Dictionary key name: `user_data_header`

Version: 2.1.0.21

cybox.objects.system_object module

class `cybox.objects.system_object.`**BIOSInfo**

Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.system_object.BIOSInfoType`

bios_date

Type: *cybox.common.properties.Date*
XML Binding class name: `BIOS_Date`
Dictionary key name: `bios_date`

bios_manufacturer

Type: *cybox.common.properties.String*
XML Binding class name: `BIOS_Manufacturer`
Dictionary key name: `bios_manufacturer`

bios_release_date

Type: *cybox.common.properties.Date*
XML Binding class name: `BIOS_Release_Date`
Dictionary key name: `bios_release_date`

bios_serial_number

Type: *cybox.common.properties.String*
XML Binding class name: BIOS_Serial_Number
Dictionary key name: bios_serial_number

bios_version

Type: *cybox.common.properties.String*
XML Binding class name: BIOS_Version
Dictionary key name: bios_version

class cybox.objects.system_object.**DHCPServerList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.system_object.DHCPServerListType

dhcp_server_address

(List of values permitted)
Type: *cybox.objects.address_object.Address*
XML Binding class name: DHCP_Server_Address
Dictionary key name: dhcp_server_address

class cybox.objects.system_object.**IPGatewayList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.system_object.IPGatewayListType

ip_gateway_address

(List of values permitted)
Type: *cybox.objects.address_object.Address*
XML Binding class name: IP_Gateway_Address
Dictionary key name: ip_gateway_address

class cybox.objects.system_object.**IPInfo**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.system_object.IPInfoType

ip_address

Type: *cybox.objects.address_object.Address*
XML Binding class name: IP_Address
Dictionary key name: ip_address

subnet_mask

Type: *cybox.objects.address_object.Address*
XML Binding class name: `Subnet_Mask`
Dictionary key name: `subnet_mask`

class `cybox.objects.system_object.`**IPInfoList**(**args*)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.system_object.IPInfoListType`

ip_info

(List of values permitted)
Type: *cybox.objects.system_object.IPInfo*
XML Binding class name: `IP_Info`
Dictionary key name: `ip_info`

class `cybox.objects.system_object.`**NetworkInterface**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.system_object.NetworkInterfaceType`

adapter

Type: *cybox.common.properties.String*
XML Binding class name: `Adapter`
Dictionary key name: `adapter`

description

Type: *cybox.common.properties.String*
XML Binding class name: `Description`
Dictionary key name: `description`

dhcp_lease_expires

Type: *cybox.common.properties.DateTime*
XML Binding class name: `DHCP_Lease_Expires`
Dictionary key name: `dhcp_lease_expires`

dhcp_lease_obtained

Type: *cybox.common.properties.DateTime*
XML Binding class name: `DHCP_Lease_Obtained`
Dictionary key name: `dhcp_lease_obtained`

dhcp_server_list

Type: *cybox.objects.system_object.DHCPServerList*
XML Binding class name: DHCP_Server_List
Dictionary key name: dhcp_server_list

ip_gateway_list

Type: *cybox.objects.system_object.IPGatewayList*
XML Binding class name: IP_Gateway_List
Dictionary key name: ip_gateway_list

ip_list

Type: *cybox.objects.system_object.IPInfoList*
XML Binding class name: IP_List
Dictionary key name: ip_list

mac

Type: *cybox.common.properties.String*
XML Binding class name: MAC
Dictionary key name: mac

class cybox.objects.system_object.**NetworkInterfaceList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.system_object.NetworkInterfaceListType

network_interface

(List of values permitted)
Type: *cybox.objects.system_object.NetworkInterface*
XML Binding class name: Network_Interface
Dictionary key name: network_interface

class cybox.objects.system_object.**OS**
Bases: *cybox.common.platform_specification.PlatformSpecification*

XML binding class: cybox.bindings.system_object.OSType

bitness

Type: *cybox.common.properties.String*
XML Binding class name: Bitness
Dictionary key name: bitness

build_number

Type: *cybox.common.properties.String*
XML Binding class name: `Build_Number`
Dictionary key name: `build_number`

environment_variable_list

Type: *cybox.common.environment_variable.EnvironmentVariableList*
XML Binding class name: `Environment_Variable_List`
Dictionary key name: `environment_variable_list`

install_date

Type: *cybox.common.properties.Date*
XML Binding class name: `Install_Date`
Dictionary key name: `install_date`

patch_level

Type: *cybox.common.properties.String*
XML Binding class name: `Patch_Level`
Dictionary key name: `patch_level`

platform

Type: *cybox.common.platform_specification.PlatformSpecification*
XML Binding class name: `Platform`
Dictionary key name: `platform`

class `cybox.objects.system_object.`**System**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.system_object.SystemObjectType`

available_physical_memory

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Available_Physical_Memory`
Dictionary key name: `available_physical_memory`

bios_info

Type: *cybox.objects.system_object.BIOSInfo*
XML Binding class name: `BIOS_Info`
Dictionary key name: `bios_info`

date

Type: *cybox.common.properties.Date*
XML Binding class name: `Date`
Dictionary key name: `date`

hostname

Type: *cybox.common.properties.String*
XML Binding class name: `Hostname`
Dictionary key name: `hostname`

local_time

Type: *cybox.common.properties.Time*
XML Binding class name: `Local_Time`
Dictionary key name: `local_time`

network_interface_list

Type: *cybox.objects.system_object.NetworkInterfaceList*
XML Binding class name: `Network_Interface_List`
Dictionary key name: `network_interface_list`

os

Type: *cybox.objects.system_object.OS*
XML Binding class name: `OS`
Dictionary key name: `os`

processor

Type: *cybox.common.properties.String*
XML Binding class name: `Processor`
Dictionary key name: `processor`

processor_architecture

Type: *cybox.common.properties.String*
XML Binding class name: `Processor_Architecture`
Dictionary key name: `processor_architecture`

system_time

Type: *cybox.common.properties.Time*
XML Binding class name: `System_Time`
Dictionary key name: `system_time`

timezone_dst

Type: *cybox.common.properties.String*
XML Binding class name: `Timezone_DST`
Dictionary key name: `timezone_dst`

timezone_standard

Type: *cybox.common.properties.String*
XML Binding class name: `Timezone_Standard`
Dictionary key name: `timezone_standard`

total_physical_memory

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Total_Physical_Memory`
Dictionary key name: `total_physical_memory`

uptime

Type: *cybox.common.properties.Duration*
XML Binding class name: `Uptime`
Dictionary key name: `uptime`

username

Type: *cybox.common.properties.String*
XML Binding class name: `Username`
Dictionary key name: `username`

Version: 2.1.0.21

cybox.objects.unix_file_object module

class cybox.objects.unix_file_object.**UnixFile**

Bases: *cybox.objects.file_object.File*

XML binding class: `cybox.bindings.unix_file_object.UnixFileObjectType`

group_owner

Type: *cybox.common.properties.String*
XML Binding class name: `Group_Owner`
Dictionary key name: `group_owner`

inode

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `INode`
Dictionary key name: `inode`

permissions

Type: *cybox.objects.unix_file_object.UnixFilePermissions*
XML Binding class name: `Permissions`
Dictionary key name: `permissions`

type_

Type: *cybox.common.properties.String*
XML Binding class name: `Type`
Dictionary key name: `type`

class `cybox.objects.unix_file_object.`**UnixFilePermissions**
Bases: *cybox.objects.file_object.FilePermissions*

XML binding class: `cybox.bindings.unix_file_object.UnixFilePermissionsType`

gexec

XML Binding class name: `gexec`
Dictionary key name: `gexec`

gread

XML Binding class name: `gread`
Dictionary key name: `gread`

gwrite

XML Binding class name: `gwrite`
Dictionary key name: `gwrite`

oexec

XML Binding class name: `oexec`
Dictionary key name: `oexec`

oread

XML Binding class name: `oread`
Dictionary key name: `oread`

owrite

XML Binding class name: `owrite`
Dictionary key name: `owrite`

sgid

XML Binding class name: `sgid`
Dictionary key name: `sgid`

suid

XML Binding class name: `suid`
Dictionary key name: `suid`

uexec

XML Binding class name: `uexec`
Dictionary key name: `uexec`

uread

XML Binding class name: `uread`
Dictionary key name: `uread`

uwrite

XML Binding class name: `uwrite`
Dictionary key name: `uwrite`

Version: 2.1.0.21

cybox.objects.unix_network_route_entry_object module

class `cybox.objects.unix_network_route_entry_object.`**UnixNetworkRouteEntry**

Bases: *cybox.objects.network_route_entry_object.NetworkRouteEntry*

XML binding class:
`cybox.bindings.unix_network_route_entry_object.UnixNetworkRouteEntryObjectType`

flags

Type: *cybox.common.properties.String*
XML Binding class name: `Flags`
Dictionary key name: `flags`

mss

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `MSS`
Dictionary key name: `mss`

ref

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Ref`
Dictionary key name: `ref`

use

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Use`
Dictionary key name: `use`

window

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `Window`
Dictionary key name: `window`

Version: 2.1.0.21

cybox.objects.unix_pipe_object module

class `cybox.objects.unix_pipe_object.`**UnixPipe**
Bases: *cybox.objects.pipe_object.Pipe*

XML binding class: `cybox.bindings.unix_pipe_object.UnixPipeObjectType`

permission_mode

Type: *cybox.common.properties.String*
XML Binding class name: `Permission_Mode`
Dictionary key name: `permission_mode`

Version: 2.1.0.21

cybox.objects.unix_process_object module

class `cybox.objects.unix_process_object.`**FileDescriptorList**(**args*)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.unix_process_object.FileDescriptorListType`

file_descriptor

(List of values permitted)
Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `File_Descriptor`
Dictionary key name: `file_descriptor`

class `cybox.objects.unix_process_object.`**UnixProcess**
Bases: *cybox.objects.process_object.Process*

XML binding class: `cybox.bindings.unix_process_object.UnixProcessObjectType`

open_file_descriptor_list

Type: *cybox.objects.unix_process_object.FileDescriptorList*
XML Binding class name: `Open_File_Descriptor_List`
Dictionary key name: `open_file_descriptor_list`

priority

Type: *cybox.common.properties.NonNegativeInteger*

XML Binding class name: `Priority`
Dictionary key name: `priority`

ruid

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `RUID`
Dictionary key name: `ruid`

session_id

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Session_ID`
Dictionary key name: `session_id`

class cybox.objects.unix_process_object.**UnixProcessState**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

XML binding class: `cybox.bindings.unix_process_object.UnixProcessStateType`

class cybox.objects.unix_process_object.**UnixProcessStatus**
Bases: *cybox.objects.process_object.ProcessStatus*

XML binding class: `cybox.bindings.unix_process_object.UnixProcessStatusType`

current_status

Type: *cybox.objects.unix_process_object.UnixProcessState*
XML Binding class name: `Current_Status`
Dictionary key name: `current_status`

timestamp

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Timestamp`
Dictionary key name: `timestamp`

Version: 2.1.0.21

cybox.objects.unix_user_account_object module

class cybox.objects.unix_user_account_object.**UnixGroup**
Bases: *cybox.objects.user_account_object.Group*

XML binding class: `cybox.bindings.unix_user_account_object.UnixGroupType`

group_id

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Group_ID`
Dictionary key name: `group_id`

class cybox.objects.unix_user_account_object.**UnixGroupList**(**args*)
Bases: *cybox.objects.user_account_object.GroupList*

XML binding class: `cybox.bindings.user_account_object.GroupListType`

group

(List of values permitted)
Type: *cybox.objects.unix_user_account_object.UnixGroup*
XML Binding class name: `Group`
Dictionary key name: `group`

class cybox.objects.unix_user_account_object.**UnixPrivilege**
Bases: *cybox.objects.user_account_object.Privilege*

XML binding class: `cybox.bindings.unix_user_account_object.UnixPrivilegeType`

permissions_mask

Type: *cybox.common.properties.String*
XML Binding class name: `Permissions_Mask`
Dictionary key name: `permissions_mask`

class cybox.objects.unix_user_account_object.**UnixPrivilegeList**(**args*)
Bases: *cybox.objects.user_account_object.PrivilegeList*

XML binding class: `cybox.bindings.user_account_object.PrivilegeListType`

privilege

(List of values permitted)
Type: *cybox.objects.unix_user_account_object.UnixPrivilege*
XML Binding class name: `Privilege`
Dictionary key name: `privilege`

class cybox.objects.unix_user_account_object.**UnixUserAccount**
Bases: *cybox.objects.user_account_object.UserAccount*

XML binding class:
`cybox.bindings.unix_user_account_object.UnixUserAccountObjectType`

group_id

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `Group_ID`
Dictionary key name: `group_id`

group_list

Type: *cybox.objects.unix_user_account_object.UnixGroupList*
XML Binding class name: `Group_List`
Dictionary key name: `group_list`

login_shell

Type: *cybox.common.properties.String*
XML Binding class name: `Login_Shell`
Dictionary key name: `login_shell`

privilege_list

Type: *cybox.objects.unix_user_account_object.UnixPrivilegeList*
XML Binding class name: `Privilege_List`
Dictionary key name: `privilege_list`

user_id

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `User_ID`
Dictionary key name: `user_id`

Version: 2.1.0.21

cybox.objects.unix_volume_object module

class `cybox.objects.unix_volume_object.`**UnixVolume**

Bases: *cybox.objects.volume_object.Volume*

XML binding class: `cybox.bindings.unix_volume_object.UnixVolumeObjectType`

mount_point

Type: *cybox.common.properties.String*
XML Binding class name: `Mount_Point`
Dictionary key name: `mount_point`

options

Type: *cybox.common.properties.String*
XML Binding class name: `Options`
Dictionary key name: `options`

Version: 2.1.0.21

cybox.objects.uri_object module

class cybox.objects.uri_object.**URI**(*value=None*, *type_=None*)

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.uri_object.URIObjectType

type_

XML Binding class name: type_
Dictionary key name: type

value

Type: *cybox.common.properties.AnyURI*
XML Binding class name: Value
Dictionary key name: value

Version: 2.1.0.21

cybox.objects.url_history_object module

class cybox.objects.url_history_object.**URLHistory**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.url_history_object.URLHistoryObjectType

browser_information

Type: *cybox.common.tools.ToolInformation*
XML Binding class name: Browser_Information
Dictionary key name: browser_information

url_history_entry

(List of values permitted)
Type: *cybox.objects.url_history_object.URLHistoryEntry*
XML Binding class name: URL_History_Entry
Dictionary key name: url_history_entry

class cybox.objects.url_history_object.**URLHistoryEntry**

Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.url_history_object.URLHistoryEntryType

expiration_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Expiration_DateTime`
Dictionary key name: `expiration_datetime`

first_visit_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: `First_Visit_DateTime`
Dictionary key name: `first_visit_datetime`

hostname

Type: *cybox.objects.hostname_object.Hostname*
XML Binding class name: `Hostname`
Dictionary key name: `hostname`

last_visit_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Last_Visit_DateTime`
Dictionary key name: `last_visit_datetime`

manually_entered_count

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Manually_Entered_Count`
Dictionary key name: `manually_entered_count`

modification_datetime

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Modification_DateTime`
Dictionary key name: `modification_datetime`

page_title

Type: *cybox.common.properties.String*
XML Binding class name: `Page_Title`
Dictionary key name: `page_title`

referrer_url

Type: *cybox.objects.uri_object.URI*
XML Binding class name: `Referrer_URL`
Dictionary key name: `referrer_url`

url

Type: *cybox.objects.uri_object.URI*

XML Binding class name: URL
Dictionary key name: url

user_profile_name

Type: *cybox.common.properties.String*
XML Binding class name: User_Profile_Name
Dictionary key name: user_profile_name

visit_count

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: Visit_Count
Dictionary key name: visit_count

Version: 2.1.0.21

cybox.objects.user_account_object module

class cybox.objects.user_account_object.**Group**
Bases: mixbox.entities.Entity

An abstract class for account groups.

XML binding class: cybox.bindings.user_account_object.GroupType

to_dict()

class cybox.objects.user_account_object.**GroupList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.user_account_object.GroupListType

group

(List of values permitted)
Type: *cybox.objects.user_account_object.Group*
XML Binding class name: Group
Dictionary key name: group

class cybox.objects.user_account_object.**Privilege**
Bases: mixbox.entities.Entity

An abstract class for account privileges.

XML binding class: cybox.bindings.user_account_object.PrivilegeType

to_dict()

class cybox.objects.user_account_object.**PrivilegeList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.user_account_object.PrivilegeListType

privilege

(List of values permitted)
Type: *cybox.objects.user_account_object.Privilege*
XML Binding class name: Privilege
Dictionary key name: privilege

class cybox.objects.user_account_object.**UserAccount**
Bases: *cybox.objects.account_object.Account*

XML binding class: cybox.bindings.user_account_object.UserAccountObjectType

full_name

Type: *cybox.common.properties.String*
XML Binding class name: Full_Name
Dictionary key name: full_name

group_list

Type: *cybox.objects.user_account_object.GroupList*
XML Binding class name: Group_List
Dictionary key name: group_list

home_directory

Type: *cybox.common.properties.String*
XML Binding class name: Home_Directory
Dictionary key name: home_directory

last_login

Type: *cybox.common.properties.DateTime*
XML Binding class name: Last_Login
Dictionary key name: last_login

password_required

XML Binding class name: password_required
Dictionary key name: password_required

privilege_list

Type: *cybox.objects.user_account_object.PrivilegeList*
XML Binding class name: `Privilege_List`
Dictionary key name: `privilege_list`

script_path

Type: *cybox.common.properties.String*
XML Binding class name: `Script_Path`
Dictionary key name: `script_path`

user_password_age

Type: *cybox.common.properties.Duration*
XML Binding class name: `User_Password_Age`
Dictionary key name: `user_password_age`

username

Type: *cybox.common.properties.String*
XML Binding class name: `Username`
Dictionary key name: `username`

Version: 2.1.0.21

cybox.objects.user_session_object module

class `cybox.objects.user_session_object.`**UserSession**

Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.user_session_object.UserSessionObjectType`

effective_group

Type: *cybox.common.properties.String*
XML Binding class name: `Effective_Group`
Dictionary key name: `effective_group`

effective_group_id

Type: *cybox.common.properties.String*
XML Binding class name: `Effective_Group_ID`
Dictionary key name: `effective_group_id`

effective_user

Type: *cybox.common.properties.String*
XML Binding class name: `Effective_User`
Dictionary key name: `effective_user`

effective_user_id

Type: *cybox.common.properties.String*
XML Binding class name: `Effective_User_ID`
Dictionary key name: `effective_user_id`

login_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Login_Time`
Dictionary key name: `login_time`

logout_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Logout_Time`
Dictionary key name: `logout_time`

Version: 2.1.0.21

cybox.objects.volume_object module

class cybox.objects.volume_object.**FileSystemFlagList**(**args*)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.volume_object.FileSystemFlagListType`

file_system_flag

(List of values permitted)
Type: *cybox.objects.volume_object.VolumeFileSystemFlag*
XML Binding class name: `File_System_Flag`
Dictionary key name: `file_system_flag`

class cybox.objects.volume_object.**Volume**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.volume_object.VolumeObjectType`

actual_available_allocation_units

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Actual_Available_Allocation_Units`
Dictionary key name: `actual_available_allocation_units`

bytes_per_sector

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `Bytes_Per_Sector`
Dictionary key name: `bytes_per_sector`

creation_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Creation_Time`
Dictionary key name: `creation_time`

device_path

Type: *cybox.common.properties.String*
XML Binding class name: `Device_Path`
Dictionary key name: `device_path`

file_system_flag_list

Type: *cybox.objects.volume_object.FileSystemFlagList*
XML Binding class name: `File_System_Flag_List`
Dictionary key name: `file_system_flag_list`

file_system_type

Type: *cybox.common.properties.String*
XML Binding class name: `File_System_Type`
Dictionary key name: `file_system_type`

is_mounted

XML Binding class name: `is_mounted`
Dictionary key name: `is_mounted`

name

Type: *cybox.common.properties.String*
XML Binding class name: `Name`
Dictionary key name: `name`

sectors_per_allocation_unit

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `Sectors_Per_Allocation_Unit`
Dictionary key name: `sectors_per_allocation_unit`

serial_number

Type: *cybox.common.properties.String*
XML Binding class name: `Serial_Number`
Dictionary key name: `serial_number`

total_allocation_units

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Total_Allocation_Units`

Dictionary key name: total_allocation_units

class cybox.objects.volume_object.**VolumeFileSystemFlag**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

XML binding class: cybox.bindings.volume_object.VolumeFileSystemFlagType

Version: 2.1.0.21

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: 2.1.0.21

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: 2.1.0.21

cybox.objects.win_critical_section_object module

class cybox.objects.win_critical_section_object.**WinCriticalSection**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:
`cybox.bindings.win_critical_section_object.WindowsCriticalSectionObjectType`

address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Address`
Dictionary key name: `address`

spin_count

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Spin_Count`
Dictionary key name: `spin_count`

Version: 2.1.0.21

cybox.objects.win_driver_object module

class cybox.objects.win_driver_object.**DeviceObjectList**(**args*)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_driver_object.DeviceObjectListType`

device_object_struct

(List of values permitted)
Type: *cybox.objects.win_driver_object.DeviceObjectStruct*
XML Binding class name: Device_Object_Struct
Dictionary key name: device_object_struct

class cybox.objects.win_driver_object.**DeviceObjectStruct**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_driver_object.DeviceObjectStructType

attached_device_name

Type: *cybox.common.properties.String*
XML Binding class name: Attached_Device_Name
Dictionary key name: attached_device_name

attached_device_object

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Attached_Device_Object
Dictionary key name: attached_device_object

attached_to_device_name

Type: *cybox.common.properties.String*
XML Binding class name: Attached_To_Device_Name
Dictionary key name: attached_to_device_name

attached_to_device_object

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Attached_To_Device_Object
Dictionary key name: attached_to_device_object

attached_to_driver_name

Type: *cybox.common.properties.String*
XML Binding class name: Attached_To_Driver_Name
Dictionary key name: attached_to_driver_name

attached_to_driver_object

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Attached_To_Driver_Object
Dictionary key name: attached_to_driver_object

device_name

Type: *cybox.common.properties.String*
XML Binding class name: `Device_Name`
Dictionary key name: `device_name`

device_object

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Device_Object`
Dictionary key name: `device_object`

class `cybox.objects.win_driver_object.`**WinDriver**
Bases: *cybox.objects.win_executable_file_object.WinExecutableFile*

XML binding class: `cybox.bindings.win_driver_object.WindowsDriverObjectType`

device_object_list

Type: *cybox.objects.win_driver_object.DeviceObjectList*
XML Binding class name: `Device_Object_List`
Dictionary key name: `device_object_list`

driver_init

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Driver_Init`
Dictionary key name: `driver_init`

driver_name

Type: *cybox.common.properties.String*
XML Binding class name: `Driver_Name`
Dictionary key name: `driver_name`

driver_object_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Driver_Object_Address`
Dictionary key name: `driver_object_address`

driver_start_io

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Driver_Start_IO`
Dictionary key name: `driver_start_io`

driver_unload

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Driver_Unload`

Dictionary key name: `driver_unload`

image_base

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Image_Base`
Dictionary key name: `image_base`

image_size

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Image_Size`
Dictionary key name: `image_size`

irp_mj_cleanup

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_CLEANUP`
Dictionary key name: `irp_mj_cleanup`

irp_mj_close

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_CLOSE`
Dictionary key name: `irp_mj_close`

irp_mj_create

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_CREATE`
Dictionary key name: `irp_mj_create`

irp_mj_create_mailslot

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_CREATE_MAILSLOT`
Dictionary key name: `irp_mj_create_mailslot`

irp_mj_create_named_pipe

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_CREATE_NAMED_PIPE`
Dictionary key name: `irp_mj_create_named_pipe`

irp_mj_device_change

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_DEVICE_CHANGE`
Dictionary key name: `irp_mj_device_change`

irp_mj_device_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_DEVICE_CONTROL`
Dictionary key name: `irp_mj_device_control`

irp_mj_directory_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_DIRECTORY_CONTROL`
Dictionary key name: `irp_mj_directory_control`

irp_mj_file_system_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_FILE_SYSTEM_CONTROL`
Dictionary key name: `irp_mj_file_system_control`

irp_mj_flush_buffers

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_FLUSH_BUFFERS`
Dictionary key name: `irp_mj_flush_buffers`

irp_mj_internal_device_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_INTERNAL_DEVICE_CONTROL`
Dictionary key name: `irp_mj_internal_device_control`

irp_mj_lock_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_LOCK_CONTROL`
Dictionary key name: `irp_mj_lock_control`

irp_mj_pnp

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_PNP`
Dictionary key name: `irp_mj_pnp`

irp_mj_power

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_POWER`
Dictionary key name: `irp_mj_power`

irp_mj_query_ea

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_QUERY_EA`
Dictionary key name: `irp_mj_query_ea`

irp_mj_query_information

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_QUERY_INFORMATION`
Dictionary key name: `irp_mj_query_information`

irp_mj_query_quota

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_QUERY_QUOTA`
Dictionary key name: `irp_mj_query_quota`

irp_mj_query_security

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_QUERY_SECURITY`
Dictionary key name: `irp_mj_query_security`

irp_mj_query_volume_information

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_QUERY_VOLUME_INFORMATION`
Dictionary key name: `irp_mj_query_volume_information`

irp_mj_read

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_READ`
Dictionary key name: `irp_mj_read`

irp_mj_set_ea

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_SET_EA`
Dictionary key name: `irp_mj_set_ea`

irp_mj_set_information

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_SET_INFORMATION`
Dictionary key name: `irp_mj_set_information`

irp_mj_set_quota

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `IRP_MJ_SET_QUOTA`
Dictionary key name: `irp_mj_set_quota`

irp_mj_set_security

Type: *cybox.common.properties.UnsignedLong*

XML Binding class name: IRP_MJ_SET_SECURITY
Dictionary key name: irp_mj_set_security

irp_mj_set_volume_information

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_SET_VOLUME_INFORMATION
Dictionary key name: irp_mj_set_volume_information

irp_mj_shutdown

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_SHUTDOWN
Dictionary key name: irp_mj_shutdown

irp_mj_system_control

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_SYSTEM_CONTROL
Dictionary key name: irp_mj_system_control

irp_mj_write

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: IRP_MJ_WRITE
Dictionary key name: irp_mj_write

Version: 2.1.0.21

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: 2.1.0.21

cybox.objects.win_event_object module

class cybox.objects.win_event_object.**WinEvent**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: `cybox.bindings.win_event_object.WindowsEventObjectType`

handle

Type: *cybox.objects.win_handle_object.WinHandle*
XML Binding class name: `Handle`
Dictionary key name: `handle`

name

Type: *cybox.common.properties.String*
XML Binding class name: `Name`
Dictionary key name: `name`

type_

Type: *cybox.common.properties.String*
XML Binding class name: `Type`
Dictionary key name: `type`

Version: 2.1.0.21

cybox.objects.win_executable_file_object module

class cybox.objects.win_executable_file_object.**DOSHeader**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.DOSHeaderType`

e_cblp

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_cblp`
Dictionary key name: `e_cblp`

e_cp

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_cp`
Dictionary key name: `e_cp`

e_cparhdr

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_cparhdr`
Dictionary key name: `e_cparhdr`

e_crlc

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_crlc`
Dictionary key name: `e_crlc`

e_cs

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_cs`
Dictionary key name: `e_cs`

e_csum

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_csum`
Dictionary key name: `e_csum`

e_ip

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_ip`
Dictionary key name: `e_ip`

e_lfanew

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_lfanew`
Dictionary key name: `e_lfanew`

e_lfarlc

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_lfarlc`
Dictionary key name: `e_lfarlc`

e_magic

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_magic`
Dictionary key name: `e_magic`

e_maxalloc

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_maxalloc`
Dictionary key name: `e_maxalloc`

e_minalloc

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_minalloc`
Dictionary key name: `e_minalloc`

e_oemid

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_oemid`
Dictionary key name: `e_oemid`

e_oeminfo

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_oeminfo`
Dictionary key name: `e_oeminfo`

e_ovro

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_ovro`
Dictionary key name: `e_ovro`

e_sp

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_sp`
Dictionary key name: `e_sp`

e_ss

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `e_ss`
Dictionary key name: `e_ss`

hashes

Type: *cybox.common.hashes.HashList*

XML Binding class name: `Hashes`
Dictionary key name: `hashes`

reserved1

(List of values permitted)
Type: *cybox.common.properties.HexBinary*
XML Binding class name: `reserved1`
Dictionary key name: `reserved1`

reserved2

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `reserved2`
Dictionary key name: `reserved2`

class `cybox.objects.win_executable_file_object.`**DataDirectory**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.DataDirectoryType`

architecture

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Architecture`
Dictionary key name: `architecture`

base_relocation_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Base_Relocation_Table`
Dictionary key name: `base_relocation_table`

bound_import

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Bound_Import`
Dictionary key name: `bound_import`

certificate_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Certificate_Table`
Dictionary key name: `certificate_table`

clr_runtime_header

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `CLR_Runtime_Header`
Dictionary key name: `clr_runtime_header`

debug

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Debug`
Dictionary key name: `debug`

delay_import_descriptor

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Delay_Import_Descriptor`
Dictionary key name: `delay_import_descriptor`

exception_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Exception_Table`
Dictionary key name: `exception_table`

export_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Export_Table`
Dictionary key name: `export_table`

global_ptr

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Global_Ptr`
Dictionary key name: `global_ptr`

import_address_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Import_Address_Table`
Dictionary key name: `import_address_table`

import_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Import_Table`
Dictionary key name: `import_table`

load_config_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Load_Config_Table`
Dictionary key name: `load_config_table`

reserved

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*

XML Binding class name: `Reserved`
Dictionary key name: `reserved`

resource_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `Resource_Table`
Dictionary key name: `resource_table`

tls_table

Type: *cybox.objects.win_executable_file_object.PEDataDirectoryStruct*
XML Binding class name: `TLS_Table`
Dictionary key name: `tls_table`

class `cybox.objects.win_executable_file_object.`**Entropy**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.EntropyType`

max

Type: *cybox.common.properties.Float*
XML Binding class name: `Max`
Dictionary key name: `max`

min

Type: *cybox.common.properties.Float*
XML Binding class name: `Min`
Dictionary key name: `min`

value

Type: *cybox.common.properties.Float*
XML Binding class name: `Value`
Dictionary key name: `value`

class `cybox.objects.win_executable_file_object.`**PEBuildInformation**
Bases: `mixbox.entities.Entity`

XML binding class:
`cybox.bindings.win_executable_file_object.PEBuildInformationType`

compiler_name

Type: *cybox.common.properties.String*
XML Binding class name: `Compiler_Name`

Dictionary key name: compiler_name

compiler_version

Type: *cybox.common.properties.String*
XML Binding class name: Compiler_Version
Dictionary key name: compiler_version

linker_name

Type: *cybox.common.properties.String*
XML Binding class name: Linker_Name
Dictionary key name: linker_name

linker_version

Type: *cybox.common.properties.String*
XML Binding class name: Linker_Version
Dictionary key name: linker_version

class cybox.objects.win_executable_file_object.**PEChecksum**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_executable_file_object.PEChecksumType

pe_computed_api

Type: *cybox.common.properties.Long*
XML Binding class name: PE_Computed_API
Dictionary key name: pe_computed_api

pe_file_api

Type: *cybox.common.properties.Long*
XML Binding class name: PE_File_API
Dictionary key name: pe_file_api

pe_file_raw

Type: *cybox.common.properties.Long*
XML Binding class name: PE_File_Raw
Dictionary key name: pe_file_raw

class cybox.objects.win_executable_file_object.**PEDataDirectoryStruct**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.win_executable_file_object.PEDataDirectoryStructType

size

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Size`
Dictionary key name: `size`

virtual_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Virtual_Address`
Dictionary key name: `virtual_address`

class `cybox.objects.win_executable_file_object.`**PEExportedFunction**
Bases: `mixbox.entities.Entity`

XML binding class:
`cybox.bindings.win_executable_file_object.PEExportedFunctionType`

entry_point

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Entry_Point`
Dictionary key name: `entry_point`

function_name

Type: *cybox.common.properties.String*
XML Binding class name: `Function_Name`
Dictionary key name: `function_name`

ordinal

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Ordinal`
Dictionary key name: `ordinal`

class `cybox.objects.win_executable_file_object.`**PEExportedFunctions**(**args*)
Bases: `mixbox.entities.EntityList`

XML binding class:
`cybox.bindings.win_executable_file_object.PEExportedFunctionsType`

exported_function

(List of values permitted)
Type: *cybox.objects.win_executable_file_object.PEExportedFunction*
XML Binding class name: `Exported_Function`

Dictionary key name: exported_function

class cybox.objects.win_executable_file_object.**PEExports**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_executable_file_object.PEExportsType

exported_functions

Type: *cybox.objects.win_executable_file_object.PEExportedFunctions*
XML Binding class name: Exported_Functions
Dictionary key name: exported_functions

exports_time_stamp

Type: *cybox.common.properties.DateTime*
XML Binding class name: Exports_Time_Stamp
Dictionary key name: exports_time_stamp

name

Type: *cybox.common.properties.String*
XML Binding class name: Name
Dictionary key name: name

number_of_addresses

Type: *cybox.common.properties.Long*
XML Binding class name: Number_Of_Addresses
Dictionary key name: number_of_addresses

number_of_functions

Type: *cybox.common.properties.Integer*
XML Binding class name: Number_Of_Functions
Dictionary key name: number_of_functions

number_of_names

Type: *cybox.common.properties.Long*
XML Binding class name: Number_Of_Names
Dictionary key name: number_of_names

class cybox.objects.win_executable_file_object.**PEFileHeader**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_executable_file_object.PEFileHeaderType

characteristics

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Characteristics`
Dictionary key name: `characteristics`

hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: `Hashes`
Dictionary key name: `hashes`

machine

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Machine`
Dictionary key name: `machine`

number_of_sections

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Number_Of_Sections`
Dictionary key name: `number_of_sections`

number_of_symbols

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Number_Of_Symbols`
Dictionary key name: `number_of_symbols`

pointer_to_symbol_table

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Pointer_To_Symbol_Table`
Dictionary key name: `pointer_to_symbol_table`

size_of_optional_header

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Optional_Header`
Dictionary key name: `size_of_optional_header`

time_date_stamp

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Time_Date_Stamp`
Dictionary key name: `time_date_stamp`

class `cybox.objects.win_executable_file_object.`**PEHeaders**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PEHeadersType`

dos_header

Type: *cybox.objects.win_executable_file_object.DOSHeader*
XML Binding class name: `DOS_Header`
Dictionary key name: `dos_header`

entropy

Type: *cybox.objects.win_executable_file_object.Entropy*
XML Binding class name: `Entropy`
Dictionary key name: `entropy`

file_header

Type: *cybox.objects.win_executable_file_object.PEFileHeader*
XML Binding class name: `File_Header`
Dictionary key name: `file_header`

hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: `Hashes`
Dictionary key name: `hashes`

optional_header

Type: *cybox.objects.win_executable_file_object.PEOptionalHeader*
XML Binding class name: `Optional_Header`
Dictionary key name: `optional_header`

signature

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Signature`
Dictionary key name: `signature`

class `cybox.objects.win_executable_file_object.`**PEImport**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PEImportType`

delay_load

XML Binding class name: `delay_load`
Dictionary key name: `delay_load`

file_name

Type: *cybox.common.properties.String*
XML Binding class name: `File_Name`
Dictionary key name: `file_name`

imported_functions

Type: *cybox.objects.win_executable_file_object.PEImportedFunctions*
XML Binding class name: `Imported_Functions`
Dictionary key name: `imported_functions`

initially_visible

XML Binding class name: `initially_visible`
Dictionary key name: `initially_visible`

virtual_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Virtual_Address`
Dictionary key name: `virtual_address`

class `cybox.objects.win_executable_file_object.`**PEImportList**(**args*)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_executable_file_object.PEImportListType`

import_

(List of values permitted)
Type: *cybox.objects.win_executable_file_object.PEImport*
XML Binding class name: `Import`
Dictionary key name: `import`

class `cybox.objects.win_executable_file_object.`**PEImportedFunction**
Bases: `mixbox.entities.Entity`

XML binding class:
`cybox.bindings.win_executable_file_object.PEImportedFunctionType`

bound

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Bound`
Dictionary key name: `bound`

function_name

Type: *cybox.common.properties.String*
XML Binding class name: Function_Name
Dictionary key name: function_name

hint

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Hint
Dictionary key name: hint

ordinal

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: Ordinal
Dictionary key name: ordinal

virtual_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Virtual_Address
Dictionary key name: virtual_address

class cybox.objects.win_executable_file_object.**PEImportedFunctions**(**args*)
Bases: mixbox.entities.EntityList

XML binding class:
cybox.bindings.win_executable_file_object.PEImportedFunctionsType

imported_function

(List of values permitted)
Type: *cybox.objects.win_executable_file_object.PEImportedFunction*
XML Binding class name: Imported_Function
Dictionary key name: imported_function

class cybox.objects.win_executable_file_object.**PEOptionalHeader**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.win_executable_file_object.PEOptionalHeaderType

address_of_entry_point

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Address_Of_Entry_Point

Dictionary key name: address_of_entry_point

base_of_code

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Base_Of_Code
Dictionary key name: base_of_code

base_of_data

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Base_Of_Data
Dictionary key name: base_of_data

checksum

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Checksum
Dictionary key name: checksum

data_directory

Type: *cybox.objects.win_executable_file_object.DataDirectory*
XML Binding class name: Data_Directory
Dictionary key name: data_directory

dll_characteristics

Type: *cybox.common.properties.HexBinary*
XML Binding class name: DLL_Characteristics
Dictionary key name: dll_characteristics

file_alignment

Type: *cybox.common.properties.HexBinary*
XML Binding class name: File_Alignment
Dictionary key name: file_alignment

hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: Hashes
Dictionary key name: hashes

image_base

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Image_Base
Dictionary key name: image_base

loader_flags

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Loader_Flags`
Dictionary key name: `loader_flags`

magic

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Magic`
Dictionary key name: `magic`

major_image_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Major_Image_Version`
Dictionary key name: `major_image_version`

major_linker_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Major_Linker_Version`
Dictionary key name: `major_linker_version`

major_os_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Major_OS_Version`
Dictionary key name: `major_os_version`

major_subsystem_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Major_Subsystem_Version`
Dictionary key name: `major_subsystem_version`

minor_image_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Minor_Image_Version`
Dictionary key name: `minor_image_version`

minor_linker_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Minor_Linker_Version`
Dictionary key name: `minor_linker_version`

minor_os_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Minor_OS_Version`
Dictionary key name: `minor_os_version`

minor_subsystem_version

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Minor_Subsystem_Version`
Dictionary key name: `minor_subsystem_version`

number_of_rva_and_sizes

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Number_Of_Rva_And_Sizes`
Dictionary key name: `number_of_rva_and_sizes`

section_alignment

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Section_Alignment`
Dictionary key name: `section_alignment`

size_of_code

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Code`
Dictionary key name: `size_of_code`

size_of_headers

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Headers`
Dictionary key name: `size_of_headers`

size_of_heap_commit

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Heap_Commit`
Dictionary key name: `size_of_heap_commit`

size_of_heap_reserve

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Heap_Reserve`
Dictionary key name: `size_of_heap_reserve`

size_of_image

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Image`
Dictionary key name: `size_of_image`

size_of_initialized_data

Type: *cybox.common.properties.HexBinary*

XML Binding class name: `Size_Of_Initialized_Data`
Dictionary key name: `size_of_initialized_data`

size_of_stack_commit

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Stack_Commit`
Dictionary key name: `size_of_stack_commit`

size_of_stack_reserve

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Stack_Reserve`
Dictionary key name: `size_of_stack_reserve`

size_of_uninitialized_data

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Uninitialized_Data`
Dictionary key name: `size_of_uninitialized_data`

subsystem

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Subsystem`
Dictionary key name: `subsystem`

win32_version_value

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Win32_Version_Value`
Dictionary key name: `win32_version_value`

class `cybox.objects.win_executable_file_object.`**PEResource**
Bases: `mixbox.entities.Entity`

XML binding class: `cybox.bindings.win_executable_file_object.PEResourceType`

data

Type: *cybox.common.properties.String*
XML Binding class name: `Data`
Dictionary key name: `data`

hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: `Hashes`
Dictionary key name: `hashes`

language

Type: *cybox.common.properties.String*
XML Binding class name: `Language`
Dictionary key name: `language`

static lookup_class(*xsi_type*)

name

Type: *cybox.common.properties.String*
XML Binding class name: `Name`
Dictionary key name: `name`

size

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `Size`
Dictionary key name: `size`

sub_language

Type: *cybox.common.properties.String*
XML Binding class name: `Sub_Language`
Dictionary key name: `sub_language`

to_dict()

type_

Type: *cybox.common.properties.String*
XML Binding class name: `Type`
Dictionary key name: `type`

virtual_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Virtual_Address`
Dictionary key name: `virtual_address`

class cybox.objects.win_executable_file_object.**PEResourceList**(**args*)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_executable_file_object.PEResourceListType`

resource

(List of values permitted)
Type: *cybox.objects.win_executable_file_object.PEResource*
XML Binding class name: `Resource`

Dictionary key name: resource

class cybox.objects.win_executable_file_object.**PESection**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_executable_file_object.PESectionType

data_hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: Data_Hashes
Dictionary key name: data_hashes

entropy

Type: *cybox.objects.win_executable_file_object.Entropy*
XML Binding class name: Entropy
Dictionary key name: entropy

header_hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: Header_Hashes
Dictionary key name: header_hashes

section_header

Type: *cybox.objects.win_executable_file_object.PESectionHeaderStruct*
XML Binding class name: Section_Header
Dictionary key name: section_header

class cybox.objects.win_executable_file_object.**PESectionHeaderStruct**
Bases: mixbox.entities.Entity

XML binding class:
cybox.bindings.win_executable_file_object.PESectionHeaderStructType

characteristics

Type: *cybox.common.properties.HexBinary*
XML Binding class name: Characteristics
Dictionary key name: characteristics

name

Type: *cybox.common.properties.String*
XML Binding class name: Name
Dictionary key name: name

number_of_linenumbers

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Number_Of_Linenumbers`
Dictionary key name: `number_of_linenumbers`

number_of_relocations

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Number_Of_Relocations`
Dictionary key name: `number_of_relocations`

pointer_to_linenumbers

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Pointer_To_Linenumbers`
Dictionary key name: `pointer_to_linenumbers`

pointer_to_raw_data

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Pointer_To_Raw_Data`
Dictionary key name: `pointer_to_raw_data`

pointer_to_relocations

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Pointer_To_Relocations`
Dictionary key name: `pointer_to_relocations`

size_of_raw_data

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Size_Of_Raw_Data`
Dictionary key name: `size_of_raw_data`

virtual_address

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Virtual_Address`
Dictionary key name: `virtual_address`

virtual_size

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Virtual_Size`
Dictionary key name: `virtual_size`

class `cybox.objects.win_executable_file_object.`**`PESectionList`**(**args*)
Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_executable_file_object.PESectionListType`

section

(List of values permitted)
Type: *cybox.objects.win_executable_file_object.PESection*
XML Binding class name: `Section`
Dictionary key name: `section`

class `cybox.objects.win_executable_file_object.`**PEVersionInfoResource**
Bases: *cybox.objects.win_executable_file_object.PEResource*

XML binding class:
`cybox.bindings.win_executable_file_object.PEVersionInfoResourceType`

comments

Type: *cybox.common.properties.String*
XML Binding class name: `Comments`
Dictionary key name: `comments`

companyname

Type: *cybox.common.properties.String*
XML Binding class name: `CompanyName`
Dictionary key name: `companyname`

filedescription

Type: *cybox.common.properties.String*
XML Binding class name: `FileDescription`
Dictionary key name: `filedescription`

fileversion

Type: *cybox.common.properties.String*
XML Binding class name: `FileVersion`
Dictionary key name: `fileversion`

internalname

Type: *cybox.common.properties.String*
XML Binding class name: `InternalName`
Dictionary key name: `internalname`

langid

Type: *cybox.common.properties.String*

XML Binding class name: `LangID`
Dictionary key name: `langid`

legalcopyright

Type: *cybox.common.properties.String*
XML Binding class name: `LegalCopyright`
Dictionary key name: `legalcopyright`

legaltrademarks

Type: *cybox.common.properties.String*
XML Binding class name: `LegalTrademarks`
Dictionary key name: `legaltrademarks`

originalfilename

Type: *cybox.common.properties.String*
XML Binding class name: `OriginalFilename`
Dictionary key name: `originalfilename`

privatebuild

Type: *cybox.common.properties.String*
XML Binding class name: `PrivateBuild`
Dictionary key name: `privatebuild`

productname

Type: *cybox.common.properties.String*
XML Binding class name: `ProductName`
Dictionary key name: `productname`

productversion

Type: *cybox.common.properties.String*
XML Binding class name: `ProductVersion`
Dictionary key name: `productversion`

specialbuild

Type: *cybox.common.properties.String*
XML Binding class name: `SpecialBuild`
Dictionary key name: `specialbuild`

class `cybox.objects.win_executable_file_object.`**WinExecutableFile**
Bases: *cybox.objects.win_file_object.WinFile*

XML binding class:
`cybox.bindings.win_executable_file_object.WindowsExecutableFileObjectType`

build_information

Type: *cybox.objects.win_executable_file_object.PEBuildInformation*
XML Binding class name: `Build_Information`
Dictionary key name: `build_information`

digital_signature

Type: *cybox.common.digitalsignature.DigitalSignature*
XML Binding class name: `Digital_Signature`
Dictionary key name: `digital_signature`

exports

Type: *cybox.objects.win_executable_file_object.PEExports*
XML Binding class name: `Exports`
Dictionary key name: `exports`

extraneous_bytes

Type: *cybox.common.properties.Integer*
XML Binding class name: `Extraneous_Bytes`
Dictionary key name: `extraneous_bytes`

headers

Type: *cybox.objects.win_executable_file_object.PEHeaders*
XML Binding class name: `Headers`
Dictionary key name: `headers`

imports

Type: *cybox.objects.win_executable_file_object.PEImportList*
XML Binding class name: `Imports`
Dictionary key name: `imports`

pe_checksum

Type: *cybox.objects.win_executable_file_object.PEChecksum*
XML Binding class name: `PE_Checksum`
Dictionary key name: `pe_checksum`

resources

Type: *cybox.objects.win_executable_file_object.PEResourceList*
XML Binding class name: `Resources`
Dictionary key name: `resources`

sections

Type: *cybox.objects.win_executable_file_object.PESectionList*

XML Binding class name: Sections
Dictionary key name: sections

type_

Type: *cybox.common.properties.String*
XML Binding class name: Type
Dictionary key name: type

Version: 2.1.0.21

cybox.objects.win_file_object module

class cybox.objects.win_file_object.**Stream**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_file_object.StreamObjectType

hashes

(List of values permitted)
Type: *cybox.common.hashes.Hash*
XML Binding class name: Hash
Dictionary key name: hashes

name

Type: *cybox.common.properties.String*
XML Binding class name: Name
Dictionary key name: name

size_in_bytes

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: Size_In_Bytes
Dictionary key name: size_in_bytes

class cybox.objects.win_file_object.**StreamList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.win_file_object.StreamListType

stream

(List of values permitted)
Type: *cybox.objects.win_file_object.Stream*
XML Binding class name: Stream
Dictionary key name: stream

class cybox.objects.win_file_object.**WinFile**
Bases: *cybox.objects.file_object.File*

XML binding class: cybox.bindings.win_file_object.WindowsFileObjectType

drive

Type: *cybox.common.properties.String*
XML Binding class name: Drive
Dictionary key name: drive

file_attributes_list

Type: *cybox.objects.win_file_object.WindowsFileAttributes*
XML Binding class name: File_Attributes_List
Dictionary key name: file_attributes_list

filename_accessed_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: Filename_Accessed_Time
Dictionary key name: filename_accessed_time

filename_created_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: Filename_Created_Time
Dictionary key name: filename_created_time

filename_modified_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: Filename_Modified_Time
Dictionary key name: filename_modified_time

permissions

Type: *cybox.objects.win_file_object.WindowsFilePermissions*
XML Binding class name: Permissions
Dictionary key name: permissions

security_id

Type: *cybox.common.properties.String*
XML Binding class name: Security_ID
Dictionary key name: security_id

security_type

Type: *cybox.common.properties.String*
XML Binding class name: `Security_Type`
Dictionary key name: `security_type`

stream_list

Type: *cybox.objects.win_file_object.StreamList*
XML Binding class name: `Stream_List`
Dictionary key name: `stream_list`

class `cybox.objects.win_file_object.`**`WindowsFileAttribute`**(*value=None*)
Bases: *cybox.common.properties.String*

XML binding class: `cybox.bindings.win_file_object.WindowsFileAttributeType`

class `cybox.objects.win_file_object.`**`WindowsFileAttributes`**(**args*)
Bases: *cybox.objects.file_object.FileAttribute*, `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_file_object.WindowsFileAttributesType`

attribute

(List of values permitted)
Type: *cybox.objects.win_file_object.WindowsFileAttribute*
XML Binding class name: `Attribute`
Dictionary key name: `attribute`

class `cybox.objects.win_file_object.`**`WindowsFilePermissions`**
Bases: *cybox.objects.file_object.FilePermissions*

XML binding class: `cybox.bindings.win_file_object.WindowsFilePermissionsType`

full_control

XML Binding class name: `Full_Control`
Dictionary key name: `full_control`

modify

XML Binding class name: `Modify`
Dictionary key name: `modify`

read

XML Binding class name: `Read`
Dictionary key name: `read`

read_and_execute

XML Binding class name: `Read_And_Execute`
Dictionary key name: `read_and_execute`

write

XML Binding class name: `Write`
Dictionary key name: `write`

Version: 2.1.0.21

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`

Version: 2.1.0.21

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

Version: 2.1.0.21

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`

Version: 2.1.0.21

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

Version: 2.1.0.21

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`

Version: 2.1.0.21

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`

Version: 2.1.0.21

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: 2.1.0.21

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: 2.1.0.21

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: 2.1.0.21

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: 2.1.0.21

cybox.objects.win_pipe_object module

class `cybox.objects.win_pipe_object.`**WinPipe**
Bases: *cybox.objects.pipe_object.Pipe*

XML binding class: `cybox.bindings.win_pipe_object.WindowsPipeObjectType`

default_time_out

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Default_Time_Out`
Dictionary key name: `default_time_out`

handle

Type: *cybox.objects.win_handle_object.WinHandle*
XML Binding class name: `Handle`
Dictionary key name: `handle`

in_buffer_size

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `In_Buffer_Size`
Dictionary key name: `in_buffer_size`

max_instances

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Max_Instances`
Dictionary key name: `max_instances`

open_mode

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Open_Mode`
Dictionary key name: `open_mode`

out_buffer_size

Type: *cybox.common.properties.NonNegativeInteger*
XML Binding class name: `Out_Buffer_Size`
Dictionary key name: `out_buffer_size`

pipe_mode

Type: *cybox.common.properties.HexBinary*
XML Binding class name: `Pipe_Mode`
Dictionary key name: `pipe_mode`

security_attributes

Type: *cybox.common.properties.String*
XML Binding class name: `Security_Attributes`
Dictionary key name: `security_attributes`

Version: 2.1.0.21

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: 2.1.0.21

cybox.objects.win_process_object module

class cybox.objects.win_process_object.**MemorySectionList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.win_process_object.MemorySectionListType

memory_section

(List of values permitted)
Type: *cybox.objects.memory_object.Memory*
XML Binding class name: `Memory_Section`
Dictionary key name: `memory_section`

class cybox.objects.win_process_object.**StartupInfo**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_process_object.StartupInfoType

dwfillattribute

Type: *cybox.common.properties.Integer*
XML Binding class name: `dwFillAttribute`
Dictionary key name: `dwfillattribute`

dwflags

Type: *cybox.common.properties.Integer*
XML Binding class name: `dwFlags`
Dictionary key name: `dwflags`

dwx

Type: *cybox.common.properties.Integer*
XML Binding class name: `dwX`
Dictionary key name: `dwx`

dwxcountchars

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `dwXCountChars`
Dictionary key name: `dwxcountchars`

dwxsize

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `dwXSize`
Dictionary key name: `dwxsize`

dwy

Type: *cybox.common.properties.Integer*
XML Binding class name: `dwY`
Dictionary key name: `dwy`

dwycountchars

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `dwYCountChars`
Dictionary key name: `dwycountchars`

dwysize

Type: *cybox.common.properties.PositiveInteger*
XML Binding class name: `dwYSize`
Dictionary key name: `dwysize`

hstderror

Type: *cybox.objects.win_handle_object.WinHandle*
XML Binding class name: `hStdError`
Dictionary key name: `hstderror`

hstdinput

Type: *cybox.objects.win_handle_object.WinHandle*
XML Binding class name: `hStdInput`
Dictionary key name: `hstdinput`

hstdoutput

Type: *cybox.objects.win_handle_object.WinHandle*

XML Binding class name: hStdOutput
Dictionary key name: hstdoutput

lpdesktop

Type: *cybox.common.properties.String*
XML Binding class name: lpDesktop
Dictionary key name: lpdesktop

lptitle

Type: *cybox.common.properties.String*
XML Binding class name: lpTitle
Dictionary key name: lptitle

wshowwindow

Type: *cybox.common.properties.Integer*
XML Binding class name: wShowWindow
Dictionary key name: wshowwindow

class cybox.objects.win_process_object.**WinProcess**
Bases: *cybox.objects.process_object.Process*

XML binding class: cybox.bindings.win_process_object.WindowsProcessObjectType

aslr_enabled

XML Binding class name: aslr_enabled
Dictionary key name: aslr_enabled

dep_enabled

XML Binding class name: dep_enabled
Dictionary key name: dep_enabled

handle_list

Type: *cybox.objects.win_handle_object.WinHandleList*
XML Binding class name: Handle_List
Dictionary key name: handle_list

priority

Type: *cybox.common.properties.String*
XML Binding class name: Priority
Dictionary key name: priority

section_list

Type: *cybox.objects.win_process_object.MemorySectionList*
XML Binding class name: `Section_List`
Dictionary key name: `section_list`

security_id

Type: *cybox.common.properties.String*
XML Binding class name: `Security_ID`
Dictionary key name: `security_id`

security_type

Type: *cybox.common.properties.String*
XML Binding class name: `Security_Type`
Dictionary key name: `security_type`

startup_info

Type: *cybox.objects.win_process_object.StartupInfo*
XML Binding class name: `Startup_Info`
Dictionary key name: `startup_info`

thread

(List of values permitted)
Type: *cybox.objects.win_thread_object.WinThread*
XML Binding class name: `Thread`
Dictionary key name: `thread`

window_title

Type: *cybox.common.properties.String*
XML Binding class name: `Window_Title`
Dictionary key name: `window_title`

Version: 2.1.0.21

cybox.objects.win_registry_key_object module

class cybox.objects.win_registry_key_object.**RegistrySubkeys**(**args*)

Bases: `mixbox.entities.EntityList`

XML binding class: `cybox.bindings.win_registry_key_object.RegistrySubkeysType`

subkey

(List of values permitted)
Type: *cybox.objects.win_registry_key_object.WinRegistryKey*
XML Binding class name: `Subkey`
Dictionary key name: `subkey`

class cybox.objects.win_registry_key_object.**RegistryValue**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_registry_key_object.RegistryValueType

byte_runs

Type: *cybox.common.byterun.ByteRuns*
XML Binding class name: Byte_Runs
Dictionary key name: byte_runs

data

Type: *cybox.common.properties.String*
XML Binding class name: Data
Dictionary key name: data

datatype

Type: *cybox.common.properties.String*
XML Binding class name: Datatype
Dictionary key name: datatype

name

Type: *cybox.common.properties.String*
XML Binding class name: Name
Dictionary key name: name

class cybox.objects.win_registry_key_object.**RegistryValues**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.win_registry_key_object.RegistryValuesType

value

(List of values permitted)
Type: *cybox.objects.win_registry_key_object.RegistryValue*
XML Binding class name: Value
Dictionary key name: value

class cybox.objects.win_registry_key_object.**WinRegistryKey**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class:
cybox.bindings.win_registry_key_object.WindowsRegistryKeyObjectType

byte_runs

Type: *cybox.common.byterun.ByteRuns*
XML Binding class name: `Byte_Runs`
Dictionary key name: `byte_runs`

creator_username

Type: *cybox.common.properties.String*
XML Binding class name: `Creator_Username`
Dictionary key name: `creator_username`

handle_list

Type: *cybox.objects.win_handle_object.WinHandleList*
XML Binding class name: `Handle_List`
Dictionary key name: `handle_list`

hive

Type: *cybox.common.properties.String*
XML Binding class name: `Hive`
Dictionary key name: `hive`

key

Type: *cybox.common.properties.String*
XML Binding class name: `Key`
Dictionary key name: `key`

modified_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Modified_Time`
Dictionary key name: `modified_time`

number_subkeys

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `Number_Subkeys`
Dictionary key name: `number_subkeys`

number_values

Type: *cybox.common.properties.UnsignedInteger*
XML Binding class name: `Number_Values`
Dictionary key name: `number_values`

subkeys

Type: *cybox.objects.win_registry_key_object.RegistrySubkeys*

XML Binding class name: Subkeys
Dictionary key name: subkeys

values

Type: *cybox.objects.win_registry_key_object.RegistryValues*
XML Binding class name: Values
Dictionary key name: values

Version: 2.1.0.21

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: 2.1.0.21

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: 2.1.0.21

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: 2.1.0.21

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`

Version: 2.1.0.21

cybox.objects.win_task_object module

class cybox.objects.win_task_object.**IComHandlerAction**

Bases: `mixbox.entities.Entity`

XML binding class: cybox.bindings.win_task_object.IComHandlerActionType

com_class_id

Type: *cybox.common.properties.String*
XML Binding class name: COM_Class_ID
Dictionary key name: com_class_id

com_data

Type: *cybox.common.properties.String*
XML Binding class name: COM_Data
Dictionary key name: com_data

class cybox.objects.win_task_object.**IExecAction**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_task_object.IExecActionType

exec_arguments

Type: *cybox.common.properties.String*
XML Binding class name: Exec_Arguments
Dictionary key name: exec_arguments

exec_program_hashes

Type: *cybox.common.hashes.HashList*
XML Binding class name: Exec_Program_Hashes
Dictionary key name: exec_program_hashes

exec_program_path

Type: *cybox.common.properties.String*
XML Binding class name: Exec_Program_Path
Dictionary key name: exec_program_path

exec_working_directory

Type: *cybox.common.properties.String*
XML Binding class name: Exec_Working_Directory
Dictionary key name: exec_working_directory

class cybox.objects.win_task_object.**IShowMessageAction**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_task_object.IShowMessageActionType

show_message_body

Type: *cybox.common.properties.String*
XML Binding class name: Show_Message_Body
Dictionary key name: show_message_body

show_message_title

Type: *cybox.common.properties.String*
XML Binding class name: Show_Message_Title
Dictionary key name: show_message_title

class cybox.objects.win_task_object.**TaskAction**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_task_object.TaskActionType

action_id

Type: *cybox.common.properties.String*
XML Binding class name: Action_ID
Dictionary key name: action_id

action_type

Type: *cybox.common.properties.String*
XML Binding class name: Action_Type
Dictionary key name: action_type

icomhandleraction

Type: *cybox.objects.win_task_object.IComHandlerAction*
XML Binding class name: IComHandlerAction
Dictionary key name: icomhandleraction

iemailaction

Type: *cybox.objects.email_message_object.EmailMessage*
XML Binding class name: IEmailAction
Dictionary key name: iemailaction

iexecaction

Type: *cybox.objects.win_task_object.IExecAction*
XML Binding class name: IExecAction
Dictionary key name: iexecaction

ishowmessageaction

Type: *cybox.objects.win_task_object.IShowMessageAction*
XML Binding class name: IShowMessageAction
Dictionary key name: ishowmessageaction

class cybox.objects.win_task_object.**TaskActionList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.win_task_object.TaskActionListType

action

(List of values permitted)
Type: *cybox.objects.win_task_object.TaskAction*
XML Binding class name: Action
Dictionary key name: action

class cybox.objects.win_task_object.**Trigger**
Bases: mixbox.entities.Entity

XML binding class: cybox.bindings.win_task_object.TriggerType

trigger_begin

Type: *cybox.common.properties.DateTime*
XML Binding class name: Trigger_Begin
Dictionary key name: trigger_begin

trigger_delay

Type: *cybox.common.properties.Duration*
XML Binding class name: Trigger_Delay
Dictionary key name: trigger_delay

trigger_end

Type: *cybox.common.properties.DateTime*
XML Binding class name: Trigger_End
Dictionary key name: trigger_end

trigger_frequency

Type: *cybox.common.properties.String*
XML Binding class name: Trigger_Frequency
Dictionary key name: trigger_frequency

trigger_max_run_time

Type: *cybox.common.properties.Duration*

XML Binding class name: Trigger_Max_Run_Time
Dictionary key name: trigger_max_run_time

trigger_session_change_type

Type: *cybox.common.properties.String*
XML Binding class name: Trigger_Session_Change_Type
Dictionary key name: trigger_session_change_type

trigger_type

Type: *cybox.common.properties.String*
XML Binding class name: Trigger_Type
Dictionary key name: trigger_type

class cybox.objects.win_task_object.**TriggerList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class: cybox.bindings.win_task_object.TriggerListType

trigger

(List of values permitted)
Type: *cybox.objects.win_task_object.Trigger*
XML Binding class name: Trigger
Dictionary key name: trigger

class cybox.objects.win_task_object.**WinTask**
Bases: *cybox.common.object_properties.ObjectProperties*

XML binding class: cybox.bindings.win_task_object.WindowsTaskObjectType

account_logon_type

Type: *cybox.common.properties.String*
XML Binding class name: Account_Logon_Type
Dictionary key name: account_logon_type

account_name

Type: *cybox.common.properties.String*
XML Binding class name: Account_Name
Dictionary key name: account_name

account_run_level

Type: *cybox.common.properties.String*
XML Binding class name: Account_Run_Level

Dictionary key name: `account_run_level`

action_list

Type: *cybox.objects.win_task_object.TaskActionList*
XML Binding class name: `Action_List`
Dictionary key name: `action_list`

application_name

Type: *cybox.common.properties.String*
XML Binding class name: `Application_Name`
Dictionary key name: `application_name`

comment

Type: *cybox.common.properties.String*
XML Binding class name: `Comment`
Dictionary key name: `comment`

creation_date

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Creation_Date`
Dictionary key name: `creation_date`

creator

Type: *cybox.common.properties.String*
XML Binding class name: `Creator`
Dictionary key name: `creator`

exit_code

Type: *cybox.common.properties.Long*
XML Binding class name: `Exit_Code`
Dictionary key name: `exit_code`

flags

Type: *cybox.common.properties.String*
XML Binding class name: `Flags`
Dictionary key name: `flags`

max_run_time

Type: *cybox.common.properties.UnsignedLong*
XML Binding class name: `Max_Run_Time`
Dictionary key name: `max_run_time`

most_recent_run_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Most_Recent_Run_Time`
Dictionary key name: `most_recent_run_time`

name

Type: *cybox.common.properties.String*
XML Binding class name: `Name`
Dictionary key name: `name`

next_run_time

Type: *cybox.common.properties.DateTime*
XML Binding class name: `Next_Run_Time`
Dictionary key name: `next_run_time`

parameters

Type: *cybox.common.properties.String*
XML Binding class name: `Parameters`
Dictionary key name: `parameters`

priority

Type: *cybox.common.properties.String*
XML Binding class name: `Priority`
Dictionary key name: `priority`

status

Type: *cybox.common.properties.String*
XML Binding class name: `Status`
Dictionary key name: `status`

trigger_list

Type: *cybox.objects.win_task_object.TriggerList*
XML Binding class name: `Trigger_List`
Dictionary key name: `trigger_list`

work_item_data

Type: *cybox.common.properties.Base64Binary*
XML Binding class name: `Work_Item_Data`
Dictionary key name: `work_item_data`

working_directory

Type: *cybox.common.properties.String*
XML Binding class name: `Working_Directory`
Dictionary key name: `working_directory`

Version: 2.1.0.21

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: 2.1.0.21

cybox.objects.win_user_account_object module

class cybox.objects.win_user_account_object.**WinGroup**

Bases: *cybox.objects.user_account_object.Group*

XML binding class: `cybox.bindings.win_user_account_object.WindowsGroupType`

name

Type: *cybox.common.properties.String*
XML Binding class name: `Name`
Dictionary key name: `name`

class cybox.objects.win_user_account_object.**WinGroupList**(**args*)

Bases: *cybox.objects.user_account_object.GroupList*

XML binding class: `cybox.bindings.user_account_object.GroupListType`

group

(List of values permitted)
Type: *cybox.objects.win_user_account_object.WinGroup*
XML Binding class name: `Group`

Dictionary key name: group

class cybox.objects.win_user_account_object.**WinPrivilege**
Bases: *cybox.objects.user_account_object.Privilege*

XML binding class: cybox.bindings.win_user_account_object.WindowsPrivilegeType

user_right

Type: *cybox.common.properties.String*
XML Binding class name: User_Right
Dictionary key name: user_right

class cybox.objects.win_user_account_object.**WinPrivilegeList**(**args*)
Bases: *cybox.objects.user_account_object.PrivilegeList*

XML binding class: cybox.bindings.user_account_object.PrivilegeListType

privilege

(List of values permitted)
Type: *cybox.objects.win_user_account_object.WinPrivilege*
XML Binding class name: Privilege
Dictionary key name: privilege

class cybox.objects.win_user_account_object.**WinUser**
Bases: *cybox.objects.user_account_object.UserAccount*

XML binding class:
cybox.bindings.win_user_account_object.WindowsUserAccountObjectType

group_list

Type: *cybox.objects.win_user_account_object.WinGroupList*
XML Binding class name: Group_List
Dictionary key name: group_list

privilege_list

Type: *cybox.objects.win_user_account_object.WinPrivilegeList*
XML Binding class name: Privilege_List
Dictionary key name: privilege_list

security_id

Type: *cybox.common.properties.String*

XML Binding class name: Security_ID
Dictionary key name: security_id

security_type

Type: *cybox.common.properties.String*
XML Binding class name: Security_Type
Dictionary key name: security_type

Version: 2.1.0.21

cybox.objects.win_volume_object module

class cybox.objects.win_volume_object.**WinVolume**
Bases: *cybox.objects.volume_object.Volume*

XML binding class: cybox.bindings.win_volume_object.WindowsVolumeObjectType

attributes_list

Type: *cybox.objects.win_volume_object.WindowsVolumeAttributesList*
XML Binding class name: Attributes_List
Dictionary key name: attributes_list

drive_letter

Type: *cybox.common.properties.String*
XML Binding class name: Drive_Letter
Dictionary key name: drive_letter

drive_type

Type: *cybox.objects.win_volume_object.WindowsDrive*
XML Binding class name: Drive_Type
Dictionary key name: drive_type

class cybox.objects.win_volume_object.**WindowsDrive**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

XML binding class: cybox.bindings.win_volume_object.WindowsDriveType

class cybox.objects.win_volume_object.**WindowsVolumeAttribute**(*value=None*)
Bases: *cybox.common.properties.BaseProperty*

XML binding class: cybox.bindings.win_volume_object.WindowsVolumeAttributeType

class cybox.objects.win_volume_object.**WindowsVolumeAttributesList**(**args*)
Bases: mixbox.entities.EntityList

XML binding class:
cybox.bindings.win_volume_object.WindowsVolumeAttributesListType

attribute

(List of values permitted)
Type: *cybox.objects.win_volume_object.WindowsVolumeAttribute*
XML Binding class name: Attribute
Dictionary key name: attribute

Version: 2.1.0.21

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: 2.1.0.21

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: Exception

cybox.objects.**get_class_for_object_type**(*object_type*)

3.1.4 Utility Classes and Functions

Version: 2.1.0.21

cybox.utils package

Submodules

Version: 2.1.0.21

cybox.utils.autoentity module
cybox.utils.autoentity.**make_class_ref**(*cls*)
cybox.utils.autoentity.**setup**(*app*)

Version: 2.1.0.21

cybox.utils.caches module

exception cybox.utils.caches.**CacheMiss**
Bases: Exception

Item was not found in a cache.

cybox.utils.caches.**cache_clear**()
Clear the global cache

cybox.utils.caches.**cache_count**()
Get the number of items in the global cache

cybox.utils.caches.**cache_get**(*id_*)
Retrieve a value from the global cache

cybox.utils.caches.**cache_put**(*value*, *id_=None*)
Save a value in the global cache

Version: 2.1.0.21

cybox.utils.nsparser module

Module contents

Common utility methods

cybox.utils.**denormalize_from_xml**(*value*, *delimiter*)

cybox.utils.**normalize_to_xml**(*value*, *delimiter*)

cybox.utils.**unwrap_cdata**(*value*)
Remove CDATA wrapping from *value* if present

cybox.utils.**wrap_cdata**(*value*)

3.1.5 CybOX Helper module

Version: 2.1.0.21

cybox.helper module

CybOX Common Indicator API

An api for creating observables for common indicators: ipv4 addresses, domain names, file hashes, and urls.

cybox.helper.**create_domain_name_observable**(*domain_name*)
Create a CybOX Observable representing a domain name.

cybox.helper.**create_email_address_observable**(*email_address*)
Create a CybOX Observable representing an IPv4 address

cybox.helper.**create_file_hash_observable**(*fn*, *hash_value*)
Create a CybOX Observable representing a file hash.

cybox.helper.**create_ipv4_list_observables**(*list_ipv4_addresses*)
Create a list of CybOX Observables, each representing an IPv4 address

cybox.helper.**create_ipv4_observable**(*ipv4_address*)
Create a CybOX Observable representing an IPv4 address

cybox.helper.**create_url_observable**(*url*)

Version: 2.1.0.21

3.2 API Coverage

The *python-cybox* APIs currently provide partial coverage of all CybOX-defined constructs. Development is ongoing toward the goal of providing full CybOX language support in the APIs. Until such time that full coverage is provided, an overview of which constructs are available in these APIs will be maintained below.

3.2.1 CybOX Features

CybOX Construct	API Coverage	Documentation
Composite Observable	Full	*cybox.core.observable.ObservableComposition*
Event	Full	*cybox.core.event.Event*
Object	Full	*cybox.core.object.Object*
Observables	Full	*cybox.core.observable.Observables*
Observable	Full	*cybox.core.observable.Observable*
Relationships	Full	*cybox.core.object.RelatedObject*

3.2.2 CybOX Objects

CybOX Construct	API Coverage	Documentation
Account Object	Full	*cybox.objects.account_object.Account*
Address Object	Full	*cybox.objects.address_object.Address*
API Object	Full	*cybox.objects.api_object.API*
Archive File Object	Full	*cybox.objects.archive_file_object.ArchiveFile*
ARP Cache Object	Full	*cybox.objects.arp_cache_object.ARPCache*
Artifact Object	Full	*cybox.objects.artifact_object.Artifact*
AS Object	Full	*cybox.objects.as_object.AutonomousSystem*
Code Object	Full	*cybox.objects.code_object.Code*
Custom Object	Full	*cybox.objects.custom_object.Custom*
Device Object	Full	*cybox.objects.device_object.Device*
Disk Object	Full	*cybox.objects.disk_object.Disk*
Disk Partition Object	Full	*cybox.objects.disk_partition_object.DiskPartition*
DNS Cache Object	Full	*cybox.objects.dns_cache_object.DNSCache*
DNS Query Object	Full	*cybox.objects.dns_query_object.DNSQuery*
DNS Record Object	Full	*cybox.objects.dns_record_object.DNSRecord*
Domain Name Object	Full	*cybox.objects.domain_name_object.DomainName*
Email Message Object	Full	*cybox.objects.email_message_object.EmailMessage*
File Object	Full	*cybox.objects.file_object.File*
GUI Dialogbox Object	Full	*cybox.objects.gui_dialogbox_object.GUIDialogbox*
GUI Object	Full	*cybox.objects.gui_object.GUI*
GUI Window Object	Full	*cybox.objects.gui_window_object.GUIWindow*
HTTP Session Object	Full	*cybox.objects.http_session_object.HTTPSession*
Hostname Object	Full	*cybox.objects.hostname_object.Hostname*
Image File Object	Full	*cybox.objects.image_file_object.ImageFile*
Library Object	Full	*cybox.objects.library_object.Library*
		Co

Table 3.1 – continued from previous page

CybOX Construct	API Coverage	Documentation
Link Object	Full	*cybox.objects.link_object.Link*
Linux Package Object	Full	*cybox.objects.linux_package_object.LinuxPackage*
Memory Object	Full	*cybox.objects.memory_object.Memory*
Mutex Object	Full	*cybox.objects.mutex_object.Mutex*
Network Connection Object	Full	*cybox.objects.network_connection_object.NetworkConne*
Network Flow Object	Full	*cybox.objects.network_flow_object.NetworkFlow*
Network Packet Object	Full	*cybox.objects.network_packet_object.NetworkPacket*
Network Route Entry Object	Full	*cybox.objects.network_route_entry_object.NetworkRout*
Network Route Object	Full	*cybox.objects.network_route_object.NetRoute*
Network Socket Object	Full	*cybox.objects.network_socket_object.NetworkSocket*
Network Subnet Object	Full	*cybox.objects.network_subnet_object.NetworkSubnet*
PDF File Object	Full	*cybox.objects.pdf_file_object.PDFFile*
Pipe Object	Full	*cybox.objects.pipe_object.Pipe*
Port Object	Full	*cybox.objects.port_object.Port*
Process Object	Full	*cybox.objects.process_object.Process*
Product Object	Full	*cybox.objects.product_object.Product*
Semaphore Object	Full	*cybox.objects.semaphore_object.Semaphore*
SMS Message Object	Full	*cybox.objects.sms_message_object.SMSMessage*
Socket Address Object	Full	*cybox.objects.socket_address_object.SocketAddress*
System Object	Full	*cybox.objects.system_object.System*
URI Object	Full	*cybox.objects.uri_object.URI*
URL History Object	Full	cybox.objects.url_history.URLHistory
Unix File Object	Full	*cybox.objects.unix_file_object.UnixFile*
Unix Network Route Entry Object	Full	*cybox.objects.unix_network_route_entry_object.UnixNe*
Unix Pipe Object	Full	*cybox.objects.unix_pipe_object.UnixPipe*
Unix Process Object	Full	*cybox.objects.unix_process_object.UnixProcess*
Unix User Account Object	Full	*cybox.objects.unix_user_account_object.UnixUserAccou*
Unix Volume Object	Full	*cybox.objects.unix_volume_object.UnixVolume*
User Account Object	Full	*cybox.objects.user_account_object.UserAccount*
User Session Object	Full	*cybox.objects.user_session_object.UserSession*
Volume Object	Full	*cybox.objects.volume_object.Volume*
Whois Object	Full	*cybox.objects.whois_object.WhoisEntry*
Win Computer Account Object	Full	*cybox.objects.win_computer_account_object.WinCompute*
Win Critical Section Object	Full	*cybox.objects.win_critical_section_object.WinCritica*
Win Driver Object	Full	*cybox.objects.win_driver_object.WinDriver*
Win Event Log Object	Full	*cybox.objects.win_event_log_object.WinEventLog*
Win Event Object	Full	*cybox.objects.win_event_object.WinEvent*
Win Executable File Object	Full	*cybox.objects.win_executable_file_object.WinExecutab*
Win File Object	Full	*cybox.objects.win_file_object.WinFile*
Win Filemapping Object	Full	*cybox.objects.win_filemapping_object.WinFilemapping*
Win Handle Object	Full	*cybox.objects.win_handle_object.WinHandle*
Win Hook Object	Full	*cybox.objects.win_hook_object.WinHook*
Win Kernel Hook Object	Full	*cybox.objects.win_kernel_hook_object.WinKernelHook*
Win Kernel Object	Full	*cybox.objects.win_kernel_object.WinKernel*
Win Mailslot Object	Full	*cybox.objects.win_mailslot_object.WinMailslot*
Win Memory Page Region Object	Full	*cybox.objects.win_memory_page_region_object.WinMemor*
Win Mutex Object	Full	*cybox.objects.win_mutex_object.WinMutex*
Win Network Route Entry Object	Full	*cybox.objects.win_network_route_entry_object.WinNetw*
Win Network Share Object	Full	*cybox.objects.win_network_share_object.WinNetworkSha*

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Table 3.1 – continued from previous page

CybOX Construct	API Coverage	Documentation
Win Pipe Object	Full	*cybox.objects.win_pipe_object.WinPipe*
Win Prefetch Object	Full	*cybox.objects.win_prefetch_object.WinPrefetch*
Win Process Object	Full	*cybox.objects.win_process_object.WinProcess*
Win Registry Key Object	Full	*cybox.objects.win_registry_key_object.WinRegistryKey*
Win Semaphore Object	Full	*cybox.objects.win_semaphore_object.WinSemaphore*
Win Service Object	Full	*cybox.objects.win_service_object.WinService*
Win System Object	Full	*cybox.objects.win_system_object.WinSystem*
Win System Restore Object	Full	*cybox.objects.win_system_restore_object.WinSystemRes*
Win Task Object	Full	*cybox.objects.win_task_object.WinTask*
Win Thread Object	Full	*cybox.objects.win_thread_object.WinThread*
Win User Account Object	Full	*cybox.objects.win_user_account_object.WinUser*
Win Volume Object	Full	*cybox.objects.win_volume_object.WinVolume*
Win Waitable Timer Object	Full	*cybox.objects.win_waitable_timer_object.WinWaitable*
X509 Certificate Object	Full	*cybox.objects.x509_certificate_object.X509Certificat*

3.2.3 CybOX Vocabularies

CybOX Construct	API Coverage	Documentation
ActionArgumentNameVocab-1.0	Full	*cybox.common.vocabs.ActionArgumentName*
ActionNameVocab-1.0	× None *(replaced by version 1.1)*	
ActionNameVocab-1.1	Full	*cybox.common.vocabs.ActionName*
ActionObjectAssociationTypeVocab-1.0	Full	`cybox.common.vocabs.AssociationType`
ActionRelationshipTypeVocab-1.0	× None	
ActionTypeVocab-1.0	Full	*cybox.common.vocabs.ActionType*
CharacterEncodingVocab-1.0	Full	*cybox.common.vocabs.CharacterEncoding*
EventTypeVocab-1.0	× None *(replaced by version 1.0.1)*	
EventTypeVocab-1.0.1	Full	*cybox.common.vocabs.EventType*
HashNameVocab-1.0	Full	*cybox.common.vocabs.HashName*
InformationSourceTypeVocab-1.0	Full	*cybox.common.vocabs.InformationSourceType*
ObjectRelationshipVocab-1.0	× None *(replaced by version 1.1)*	
ObjectRelationshipVocab-1.1	Full	*cybox.common.vocabs.ObjectRelationship*
ObjectStateVocab-1.0	Full	*cybox.common.vocabs.ObjectState*
ToolTypeVocab-1.0	× None *(replaced by version 1.1)*	
ToolTypeVocab-1.1	Full	*cybox.common.vocabs.ToolType*

CHAPTER 4

FAQ

- **My RAM consumption rises when processing a large amount of files.** This is a known behavior caused the caching mechanism built into the *cybox.core.object.Object* class. To prevent this issue from happening use the *cybox.utils.caches.cache_clear* method in your code/script to release the cached resources as appropriate. For example, it could be every time you parse or serialize a document.

CHAPTER 5

Indices and tables

- genindex
- modindex
- search

C

cybox.common, 17
cybox.common.attribute_groups, 17
cybox.common.build, 18
cybox.common.byterun, 20
cybox.common.cipher, 21
cybox.common.compensation_model, 21
cybox.common.compilers, 21
cybox.common.configuration_settings, 22
cybox.common.contributor, 23
cybox.common.data_segment, 24
cybox.common.daterange, 26
cybox.common.datetimewithprecision, 26
cybox.common.dependencies, 27
cybox.common.digitalsignature, 28
cybox.common.environment_variable, 29
cybox.common.errors, 29
cybox.common.execution_environment, 30
cybox.common.extracted_features, 31
cybox.common.extracted_string, 32
cybox.common.hashes, 34
cybox.common.internationalization_settings, 35
cybox.common.libraries, 35
cybox.common.location, 36
cybox.common.measuresource, 36
cybox.common.object_properties, 38
cybox.common.platform_specification, 39
cybox.common.structured_text, 42
cybox.common.time, 42
cybox.common.tools, 43
cybox.common.usage_context, 46
cybox.common.vocabs, 47
cybox.core, 49
cybox.core.action, 49
cybox.core.action_reference, 54
cybox.core.associated_object, 54
cybox.core.event, 54
cybox.core.frequency, 56
cybox.core.object, 56
cybox.core.observable, 59
cybox.core.pattern_fidelity, 62
cybox.core.pool, 63
cybox.helper, 326
cybox.objects, 325
cybox.objects.account_object, 65
cybox.objects.address_object, 67
cybox.objects.api_object, 68
cybox.objects.archive_file_object, 69
cybox.objects.arp_cache_object, 76
cybox.objects.artifact_object, 70
cybox.objects.as_object, 75
cybox.objects.code_object, 77
cybox.objects.custom_object, 79
cybox.objects.device_object, 80
cybox.objects.disk_object, 81
cybox.objects.disk_partition_object, 82
cybox.objects.dns_cache_object, 83
cybox.objects.dns_query_object, 84
cybox.objects.dns_record_object, 86
cybox.objects.domain_name_object, 87
cybox.objects.email_message_object, 88
cybox.objects.file_object, 93
cybox.objects.gui_dialogbox_object, 100
cybox.objects.gui_object, 100
cybox.objects.gui_window_object, 101
cybox.objects.hostname_object, 101
cybox.objects.http_session_object, 102
cybox.objects.image_file_object, 115
cybox.objects.library_object, 116
cybox.objects.link_object, 117
cybox.objects.linux_package_object, 117
cybox.objects.memory_object, 119
cybox.objects.mutex_object, 120
cybox.objects.network_connection_object, 120
cybox.objects.network_flow_object, 122
cybox.objects.network_packet_object, 148
cybox.objects.network_route_entry_object, 188
cybox.objects.network_route_object, 190

cybox.objects.network_socket_object, 192
cybox.objects.network_subnet_object, 195
cybox.objects.pdf_file_object, 196
cybox.objects.pipe_object, 209
cybox.objects.port_object, 209
cybox.objects.process_object, 210
cybox.objects.product_object, 214
cybox.objects.semaphore_object, 215
cybox.objects.sms_message_object, 216
cybox.objects.socket_address_object, 215
cybox.objects.system_object, 217
cybox.objects.unix_file_object, 223
cybox.objects.unix_network_route_entry_object, 225
cybox.objects.unix_pipe_object, 226
cybox.objects.unix_process_object, 226
cybox.objects.unix_user_account_object, 227
cybox.objects.unix_volume_object, 229
cybox.objects.uri_object, 230
cybox.objects.url_history_object, 230
cybox.objects.user_account_object, 232
cybox.objects.user_session_object, 234
cybox.objects.volume_object, 235
cybox.objects.whois_object, 237
cybox.objects.win_computer_account_object, 243
cybox.objects.win_critical_section_object, 245
cybox.objects.win_driver_object, 245
cybox.objects.win_event_log_object, 251
cybox.objects.win_event_object, 254
cybox.objects.win_executable_file_object, 254
cybox.objects.win_file_object, 277
cybox.objects.win_filemapping_object, 280
cybox.objects.win_handle_object, 281
cybox.objects.win_hook_object, 282
cybox.objects.win_kernel_hook_object, 285
cybox.objects.win_kernel_object, 283
cybox.objects.win_mailslot_object, 286
cybox.objects.win_memory_page_region_object, 287
cybox.objects.win_mutex_object, 289
cybox.objects.win_network_route_entry_object, 290
cybox.objects.win_network_share_object, 290
cybox.objects.win_pipe_object, 292
cybox.objects.win_prefetch_object, 293
cybox.objects.win_process_object, 295
cybox.objects.win_registry_key_object, 298
cybox.objects.win_semaphore_object, 303
cybox.objects.win_service_object, 301
cybox.objects.win_system_object, 303
cybox.objects.win_system_restore_object, 306
cybox.objects.win_task_object, 308
cybox.objects.win_thread_object, 315
cybox.objects.win_user_account_object, 316
cybox.objects.win_volume_object, 318
cybox.objects.win_waitable_timer_object, 319
cybox.objects.x509_certificate_object, 319
cybox.utils, 326
cybox.utils.autoentity, 325
cybox.utils.caches, 326
cybox.utils.nsparser, 326

A

aa_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 202
abbreviation (cybox.objects.win_system_object.GlobalFlag attribute), 304
accept (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 103
accept_charset (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 103
accept_datetime (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 103
accept_encoding (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 103
accept_language (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 103
accept_ranges (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 109
access_all (cybox.objects.win_network_share_object.WinNetworkShare attribute), 290
access_atrib (cybox.objects.win_network_share_object.WinNetworkShare attribute), 290
access_control_allow_origin (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 109
access_create (cybox.objects.win_network_share_object.WinNetworkShare attribute), 290
access_delete (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
access_exec (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
access_mask (cybox.objects.win_handle_object.WinHandle attribute), 281
access_perm (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
access_read (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
access_write (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
accessed_directory (cybox.objects.win_prefetch_object.AccessedDirectoryList attribute), 293
accessed_directory_list (cybox.objects.win_prefetch_object.WinPrefetch attribute), 294
accessed_file (cybox.objects.win_prefetch_object.AccessedFileList attribute), 293
accessed_file_list (cybox.objects.win_prefetch_object.WinPrefetch attribute), 294
accessed_time (cybox.objects.file_object.File attribute), 94
AccessedDirectoryList (class in cybox.objects.win_prefetch_object), 293
AccessedFileList (class in cybox.objects.win_prefetch_object), 293
Account (class in cybox.objects.account_object), 65
account_logon_type (cybox.objects.win_task_object.WinTask attribute), 312
account_name (cybox.objects.win_task_object.WinTask attribute), 312
account_run_level (cybox.objects.win_task_object.WinTask attribute), 312
ack (cybox.objects.network_packet_object.TCPFlags attribute), 184
ack_num (cybox.objects.network_packet_object.TCPHeader attribute), 185
acl_change_sid (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 306
acl_change_username (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 306
Action (class in cybox.core.action), 49
action (cybox.core.action.Actions attribute), 53
action (cybox.objects.win_task_object.TaskActionList attribute), 311
action_alias (cybox.core.action.ActionAliases attribute), 51
action_aliases (cybox.core.action.Action attribute), 50
action_argument (cybox.core.action.ActionArguments attribute), 52
action_arguments (cybox.core.action.Action attribute), 50

action_id (cybox.core.action_reference.ActionReference attribute), 54
action_id (cybox.objects.win_task_object.TaskAction attribute), 310
action_list (cybox.objects.win_task_object.WinTask attribute), 313
action_pool (cybox.core.pool.Pools attribute), 64
action_references (cybox.core.action.ActionRelationship attribute), 52
action_status (cybox.core.action.Action attribute), 50
action_type (cybox.objects.win_task_object.TaskAction attribute), 310
ActionAliases (class in cybox.core.action), 51
ActionArgument (class in cybox.core.action), 52
ActionArgumentName (class in cybox.common.vocabs), 47
ActionArguments (class in cybox.core.action), 52
ActionName (class in cybox.common.vocabs), 47
ActionObjectAssociationType (class in cybox.common.vocabs), 47
ActionPool (class in cybox.core.pool), 63
ActionReference (class in cybox.core.action_reference), 54
ActionRelationship (class in cybox.core.action), 52
ActionRelationships (class in cybox.core.action), 53
ActionRelationshipType (class in cybox.common.vocabs), 47
Actions (class in cybox.core.action), 53
actions (cybox.core.event.Event attribute), 54
actions (cybox.core.pool.ActionPool attribute), 63
ActionType (class in cybox.common.vocabs), 47
actual_available_allocation_units (cybox.objects.volume_object.Volume attribute), 235
actual_size (cybox.objects.win_filemapping_object.WinFileMapping attribute), 280
adapter (cybox.objects.system_object.NetworkInterface attribute), 219
add() (cybox.core.observable.ObservableComposition method), 61
add() (cybox.core.observable.Observables method), 61
add_external_class() (in module cybox.core.object), 59
add_hash() (cybox.objects.file_object.File method), 94
add_keyword() (cybox.core.observable.Observable method), 59
add_related() (cybox.common.object_properties.ObjectProperties method), 39
add_related() (cybox.core.object.Object method), 57
additional_records (cybox.objects.dns_query_object.DNSQuery attribute), 84
addr_config_flag (cybox.objects.network_packet_object.NDPrefixInfo attribute), 175
Address (class in cybox.objects.address_object), 67
address (cybox.common.extracted_string.ExtractedString attribute), 32
address (cybox.objects.api_object.API attribute), 69
address (cybox.objects.whois_object.WhoisContact attribute), 237
address (cybox.objects.whois_object.WhoisRegistrar attribute), 241
address (cybox.objects.win_critical_section_object.WinCriticalSection attribute), 245
address_class (cybox.objects.dns_record_object.DNSRecord attribute), 86
address_family (cybox.objects.network_socket_object.NetworkSocket attribute), 192
address_mask (cybox.objects.network_packet_object.ICMPv4AddressMask attribute), 153
address_mask (cybox.objects.network_packet_object.ICMPv4AddressMask attribute), 154
address_mask_reply (cybox.objects.network_packet_object.ICMPv4AddressMaskReply attribute), 153
address_mask_reply (cybox.objects.network_packet_object.ICMPv4InfoMessage attribute), 157
address_mask_request (cybox.objects.network_packet_object.ICMPv4AddressMaskReques attribute), 154
address_mask_request (cybox.objects.network_packet_object.ICMPv4InfoMessage attribute), 157
address_of_entry_point (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 266
address_unreachable (cybox.objects.network_packet_object.ICMPv6DestinationUnreacha attribute), 162
address_value (cybox.objects.address_object.Address attribute), 67
age (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 109
algorithm (cybox.objects.artifact_object.Encoding attribute), 72
allocation_base_address (cybox.objects.win_memory_page_region_object.WinMemoryPageR attribute), 287
allocation_protect (cybox.objects.win_memory_page_region_object.WinMe attribute), 287
answer_resource_records (cybox.objects.dns_query_object.DNSQuery attribute), 84
AnyURI (class in cybox.common.properties), 40
API (class in cybox.objects.api_object), 68
application_file_name (cybox.objects.win_prefetch_object.WinPrefetch attribute), 294
application_name (cybox.objects.win_task_object.WinTask

attribute), 313
architecture (cybox.objects.linux_package_object.LinuxPackage attribute), 117
architecture (cybox.objects.win_executable_file_object.DataDirectory attribute), 257
archive_format (cybox.objects.archive_file_object.ArchiveFile attribute), 69
archived_file (cybox.objects.archive_file_object.ArchiveFile attribute), 69
ArchiveFile (class in cybox.objects.archive_file_object), 69
ArchiveFileFormat (class in cybox.objects.archive_file_object), 70
argument (cybox.objects.process_object.ArgumentList attribute), 210
argument_list (cybox.objects.process_object.Process attribute), 211
argument_name (cybox.core.action.ActionArgument attribute), 52
argument_table_base (cybox.objects.win_kernel_object.SSDTEntry attribute), 284
argument_value (cybox.core.action.ActionArgument attribute), 52
ArgumentList (class in cybox.objects.process_object), 210
ARP (class in cybox.objects.network_packet_object), 148
arp_cache_entry (cybox.objects.arp_cache_object.ARPCache attribute), 76
arp_rarp (cybox.objects.network_packet_object.LogicalProtocol attribute), 173
ARPCache (class in cybox.objects.arp_cache_object), 76
ARPCacheEntry (class in cybox.objects.arp_cache_object), 76
ARPCacheEntryType (class in cybox.objects.arp_cache_object), 77
Artifact (class in cybox.objects.artifact_object), 70
AS (in module cybox.objects.as_object), 75
ascii85decode_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 202
asciihexdecode_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 202
aslr_enabled (cybox.objects.win_process_object.WinProcess attribute), 297
associated_object (cybox.core.action.AssociatedObjects attribute), 53
associated_objects (cybox.core.action.Action attribute), 50
AssociatedObject (class in cybox.core.associated_object), 54
AssociatedObjects (class in cybox.core.action), 53
association_type (cybox.core.associated_object.AssociatedObject attribute), 54
attached_device_name (cybox.objects.win_driver_object.DeviceObjectStruct attribute), 246
attached_device_object (cybox.objects.win_driver_object.DeviceObjectStruct attribute), 246
attached_to_device_name (cybox.objects.win_driver_object.DeviceObjectStruct attribute), 246
attached_to_device_object (cybox.objects.win_driver_object.DeviceObjectStruct attribute), 246
attached_to_driver_name (cybox.objects.win_driver_object.DeviceObjectStruct attribute), 246
attached_to_driver_object (cybox.objects.win_driver_object.DeviceObjectStruct attribute), 246
AttachmentReference (class in cybox.objects.email_message_object), 88
Attachments (class in cybox.objects.email_message_object), 88
attachments (cybox.objects.email_message_object.EmailMessage attribute), 91
attribute (cybox.objects.win_file_object.WindowsFileAttributes attribute), 279
attribute (cybox.objects.win_volume_object.WindowsVolumeAttributesList attribute), 319
attributes_list (cybox.objects.win_volume_object.WinVolume attribute), 318
Authentication (class in cybox.objects.account_object), 66
authentication (cybox.objects.account_object.Account attribute), 65
authentication_data (cybox.objects.account_object.Authentication attribute), 66
authentication_data (cybox.objects.network_packet_object.AuthenticationHeader attribute), 149
authentication_data (cybox.objects.network_packet_object.EncapsulatingSecurityPayload attribute), 150
authentication_header (cybox.objects.network_packet_object.IPv6ExtHeader attribute), 169
authentication_token_protection_mechanism (cybox.objects.account_object.Authentication attribute), 66
authentication_type (cybox.objects.account_object.Authentication attribute), 67
AuthenticationHeader (class in cy-

box.objects.network_packet_object), 149
author (cybox.objects.pdf_file_object.PDFDocumentInformationDictionary attribute), 197
authority_key_identifier (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 323
authority_resource_records (cybox.objects.dns_query_object.DNSQuery attribute), 84
authorization (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 104
AutonomousSystem (class in cybox.objects.as_object), 75
available_physical_memory (cybox.objects.system_object.System attribute), 221

B

backup_file_name (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 306
Base64Binary (class in cybox.common.properties), 40
Base64Encoding (class in cybox.objects.artifact_object), 71
base_address (cybox.objects.library_object.Library attribute), 116
base_of_code (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 267
base_of_data (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 267
base_relocation_table (cybox.objects.win_executable_file_object.DataDirectory attribute), 257
BaseProperty (class in cybox.common.properties), 40
basic_constraints (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 323
bcc (cybox.objects.email_message_object.EmailHeader attribute), 88
beyond_scope (cybox.objects.network_packet_object.ICMPv6Destination attribute), 162
bidirectional_flow_record (cybox.objects.network_flow_object.NetworkFlow attribute), 138
BidirectionalRecord (class in cybox.objects.network_flow_object), 122
bios_date (cybox.objects.system_object.BIOSInfo attribute), 217
bios_info (cybox.objects.system_object.System attribute), 221
bios_manufacturer (cybox.objects.system_object.BIOSInfo attribute), 217
bios_release_date (cybox.objects.system_object.BIOSInfo attribute), 217
bios_serial_number (cybox.objects.system_object.BIOSInfo attribute), 217
bios_version (cybox.objects.system_object.BIOSInfo attribute), 218
BIOSInfo (class in cybox.objects.system_object), 217
bitmask (cybox.objects.win_computer_account_object.KerberosDelegation attribute), 243
bitness (cybox.objects.system_object.OS attribute), 220
bits_per_character (cybox.objects.sms_message_object.SMSMessage attribute), 216
bits_per_pixel (cybox.objects.image_file_object.ImageFile attribute), 115
blob (cybox.objects.win_event_log_object.WinEventLog attribute), 251
block_type (cybox.objects.memory_object.Memory attribute), 119
block_type (cybox.objects.win_memory_page_region_object.WinMemoryP attribute), 288
body (cybox.objects.sms_message_object.SMSMessage attribute), 216
bound (cybox.objects.win_executable_file_object.PEImportedFunction attribute), 265
bound_import (cybox.objects.win_executable_file_object.DataDirectory attribute), 257
boundary (cybox.objects.email_message_object.EmailHeader attribute), 88
box_caption (cybox.objects.gui_dialogbox_object.GUIDialogbox attribute), 100
box_text (cybox.objects.gui_dialogbox_object.GUIDialogbox attribute), 100
browser_information (cybox.objects.url_history_object.URLHistory attribute), 230
build_configuration (cybox.common.build.BuildInformation attribute), 18
build_id (cybox.common.build.BuildInformation attribute), 18
build_information (cybox.common.tools.ToolConfiguration attribute), 43
build_information (cybox.objects.win_executable_file_object.WinExecutabl attribute), 276
build_label (cybox.common.build.BuildInformation attribute), 18
build_number (cybox.objects.system_object.OS attribute), 220
build_output_log (cybox.common.build.BuildInformation attribute), 18
build_project (cybox.common.build.BuildInformation attribute), 18
build_script (cybox.common.build.BuildInformation attribute), 18
build_utility (cybox.common.build.BuildInformation at-

tribute), 19
build_utility_name (cybox.common.build.BuildUtility attribute), 19
build_utility_platform_specification (cybox.common.build.BuildUtility attribute), 19
build_version (cybox.common.build.BuildInformation attribute), 19
BuildConfiguration (class in cybox.common.build), 18
BuildInformation (class in cybox.common.build), 18
BuildUtility (class in cybox.common.build), 19
by (cybox.objects.email_message_object.ReceivedLine attribute), 92
byte_count (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 130
byte_count (cybox.objects.network_flow_object.SiLKRecord attribute), 140
byte_length (cybox.objects.network_flow_object.IPFIXMessageHeader attribute), 124
byte_offset (cybox.objects.pdf_file_object.PDFXrefEntry attribute), 207
byte_order (cybox.common.byterun.ByteRun attribute), 20
byte_order (cybox.common.data_segment.DataSegment attribute), 24
byte_order (cybox.objects.artifact_object.RawArtifact attribute), 75
byte_run (cybox.common.byterun.ByteRuns attribute), 21
byte_run_data (cybox.common.byterun.ByteRun attribute), 20
byte_runs (cybox.objects.file_object.File attribute), 94
byte_runs (cybox.objects.win_registry_key_object.RegistryValue attribute), 299
byte_runs (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 299
byte_string_value (cybox.common.extracted_string.ExtractedString attribute), 33
ByteRun (class in cybox.common.byterun), 20
ByteRuns (class in cybox.common.byterun), 21
bytes_per_sector (cybox.objects.volume_object.Volume attribute), 235
Bz2Compression (class in cybox.objects.artifact_object), 72

C

cache_clear() (in module cybox.utils.caches), 326
cache_control (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 104
cache_control (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 109
cache_count() (in module cybox.utils.caches), 326
cache_get() (in module cybox.utils.caches), 326
cache_put() (in module cybox.utils.caches), 326
CacheMiss, 326
category (cybox.objects.address_object.Address attribute), 68
category (cybox.objects.linux_package_object.LinuxPackage attribute), 117
category (cybox.objects.win_event_log_object.WinEventLog attribute), 252
category_num (cybox.objects.win_event_log_object.WinEventLog attribute), 252
cc (cybox.objects.email_message_object.EmailHeader attribute), 88
ccittfaxdecode_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 202
certificate (cybox.objects.x509_certificate_object.X509Certificate attribute), 322
certificate_issuer (cybox.common.digitalsignature.DigitalSignature attribute), 28
certificate_policies (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 323
certificate_signature (cybox.objects.x509_certificate_object.X509Certificate attribute), 322
certificate_subject (cybox.common.digitalsignature.DigitalSignature attribute), 28
certificate_table (cybox.objects.win_executable_file_object.DataDirectory attribute), 257
change_event (cybox.objects.win_system_restore_object.WinSystemRestor attribute), 307
changelog_entry_flags (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 307
changelog_entry_sequence_number (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 307
changelog_entry_type (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 307
character_set (cybox.objects.artifact_object.Encoding attribute), 73
CharacterEncoding (class in cybox.common.vocabs), 47
characteristics (cybox.objects.win_executable_file_object.PEFileHeader attribute), 262
characteristics (cybox.objects.win_executable_file_object.PESectionHeader attribute), 272
checksum (cybox.objects.network_packet_object.EthernetHeader attribute), 151
checksum (cybox.objects.network_packet_object.IPv4Header attribute), 167
checksum (cybox.objects.network_packet_object.TCPHeader attribute), 185
checksum (cybox.objects.network_packet_object.UDPHeader attribute), 188

checksum (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 267
child_pid (cybox.objects.process_object.ChildPIDList attribute), 210
child_pid_list (cybox.objects.process_object.Process attribute), 211
ChildPIDList (class in cybox.objects.process_object), 210
Cipher (class in cybox.common.cipher), 21
class_ (cybox.common.measuresource.MeasureSource attribute), 36
class_ (cybox.objects.network_flow_object.SiLKSensorInfo attribute), 143
class_ (cybox.objects.network_packet_object.IPv4Option attribute), 168
clr_runtime_header (cybox.objects.win_executable_file_object.DataDirectory attribute), 257
Code (class in cybox.objects.code_object), 77
code_language (cybox.objects.code_object.Code attribute), 77
code_segment (cybox.objects.code_object.Code attribute), 77
code_segment_xor (cybox.objects.code_object.Code attribute), 77
code_snippet (cybox.common.extracted_features.CodeSnippets attribute), 31
code_snippets (cybox.common.extracted_features.ExtractedFeatures attribute), 31
CodeSegmentXOR (class in cybox.objects.code_object), 79
CodeSnippets (class in cybox.common.extracted_features), 31
com_class_id (cybox.objects.win_task_object.IComHandlerAction attribute), 309
com_data (cybox.objects.win_task_object.IComHandlerAction attribute), 309
comm_prohibited (cybox.objects.network_packet_object.ICMPv6DestinationUnreachable attribute), 162
command_line (cybox.common.execution_environment.ExecutionEnvironment attribute), 30
command_line (cybox.objects.process_object.ImageInfo attribute), 210
comment (cybox.objects.archive_file_object.ArchiveFile attribute), 70
comment (cybox.objects.win_task_object.WinTask attribute), 313
comments (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 274
communication_administratively_prohibited (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 154
companyname (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 274
comparison_model (cybox.common.tools.ToolInformation attribute), 44
CompensationModel (class in cybox.common.compensation_model), 21
compilation_date (cybox.common.build.BuildInformation attribute), 19
Compiler (class in cybox.common.compilers), 21
compiler (cybox.common.compilers.Compilers attribute), 22
compiler_informal_description (cybox.common.compilers.Compiler attribute), 21
compiler_name (cybox.common.compilers.CompilerInformalDescription attribute), 22
compiler_name (cybox.objects.win_executable_file_object.PEBuildInforma attribute), 259
compiler_platform_specification (cybox.common.compilers.Compiler attribute), 21
compiler_version (cybox.common.compilers.CompilerInformalDescription attribute), 22
compiler_version (cybox.objects.win_executable_file_object.PEBuildInforn attribute), 260
CompilerInformalDescription (class in cybox.common.compilers), 22
Compilers (class in cybox.common.compilers), 22
compilers (cybox.common.build.BuildInformation attribute), 19
Compression (class in cybox.objects.artifact_object), 72
compression (cybox.objects.artifact_object.Packaging attribute), 74
compression_algorithm (cybox.objects.image_file_object.ImageFile attribute), 115
compression_comment (cybox.objects.file_object.File attribute), 95
compression_mechanism (cybox.objects.artifact_object.Compression attribute), 72
compression_mechanism_ref (cybox.objects.artifact_object.Compression attribute), 72
compression_method (cybox.objects.file_object.File attribute), 95
compression_version (cybox.objects.file_object.File attribute), 95
computer_ref (cybox.objects.win_computer_account_object.KerberosService attribute), 244
configuration_setting (cybox.common.configuration_settings.ConfigurationSettings attribute), 23
configuration_setting_description (cybox.common.build.BuildConfiguration at-

tribute), 18
configuration_settings (cybox.common.build.BuildConfiguration attribute), 18
configuration_settings (cybox.common.tools.ToolConfiguration attribute), 43
ConfigurationSetting (class in cybox.common.configuration_settings), 22
ConfigurationSettings (class in cybox.common.configuration_settings), 23
connection (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 104
connection (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 109
contact (cybox.objects.whois_object.WhoisContacts attribute), 238
contact_id (cybox.objects.whois_object.WhoisContact attribute), 237
contact_info (cybox.objects.whois_object.WhoisEntry attribute), 238
contact_type (cybox.objects.whois_object.WhoisContact attribute), 237
contacts (cybox.objects.whois_object.WhoisRegistrar attribute), 241
content (cybox.common.internationalization_settings.InternalStrings attribute), 35
content_disposition (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 109
content_encoding (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 109
content_language (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 110
content_length (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 104
content_length (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 110
content_location (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 110
content_md5 (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 104
content_md5 (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 110
content_range (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 110
content_type (cybox.objects.artifact_object.Artifact attribute), 70
content_type (cybox.objects.email_message_object.EmailHeader attribute), 88
content_type (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 104
content_type (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 110
content_type_version (cybox.objects.artifact_object.Artifact attribute), 71
contents (cybox.objects.pdf_file_object.PDFIndirectObject attribute), 200
context (cybox.core.action.Action attribute), 50
context (cybox.objects.win_thread_object.WinThread attribute), 315
contribution_location (cybox.common.contributor.Contributor attribute), 23
Contributor (class in cybox.common.contributor), 23
contributor (cybox.common.contributor.Personnel attribute), 24
contributors (cybox.common.measuresource.MeasureSource attribute), 37
cookie (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 104
copy_flag (cybox.objects.network_packet_object.IPv4Option attribute), 169
correlation_activity_id (cybox.objects.win_event_log_object.WinEventLog attribute), 252
correlation_related_activity_id (cybox.objects.win_event_log_object.WinEventLog attribute), 252
count (cybox.objects.network_flow_object.NetflowV5FlowHeader attribute), 129
create_domain_name_observable() (in module cybox.helper), 326
create_email_address_observable() (in module cybox.helper), 326
create_file_observable() (in module cybox.helper), 326
create_file_observables() (in module cybox.helper), 326
create_ipv4_observable() (in module cybox.helper), 326
create_url_observable() (in module cybox.helper), 326
created (cybox.objects.disk_partition_object.DiskPartition attribute), 82
created (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 307
created_time (cybox.objects.file_object.File attribute), 95
creation_date (cybox.objects.account_object.Account attribute), 65
creation_date (cybox.objects.whois_object.WhoisEntry attribute), 238
creation_date (cybox.objects.win_task_object.WinTask attribute), 313
creation_flags (cybox.objects.win_thread_object.WinThread attribute), 315
creation_time (cybox.objects.network_connection_object.NetworkConnection attribute), 121
creation_time (cybox.objects.process_object.Process at-

tribute), 212
creation_time (cybox.objects.volume_object.Volume attribute), 235
creation_time (cybox.objects.win_thread_object.WinThread attribute), 315
creationdate (cybox.objects.pdf_file_object.PDFDocumentInformationDictionary attribute), 197
creator (cybox.objects.pdf_file_object.PDFDocumentInformationDictionary attribute), 197
creator (cybox.objects.win_task_object.WinTask attribute), 313
creator_username (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 300
crl_distribution_points (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 324
cross_reference_entries (cybox.objects.pdf_file_object.PDFXrefTableSubsection attribute), 208
cross_reference_entry (cybox.objects.pdf_file_object.PDFXrefEntryList attribute), 208
cross_reference_table (cybox.objects.pdf_file_object.PDFXRefTableList attribute), 207
cross_reference_tables (cybox.objects.pdf_file_object.PDFFile attribute), 198
cur_hop_limit (cybox.objects.network_packet_object.RouterAdvertisement attribute), 181
current_count (cybox.objects.semaphore_object.Semaphore attribute), 215
current_directory (cybox.objects.process_object.ImageInfo attribute), 210
current_status (cybox.objects.unix_process_object.UnixProcessStatus attribute), 227
current_uses (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
Custom (class in cybox.objects.custom_object), 79
custom_character_set_ref (cybox.objects.artifact_object.Encoding attribute), 73
custom_name (cybox.objects.custom_object.Custom attribute), 79
custom_properties (cybox.common.object_properties.ObjectProperties attribute), 39
CustomProperties (class in cybox.common.object_properties), 38
cwr (cybox.objects.network_packet_object.TCPFlags attribute), 184
cybox.common (module), 17
cybox.common.attribute_groups (module), 17
cybox.common.build (module), 18
cybox.common.byterun (module), 20
cybox.common.cipher (module), 21
cybox.common.compensation_model (module), 21
cybox.common.compilers (module), 21
cybox.common.configuration_settings (module), 22
cybox.common.contributor (module), 23
cybox.common.dictionary_segment (module), 24
cybox.common.daterange (module), 26
cybox.common.datetimewithprecision (module), 26
cybox.common.dependencies (module), 27
cybox.common.digitalsignature (module), 28
cybox.common.environment_variable (module), 29
cybox.common.errors (module), 29
cybox.common.execution_environment (module), 30
cybox.common.extracted_features (module), 31
cybox.common.extracted_string (module), 32
cybox.common.hashes (module), 34
cybox.common.internationalization_settings (module), 35
cybox.common.libraries (module), 35
cybox.common.location (module), 36
cybox.common.measuresource (module), 36
cybox.common.object_properties (module), 38
cybox.common.platform_specification (module), 39
cybox.common.structured_text (module), 42
cybox.common.time (module), 42
cybox.common.tools (module), 43
cybox.common.usage_context (module), 46
cybox.common.vocabs (module), 47
cybox.exceptions (module), 49
cybox.core.action (module), 49
cybox.core.action_reference (module), 54
cybox.core.associated_object (module), 54
cybox.core.event (module), 54
cybox.core.frequency (module), 56
cybox.core.object (module), 56
cybox.core.observable (module), 59
cybox.core.pattern_fidelity (module), 62
cybox.core.pool (module), 63
cybox.helper (module), 326
cybox.objects (module), 325
cybox.objects.account_object (module), 65
cybox.objects.address_object (module), 67
cybox.objects.api_object (module), 68
cybox.objects.archive_file_object (module), 69
cybox.objects.arp_cache_object (module), 76
cybox.objects.artifact_object (module), 70
cybox.objects.as_object (module), 75
cybox.objects.code_object (module), 77
cybox.objects.custom_object (module), 79
cybox.objects.device_object (module), 80
cybox.objects.disk_object (module), 81
cybox.objects.disk_partition_object (module), 82
cybox.objects.dns_cache_object (module), 83
cybox.objects.dns_query_object (module), 84

cybox.objects.dns_record_object (module), 86
cybox.objects.domain_name_object (module), 87
cybox.objects.email_message_object (module), 88
cybox.objects.file_object (module), 93
cybox.objects.gui_dialogbox_object (module), 100
cybox.objects.gui_object (module), 100
cybox.objects.gui_window_object (module), 101
cybox.objects.hostname_object (module), 101
cybox.objects.http_session_object (module), 102
cybox.objects.image_file_object (module), 115
cybox.objects.library_object (module), 116
cybox.objects.link_object (module), 117
cybox.objects.linux_package_object (module), 117
cybox.objects.memory_object (module), 119
cybox.objects.mutex_object (module), 120
cybox.objects.network_connection_object (module), 120
cybox.objects.network_flow_object (module), 122
cybox.objects.network_packet_object (module), 148
cybox.objects.network_route_entry_object (module), 188
cybox.objects.network_route_object (module), 190
cybox.objects.network_socket_object (module), 192
cybox.objects.network_subnet_object (module), 195
cybox.objects.pdf_file_object (module), 196
cybox.objects.pipe_object (module), 209
cybox.objects.port_object (module), 209
cybox.objects.process_object (module), 210
cybox.objects.product_object (module), 214
cybox.objects.semaphore_object (module), 215
cybox.objects.sms_message_object (module), 216
cybox.objects.socket_address_object (module), 215
cybox.objects.system_object (module), 217
cybox.objects.unix_file_object (module), 223
cybox.objects.unix_network_route_entry_object (module), 225
cybox.objects.unix_pipe_object (module), 226
cybox.objects.unix_process_object (module), 226
cybox.objects.unix_user_account_object (module), 227
cybox.objects.unix_volume_object (module), 229
cybox.objects.uri_object (module), 230
cybox.objects.url_history_object (module), 230
cybox.objects.user_account_object (module), 232
cybox.objects.user_session_object (module), 234
cybox.objects.volume_object (module), 235
cybox.objects.whois_object (module), 237
cybox.objects.win_computer_account_object (module), 243
cybox.objects.win_critical_section_object (module), 245
cybox.objects.win_driver_object (module), 245
cybox.objects.win_event_log_object (module), 251
cybox.objects.win_event_object (module), 254
cybox.objects.win_executable_file_object (module), 254
cybox.objects.win_file_object (module), 277
cybox.objects.win_filemapping_object (module), 280
cybox.objects.win_handle_object (module), 281
cybox.objects.win_hook_object (module), 282
cybox.objects.win_kernel_hook_object (module), 285
cybox.objects.win_kernel_object (module), 283
cybox.objects.win_mailslot_object (module), 286
cybox.objects.win_memory_page_region_object (module), 287
cybox.objects.win_mutex_object (module), 289
cybox.objects.win_network_route_entry_object (module), 290
cybox.objects.win_network_share_object (module), 290
cybox.objects.win_pipe_object (module), 292
cybox.objects.win_prefetch_object (module), 293
cybox.objects.win_process_object (module), 295
cybox.objects.win_registry_key_object (module), 298
cybox.objects.win_semaphore_object (module), 303
cybox.objects.win_service_object (module), 301
cybox.objects.win_system_object (module), 303
cybox.objects.win_system_restore_object (module), 306
cybox.objects.win_task_object (module), 308
cybox.objects.win_thread_object (module), 315
cybox.objects.win_user_account_object (module), 316
cybox.objects.win_volume_object (module), 318
cybox.objects.win_waitable_timer_object (module), 319
cybox.objects.x509_certificate_object (module), 319
cybox.utils (module), 326
cybox.utils.autoentity (module), 325
cybox.utils.caches (module), 326
cybox.utils.nsparser (module), 326
cybox_major_version (cybox.core.observable.Observables attribute), 61
cybox_minor_version (cybox.core.observable.Observables attribute), 61
cybox_update_version (cybox.core.observable.Observables attribute), 61

D

data (cybox.objects.network_packet_object.IPv4Packet attribute), 169
data (cybox.objects.network_packet_object.IPv6Packet attribute), 172
data (cybox.objects.network_packet_object.TCP attribute), 184
data (cybox.objects.network_packet_object.UDP attribute), 187
data (cybox.objects.win_executable_file_object.PEResource attribute), 270
data (cybox.objects.win_registry_key_object.RegistryValue attribute), 299
data_directory (cybox.objects.win_executable_file_object.PEOptionalHeade attribute), 267

data_flow_set (cybox.objects.network_flow_object.NetflowV9FlowSet attribute), 134
data_format (cybox.common.data_segment.DataSegment attribute), 24
data_hashes (cybox.objects.win_executable_file_object.PESection attribute), 272
data_length (cybox.objects.dns_record_object.DNSRecord attribute), 86
data_offset (cybox.objects.network_packet_object.TCPHeader attribute), 186
data_record (cybox.objects.network_flow_object.IPFIXDataSet attribute), 123
data_record (cybox.objects.network_flow_object.NetflowV9DataFlowSet attribute), 132
data_segment (cybox.common.data_segment.DataSegment attribute), 25
data_set (cybox.objects.network_flow_object.IPFIXSet attribute), 126
data_size (cybox.common.data_segment.DataSegment attribute), 25
DataDirectory (class in cybox.objects.win_executable_file_object), 257
DataSegment (class in cybox.common.data_segment), 24
DataSize (class in cybox.common.data_segment), 25
datatype (cybox.objects.win_registry_key_object.RegistryValue attribute), 299
Date (class in cybox.common.properties), 40
date (cybox.common.contributor.Contributor attribute), 23
date (cybox.objects.email_message_object.EmailHeader attribute), 89
date (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 104
date (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 110
date (cybox.objects.system_object.System attribute), 221
date_ran (cybox.objects.dns_query_object.DNSQuery attribute), 84
DateRange (class in cybox.common.daterange), 26
DateTime (class in cybox.common.properties), 40
DateTimeWithPrecision (class in cybox.common.datetimewithprecision), 26
DateWithPrecision (class in cybox.common.datetimewithprecision), 26
dctdecode_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 202
debug (cybox.objects.win_executable_file_object.DataDirectory attribute), 257
decoded_stream (cybox.objects.pdf_file_object.PDFStream attribute), 204
decoded_stream_hashes (cybox.objects.pdf_file_object.PDFStream attribute), 204
decryption_key (cybox.objects.archive_file_object.ArchiveFile attribute), 70
decryption_key (cybox.objects.file_object.File attribute), 95
default_time_out (cybox.objects.win_pipe_object.WinPipe attribute), 292
defined_effect (cybox.core.object.Object attribute), 57
delay_import_descriptor (cybox.objects.win_executable_file_object.DataDirectory attribute), 258
delay_load (cybox.objects.win_executable_file_object.PEImport attribute), 264
delegation (cybox.objects.win_computer_account_object.Kerberos attribute), 243
denormalize_from_xml() (in module cybox.utils), 326
dep_enabled (cybox.objects.win_process_object.WinProcess attribute), 297
Dependencies (class in cybox.common.dependencies), 27
dependencies (cybox.common.tools.ToolConfiguration attribute), 43
Dependency (class in cybox.common.dependencies), 27
dependency (cybox.common.dependencies.Dependencies attribute), 27
dependency_description (cybox.common.dependencies.Dependency attribute), 27
dependency_type (cybox.common.dependencies.Dependency attribute), 27
depth (cybox.objects.file_object.EPJumpCode attribute), 93
description (cybox.common.measuresource.MeasureSource attribute), 37
description (cybox.common.object_properties.Property attribute), 39
description (cybox.common.platform_specification.PlatformSpecification attribute), 40
description (cybox.common.tools.ToolInformation attribute), 44
description (cybox.core.action.Action attribute), 50
description (cybox.core.event.Event attribute), 54
description (cybox.core.object.Object attribute), 57
description (cybox.core.observable.Observable attribute), 59
description (cybox.core.pattern_fidelity.ObfuscationTechnique attribute), 62
description (cybox.objects.account_object.Account attribute), 66
description (cybox.objects.account_object.StructuredAuthenticationMechan attribute), 67
description (cybox.objects.api_object.API attribute), 69
description (cybox.objects.code_object.Code attribute), 77
description (cybox.objects.custom_object.Custom attribute), 79

description (cybox.objects.device_object.Device attribute), 80
description (cybox.objects.dns_record_object.DNSRecord attribute), 86
description (cybox.objects.linux_package_object.LinuxPackage attribute), 118
description (cybox.objects.network_route_object.NetRoute attribute), 190
description (cybox.objects.network_subnet_object.NetworkSubnet attribute), 196
description (cybox.objects.system_object.NetworkInterface attribute), 219
description (cybox.objects.win_service_object.ServiceDescriptionList attribute), 301
description_list (cybox.objects.win_service_object.WinService attribute), 301
dest_autonomous_system (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 130
dest_country_code (cybox.objects.network_flow_object.SiLKRecord attribute), 140
dest_ip_mask_bit_count (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 130
dest_ip_type (cybox.objects.network_flow_object.SiLKRecord attribute), 140
dest_ipv4_addr (cybox.objects.network_packet_object.IPv4Header attribute), 167
dest_ipv6_addr (cybox.objects.network_packet_object.IPv6Header attribute), 170
dest_ipv6_addr (cybox.objects.network_packet_object.Redirect attribute), 180
dest_mapname (cybox.objects.network_flow_object.SiLKRecord attribute), 141
dest_port (cybox.objects.network_packet_object.TCPHeader attribute), 186
dest_socket_address (cybox.objects.network_flow_object.NetworkLayerInfo attribute), 139
destination (cybox.objects.win_system_object.GlobalFlag attribute), 304
destination_address (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 188
destination_host_unknown (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 154
destination_host_unreachable (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 154
destination_mac_addr (cybox.objects.network_packet_object.EthernetHeader attribute), 151
destination_network_unknown (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 154
destination_network_unreachable (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 154
destination_options (cybox.objects.network_packet_object.IPv6ExtHeader attribute), 169
destination_port_unreachable (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 154
destination_protocol_unreachable (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 154
destination_socket_address (cybox.objects.network_connection_object.NetworkConnection attribute), 121
destination_tcp_state (cybox.objects.network_connection_object.NetworkConnection attribute), 121
destination_unreachable (cybox.objects.network_packet_object.ICMPv4ErrorMessage attribute), 156
destination_unreachable (cybox.objects.network_packet_object.ICMPv6ErrorMessage attribute), 163
DestinationOptions (class in cybox.objects.network_packet_object), 150
destport (cybox.objects.network_packet_object.UDPHeader attribute), 188
detected_entrypoint_signatures (cybox.objects.file_object.Packer attribute), 98
Device (class in cybox.objects.device_object), 80
device_details (cybox.objects.product_object.Product attribute), 214
device_name (cybox.objects.disk_partition_object.DiskPartition attribute), 82
device_name (cybox.objects.win_driver_object.DeviceObjectStruct attribute), 246
device_object (cybox.objects.win_driver_object.DeviceObjectStruct attribute), 247
device_object_list (cybox.objects.win_driver_object.WinDriver attribute), 247
device_object_struct (cybox.objects.win_driver_object.DeviceObjectList attribute), 246
device_path (cybox.objects.file_object.File attribute), 95
device_path (cybox.objects.volume_object.Volume attribute), 236
device_type (cybox.objects.device_object.Device attribute), 80
deviceitem (cybox.objects.win_prefetch_object.Volume

attribute), 293
DeviceObjectList (class in cybox.objects.win_driver_object), 245
DeviceObjectStruct (class in cybox.objects.win_driver_object), 246
dhcp_lease_expires (cybox.objects.system_object.NetworkInterface attribute), 219
dhcp_lease_obtained (cybox.objects.system_object.NetworkInterface attribute), 219
dhcp_server_address (cybox.objects.system_object.DHCPServerList attribute), 218
dhcp_server_list (cybox.objects.system_object.NetworkInterface attribute), 219
DHCPServerList (class in cybox.objects.system_object), 218
digital_signature (cybox.common.digitalsignature.DigitalSignature attribute), 28
digital_signature (cybox.objects.win_executable_file_object.WinExecutableFile attribute), 276
digital_signature_hooked (cybox.objects.win_kernel_hook_object.WinKernelHook attribute), 285
digital_signature_hooking (cybox.objects.win_kernel_hook_object.WinKernelHook attribute), 285
digital_signatures (cybox.objects.code_object.Code attribute), 78
digital_signatures (cybox.objects.file_object.File attribute), 95
DigitalSignature (class in cybox.common.digitalsignature), 28
DigitalSignatureList (class in cybox.common.digitalsignature), 28
disabled (cybox.objects.account_object.Account attribute), 66
discovery_method (cybox.core.action.Action attribute), 50
discovery_method (cybox.core.object.Object attribute), 57
discovery_method (cybox.objects.code_object.Code attribute), 78
Disk (class in cybox.objects.disk_object), 81
disk_name (cybox.objects.disk_object.Disk attribute), 81
disk_size (cybox.objects.disk_object.Disk attribute), 81
DiskPartition (class in cybox.objects.disk_partition_object), 82
DiskType (class in cybox.objects.disk_object), 81
display_name (cybox.objects.win_service_object.WinService attribute), 301
dll_characteristics (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 267
dns_cache_entry (cybox.objects.dns_cache_object.DNSCache attribute), 83
dns_entry (cybox.objects.dns_cache_object.DNSCacheEntry attribute), 83
dns_query (cybox.objects.network_connection_object.Layer7Connections attribute), 121
DNSCache (class in cybox.objects.dns_cache_object), 83
DNSCacheEntry (class in cybox.objects.dns_cache_object), 83
DNSQuery (class in cybox.objects.dns_query_object), 84
DNSQuestion (class in cybox.objects.dns_query_object), 85
DNSRecord (class in cybox.objects.dns_record_object), 86
DNSResourceRecords (class in cybox.objects.dns_query_object), 85
dnssec (cybox.objects.whois_object.WhoisEntry attribute), 238
dnt (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 104
do_not_fragment (cybox.objects.network_packet_object.IPv4Flags attribute), 166
do_not_recogn_action (cybox.objects.network_packet_object.IPv6Option attribute), 171
document_information_dictionary (cybox.objects.pdf_file_object.PDFFileMetadata attribute), 199
domain (cybox.objects.account_object.Account attribute), 66
domain (cybox.objects.network_socket_object.NetworkSocket attribute), 192
domain (cybox.objects.win_system_object.WinSystem attribute), 304
domain_id (cybox.objects.whois_object.WhoisEntry attribute), 238
domain_name (cybox.objects.dns_record_object.DNSRecord attribute), 86
domain_name (cybox.objects.http_session_object.HostField attribute), 114
domain_name (cybox.objects.whois_object.WhoisEntry attribute), 239
domain_specific_object_properties (cybox.core.object.Object attribute), 57
DomainName (class in cybox.objects.domain_name_object), 87
DomainSpecificObjectProperties (class in cybox.core.object), 56
dos_header (cybox.objects.win_executable_file_object.PEHeaders attribute), 264
DOSHeader (class in cybox.objects.win_executable_file_object), 254
Double (class in cybox.common.properties), 40

drive (cybox.objects.win_file_object.WinFile attribute), 278
drive_letter (cybox.objects.win_volume_object.WinVolume attribute), 318
drive_type (cybox.objects.win_volume_object.WinVolume attribute), 318
driver_init (cybox.objects.win_driver_object.WinDriver attribute), 247
driver_name (cybox.objects.win_driver_object.WinDriver attribute), 247
driver_object_address (cybox.objects.win_driver_object.WinDriver attribute), 247
driver_start_io (cybox.objects.win_driver_object.WinDriver attribute), 247
driver_unload (cybox.objects.win_driver_object.WinDriver attribute), 247
dscp (cybox.objects.network_packet_object.IPv4Header attribute), 167
Duration (class in cybox.common.properties), 41
duration (cybox.objects.network_flow_object.SiLKRecord attribute), 141
dwfillattribute (cybox.objects.win_process_object.StartupInfo attribute), 295
dwflags (cybox.objects.win_process_object.StartupInfo attribute), 295
dwx (cybox.objects.win_process_object.StartupInfo attribute), 295
dwxcountchars (cybox.objects.win_process_object.StartupInfo attribute), 296
dwxsize (cybox.objects.win_process_object.StartupInfo attribute), 296
dwy (cybox.objects.win_process_object.StartupInfo attribute), 296
dwycountchars (cybox.objects.win_process_object.StartupInfo attribute), 296
dwysize (cybox.objects.win_process_object.StartupInfo attribute), 296

E

e_cblp (cybox.objects.win_executable_file_object.DOSHeader attribute), 254
e_cp (cybox.objects.win_executable_file_object.DOSHeader attribute), 255
e_cparhdr (cybox.objects.win_executable_file_object.DOSHeader attribute), 255
e_crlc (cybox.objects.win_executable_file_object.DOSHeader attribute), 255
e_cs (cybox.objects.win_executable_file_object.DOSHeader attribute), 255
e_csum (cybox.objects.win_executable_file_object.DOSHeader attribute), 255
e_ip (cybox.objects.win_executable_file_object.DOSHeader attribute), 255
e_lfanew (cybox.objects.win_executable_file_object.DOSHeader attribute), 255
e_lfarlc (cybox.objects.win_executable_file_object.DOSHeader attribute), 255
e_magic (cybox.objects.win_executable_file_object.DOSHeader attribute), 255
e_maxalloc (cybox.objects.win_executable_file_object.DOSHeader attribute), 256
e_minalloc (cybox.objects.win_executable_file_object.DOSHeader attribute), 256
e_oemid (cybox.objects.win_executable_file_object.DOSHeader attribute), 256
e_oeminfo (cybox.objects.win_executable_file_object.DOSHeader attribute), 256
e_ovro (cybox.objects.win_executable_file_object.DOSHeader attribute), 256
e_sp (cybox.objects.win_executable_file_object.DOSHeader attribute), 256
e_ss (cybox.objects.win_executable_file_object.DOSHeader attribute), 256
ease_of_evasion (cybox.core.pattern_fidelity.PatternFidelity attribute), 63
ece (cybox.objects.network_packet_object.TCPFlags attribute), 185
echo_reply (cybox.objects.network_packet_object.ICMPv4InfoMessage attribute), 157
echo_reply (cybox.objects.network_packet_object.ICMPv6InfoMessage attribute), 164
echo_request (cybox.objects.network_packet_object.ICMPv4InfoMessage attribute), 157
echo_request (cybox.objects.network_packet_object.ICMPv6InfoMessage attribute), 164
ecn (cybox.objects.network_packet_object.IPv4Header attribute), 167
edition (cybox.objects.product_object.Product attribute), 214
effective_group (cybox.objects.user_session_object.UserSession attribute), 234
effective_group_id (cybox.objects.user_session_object.UserSession attribute), 234
effective_user (cybox.objects.user_session_object.UserSession attribute), 234
effective_user_id (cybox.objects.user_session_object.UserSession attribute), 234
egress_interface_index (cybox.objects.network_flow_object.NetworkFlowLabel attribute), 138
eid (cybox.objects.win_event_log_object.WinEventLog attribute), 252
email (cybox.common.contributor.Contributor attribute), 23
email_address (cybox.objects.whois_object.WhoisContact attribute), 237

email_address (cybox.objects.whois_object.WhoisRegistrar attribute), 241
email_server (cybox.objects.email_message_object.EmailMessage attribute), 91
EmailAddress (class in cybox.objects.address_object), 68
EmailHeader (class in cybox.objects.email_message_object), 88
EmailMessage (class in cybox.objects.email_message_object), 90
EmailRecipients (class in cybox.objects.email_message_object), 91
encapsulating_security_payload (cybox.objects.network_packet_object.IPv6ExtHeader attribute), 170
EncapsulatingSecurityPayload (class in cybox.objects.network_packet_object), 150
Encoding (class in cybox.objects.artifact_object), 72
encoding (cybox.common.extracted_string.ExtractedString attribute), 33
encoding (cybox.objects.artifact_object.Packaging attribute), 74
encoding (cybox.objects.sms_message_object.SMSMessage attribute), 216
encrypt (cybox.objects.pdf_file_object.PDFTrailer attribute), 205
encrypt_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 203
encrypted (cybox.objects.pdf_file_object.PDFFileMetadata attribute), 199
Encryption (class in cybox.objects.artifact_object), 73
encryption (cybox.objects.artifact_object.Packaging attribute), 74
encryption_algorithm (cybox.objects.archive_file_object.ArchiveFile attribute), 70
encryption_algorithm (cybox.objects.file_object.File attribute), 95
encryption_key (cybox.objects.artifact_object.Encryption attribute), 73
encryption_key_ref (cybox.objects.artifact_object.Encryption attribute), 73
encryption_mechanism (cybox.objects.artifact_object.Encryption attribute), 73
encryption_mechanism_ref (cybox.objects.artifact_object.Encryption attribute), 73
end_date (cybox.common.daterange.DateRange attribute), 26
end_time (cybox.common.time.Time attribute), 42
end_time (cybox.objects.network_flow_object.SiLKRecord attribute), 141
engine_id (cybox.objects.network_flow_object.NetflowV5FlowHeader attribute), 129
engine_type (cybox.objects.network_flow_object.NetflowV5FlowHeader attribute), 129
english_translation (cybox.common.extracted_string.ExtractedString attribute), 33
enterprise_bit (cybox.objects.network_flow_object.IPFIXTemplateRecordF attribute), 128
enterprise_number (cybox.objects.network_flow_object.IPFIXTemplateRecordFieldSpe attribute), 128
Entropy (class in cybox.objects.win_executable_file_object), 259
entropy (cybox.objects.win_executable_file_object.PEHeaders attribute), 264
entropy (cybox.objects.win_executable_file_object.PESection attribute), 272
entry_point (cybox.objects.file_object.Packer attribute), 98
entry_point (cybox.objects.win_executable_file_object.PEExportedFunctio attribute), 261
entry_point_signature (cybox.objects.file_object.EntryPointSignatureList attribute), 94
entry_type (cybox.objects.dns_record_object.DNSRecord attribute), 86
EntryPointSignature (class in cybox.objects.file_object), 94
EntryPointSignatureList (class in cybox.objects.file_object), 94
environment_variable (cybox.common.environment_variable.EnvironmentVariableList attribute), 29
environment_variable_list (cybox.objects.process_object.Process attribute), 212
environment_variable_list (cybox.objects.system_object.OS attribute), 221
EnvironmentVariable (class in cybox.common.environment_variable), 29
EnvironmentVariableList (class in cybox.common.environment_variable), 29
ep_jump_codes (cybox.objects.file_object.Packer attribute), 99
EPJumpCode (class in cybox.objects.file_object), 93
epoch (cybox.objects.linux_package_object.LinuxPackage attribute), 118
erroneous_header_field (cybox.objects.network_packet_object.ICMPv6ParameterProblem attribute), 165
Error (class in cybox.common.errors), 29
error (cybox.common.errors.Errors attribute), 30

error_count (cybox.common.errors.Error attribute), 29
error_instance (cybox.common.errors.ErrorInstances attribute), 30
error_instances (cybox.common.errors.Error attribute), 29
error_msg (cybox.objects.network_packet_object.ICMPv4Packet attribute), 158
error_msg (cybox.objects.network_packet_object.ICMPv6Packet attribute), 164
error_msg_content (cybox.objects.network_packet_object.ICMPv4ErrorMessage attribute), 156
error_type (cybox.common.errors.Error attribute), 30
ErrorInstances (class in cybox.common.errors), 30
Errors (class in cybox.common.errors), 30
errors (cybox.common.tools.ToolInformation attribute), 44
errors_to (cybox.objects.email_message_object.EmailHeader attribute), 89
etag (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 110
ethernet (cybox.objects.network_packet_object.PhysicalInterface attribute), 180
ethernet_header (cybox.objects.network_packet_object.EthernetInterface attribute), 152
EthernetHeader (class in cybox.objects.network_packet_object), 151
EthernetInterface (class in cybox.objects.network_packet_object), 151
evasion_techniques (cybox.core.pattern_fidelity.PatternFidelity attribute), 63
Event (class in cybox.core.event), 54
event (cybox.core.event.Event attribute), 55
event (cybox.core.observable.Observable attribute), 59
event_pool (cybox.core.pool.Pools attribute), 64
EventPool (class in cybox.core.pool), 64
events (cybox.core.pool.EventPool attribute), 64
EventType (class in cybox.common.vocabs), 48
evr (cybox.objects.linux_package_object.LinuxPackage attribute), 118
exception_table (cybox.objects.win_executable_file_object.DataDirectory attribute), 258
exec_arguments (cybox.objects.win_task_object.IExecAction attribute), 309
exec_program_hashes (cybox.objects.win_task_object.IExecAction attribute), 309
exec_program_path (cybox.objects.win_task_object.IExecAction attribute), 309
exec_working_directory (cybox.objects.win_task_object.IExecAction attribute), 309
execution_environment (cybox.common.tools.ToolInformation attribute), 44
execution_process_id (cybox.objects.win_event_log_object.WinEventLog attribute), 252
execution_thread_id (cybox.objects.win_event_log_object.WinEventLog attribute), 252
ExecutionEnvironment (class in cybox.common.execution_environment), 30
exit_code (cybox.objects.win_task_object.WinTask attribute), 313
expect (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 105
expiration_date (cybox.objects.whois_object.WhoisEntry attribute), 239
expiration_datetime (cybox.objects.url_history_object.URLHistoryEntry attribute), 230
expires (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 110
exponent (cybox.objects.x509_certificate_object.RSAPublicKey attribute), 319
export_table (cybox.objects.win_executable_file_object.DataDirectory attribute), 258
export_timestamp (cybox.objects.network_flow_object.IPFIXMessageHead attribute), 124
exported_function (cybox.objects.win_executable_file_object.PEExportedF attribute), 261
exported_functions (cybox.objects.win_executable_file_object.PEExports attribute), 262
exports (cybox.objects.win_executable_file_object.WinExecutableFile attribute), 276
exports_time_stamp (cybox.objects.win_executable_file_object.PEExports attribute), 262
ext_headers (cybox.objects.network_packet_object.IPv6Packet attribute), 172
extended_key_usage (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 324
extracted_features (cybox.objects.code_object.Code attribute), 78
extracted_features (cybox.objects.file_object.File attribute), 96
extracted_features (cybox.objects.library_object.Library attribute), 116
extracted_features (cybox.objects.memory_object.Memory attribute), 119
extracted_features (cybox.objects.process_object.Process attribute), 212
extracted_features (cybox.objects.win_memory_page_region_object.WinM

attribute), 288
extracted_string (cybox.common.extracted_string.ExtractedStrings attribute), 34
ExtractedFeatures (class in cybox.common.extracted_features), 31
ExtractedString (class in cybox.common.extracted_string), 32
ExtractedStrings (class in cybox.common.extracted_string), 33
extraneous_bytes (cybox.objects.win_executable_file_object.WinExecutableFile attribute), 276

F

fax_number (cybox.objects.whois_object.WhoisContact attribute), 237
field_count (cybox.objects.network_flow_object.IPFIXOptionsTemplateRecordHeader attribute), 125
field_count (cybox.objects.network_flow_object.IPFIXTemplateRecordHeader attribute), 128
field_count (cybox.objects.network_flow_object.NetflowV9TemplateRecord attribute), 137
field_length (cybox.objects.network_flow_object.IPFIXTemplateRecord.FieldSpecifiers attribute), 128
field_length (cybox.objects.network_flow_object.NetflowV9TemplateRecord attribute), 137
field_specifier (cybox.objects.network_flow_object.IPFIXOptionsTemplateRecord attribute), 125
field_specifier (cybox.objects.network_flow_object.IPFIXTemplateRecord attribute), 127
field_type (cybox.objects.network_flow_object.NetflowV9TemplateRecord attribute), 137
field_value (cybox.objects.network_flow_object.IPFIXDataRecord attribute), 123
File (class in cybox.objects.file_object), 94
file (cybox.objects.email_message_object.Attachments attribute), 88
file_alignment (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 267
file_attributes (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 307
file_attributes_list (cybox.objects.file_object.File attribute), 96
file_attributes_list (cybox.objects.win_file_object.WinFile attribute), 278
file_count (cybox.objects.archive_file_object.ArchiveFile attribute), 70
file_descriptor (cybox.objects.unix_process_object.FileDescriptorList attribute), 226
file_extension (cybox.objects.file_object.File attribute), 96
file_format (cybox.objects.file_object.File attribute), 96
file_handle (cybox.objects.win_filemapping_object.WinFilemapping attribute), 280
file_header (cybox.objects.win_executable_file_object.PEHeaders attribute), 264
file_name (cybox.objects.file_object.File attribute), 96
file_name (cybox.objects.process_object.ImageInfo attribute), 210
file_name (cybox.objects.win_executable_file_object.PEImport attribute), 264
file_path (cybox.objects.file_object.File attribute), 96
file_system_flag (cybox.objects.volume_object.FileSystemFlagList attribute), 235
file_system_flag_list (cybox.objects.volume_object.Volume attribute), 236
file_system_offset (cybox.common.byterun.ByteRun attribute), 20
file_system_type (cybox.objects.volume_object.Volume attribute), 236
FileAttribute (class in cybox.objects.file_object), 98
filedescription (cybox.objects.win_executable_file_object.PEVersionInfoRe attribute), 274
FileDescriptorList (class in cybox.objects.unix_process_object), 226
filename_accessed_time (cybox.objects.win_file_object.WinFile attribute), 278
filename_created_time (cybox.objects.win_file_object.WinFile attribute), 278
filename_modified_time (cybox.objects.win_file_object.WinFile attribute), 278
FilePath (class in cybox.objects.file_object), 98
FilePermissions (class in cybox.objects.file_object), 98
FileSystemFlagList (class in cybox.objects.volume_object), 235
fileversion (cybox.objects.win_executable_file_object.PEVersionInfoResour attribute), 274
fin (cybox.objects.network_packet_object.TCPFlags attribute), 185
firmware_version (cybox.objects.device_object.Device attribute), 80
first_eight_bytes (cybox.objects.network_packet_object.ICMPv4ErrorMess attribute), 157
first_object_number (cybox.objects.pdf_file_object.PDFXrefTableSubsection attribute), 208
first_packet_banner (cybox.objects.network_flow_object.YAFFlow attribute), 144
first_run (cybox.objects.win_prefetch_object.WinPrefetch attribute), 294
first_visit_datetime (cybox.objects.url_history_object.URLHistoryEntry attribute), 231

flags (cybox.objects.dns_record_object.DNSRecord attribute), 86
flags (cybox.objects.network_packet_object.IPv4Header attribute), 167
flags (cybox.objects.unix_network_route_entry_object.UnixNetworkRouteEntry attribute), 225
flags (cybox.objects.win_task_object.WinTask attribute), 313
flatedecode_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 203
Float (class in cybox.common.properties), 41
flow (cybox.objects.network_flow_object.YAFRecord attribute), 146
flow_application (cybox.objects.network_flow_object.SiLKRecord attribute), 141
flow_attributes (cybox.objects.network_flow_object.SiLKRecord attribute), 141
flow_data_record (cybox.objects.network_flow_object.NetflowV9DataRecord attribute), 133
flow_end_milliseconds (cybox.objects.network_flow_object.YAFFlow attribute), 144
flow_end_reason (cybox.objects.network_flow_object.YAFFlow attribute), 144
flow_header (cybox.objects.network_flow_object.NetflowV5Packet attribute), 132
flow_header (cybox.objects.network_flow_object.NetflowV9ExportPacket attribute), 133
flow_label (cybox.objects.network_packet_object.IPv6Header attribute), 170
flow_record (cybox.objects.network_flow_object.NetflowV5Packet attribute), 132
flow_record_collection_element (cybox.objects.network_flow_object.FlowDataRecord attribute), 123
flow_record_field_value (cybox.objects.network_flow_object.FlowCollectionElement attribute), 122
flow_sequence (cybox.objects.network_flow_object.NetflowV5Header attribute), 129
flow_set (cybox.objects.network_flow_object.NetflowV9ExportPacket attribute), 133
flow_set_id (cybox.objects.network_flow_object.NetflowV9OptionsTemplateFlowSet attribute), 134
flow_set_id (cybox.objects.network_flow_object.NetflowV9TemplateFlowSet attribute), 137
flow_set_id_template_id (cybox.objects.network_flow_object.NetflowV9DataFlowSet attribute), 132
flow_start_milliseconds (cybox.objects.network_flow_object.YAFFlow attribute), 144
FlowCollectionElement (class in cybox.objects.network_flow_object), 122
FlowDataRecord (class in cybox.objects.network_flow_object), 123
for_ (cybox.objects.email_message_object.ReceivedLine attribute), 92
fragment_reassem_time_exceeded (cybox.objects.network_packet_object.ICMPv4TimeExceeded attribute), 160
Fragment (class in cybox.objects.network_packet_object), 152
fragment (cybox.objects.network_packet_object.Fragment attribute), 152
fragment (cybox.objects.network_packet_object.IPv6ExtHeader attribute), 170
fragment_header (cybox.objects.network_packet_object.Fragment attribute), 152
fragment_offset (cybox.objects.network_packet_object.FragmentHeader attribute), 152
fragment_offset (cybox.objects.network_packet_object.IPv4Header attribute), 167
fragment_reassem_time_exceeded (cybox.objects.network_packet_object.ICMPv6TimeExceeded attribute), 166
fragmentation_required (cybox.objects.network_packet_object.FragmentationRequired attribute), 153
fragmentation_required (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 155
FragmentationRequired (class in cybox.objects.network_packet_object), 153
FragmentHeader (class in cybox.objects.network_packet_object), 152
free_space (cybox.objects.disk_object.Disk attribute), 81
Frequency (class in cybox.core.frequency), 56
frequency (cybox.core.action.Action attribute), 50
frequency (cybox.core.event.Event attribute), 55
From_ (cybox.objects.email_message_object.EmailHeader attribute), 89
from_ (cybox.objects.email_message_object.ReceivedLine attribute), 92
from_packet (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 105
from_obj() (cybox.core.object.RelatedObject class method), 58
from_obj() (cybox.objects.artifact_object.Artifact class method), 71
from_obj() (cybox.common.vocabs.VocabString class method), 48
from_obj() (cybox.core.object.RelatedObject class method), 58
from_obj() (cybox.objects.artifact_object.Artifact class method), 71
full_control (cybox.objects.win_file_object.WindowsFilePermissions attribute), 279

full_name (cybox.objects.user_account_object.UserAccount attribute), 233
full_name (cybox.objects.win_computer_account_object.FullyQualifiedName attribute), 243
full_path (cybox.objects.file_object.File attribute), 96
fully_qualified (cybox.objects.file_object.FilePath attribute), 98
fully_qualified_name (cybox.objects.win_computer_account_object.WinComputerAccount attribute), 244
FullyQualifiedName (class in cybox.objects.win_computer_account_object), 243
function (cybox.common.extracted_features.Functions attribute), 32
function_name (cybox.objects.api_object.API attribute), 69
function_name (cybox.objects.win_executable_file_object.PEExportedFunction attribute), 261
function_name (cybox.objects.win_executable_file_object.PEImportedFunction attribute), 265
Functions (class in cybox.common.extracted_features), 32
functions (cybox.common.extracted_features.ExtractedFeatures attribute), 31
fuzzy_hash_value (cybox.common.hashes.Hash attribute), 34

G

gateway_address (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 189
generation_number (cybox.objects.pdf_file_object.PDFIndirectObjectID attribute), 201
generation_number (cybox.objects.pdf_file_object.PDFXrefEntry attribute), 207
generation_time (cybox.objects.win_event_log_object.WinEventLog attribute), 252
get_class_for_object_type() (in module cybox.objects), 325
get_properties() (cybox.core.object.RelatedObject method), 58
gexec (cybox.objects.unix_file_object.UnixFilePermissions attribute), 224
global_flag (cybox.objects.win_system_object.GlobalFlagList attribute), 304
global_flag_list (cybox.objects.win_system_object.WinSystem attribute), 305
global_ptr (cybox.objects.win_executable_file_object.DataDirectory attribute), 258
GlobalFlag (class in cybox.objects.win_system_object), 303
GlobalFlagList (class in cybox.objects.win_system_object), 304
gread (cybox.objects.unix_file_object.UnixFilePermissions attribute), 224
Group (class in cybox.objects.user_account_object), 232
group (cybox.objects.unix_user_account_object.UnixGroupList attribute), 228
group (cybox.objects.user_account_object.GroupList attribute), 232
group (cybox.objects.win_user_account_object.WinGroupList attribute), 316
group_id (cybox.objects.unix_user_account_object.UnixGroup attribute), 227
group_id (cybox.objects.unix_user_account_object.UnixUserAccount attribute), 229
group_list (cybox.objects.unix_user_account_object.UnixUserAccount attribute), 229
group_list (cybox.objects.user_account_object.UserAccount attribute), 233
group_list (cybox.objects.win_user_account_object.WinUser attribute), 317
group_name (cybox.objects.win_service_object.WinService attribute), 301
group_owner (cybox.objects.unix_file_object.UnixFile attribute), 223
GroupList (class in cybox.objects.user_account_object), 232
GUI (class in cybox.objects.gui_object), 100
GUIDialogbox (class in cybox.objects.gui_dialogbox_object), 100
GUIWindow (class in cybox.objects.gui_window_object), 101
gwrite (cybox.objects.unix_file_object.UnixFilePermissions attribute), 224

H

handle (cybox.objects.as_object.AutonomousSystem attribute), 75
handle (cybox.objects.win_event_object.WinEvent attribute), 254
handle (cybox.objects.win_filemapping_object.WinFilemapping attribute), 280
handle (cybox.objects.win_handle_object.WinHandleList attribute), 282
handle (cybox.objects.win_hook_object.WinHook attribute), 282
handle (cybox.objects.win_mailslot_object.WinMailslot attribute), 286
handle (cybox.objects.win_mutex_object.WinMutex attribute), 289
handle (cybox.objects.win_pipe_object.WinPipe attribute), 292
handle (cybox.objects.win_semaphore_object.WinSemaphore attribute), 303

handle (cybox.objects.win_thread_object.WinThread attribute), 315
handle_list (cybox.objects.win_process_object.WinProcess attribute), 297
handle_list (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 300
hardware_addr_size (cybox.objects.network_packet_object.ARP attribute), 148
hardware_addr_type (cybox.objects.network_packet_object.ARP attribute), 148
has_changed (cybox.core.object.Object attribute), 57
Hash (class in cybox.common.hashes), 34
hashes (cybox.common.byterun.ByteRun attribute), 20
hashes (cybox.common.extracted_string.ExtractedString attribute), 33
hashes (cybox.common.hashes.HashList attribute), 34
hashes (cybox.objects.artifact_object.Artifact attribute), 71
hashes (cybox.objects.file_object.File attribute), 96
hashes (cybox.objects.memory_object.Memory attribute), 119
hashes (cybox.objects.pdf_file_object.PDFIndirectObject attribute), 200
hashes (cybox.objects.pdf_file_object.PDFTrailer attribute), 205
hashes (cybox.objects.pdf_file_object.PDFXRefTable attribute), 206
hashes (cybox.objects.win_executable_file_object.DOSHeader attribute), 256
hashes (cybox.objects.win_executable_file_object.PEFileHeader attribute), 263
hashes (cybox.objects.win_executable_file_object.PEHeaders attribute), 264
hashes (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 267
hashes (cybox.objects.win_executable_file_object.PEResource attribute), 270
hashes (cybox.objects.win_file_object.Stream attribute), 277
hashes (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 288
HashList (class in cybox.common.hashes), 34
HashName (class in cybox.common.vocabs), 48
header (cybox.objects.email_message_object.EmailMessage attribute), 91
header_ext_len (cybox.objects.network_packet_object.AuthenticationHeader attribute), 149
header_ext_len (cybox.objects.network_packet_object.Routing attribute), 183
header_hashes (cybox.objects.win_executable_file_object.PESection attribute), 272
header_length (cybox.objects.network_packet_object.IPv4Header attribute), 167
headers (cybox.objects.win_executable_file_object.WinExecutableFile attribute), 276
height (cybox.objects.gui_object.GUI attribute), 100
hex_decimal_value (cybox.objects.win_system_object.GlobalFlag attribute), 304
HexBinary (class in cybox.common.properties), 41
hint (cybox.objects.win_executable_file_object.PEImportedFunction attribute), 266
hive (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 300
hive (cybox.objects.win_system_restore_object.HiveList attribute), 306
HiveList (class in cybox.objects.win_system_restore_object), 306
home_directory (cybox.objects.user_account_object.UserAccount attribute), 233
hook_description (cybox.objects.win_kernel_hook_object.WinKernelHook attribute), 286
hooked (cybox.objects.win_kernel_object.SSDTEntry attribute), 284
hooked_function (cybox.objects.win_kernel_hook_object.WinKernelHook attribute), 286
hooked_module (cybox.objects.win_kernel_hook_object.WinKernelHook attribute), 286
hooking_address (cybox.objects.win_kernel_hook_object.WinKernelHook attribute), 286
hooking_function_name (cybox.objects.win_hook_object.WinHook attribute), 282
hooking_module (cybox.objects.win_hook_object.WinHook attribute), 282
hooking_module (cybox.objects.win_kernel_hook_object.WinKernelHook attribute), 286
hop_by_hop_options (cybox.objects.network_packet_object.IPv6ExtHeader attribute), 170
hop_limit_exceeded (cybox.objects.network_packet_object.ICMPv6TimeExceeded attribute), 166
HopByHopOptions (class in cybox.objects.network_packet_object), 153
host (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 105
host_administratively_prohibited (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 155
host_precedence_violation (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 155
host_redirect (cybox.objects.network_packet_object.ICMPv4RedirectMessage attribute), 159

host_unreachable_for_tos (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 155
HostField (class in cybox.objects.http_session_object), 114
Hostname (class in cybox.objects.hostname_object), 101
hostname (cybox.objects.socket_address_object.SocketAddress attribute), 215
hostname (cybox.objects.system_object.System attribute), 222
hostname (cybox.objects.url_history_object.URLHistoryEntry attribute), 231
hostname_value (cybox.objects.hostname_object.Hostname attribute), 101
hstderror (cybox.objects.win_process_object.StartupInfo attribute), 296
hstdinput (cybox.objects.win_process_object.StartupInfo attribute), 296
hstdoutput (cybox.objects.win_process_object.StartupInfo attribute), 296
http_client_request (cybox.objects.http_session_object.HTTPRequestResponse attribute), 108
http_message_body (cybox.objects.http_session_object.HTTPClientRequest attribute), 102
http_message_body (cybox.objects.http_session_object.HTTPServerResponse attribute), 113
http_method (cybox.objects.http_session_object.HTTPRequestLine attribute), 107
http_provisional_server_response (cybox.objects.http_session_object.HTTPRequestResponse attribute), 108
http_request_header (cybox.objects.http_session_object.HTTPClientRequest attribute), 102
http_request_line (cybox.objects.http_session_object.HTTPClientRequest attribute), 102
http_request_response (cybox.objects.http_session_object.HTTPSession attribute), 114
http_response_header (cybox.objects.http_session_object.HTTPServerResponse attribute), 113
http_server_response (cybox.objects.http_session_object.HTTPRequestResponse attribute), 108
http_session (cybox.objects.network_connection_object.Layer7Connections attribute), 121
http_status_line (cybox.objects.http_session_object.HTTPServerResponse attribute), 113
HTTPClientRequest (class in cybox.objects.http_session_object), 102
HTTPMessage (class in cybox.objects.http_session_object), 102
HTTPRequestHeader (class in cybox.objects.http_session_object), 102
HTTPRequestHeaderFields (class in cybox.objects.http_session_object), 103
HTTPRequestLine (class in cybox.objects.http_session_object), 107
HTTPRequestResponse (class in cybox.objects.http_session_object), 108
HTTPResponseHeader (class in cybox.objects.http_session_object), 108
HTTPResponseHeaderFields (class in cybox.objects.http_session_object), 109
HTTPServerResponse (class in cybox.objects.http_session_object), 113
HTTPSession (class in cybox.objects.http_session_object), 114
HTTPStatusLine (class in cybox.objects.http_session_object), 114

I

icmp_code (cybox.objects.network_flow_object.SiLKRecord attribute), 141
icmp_type (cybox.objects.network_flow_object.SiLKRecord attribute), 141
icmpv4 (cybox.objects.network_packet_object.InternetLayer attribute), 172
icmpv4_header (cybox.objects.network_packet_object.ICMPv4Packet attribute), 158
ICMPv4AddressMaskReply (class in cybox.objects.network_packet_object), 153
ICMPv4AddressMaskRequest (class in cybox.objects.network_packet_object), 153
ICMPv4DestinationUnreachable (class in cybox.objects.network_packet_object), 154
ICMPv4EchoReply (class in cybox.objects.network_packet_object), 155
ICMPv4EchoRequest (class in cybox.objects.network_packet_object), 156
ICMPv4ErrorMessage (class in cybox.objects.network_packet_object), 156
ICMPv4ErrorMessageContent (class in cybox.objects.network_packet_object), 156
ICMPv4Header (class in cybox.objects.network_packet_object), 157
ICMPv4InfoMessage (class in cybox.objects.network_packet_object), 157
ICMPv4InfoMessageContent (class in cybox.objects.network_packet_object), 158
ICMPv4Packet (class in cybox.objects.network_packet_object), 158
ICMPv4RedirectMessage (class in cybox.objects.network_packet_object), 159

ICMPv4SourceQuench (class in cybox.objects.network_packet_object), 159
ICMPv4TimeExceeded (class in cybox.objects.network_packet_object), 160
ICMPv4TimestampReply (class in cybox.objects.network_packet_object), 160
ICMPv4TimestampRequest (class in cybox.objects.network_packet_object), 160
ICMPv4Traceroute (class in cybox.objects.network_packet_object), 161
icmpv6 (cybox.objects.network_packet_object.InternetLayer attribute), 172
icmpv6_header (cybox.objects.network_packet_object.ICMPv6Packet attribute), 165
icmpv6_header (cybox.objects.network_packet_object.NDP attribute), 174
ICMPv6DestinationUnreachable (class in cybox.objects.network_packet_object), 162
ICMPv6EchoReply (class in cybox.objects.network_packet_object), 163
ICMPv6EchoRequest (class in cybox.objects.network_packet_object), 163
ICMPv6ErrorMessage (class in cybox.objects.network_packet_object), 163
ICMPv6Header (class in cybox.objects.network_packet_object), 164
ICMPv6InfoMessage (class in cybox.objects.network_packet_object), 164
ICMPv6InfoMessageContent (class in cybox.objects.network_packet_object), 164
ICMPv6Packet (class in cybox.objects.network_packet_object), 164
ICMPv6PacketTooBig (class in cybox.objects.network_packet_object), 165
ICMPv6ParameterProblem (class in cybox.objects.network_packet_object), 165
ICMPv6TimeExceeded (class in cybox.objects.network_packet_object), 166
IComHandlerAction (class in cybox.objects.win_task_object), 308
icomhandleraction (cybox.objects.win_task_object.TaskAction attribute), 310
id_ (cybox.common.data_segment.DataSegment attribute), 25
id_ (cybox.common.location.Location attribute), 36
id_ (cybox.common.tools.ToolInformation attribute), 44
id_ (cybox.core.action.Action attribute), 50
id_ (cybox.core.event.Event attribute), 55
id_ (cybox.core.object.Object attribute), 57
id_ (cybox.core.observable.Observable attribute), 60
id_ (cybox.objects.email_message_object.ReceivedLine attribute), 92
id_ (cybox.objects.pdf_file_object.PDFIndirectObject attribute), 200
id_ (cybox.objects.pdf_file_object.PDFTrailer attribute), 205
id_ (cybox.objects.win_handle_object.WinHandle attribute), 281
id_string (cybox.objects.pdf_file_object.PDFFileID attribute), 199
identification (cybox.objects.network_packet_object.FragmentHeader attribute), 152
identification (cybox.objects.network_packet_object.IPv4Header attribute), 167
identifier (cybox.common.platform_specification.PlatformSpecification attribute), 40
Identifier (cybox.objects.network_packet_object.ICMPv4Traceroute attribute), 161
idref (cybox.common.location.Location attribute), 36
idref (cybox.common.tools.ToolInformation attribute), 44
idref (cybox.core.action.Action attribute), 51
idref (cybox.core.event.Event attribute), 55
idref (cybox.core.object.Object attribute), 57
idref (cybox.core.observable.Observable attribute), 60
idt (cybox.objects.win_kernel_object.WinKernel attribute), 285
idt_entry (cybox.objects.win_kernel_object.IDTEntryList attribute), 284
IDTEntry (class in cybox.objects.win_kernel_object), 283
IDTEntryList (class in cybox.objects.win_kernel_object), 284
iemailaction (cybox.objects.win_task_object.TaskAction attribute), 310
IExecAction (class in cybox.objects.win_task_object), 309
iexecaction (cybox.objects.win_task_object.TaskAction attribute), 310
if_match (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 105
if_modified_since (cybox.objects.http_session_object.HTTPRequestHeader attribute), 105
if_none_match (cybox.objects.http_session_object.HTTPRequestHeaderFie attribute), 105
if_range (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 105
if_unmodified_since (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 105
image_base (cybox.objects.win_driver_object.WinDriver attribute), 248
image_base (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 267
image_file_format (cybox.objects.image_file_object.ImageFile attribute), 115
image_height (cybox.objects.image_file_object.ImageFile attribute), 115
image_info (cybox.objects.process_object.Process

attribute), 212
image_is_compressed (cybox.objects.image_file_object.ImageFile attribute), 115
image_offset (cybox.common.byterun.ByteRun attribute), 20
image_size (cybox.objects.win_driver_object.WinDriver attribute), 248
image_width (cybox.objects.image_file_object.ImageFile attribute), 115
ImageFile (class in cybox.objects.image_file_object), 115
ImageInfo (class in cybox.objects.process_object), 210
import_ (cybox.common.extracted_features.Imports attribute), 32
import_ (cybox.objects.win_executable_file_object.PEImportList attribute), 265
import_address_table (cybox.objects.win_executable_file_object.DataDirectory attribute), 258
import_table (cybox.objects.win_executable_file_object.DataDirectory attribute), 258
imported_function (cybox.objects.win_executable_file_object.PEImport attribute), 266
imported_functions (cybox.objects.win_executable_file_object.PEImport attribute), 265
Imports (class in cybox.common.extracted_features), 32
imports (cybox.common.extracted_features.ExtractedFeatures attribute), 31
imports (cybox.objects.win_executable_file_object.WinExecutableFile attribute), 276
in_buffer_size (cybox.objects.win_pipe_object.WinPipe attribute), 292
in_reply_to (cybox.objects.email_message_object.EmailHeader attribute), 89
index (cybox.objects.win_event_log_object.WinEventLog attribute), 253
indirect_object (cybox.objects.pdf_file_object.PDFIndirectObjectList attribute), 201
indirect_objects (cybox.objects.pdf_file_object.PDFFile attribute), 198
info (cybox.objects.pdf_file_object.PDFTrailer attribute), 205
info_msg (cybox.objects.network_packet_object.ICMPv4Packet attribute), 158
info_msg (cybox.objects.network_packet_object.ICMPv6Packet attribute), 165
info_msg_content (cybox.objects.network_packet_object.ICMPv4InformationMessage attribute), 158
info_msg_content (cybox.objects.network_packet_object.ICMPv6InformationMessage attribute), 164
information_element_id (cybox.objects.network_flow_object.IPFIXTemplateRecordField attribute), 128
information_source_type (cybox.common.measuresource.MeasureSource attribute), 37
InformationSourceType (class in cybox.common.vocabs), 48
ingress_interface_index (cybox.objects.network_flow_object.NetworkFlowLabel attribute), 138
inhibit_any_policy (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 324
initial_tcp_flags (cybox.objects.network_flow_object.SiLKRecord attribute), 141
initial_tcp_flags (cybox.objects.network_flow_object.YAFTCPFlow attribute), 147
initially_visible (cybox.objects.win_executable_file_object.PEImport attribute), 265
inode (cybox.objects.unix_file_object.UnixFile attribute), 223
install_date (cybox.objects.system_object.OS attribute), 221
installation_info (cybox.common.measuresource.MeasureSource attribute), 37
Integer (class in cybox.common.properties), 41
interface (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 189
internal_strings (cybox.common.internationalization_settings.InternationalizationSettings attribute), 35
internalname (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 274
InternalStrings (class in cybox.common.internationalization_settings), 35
internationalization_settings (cybox.common.tools.ToolConfiguration attribute), 43
InternationalizationSettings (class in cybox.common.internationalization_settings), 35
internet_layer (cybox.objects.network_packet_object.NetworkPacket attribute), 178
internet_layer_type (cybox.objects.network_packet_object.TypeLength attribute), 187
InternetLayer (class in cybox.objects.network_packet_object), 172
invoking_packet (cybox.objects.network_packet_object.ICMPv6ErrorMessage attribute), 163
ip_addr_prefix (cybox.objects.network_packet_object.Prefix attribute), 180
ip_address (cybox.objects.arp_cache_object.ARPCacheEntry attribute), 76
ip_address (cybox.objects.dns_record_object.DNSRecord attribute), 86

ip_address (cybox.objects.network_packet_object.ICMPv4RedirectSMessage attribute), 159
ip_address (cybox.objects.socket_address_object.SocketAddress attribute), 215
ip_address (cybox.objects.system_object.IPInfo attribute), 218
ip_address (cybox.objects.whois_object.WhoisEntry attribute), 239
ip_gateway_address (cybox.objects.system_object.IPGatewayList attribute), 218
ip_gateway_list (cybox.objects.system_object.NetworkInterface attribute), 220
ip_header (cybox.objects.network_packet_object.ICMPv4ErrorMessage attribute), 157
ip_info (cybox.objects.system_object.IPInfoList attribute), 219
ip_list (cybox.objects.system_object.NetworkInterface attribute), 220
ip_multicast_if (cybox.objects.network_socket_object.SocketOptions attribute), 193
ip_multicast_if2 (cybox.objects.network_socket_object.SocketOptions attribute), 193
ip_multicast_loop (cybox.objects.network_socket_object.SocketOptions attribute), 193
ip_protocol (cybox.objects.network_flow_object.NetworkLayerInfo attribute), 139
ip_tos (cybox.objects.network_socket_object.SocketOptions attribute), 193
ip_type_of_service (cybox.objects.network_flow_object.NetworkFlowLabel attribute), 138
ip_version (cybox.objects.network_packet_object.IPv4Header attribute), 168
ip_version (cybox.objects.network_packet_object.IPv6Header attribute), 170
ipfix_message (cybox.objects.network_flow_object.UnidirectionalRecord attribute), 143
IPFIXDataRecord (class in cybox.objects.network_flow_object), 123
IPFIXDataSet (class in cybox.objects.network_flow_object), 123
IPFIXMessage (class in cybox.objects.network_flow_object), 124
IPFIXMessageHeader (class in cybox.objects.network_flow_object), 124
IPFIXOptionsTemplateRecord (class in cybox.objects.network_flow_object), 125
IPFIXOptionsTemplateRecordHeader (class in cybox.objects.network_flow_object), 125
IPFIXOptionsTemplateSet (class in cybox.objects.network_flow_object), 126
IPFIXSet (class in cybox.objects.network_flow_object), 126
IPFIXTemplateRecord (class in cybox.objects.network_flow_object), 127
IPFIXTemplateRecord (class in cybox.objects.network_flow_object), 127
IPFIXTemplateRecordFieldSpecifiers (class in cybox.objects.network_flow_object), 127
IPFIXTemplateRecordHeader (class in cybox.objects.network_flow_object), 128
IPFIXTemplateSet (class in cybox.objects.network_flow_object), 128
IPGatewayList (class in cybox.objects.system_object), 218
ipheader_and_data (cybox.objects.network_packet_object.NDPRedirectedHeader attribute), 176
IPInfo (class in cybox.objects.system_object), 218
IPInfoList (class in cybox.objects.system_object), 219
ipv4 (cybox.objects.network_packet_object.InternetLayer attribute), 172
ipv4_header (cybox.objects.network_packet_object.IPv4Packet attribute), 169
IPv4Flags (class in cybox.objects.network_packet_object), 166
IPv4Options (class in cybox.objects.network_packet_object), 166
IPv4Option (class in cybox.objects.network_packet_object), 168
IPv4Packet (class in cybox.objects.network_packet_object), 169
ipv6 (cybox.objects.network_packet_object.InternetLayer attribute), 173
ipv6_addr (cybox.objects.network_packet_object.Prefix attribute), 180
ipv6_header (cybox.objects.network_packet_object.IPv6Packet attribute), 172
IPv6ExtHeader (class in cybox.objects.network_packet_object), 169
IPv6Header (class in cybox.objects.network_packet_object), 170
IPv6Option (class in cybox.objects.network_packet_object), 171
IPv6Packet (class in cybox.objects.network_packet_object), 172
irp_mj_cleanup (cybox.objects.win_driver_object.WinDriver attribute), 248
irp_mj_close (cybox.objects.win_driver_object.WinDriver attribute), 248
irp_mj_create (cybox.objects.win_driver_object.WinDriver attribute), 248
irp_mj_create_mailslot (cybox.objects.win_driver_object.WinDriver attribute), 248
irp_mj_create_named_pipe (cybox.objects.win_driver_object.WinDriver

attribute), 248
irp_mj_device_change (cybox.objects.win_driver_object.WinDriver attribute), 248
irp_mj_device_control (cybox.objects.win_driver_object.WinDriver attribute), 248
irp_mj_directory_control (cybox.objects.win_driver_object.WinDriver attribute), 249
irp_mj_file_system_control (cybox.objects.win_driver_object.WinDriver attribute), 249
irp_mj_flush_buffers (cybox.objects.win_driver_object.WinDriver attribute), 249
irp_mj_internal_device_control (cybox.objects.win_driver_object.WinDriver attribute), 249
irp_mj_lock_control (cybox.objects.win_driver_object.WinDriver attribute), 249
irp_mj_pnp (cybox.objects.win_driver_object.WinDriver attribute), 249
irp_mj_power (cybox.objects.win_driver_object.WinDriver attribute), 249
irp_mj_query_ea (cybox.objects.win_driver_object.WinDriver attribute), 249
irp_mj_query_information (cybox.objects.win_driver_object.WinDriver attribute), 249
irp_mj_query_quota (cybox.objects.win_driver_object.WinDriver attribute), 250
irp_mj_query_security (cybox.objects.win_driver_object.WinDriver attribute), 250
irp_mj_query_volume_information (cybox.objects.win_driver_object.WinDriver attribute), 250
irp_mj_read (cybox.objects.win_driver_object.WinDriver attribute), 250
irp_mj_set_ea (cybox.objects.win_driver_object.WinDriver attribute), 250
irp_mj_set_information (cybox.objects.win_driver_object.WinDriver attribute), 250
irp_mj_set_quota (cybox.objects.win_driver_object.WinDriver attribute), 250
irp_mj_set_security (cybox.objects.win_driver_object.WinDriver attribute), 250
irp_mj_set_volume_information (cybox.objects.win_driver_object.WinDriver attribute), 251
irp_mj_shutdown (cybox.objects.win_driver_object.WinDriver attribute), 251
irp_mj_system_control (cybox.objects.win_driver_object.WinDriver attribute), 251
irp_mj_write (cybox.objects.win_driver_object.WinDriver attribute), 251
is_autoconfigure_address (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 189
is_autoconfigure_address (cybox.objects.network_route_object.NetRoute attribute), 190
is_blocking (cybox.objects.network_socket_object.NetworkSocket attribute), 192
is_compressed (cybox.objects.artifact_object.Packaging attribute), 74
is_destination (cybox.objects.address_object.Address attribute), 68
is_domain_name (cybox.objects.hostname_object.Hostname attribute), 101
is_encrypted (cybox.objects.artifact_object.Packaging attribute), 74
is_hidden (cybox.objects.process_object.Process attribute), 212
is_immortal (cybox.objects.network_route_entry_object.NetworkRouteEntr attribute), 189
is_immortal (cybox.objects.network_route_object.NetRoute attribute), 191
is_injected (cybox.objects.memory_object.Memory attribute), 119
is_injected (cybox.objects.win_memory_page_region_object.WinMemoryP attribute), 288
is_ipv6 (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 189
is_ipv6 (cybox.objects.network_route_object.NetRoute attribute), 191
is_listening (cybox.objects.network_socket_object.NetworkSocket attribute), 192
is_loopback (cybox.objects.network_route_entry_object.NetworkRouteEntr attribute), 189
is_loopback (cybox.objects.network_route_object.NetRoute attribute), 191
is_mapped (cybox.objects.memory_object.Memory attribute), 119
is_mapped (cybox.objects.win_memory_page_region_object.WinMemoryP attribute), 288
is_masqueraded (cybox.objects.file_object.File attribute), 96
is_mounted (cybox.objects.volume_object.Volume attribute), 236
is_packed (cybox.objects.file_object.File attribute), 97
is_plain() (cybox.common.data_segment.DataSize

method), 25
is_plain() (cybox.common.object_properties.Property method), 39
is_plain() (cybox.common.properties.BaseProperty method), 40
is_plain() (cybox.common.structured_text.StructuredText method), 42
is_plain() (cybox.common.vocabs.VocabString method), 48
is_plain() (cybox.objects.code_object.CodeSegmentXOR method), 79
is_plain() (cybox.objects.file_object.FilePath method), 98
is_premium (cybox.objects.sms_message_object.SMSMessage attribute), 216
is_protected (cybox.objects.memory_object.Memory attribute), 119
is_protected (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 288
is_publish (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 189
is_publish (cybox.objects.network_route_object.NetRoute attribute), 191
is_source (cybox.objects.address_object.Address attribute), 68
is_spoofed (cybox.objects.address_object.Address attribute), 68
is_volatile (cybox.objects.memory_object.Memory attribute), 119
is_volatile (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 288
IShowMessageAction (class in cybox.objects.win_task_object), 309
ishowmessageaction (cybox.objects.win_task_object.TaskAction attribute), 310
issuer (cybox.objects.x509_certificate_object.X509Cert attribute), 321
issuer_alternative_name (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 324
istypeof() (cybox.objects.address_object.EmailAddress class method), 68
item_description (cybox.common.configuration_settings.ConfigurationSetting attribute), 22
item_name (cybox.common.configuration_settings.ConfigurationSetting attribute), 22
item_type (cybox.common.configuration_settings.ConfigurationSetting attribute), 23
item_value (cybox.common.configuration_settings.ConfigurationSetting attribute), 23

J

javascript_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 203
jbig2decode_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 203
js_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 203

K

Kerberos (class in cybox.objects.win_computer_account_object), 243
kerberos (cybox.objects.win_computer_account_object.WinComputerAccou attribute), 245
KerberosDelegation (class in cybox.objects.win_computer_account_object), 243
KerberosService (class in cybox.objects.win_computer_account_object), 244
kernel_time (cybox.objects.process_object.Process attribute), 212
key (cybox.common.internationalization_settings.InternalStrings attribute), 35
key (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 300
key_usage (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 324
keyword (cybox.core.observable.Keywords attribute), 59
keyword_counts (cybox.objects.pdf_file_object.PDFFileMetadata attribute), 199
Keywords (class in cybox.core.observable), 59
keywords (cybox.core.observable.Observable attribute), 60
keywords (cybox.objects.pdf_file_object.PDFDocumentInformationDiction attribute), 197

L

langid (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 274
language (cybox.common.extracted_string.ExtractedString attribute), 33
language (cybox.objects.product_object.Product attribute), 214
language (cybox.objects.win_executable_file_object.PEResource attribute), 270
last_accessed_time (cybox.objects.account_object.Account attribute), 66
last_cross_reference_offset (cybox.objects.pdf_file_object.PDFTrailer attribute), 205
last_login (cybox.objects.user_account_object.UserAccount attribute), 233
last_modified (cybox.objects.http_session_object.HTTPResponseHeaderFie attribute), 111

last_run (cybox.objects.win_prefetch_object.WinPrefetch attribute), 294
last_visit_datetime (cybox.objects.url_history_object.URLHistoryEntry attribute), 231
launch_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 203
layer3_protocol (cybox.objects.network_connection_object.NetworkConnection attribute), 121
layer4_protocol (cybox.objects.network_connection_object.NetworkConnection attribute), 121
layer4_protocol (cybox.objects.port_object.Port attribute), 209
layer7_connections (cybox.objects.network_connection_object.NetworkConnection attribute), 122
layer7_protocol (cybox.objects.network_connection_object.NetworkConnection attribute), 122
Layer7Connections (class in cybox.objects.network_connection_object), 120
legalcopyright (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 275
legaltrademarks (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 275
length (cybox.common.byterun.ByteRun attribute), 20
length (cybox.common.extracted_string.ExtractedString attribute), 33
length (cybox.objects.http_session_object.HTTPMessage attribute), 102
length (cybox.objects.network_flow_object.IPFIXSetHeader attribute), 127
length (cybox.objects.network_flow_object.NetflowV9DataFlowSet attribute), 132
length (cybox.objects.network_flow_object.NetflowV9OptionsTemplateFlowSet attribute), 134
length (cybox.objects.network_flow_object.NetflowV9TemplateFlowSet attribute), 137
length (cybox.objects.network_packet_object.NDPLinkAddr attribute), 174
length (cybox.objects.network_packet_object.NDPMTU attribute), 175
length (cybox.objects.network_packet_object.NDPPrefixInfo attribute), 175
length (cybox.objects.network_packet_object.NDPRedirectedHeader attribute), 176
length (cybox.objects.network_packet_object.TypeLength attribute), 187
length (cybox.objects.network_packet_object.UDPHeader attribute), 188
length (cybox.objects.sms_message_object.SMSMessage attribute), 216
Libraries (class in cybox.common.libraries), 35
libraries (cybox.common.build.BuildInformation attribute), 19
Library (class in cybox.common.libraries), 35
Library (class in cybox.objects.library_object), 116
library (cybox.common.libraries.Libraries attribute), 35
LibraryType (class in cybox.objects.library_object), 117
Links (class in cybox.objects.link_object), 117
link (cybox.objects.email_message_object.Links attribute), 92
link (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 111
link_flag (cybox.objects.network_packet_object.NDPPrefixInfo attribute), 175
link_layer (cybox.objects.network_packet_object.NetworkPacket attribute), 178
link_layer_mac_addr (cybox.objects.network_packet_object.NDPLinkAddr attribute), 174
linker_name (cybox.objects.win_executable_file_object.PEBuildInformation attribute), 260
linker_version (cybox.objects.win_executable_file_object.PEBuildInformation attribute), 260
LinkLayer (class in cybox.objects.network_packet_object), 173
LinkReference (class in cybox.objects.email_message_object), 92
Links (class in cybox.objects.email_message_object), 92
links (cybox.objects.email_message_object.EmailMessage attribute), 91
LinuxPackage (class in cybox.objects.linux_package_object), 117
LinuxPackageArchitecture (class in cybox.objects.linux_package_object), 118
load_config_table (cybox.objects.win_executable_file_object.DataDirectory attribute), 258
loader_flags (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 267
local_address (cybox.objects.network_socket_object.NetworkSocket attribute), 192
local_path (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
local_time (cybox.objects.system_object.System attribute), 222
Location (class in cybox.common.location), 36
location (cybox.core.event.Event attribute), 55
location (cybox.core.object.Object attribute), 57
location (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 111
locked_out (cybox.objects.account_object.Account attribute), 66
log (cybox.objects.win_event_log_object.WinEventLog attribute), 253
logical_protocols (cybox.objects.network_packet_object.LinkLayer attribute), 173
LogicalProtocol (class in cy-

box.objects.network_packet_object), 173
login_shell (cybox.objects.unix_user_account_object.UnixUserAccount attribute), 229
login_time (cybox.objects.user_session_object.UserSession attribute), 235
logout_time (cybox.objects.user_session_object.UserSession attribute), 235
Long (class in cybox.common.properties), 41
lookup_class() (cybox.common.location.Location static method), 36
lookup_class() (cybox.common.tools.ToolSpecificData static method), 46
lookup_class() (cybox.objects.process_object.ProcessStatus static method), 213
lookup_class() (cybox.objects.win_executable_file_object.PEResourceID static method), 271
lookup_date (cybox.objects.whois_object.WhoisEntry attribute), 239
lpdesktop (cybox.objects.win_process_object.StartupInfo attribute), 297
lptitle (cybox.objects.win_process_object.StartupInfo attribute), 297
lzwdecode_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 203

M

m_flag (cybox.objects.network_packet_object.FragmentHeader attribute), 152
mac (cybox.objects.system_object.NetworkInterface attribute), 220
machine (cybox.objects.win_event_log_object.WinEventLog attribute), 253
machine (cybox.objects.win_executable_file_object.PEFileHeader attribute), 263
magic (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 268
magic_number (cybox.objects.file_object.File attribute), 97
major_image_version (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 268
major_linker_version (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 268
major_os_version (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 268
major_subsystem_version (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 268
make_class_ref() (in module cybox.utils.autoentity), 325
managed_address_config_flag (cybox.objects.network_packet_object.RouterAdvertisement attribute), 181
manually_entered_count (cybox.objects.url_history_object.URLHistoryEntry attribute), 231
manufacturer (cybox.objects.device_object.Device attribute), 80
max (cybox.objects.win_executable_file_object.Entropy attribute), 259
max_forwards (cybox.objects.http_session_object.HTTPRequestHeaderFiel attribute), 105
max_instances (cybox.objects.win_pipe_object.WinPipe attribute), 292
max_message_size (cybox.objects.win_mailslot_object.WinMailslot attribute), 287
max_runtime (cybox.objects.win_task_object.WinTask attribute), 313
max_uses (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
maximum_count (cybox.objects.semaphore_object.Semaphore attribute), 215
maximum_size (cybox.objects.win_filemapping_object.WinFilemapping attribute), 280
MeasureSource (class in cybox.common.measuresource), 36
Memory (class in cybox.objects.memory_object), 119
memory_section (cybox.objects.win_process_object.MemorySectionList attribute), 295
memory_source (cybox.objects.memory_object.Memory attribute), 119
memory_source (cybox.objects.win_memory_page_region_object.WinMem attribute), 288
MemorySectionList (class in cybox.objects.win_process_object), 295
message (cybox.objects.win_event_log_object.WinEventLog attribute), 253
message_body (cybox.objects.http_session_object.HTTPMessage attribute), 102
message_header (cybox.objects.network_flow_object.IPFIXMessage attribute), 124
message_id (cybox.objects.email_message_object.EmailHeader attribute), 89
metadata (cybox.common.tools.ToolInformation attribute), 44
metadata (cybox.objects.pdf_file_object.PDFFile attribute), 198
metric (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 189
mime_version (cybox.objects.email_message_object.EmailHeader attribute), 89
min (cybox.objects.win_executable_file_object.Entropy attribute), 259
minor_image_version (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 268

minor_linker_version (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 268
minor_os_version (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 268
minor_subsystem_version (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 268
ml_app_label (cybox.objects.network_flow_object.YAFFlow attribute), 145
moddate (cybox.objects.pdf_file_object.PDFDocumentInformation attribute), 197
model (cybox.objects.device_object.Device attribute), 80
modification_datetime (cybox.objects.url_history_object.URLHistoryEntry attribute), 231
modified_date (cybox.objects.account_object.Account attribute), 66
modified_time (cybox.objects.file_object.File attribute), 97
modified_time (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 300
modify (cybox.objects.win_file_object.WindowsFilePermissions attribute), 279
modulus (cybox.objects.x509_certificate_object.RSAPublicKey attribute), 320
more_fragments (cybox.objects.network_packet_object.IPv4Flags attribute), 166
most_recent_run_time (cybox.objects.win_task_object.WinTask attribute), 313
mount_point (cybox.objects.disk_partition_object.DiskPartition attribute), 82
mount_point (cybox.objects.unix_volume_object.UnixVolume attribute), 229
mss (cybox.objects.unix_network_route_entry_object.UnixNetworkRouteEntry attribute), 225
mtu (cybox.objects.network_packet_object.ICMPv6PacketTooBig attribute), 165
mtu (cybox.objects.network_packet_object.NDPMTU attribute), 175
mtu (cybox.objects.network_packet_object.RouterAdvertisement attribute), 182
Mutex (class in cybox.objects.mutex_object), 120

N

n_bytes_payload (cybox.objects.network_flow_object.YAFFlow attribute), 145
Name (class in cybox.common.properties), 41
name (cybox.common.contributor.Contributor attribute), 23
name (cybox.common.environment_variable.EnvironmentVariable attribute), 29
name (cybox.common.libraries.Library attribute), 36
name (cybox.common.location.Location attribute), 36
name (cybox.common.measuresource.MeasureSource attribute), 37
name (cybox.common.object_properties.Property attribute), 39
name (cybox.common.tools.ToolInformation attribute), 44
name (cybox.core.action.Action attribute), 51
name (cybox.objects.as_object.AutonomousSystem attribute), 75
name (cybox.objects.file_object.EntryPointSignature attribute), 94
name (cybox.objects.file_object.Packer attribute), 99
name (cybox.objects.library_object.Library attribute), 116
name (cybox.objects.linux_package_object.LinuxPackage attribute), 118
name (cybox.objects.memory_object.Memory attribute), 119
name (cybox.objects.mutex_object.Mutex attribute), 120
name (cybox.objects.network_subnet_object.NetworkSubnet attribute), 196
name (cybox.objects.pipe_object.Pipe attribute), 209
name (cybox.objects.process_object.Process attribute), 212
name (cybox.objects.semaphore_object.Semaphore attribute), 215
name (cybox.objects.volume_object.Volume attribute), 236
name (cybox.objects.whois_object.WhoisContact attribute), 237
name (cybox.objects.whois_object.WhoisRegistrar attribute), 241
name (cybox.objects.win_computer_account_object.KerberosService attribute), 244
name (cybox.objects.win_event_object.WinEvent attribute), 254
name (cybox.objects.win_executable_file_object.PEExports attribute), 262
name (cybox.objects.win_executable_file_object.PEResource attribute), 271
name (cybox.objects.win_executable_file_object.PESectionHeaderStruct attribute), 272
name (cybox.objects.win_file_object.Stream attribute), 277
name (cybox.objects.win_filemapping_object.WinFilemapping attribute), 280
name (cybox.objects.win_handle_object.WinHandle attribute), 281
name (cybox.objects.win_mailslot_object.WinMailslot attribute), 287
name (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 288
name (cybox.objects.win_registry_key_object.RegistryValue

attribute), 299
name (cybox.objects.win_task_object.WinTask attribute), 314
name (cybox.objects.win_user_account_object.WinGroup attribute), 316
name (cybox.objects.win_waitable_timer_object.WinWaitableTimer attribute), 319
name_constraints (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 324
named (cybox.objects.mutex_object.Mutex attribute), 120
named (cybox.objects.pipe_object.Pipe attribute), 209
named (cybox.objects.semaphore_object.Semaphore attribute), 215
nameserver (cybox.objects.whois_object.WhoisNameservers attribute), 240
nameservers (cybox.objects.whois_object.WhoisEntry attribute), 239
naming_system (cybox.objects.hostname_object.Hostname attribute), 101
NDP (class in cybox.objects.network_packet_object), 173
ndp (cybox.objects.network_packet_object.LogicalProtocol attribute), 173
NDPLinkAddr (class in cybox.objects.network_packet_object), 174
NDPMTU (class in cybox.objects.network_packet_object), 175
NDPPrefixInfo (class in cybox.objects.network_packet_object), 175
NDPRedirectedHeader (class in cybox.objects.network_packet_object), 176
negate (cybox.core.observable.Observable attribute), 60
neighbor_advertisement (cybox.objects.network_packet_object.NDP attribute), 174
neighbor_solicitation (cybox.objects.network_packet_object.NDP attribute), 174
NeighborAdvertisement (class in cybox.objects.network_packet_object), 176
NeighborOptions (class in cybox.objects.network_packet_object), 177
NeighborSolicitation (class in cybox.objects.network_packet_object), 177
NeighborSolicitationOptions (class in cybox.objects.network_packet_object), 178
netbeui_name (cybox.objects.win_computer_account_object.FullyQualifiedName attribute), 243
netbios_name (cybox.objects.win_system_object.WinSystem attribute), 305
netflowv5_packet (cybox.objects.network_flow_object.UnidirectionalRecord attribute), 144
NetflowV5FlowHeader (class in cybox.objects.network_flow_object), 129
NetflowV5FlowRecord (class in cybox.objects.network_flow_object), 130
NetflowV5Packet (class in cybox.objects.network_flow_object), 132
netflowv9_export_packet (cybox.objects.network_flow_object.UnidirectionalRecord attribute), 144
NetflowV9DataFlowSet (class in cybox.objects.network_flow_object), 132
NetflowV9DataRecord (class in cybox.objects.network_flow_object), 133
NetflowV9ExportPacket (class in cybox.objects.network_flow_object), 133
NetflowV9Field (class in cybox.objects.network_flow_object), 133
NetflowV9FlowSet (class in cybox.objects.network_flow_object), 133
NetflowV9OptionsTemplateFlowSet (class in cybox.objects.network_flow_object), 134
NetflowV9OptionsTemplateRecord (class in cybox.objects.network_flow_object), 135
NetflowV9PacketHeader (class in cybox.objects.network_flow_object), 136
NetflowV9ScopeField (class in cybox.objects.network_flow_object), 136
NetflowV9TemplateFlowSet (class in cybox.objects.network_flow_object), 137
NetflowV9TemplateRecord (class in cybox.objects.network_flow_object), 137
netmask (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 189
netname (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
NetRoute (class in cybox.objects.network_route_object), 190
netscape_certificate_type (cybox.objects.x509_certificate_object.X509NonStandardExtensions attribute), 323
netscape_comment (cybox.objects.x509_certificate_object.X509NonStandardExtensions attribute), 323
network_administratively_prohibited (cybox.objects.network_packet_object.ICMPv4DestinationUnreacha attribute), 155
network_connection (cybox.objects.process_object.NetworkConnectionList attribute), 211
network_connection_list (cybox.objects.process_object.Process attribute), 212
network_label (cybox.objects.network_flow_object.NetworkFlow attribute), 138
network_interface (cybox.objects.arp_cache_object.ARPCacheEntry

attribute), 76
network_interface (cybox.objects.system_object.NetworkInterface attribute), 220
network_interface_list (cybox.objects.system_object.System attribute), 222
network_redirect (cybox.objects.network_packet_object.ICMPv4RedirectMessage attribute), 159
network_route_entries (cybox.objects.network_route_object.NetRoute attribute), 191
network_route_entry (cybox.objects.network_route_object.NetworkRouteEntries attribute), 192
network_unreachable_for_tos (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 155
NetworkConnection (class in cybox.objects.network_connection_object), 121
NetworkConnectionList (class in cybox.objects.process_object), 211
NetworkFlow (class in cybox.objects.network_flow_object), 138
NetworkFlowLabel (class in cybox.objects.network_flow_object), 138
NetworkInterface (class in cybox.objects.system_object), 219
NetworkInterfaceList (class in cybox.objects.system_object), 220
NetworkLayerInfo (class in cybox.objects.network_flow_object), 139
NetworkPacket (class in cybox.objects.network_packet_object), 178
NetworkRouteEntries (class in cybox.objects.network_route_object), 191
NetworkRouteEntry (class in cybox.objects.network_route_entry_object), 188
NetworkSocket (class in cybox.objects.network_socket_object), 192
NetworkSubnet (class in cybox.objects.network_subnet_object), 195
new_file_name (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 307
next_header (cybox.objects.network_packet_object.AuthenticationHeader attribute), 149
next_header (cybox.objects.network_packet_object.EncapsulatingSecurityPayload attribute), 150
next_header (cybox.objects.network_packet_object.FragmentHeader attribute), 153
next_header (cybox.objects.network_packet_object.IPv6Header attribute), 170
next_header (cybox.objects.network_packet_object.RoutingHeader attribute), 183
next_hop_mtu (cybox.objects.network_packet_object.FragmentationRequired attribute), 153
next_run_time (cybox.objects.win_task_object.WinTask attribute), 314
nexthop_ipv4_addr (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 131
nl_route_origin (cybox.objects.win_network_route_entry_object.WinNetworkRouteEntry attribute), 290
nl_route_protocol (cybox.objects.win_network_route_entry_object.WinNetworkRouteEntry attribute), 290
no_route (cybox.objects.network_packet_object.ICMPv6DestinationUnreachable attribute), 162
noisiness (cybox.core.pattern_fidelity.PatternFidelity attribute), 63
non_obfuscated_count (cybox.objects.pdf_file_object.PDFKeywordCount attribute), 202
non_standard_extensions (cybox.objects.x509_certificate_object.X509Cert attribute), 321
non_stream_contents (cybox.objects.pdf_file_object.PDFIndirectObjectContents attribute), 201
NonNegativeInteger (class in cybox.common.properties), 41
normalize_to_xml() (in module cybox.utils), 326
normalized_function_name (cybox.objects.api_object.API attribute), 69
not_after (cybox.objects.x509_certificate_object.Validity attribute), 320
not_before (cybox.objects.x509_certificate_object.Validity attribute), 320
ns (cybox.objects.network_packet_object.TCPFlags attribute), 185
number (cybox.objects.as_object.AutonomousSystem attribute), 76
number_of_addresses (cybox.objects.win_executable_file_object.PEExports attribute), 262
number_of_cross_reference_tables (cybox.objects.pdf_file_object.PDFFileMetadata attribute), 199
number_of_functions (cybox.objects.win_executable_file_object.PEExports attribute), 262
number_of_javascript_objects (cybox.objects.pdf_file_object.PDFFileMetadata attribute), 199
number_of_ip_addresses (cybox.objects.network_subnet_object.NetworkSubnet attribute), 196
number_of_linenumbers (cy-

box.objects.win_executable_file_object.PESectionHeaderStruct attribute), 272
number_of_names (cybox.objects.win_executable_file_object.PEExportsattribute), 262
number_of_objects (cybox.objects.pdf_file_object.PDFXrefTableSubsection attribute), 208
number_of_relocations (cybox.objects.win_executable_file_object.PESectionHeaderStruct attribute), 273
number_of_rva_and_sizes (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 269
number_of_sections (cybox.objects.win_executable_file_object.PEFileHeader attribute), 263
number_of_services (cybox.objects.win_kernel_object.SSDTEntry attribute), 284
number_of_symbols (cybox.objects.win_executable_file_object.PEFileHeader attribute), 263
number_of_trailers (cybox.objects.pdf_file_object.PDFFileMetadata attribute), 200
number_subkeys (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 300
number_values (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 300

O

obfuscated_count (cybox.objects.pdf_file_object.PDFKeywordCount attribute), 202
obfuscation_technique (cybox.core.pattern_fidelity.ObfuscationTechniques attribute), 63
ObfuscationTechnique (class in cybox.core.pattern_fidelity), 62
ObfuscationTechniques (class in cybox.core.pattern_fidelity), 63
Object (class in cybox.core.object), 56
object_ (cybox.core.observable.Observable attribute), 60
object_address (cybox.objects.win_handle_object.WinHandle attribute), 281
object_number (cybox.objects.pdf_file_object.PDFIndirectObjectID attribute), 201
object_number (cybox.objects.pdf_file_object.PDFXrefEntry attribute), 207
object_pool (cybox.core.pool.Pools attribute), 64
object_reference (cybox.common.object_properties.ObjectProperties attribute), 39
object_reference (cybox.objects.pdf_file_object.PDFDictionary attribute), 196
ObjectPool (class in cybox.core.pool), 64
ObjectProperties (class in cybox.common.object_properties), 38
ObjectRelationship (class in cybox.common.vocabs), 48
objects (cybox.core.pool.ObjectPool attribute), 64
ObjectState (class in cybox.common.vocabs), 48
objstm_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 203
Observable (class in cybox.core.observable), 59
observable_composition (cybox.core.observable.Observable attribute), 60
observable_package_source (cybox.core.observable.Observables attribute), 62
observable_source (cybox.core.observable.Observable attribute), 60
ObservableComposition (class in cybox.core.observable), 61
Observables (class in cybox.core.observable), 61
observables (cybox.core.observable.ObservableComposition attribute), 61
observables (cybox.core.observable.Observables attribute), 62
observables (cybox.core.pattern_fidelity.ObfuscationTechnique attribute), 62
observation_domain_id (cybox.objects.network_flow_object.IPFIXMessageHeader attribute), 124
observation_method (cybox.core.event.Event attribute), 55
octet (cybox.objects.network_packet_object.Pad1 attribute), 179
octet (cybox.objects.network_packet_object.PadN attribute), 179
octet_total_count (cybox.objects.network_flow_object.YAFFlow attribute), 145
oexec (cybox.objects.unix_file_object.UnixFilePermissions attribute), 224
offset (cybox.common.byterun.ByteRun attribute), 20
offset (cybox.common.data_segment.DataSegment attribute), 25
offset (cybox.objects.pdf_file_object.PDFIndirectObject attribute), 200
offset (cybox.objects.pdf_file_object.PDFTrailer attribute), 205
offset (cybox.objects.pdf_file_object.PDFXRefTable attribute), 206
offset_high (cybox.objects.win_kernel_object.IDTEntry attribute), 283
offset_low (cybox.objects.win_kernel_object.IDTEntry attribute), 283
offset_middle (cybox.objects.win_kernel_object.IDTEntry attribute), 283
old_authority_key_identifier (cy-

box.objects.x509_certificate_object.X509NonStandardExtension attribute), 323
old_primary_key_attributes (cybox.objects.x509_certificate_object.X509NonStandardExtensions attribute), 323
op_type (cybox.objects.network_packet_object.ARP attribute), 148
opcodes (cybox.objects.file_object.EPJumpCode attribute), 93
open_file_descriptor_list (cybox.objects.unix_process_object.UnixProcess attribute), 226
open_handle_list (cybox.objects.win_system_object.WinSystem attribute), 305
open_mode (cybox.objects.win_pipe_object.WinPipe attribute), 292
openaction_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 204
operator (cybox.core.observable.ObservableComposition attribute), 61
optimized (cybox.objects.pdf_file_object.PDFFileMetadata attribute), 200
option (cybox.objects.network_packet_object.IPv4Header attribute), 168
option (cybox.objects.network_packet_object.IPv4Option attribute), 169
option_byte (cybox.objects.network_packet_object.IPv6Option attribute), 171
option_data (cybox.objects.network_packet_object.PadN attribute), 179
option_data_len (cybox.objects.network_packet_object.OptionData attribute), 178
option_data_length (cybox.objects.network_packet_object.PadN attribute), 179
option_field_length (cybox.objects.network_flow_object.NetflowV9OptionsTemplateRecord attribute), 135
option_field_type (cybox.objects.network_flow_object.NetflowV9OptionsTemplateRecord attribute), 135
option_length (cybox.objects.network_flow_object.NetflowV9OptionsTemplateRecord attribute), 135
option_record_collection_element (cybox.objects.network_flow_object.OptionsDataRecord attribute), 139
option_record_field_value (cybox.objects.network_flow_object.OptionCollectionElement attribute), 139
option_scope_length (cybox.objects.network_flow_object.NetflowV9OptionsTemplateRecord attribute), 135
option_type (cybox.objects.network_packet_object.OptionData attribute), 179
optional_header (cybox.objects.win_executable_file_object.PEHeader attribute), 264
OptionCollectionElement (class in cybox.objects.network_flow_object), 139
OptionExtensions (class in cybox.objects.network_packet_object), 178
options (cybox.objects.network_packet_object.NeighborAdvertisement attribute), 176
options (cybox.objects.network_packet_object.NeighborSolicitation attribute), 177
options (cybox.objects.network_packet_object.Redirect attribute), 180
options (cybox.objects.network_packet_object.RouterAdvertisement attribute), 181
options (cybox.objects.network_packet_object.RouterSolicitation attribute), 183
options (cybox.objects.network_packet_object.TCP attribute), 184
options (cybox.objects.network_socket_object.NetworkSocket attribute), 192
options (cybox.objects.unix_volume_object.UnixVolume attribute), 229
options_data_record (cybox.objects.network_flow_object.NetflowV9DataRecord attribute), 133
options_template_flow_set (cybox.objects.network_flow_object.NetflowV9FlowSet attribute), 134
options_template_record (cybox.objects.network_flow_object.IPFIXOptionsTemplateSet attribute), 126
options_template_record (cybox.objects.network_flow_object.NetflowV9OptionsTemplateFlowSet attribute), 134
options_template_record_header (cybox.objects.network_flow_object.IPFIXOptionsTemplateRecord attribute), 125
options_template_record_id (cybox.objects.network_flow_object.IPFIXSet attribute), 124
OptionsDataRecord (class in cybox.objects.network_flow_object), 139
ordinal (cybox.objects.win_executable_file_object.PEExportedFunction attribute), 261
ordinal (cybox.objects.win_executable_file_object.PEImportedFunction attribute), 266
ordinal_position (cybox.core.action.Action attribute), 51
ordinal_position (cybox.objects.http_session_object.HTTPRequestResponse attribute), 108
oread (cybox.objects.unix_file_object.UnixFilePermissions attribute), 224
organization (cybox.common.contributor.Contributor attribute), 24
organization (cybox.objects.whois_object.WhoisContact attribute), 238

origin (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 189
original_file_name (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 307
original_short_file_name (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 308
originalfilename (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 275
originate_timestamp (cybox.objects.network_packet_object.ICMPv4TimestampReply attribute), 160
originate_timestamp (cybox.objects.network_packet_object.ICMPv4TimestampRequest attribute), 161
OS (class in cybox.objects.system_object), 220
os (cybox.objects.system_object.System attribute), 222
other_config_flag (cybox.objects.network_packet_object.RouterAdvertisement attribute), 182
out_buffer_size (cybox.objects.win_pipe_object.WinPipe attribute), 292
outbound_hop_count (cybox.objects.network_packet_object.ICMPv4Traceroute attribute), 161
outbound_packet_forward_success (cybox.objects.network_packet_object.ICMPv4Traceroute attribute), 161
outbound_packet_no_route (cybox.objects.network_packet_object.ICMPv4Traceroute attribute), 161
output_link_mtu (cybox.objects.network_packet_object.ICMPv4Traceroute attribute), 161
output_link_speed (cybox.objects.network_packet_object.ICMPv4Traceroute attribute), 162
override_flag (cybox.objects.network_packet_object.NeighborAdvertisement attribute), 176
owner_window (cybox.objects.gui_window_object.GUIWindow attribute), 101
owrite (cybox.objects.unix_file_object.UnixFilePermissions attribute), 224

P

p3p (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 111
pack() (cybox.objects.artifact_object.Base64Encoding method), 72
pack() (cybox.objects.artifact_object.Bz2Compression method), 72
pack() (cybox.objects.artifact_object.Compression method), 72
pack() (cybox.objects.artifact_object.Encoding method), 73
pack() (cybox.objects.artifact_object.EncryptionEntry method), 73
pack() (cybox.objects.artifact_object.XOREncryption method), 75
pack() (cybox.objects.artifact_object.ZlibCompression method), 75
Packaging (class in cybox.objects.artifact_object), 74
packaging (cybox.objects.artifact_object.Artifact attribute), 71
Packer (class in cybox.objects.file_object), 98
packer (cybox.objects.file_object.PackerList attribute), 99
packer_list (cybox.objects.file_object.File attribute), 97
PackerList (class in cybox.objects.file_object), 99
packet_change (cybox.objects.network_packet_object.IPv6Option attribute), 171
packet_count (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 131
packet_count (cybox.objects.network_flow_object.SiLKRecord attribute), 142
packet_too_big (cybox.objects.network_packet_object.ICMPv6ErrorMessage attribute), 163
packet_too_big (cybox.objects.network_packet_object.ICMPv6PacketTooBig attribute), 165
packet_total_count (cybox.objects.network_flow_object.YAFFlow attribute), 145
Pad1 (class in cybox.objects.network_packet_object), 179
pad1 (cybox.objects.network_packet_object.OptionData attribute), 179
padding (cybox.objects.network_flow_object.IPFIXDataSet attribute), 123
padding (cybox.objects.network_flow_object.IPFIXOptionsTemplateSet attribute), 126
padding (cybox.objects.network_flow_object.IPFIXTemplateSet attribute), 129
padding (cybox.objects.network_flow_object.NetflowV9DataFlowSet attribute), 132
padding (cybox.objects.network_flow_object.NetflowV9OptionsTemplateFlowSet attribute), 134
padding (cybox.objects.network_packet_object.EncapsulatingSecurityPayload attribute), 150
padding1 (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 131
padding2 (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 131
padding_len (cybox.objects.network_packet_object.EncapsulatingSecurityPayload attribute), 150
PadN (class in cybox.objects.network_packet_object), 179
padn (cybox.objects.network_packet_object.OptionData attribute), 179
page_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 204
page_protection_attribute (cy-

box.objects.win_filemapping_object.WinFilemapping attribute), 280
page_protection_value (cybox.objects.win_filemapping_object.WinFilemapping attribute), 281
page_title (cybox.objects.url_history_object.URLHistoryEntry attribute), 231
parameter_address (cybox.objects.win_thread_object.WinThread attribute), 315
parameter_problem (cybox.objects.network_packet_object.ICMPv6ErrorMessage attribute), 163
parameters (cybox.objects.win_task_object.WinTask attribute), 314
parent_pid (cybox.objects.process_object.Process attribute), 212
parent_window (cybox.objects.gui_window_object.GUIWindow attribute), 101
parsed_header (cybox.objects.http_session_object.HTTPRequestHeader attribute), 103
parsed_header (cybox.objects.http_session_object.HTTPResponseHeader attribute), 108
partition (cybox.objects.disk_object.PartitionList attribute), 81
partition_id (cybox.objects.disk_partition_object.DiskPartition attribute), 82
partition_length (cybox.objects.disk_partition_object.DiskPartition attribute), 82
partition_list (cybox.objects.disk_object.Disk attribute), 81
partition_offset (cybox.objects.disk_partition_object.DiskPartition attribute), 82
PartitionList (class in cybox.objects.disk_object), 81
passive_os_fingerprinting (cybox.objects.network_flow_object.YAFFlow attribute), 145
password_required (cybox.objects.user_account_object.UserAccount attribute), 233
PasswordProtectedZipEncryption (class in cybox.objects.artifact_object), 74
patch_level (cybox.objects.system_object.OS attribute), 221
path (cybox.objects.library_object.Library attribute), 116
path (cybox.objects.process_object.ImageInfo attribute), 211
pattern_fidelity (cybox.core.observable.Observable attribute), 60
PatternFidelity (class in cybox.core.pattern_fidelity), 63
payload_data (cybox.objects.network_packet_object.EncapsulatingSecurityPayload attribute), 150
payload_entropy (cybox.objects.network_flow_object.YAFFlow attribute), 145
payload_length (cybox.objects.network_packet_object.IPv6Header attribute), 171
PDFDictionary (class in cybox.objects.pdf_file_object), 196
PDFDocumentInformationDictionary (class in cybox.objects.pdf_file_object), 197
PDFFile (class in cybox.objects.pdf_file_object), 198
PDFFileID (class in cybox.objects.pdf_file_object), 199
PDFFileMetadata (class in cybox.objects.pdf_file_object), 199
PDFIndirectObject (class in cybox.objects.pdf_file_object), 200
PDFIndirectObjectContents (class in cybox.objects.pdf_file_object), 201
PDFIndirectObjectID (class in cybox.objects.pdf_file_object), 201
PDFIndirectObjectList (class in cybox.objects.pdf_file_object), 201
PDFKeywordCount (class in cybox.objects.pdf_file_object), 202
PDFKeywordCounts (class in cybox.objects.pdf_file_object), 202
PDFStream (class in cybox.objects.pdf_file_object), 204
PDFTrailer (class in cybox.objects.pdf_file_object), 205
PDFTrailerList (class in cybox.objects.pdf_file_object), 206
PDFXrefEntry (class in cybox.objects.pdf_file_object), 207
PDFXrefEntryList (class in cybox.objects.pdf_file_object), 207
PDFXRefTable (class in cybox.objects.pdf_file_object), 206
PDFXRefTableList (class in cybox.objects.pdf_file_object), 207
PDFXrefTableSubsection (class in cybox.objects.pdf_file_object), 208
PDFXrefTableSubsectionList (class in cybox.objects.pdf_file_object), 208
pe_checksum (cybox.objects.win_executable_file_object.WinExecutableFile attribute), 276
pe_computed_api (cybox.objects.win_executable_file_object.PEChecksum attribute), 260
pe_file_api (cybox.objects.win_executable_file_object.PEChecksum attribute), 260
pe_file_raw (cybox.objects.win_executable_file_object.PEChecksum attribute), 260
peak_entropy (cybox.objects.file_object.File attribute), 97
PEBuildInformation (class in cybox.objects.win_executable_file_object), 259
PEChecksum (class in cybox.objects.win_executable_file_object), 260

PEDataDirectoryStruct (class in cybox.objects.win_executable_file_object), 260
PEExportedFunction (class in cybox.objects.win_executable_file_object), 261
PEExportedFunctions (class in cybox.objects.win_executable_file_object), 261
PEExports (class in cybox.objects.win_executable_file_object), 262
PEFileHeader (class in cybox.objects.win_executable_file_object), 262
PEHeaders (class in cybox.objects.win_executable_file_object), 263
PEImport (class in cybox.objects.win_executable_file_object), 264
PEImportedFunction (class in cybox.objects.win_executable_file_object), 265
PEImportedFunctions (class in cybox.objects.win_executable_file_object), 266
PEImportList (class in cybox.objects.win_executable_file_object), 265
PEOptionalHeader (class in cybox.objects.win_executable_file_object), 266
PEResource (class in cybox.objects.win_executable_file_object), 270
PEResourceList (class in cybox.objects.win_executable_file_object), 271
permission_mode (cybox.objects.unix_pipe_object.UnixPipe attribute), 226
permissions (cybox.objects.file_object.File attribute), 97
permissions (cybox.objects.unix_file_object.UnixFile attribute), 223
permissions (cybox.objects.win_file_object.WinFile attribute), 278
permissions_mask (cybox.objects.unix_user_account_object.UnixPrivilege attribute), 228
Personnel (class in cybox.common.contributor), 24
PESection (class in cybox.objects.win_executable_file_object), 272
PESectionHeaderStruct (class in cybox.objects.win_executable_file_object), 272
PESectionList (class in cybox.objects.win_executable_file_object), 273
PEVersionInfoResource (class in cybox.objects.win_executable_file_object), 274
phone (cybox.common.contributor.Contributor attribute), 24
phone_number (cybox.objects.whois_object.WhoisContact attribute), 238
phone_number (cybox.objects.whois_object.WhoisRegistrar attribute), 241
physical_address (cybox.objects.arp_cache_object.ARPCacheEntry attribute), 77
physical_interface (cybox.objects.network_packet_object.LinkLayer attribute), 173
PhysicalInterface (class in cybox.objects.network_packet_object), 180
pid (cybox.objects.process_object.Process attribute), 213
Pipe (class in cybox.objects.pipe_object), 209
pipe_mode (cybox.objects.win_pipe_object.WinPipe attribute), 292
platform (cybox.common.measuresource.MeasureSource attribute), 37
platform (cybox.objects.api_object.API attribute), 69
platform (cybox.objects.system_object.OS attribute), 221
PlatformIdentifier (class in cybox.common.platform_specification), 39
PlatformSpecification (class in cybox.common.platform_specification), 40
pointer (cybox.objects.network_packet_object.ICMPv6ParameterProblem attribute), 165
pointer_count (cybox.objects.win_handle_object.WinHandle attribute), 282
pointer_to_linenumbers (cybox.objects.win_executable_file_object.PESectionHeaderStruct attribute), 273
pointer_to_raw_data (cybox.objects.win_executable_file_object.PESectionHeaderStruct attribute), 273
pointer_to_relocations (cybox.objects.win_executable_file_object.PESectionHeaderStruct attribute), 273
pointer_to_symbol_table (cybox.objects.win_executable_file_object.PEFileHeader attribute), 263
policy_constraints (cybox.objects.x509_certificate_object.X509V3Extensio attribute), 324
policy_mappings (cybox.objects.x509_certificate_object.X509V3Extension attribute), 324
Pools (class in cybox.core.pool), 64
pools (cybox.core.observable.Observables attribute), 62
Port (class in cybox.objects.port_object), 209

port (cybox.objects.http_session_object.HostField attribute), 115
port (cybox.objects.process_object.PortList attribute), 211
port (cybox.objects.socket_address_object.SocketAddress attribute), 216
port (cybox.objects.win_computer_account_object.KerberosService attribute), 244
port_list (cybox.objects.process_object.Process attribute), 213
port_unreachable (cybox.objects.network_packet_object.ICMPv6DestinationUnreachable attribute), 162
port_value (cybox.objects.port_object.Port attribute), 209
PortList (class in cybox.objects.process_object), 211
PositiveInteger (class in cybox.common.properties), 41
pragma (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 106
pragma (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 111
precedence (cybox.objects.email_message_object.EmailHeader attribute), 89
precedence_cutoff_in_effect (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 155
precision (cybox.common.datetimewithprecision.DateTimeWithPrecision attribute), 26
precision (cybox.common.datetimewithprecision.DateWithPrecision attribute), 26
preferred_lifetime (cybox.objects.network_packet_object.NDPPrefixInfo attribute), 175
preferred_lifetime (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 190
preferred_lifetime (cybox.objects.network_route_object.NetRoute attribute), 191
prefetch_hash (cybox.objects.win_prefetch_object.WinPrefetch attribute), 294
Prefix (class in cybox.objects.network_packet_object), 180
prefix (cybox.objects.network_packet_object.NDPPrefixInfo attribute), 176
prefix_info (cybox.objects.network_packet_object.RouterAdvertisementOption attribute), 182
prefix_length (cybox.objects.network_packet_object.NDPPrefixInfo attribute), 176
prev (cybox.objects.pdf_file_object.PDFTrailer attribute), 206
priority (cybox.objects.unix_process_object.UnixProcess attribute), 226
priority (cybox.objects.win_process_object.WinProcess attribute), 297
priority (cybox.objects.win_task_object.WinTask attribute), 314
priority (cybox.objects.win_thread_object.WinThread attribute), 315
private_key_usage_period (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 325
privatebuild (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 275
Privilege (class in cybox.objects.user_account_object), 232
privilege (cybox.objects.unix_user_account_object.UnixPrivilegeList attribute), 228
privilege (cybox.objects.user_account_object.PrivilegeList attribute), 232
privilege (cybox.objects.win_user_account_object.WinPrivilegeList attribute), 317
privilege_list (cybox.objects.unix_user_account_object.UnixUserAccount attribute), 229
privilege_list (cybox.objects.user_account_object.UserAccount attribute), 233
privilege_list (cybox.objects.win_user_account_object.WinUser attribute), 317
PrivilegeList (class in cybox.objects.user_account_object), 232
Process (class in cybox.objects.process_object), 211
process_count (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 308
processor (cybox.objects.system_object.System attribute), 222
processor_architecture (cybox.objects.system_object.System attribute), 222
processor_family (cybox.objects.code_object.Code attribute), 78
ProcessStatus (class in cybox.objects.process_object), 213
produced_time (cybox.common.time.Time attribute), 42
producer (cybox.objects.pdf_file_object.PDFDocumentInformationDictionary attribute), 197
Product (class in cybox.objects.product_object), 214
product (cybox.objects.product_object.Product attribute), 214
product_id (cybox.objects.win_system_object.WinSystemOptions attribute), 305
product_name (cybox.objects.win_system_object.WinSystem attribute), 305
productname (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 275
productversion (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 275
properties (cybox.core.object.Object attribute), 58
properties (cybox.core.pool.PropertyPool attribute), 65
Property (class in cybox.common.object_properties), 39
property_ (cybox.common.object_properties.CustomProperties attribute), 38
property_pool (cybox.core.pool.Pools attribute), 65
PropertyPool (class in cybox.core.pool), 65

protect (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 288
proto_addr_size (cybox.objects.network_packet_object.ARP attribute), 148
proto_addr_type (cybox.objects.network_packet_object.ARP attribute), 148
protocol (cybox.objects.network_packet_object.IPv4Header attribute), 168
protocol (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 190
protocol (cybox.objects.network_socket_object.NetworkSocket attribute), 193
proxy_authenticate (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 111
proxy_authorization (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 106
psh (cybox.objects.network_packet_object.TCPFlags attribute), 185
public_key_algorithm (cybox.objects.x509_certificate_object.SubjectPublicKey attribute), 320
purpose (cybox.objects.code_object.Code attribute), 78

Q

qclass (cybox.objects.dns_query_object.DNSQuestion attribute), 85
qname (cybox.objects.dns_query_object.DNSQuestion attribute), 85
qtype (cybox.objects.dns_query_object.DNSQuestion attribute), 85
queried_date (cybox.objects.dns_record_object.DNSRecord attribute), 87
question (cybox.objects.dns_query_object.DNSQuery attribute), 84

R

range_ (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 106
rate (cybox.core.frequency.Frequency attribute), 56
raw_artifact (cybox.objects.artifact_object.Artifact attribute), 71
raw_artifact_reference (cybox.objects.artifact_object.Artifact attribute), 71
raw_body (cybox.objects.email_message_object.EmailMessage attribute), 91
raw_certificate (cybox.objects.x509_certificate_object.X509Certificate attribute), 322
raw_contents (cybox.objects.pdf_file_object.PDFDictionary attribute), 197
raw_header (cybox.objects.email_message_object.EmailMessage attribute), 91
raw_header (cybox.objects.http_session_object.HTTPRequestHeader attribute), 103
raw_header (cybox.objects.http_session_object.HTTPResponseHeader attribute), 108
raw_stream (cybox.objects.pdf_file_object.PDFStream attribute), 204
raw_stream_hashes (cybox.objects.pdf_file_object.PDFStream attribute), 205
RawArtifact (class in cybox.objects.artifact_object), 74
reachable_time (cybox.objects.network_packet_object.RouterAdvertisement attribute), 182
read (cybox.objects.win_file_object.WindowsFilePermissions attribute), 279
read_and_execute (cybox.objects.win_file_object.WindowsFilePermissions attribute), 279
read_timeout (cybox.objects.win_mailslot_object.WinMailslot attribute), 287
reason_phrase (cybox.objects.http_session_object.HTTPStatusLine attribute), 114
receive_timestamp (cybox.objects.network_packet_object.ICMPv4TimestampReply attribute), 160
received (cybox.objects.email_message_object.ReceivedLineList attribute), 93
received_lines (cybox.objects.email_message_object.EmailHeader attribute), 89
received_time (cybox.common.time.Time attribute), 42
ReceivedLine (class in cybox.objects.email_message_object), 92
ReceivedLineList (class in cybox.objects.email_message_object), 93
recip_hardware_addr (cybox.objects.network_packet_object.ARP attribute), 149
recip_protocol_addr (cybox.objects.network_packet_object.ARP attribute), 149
recipient (cybox.objects.email_message_object.EmailRecipients attribute), 91
recipient_phone_number (cybox.objects.sms_message_object.SMSMessage attribute), 216
record_count (cybox.objects.network_flow_object.NetflowV9PacketHeader attribute), 136
record_data (cybox.objects.dns_record_object.DNSRecord attribute), 87
record_name (cybox.objects.dns_record_object.DNSRecord attribute), 87
record_type (cybox.objects.dns_record_object.DNSRecord attribute), 87
Redirect (class in cybox.objects.network_packet_object), 180
redirect (cybox.objects.network_packet_object.NDP at-

tribute), 174
redirect_message (cybox.objects.network_packet_object.ICMPv4Entry attribute), 156
redirected_header (cybox.objects.network_packet_object.RedirectOptions attribute), 181
RedirectOptions (class in cybox.objects.network_packet_object), 181
ref (cybox.objects.unix_network_route_entry_object.UnixNetworkRouteEntry attribute), 225
reference (cybox.common.tools.ToolReferences attribute), 46
reference_type (cybox.common.tools.ToolReference attribute), 46
references (cybox.common.tools.ToolInformation attribute), 44
referer (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 106
referral_url (cybox.objects.whois_object.WhoisRegistrar attribute), 242
referrer_url (cybox.objects.url_history_object.URLHistoryEntry attribute), 231
refresh (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 111
region_end_address (cybox.objects.memory_object.Memory attribute), 120
region_end_address (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 289
region_size (cybox.objects.memory_object.Memory attribute), 120
region_size (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 289
region_start_address (cybox.objects.memory_object.Memory attribute), 120
region_start_address (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 289
regional_internet_registry (cybox.objects.as_object.AutonomousSystem attribute), 76
regional_internet_registry (cybox.objects.whois_object.WhoisEntry attribute), 239
register_vocab() (in module cybox.common.vocabs), 49
registered_organization (cybox.objects.win_system_object.WinSystem attribute), 305
registered_owner (cybox.objects.win_system_object.WinSystem attribute), 305
registrant (cybox.objects.whois_object.WhoisRegistrants attribute), 241
registrant_id (cybox.objects.whois_object.WhoisRegistrant attribute), 241
registrant_name (cybox.objects.whois_object.WhoisEntry attribute), 239
registrar_info (cybox.objects.whois_object.WhoisRegistrar attribute), 242
registrar_id (cybox.objects.whois_object.WhoisRegistrar attribute), 242
registration_info (cybox.objects.whois_object.WhoisEntry attribute), 239
registry_hive_list (cybox.objects.win_system_restore_object.WinSystemRe attribute), 308
RegistrySubkeys (class in cybox.objects.win_registry_key_object), 298
RegistryValue (class in cybox.objects.win_registry_key_object), 299
RegistryValues (class in cybox.objects.win_registry_key_object), 299
reject_route (cybox.objects.network_packet_object.ICMPv6DestinationUnr attribute), 162
related_object (cybox.core.object.RelatedObjects attribute), 59
related_objects (cybox.core.object.Object attribute), 58
RelatedObject (class in cybox.core.object), 58
RelatedObjects (class in cybox.core.object), 58
relationship (cybox.core.action.ActionRelationships attribute), 53
relationship (cybox.core.object.RelatedObject attribute), 58
relationships (cybox.core.action.Action attribute), 51
release (cybox.objects.linux_package_object.LinuxPackage attribute), 118
remarks (cybox.objects.whois_object.WhoisEntry attribute), 240
remote_address (cybox.objects.network_socket_object.NetworkSocket attribute), 193
reply_to (cybox.objects.email_message_object.EmailHeader attribute), 89
reserved (cybox.objects.network_packet_object.IPv4Flags attribute), 166
reserved (cybox.objects.network_packet_object.TCPHeader attribute), 186
reserved (cybox.objects.win_event_log_object.WinEventLog attribute), 253
reserved (cybox.objects.win_executable_file_object.DataDirectory attribute), 258
reserved1 (cybox.objects.win_executable_file_object.DOSHeader attribute), 257
reserved2 (cybox.objects.win_executable_file_object.DOSHeader attribute), 257
resource (cybox.objects.win_executable_file_object.PEResourceList attribute), 271
resource_record (cybox.objects.dns_query_object.DNSResourceRecords attribute), 85
resource_table (cybox.objects.win_executable_file_object.DataDirectory

attribute), 259
resources (cybox.objects.win_executable_file_object.WinExecutableFile attribute), 276
restore_point_description (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 308
restore_point_full_path (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 308
restore_point_name (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 308
restore_point_type (cybox.objects.win_system_restore_object.WinSystemRestore attribute), 308
retrans_timer (cybox.objects.network_packet_object.RouterAdvertisement attribute), 182
retry_after (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 111
return_hop_count (cybox.objects.network_packet_object.ICMPv4TimeExceed attribute), 162
reverse_first_packet (cybox.objects.network_flow_object.YAFReverseFlow attribute), 146
reverse_flow (cybox.objects.network_flow_object.YAFRecord attribute), 146
reverse_flow_delta_milliseconds (cybox.objects.network_flow_object.YAFReverseFlow attribute), 146
reverse_n_bytes_payload (cybox.objects.network_flow_object.YAFReverseFlow attribute), 146
reverse_octet_total_count (cybox.objects.network_flow_object.YAFReverseFlow attribute), 147
reverse_packet_total_count (cybox.objects.network_flow_object.YAFReverseFlow attribute), 147
reverse_passive_os_fingerprinting (cybox.objects.network_flow_object.YAFReverseFlow attribute), 147
reverse_payload_entropy (cybox.objects.network_flow_object.YAFReverseFlow attribute), 147
reverse_vlan_id_mac_addr (cybox.objects.network_flow_object.YAFReverseFlow attribute), 147
richmedia_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 204
role (cybox.common.contributor.Contributor attribute), 24
root (cybox.objects.pdf_file_object.PDFTrailer attribute), 206
route (cybox.objects.network_subnet_object.Routes attribute), 196
route_age (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 190
route_age (cybox.objects.network_route_object.NetRoute attribute), 191
router_advertisement (cybox.objects.network_packet_object.NDP attribute), 174
router_flag (cybox.objects.network_packet_object.NeighborAdvertisement attribute), 177
router_lifetime (cybox.objects.network_packet_object.RouterAdvertisement attribute), 182
router_next_hop_ip (cybox.objects.network_flow_object.SiLKRecord attribute), 142
router_solicitation (cybox.objects.network_packet_object.NDP attribute), 174
RouterAdvertisement (class in cybox.objects.network_packet_object), 181
RouterAdvertisementOptions (class in cybox.objects.network_packet_object), 182
RouterSolicitation (class in cybox.objects.network_packet_object), 182
RouterSolicitationOptions (class in cybox.objects.network_packet_object), 183
Routes (class in cybox.objects.network_subnet_object), 196
routes (cybox.objects.network_subnet_object.NetworkSubnet attribute), 196
Routing (class in cybox.objects.network_packet_object), 183
routing (cybox.objects.network_packet_object.IPv6ExtHeader attribute), 170
routing_type (cybox.objects.network_packet_object.Routing attribute), 183
rsa_public_key (cybox.objects.x509_certificate_object.SubjectPublicKey attribute), 320
RSAPublicKey (class in cybox.objects.x509_certificate_object), 319
rst (cybox.objects.network_packet_object.TCPFlags attribute), 185
ruid (cybox.objects.unix_process_object.UnixProcess attribute), 227
runlengthdecode_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 204
running_status (cybox.objects.win_thread_object.WinThread attribute), 315

S

sampling_interval (cybox.objects.network_flow_object.NetflowV5FlowHea attribute), 129
scale (cybox.core.frequency.Frequency attribute), 56

scope_field_count (cybox.objects.network_flow_object.IPFIXOptionsTemplateRecord attribute), 125
scope_field_length (cybox.objects.network_flow_object.NetflowV9OptionsTemplateRecord attribute), 135
scope_field_type (cybox.objects.network_flow_object.NetflowV9OptionsTemplateRecord attribute), 135
scope_field_value (cybox.objects.network_flow_object.OptionsData attribute), 140
script_path (cybox.objects.user_account_object.UserAccount attribute), 234
search_distance (cybox.common.data_segment.DataSegment attribute), 25
search_within (cybox.common.data_segment.DataSegment attribute), 25
second_packet_banner (cybox.objects.network_flow_object.YAFFlow attribute), 145
section (cybox.objects.win_executable_file_object.PESectionList attribute), 274
section_alignment (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 269
section_header (cybox.objects.win_executable_file_object.PESection attribute), 272
section_list (cybox.objects.win_process_object.WinProcess attribute), 297
sections (cybox.objects.win_executable_file_object.WinExecutableFile attribute), 276
sectors_per_allocation_unit (cybox.objects.volume_object.Volume attribute), 236
security_attributes (cybox.objects.win_filemapping_object.WinFilemapping attribute), 281
security_attributes (cybox.objects.win_mailslot_object.WinMailslot attribute), 287
security_attributes (cybox.objects.win_mutex_object.WinMutex attribute), 289
security_attributes (cybox.objects.win_pipe_object.WinPipe attribute), 293
security_attributes (cybox.objects.win_semaphore_object.WinSemaphore attribute), 303
security_attributes (cybox.objects.win_thread_object.WinThread attribute), 316
security_attributes (cybox.objects.win_waitable_timer_object.WinWaitableTimer attribute), 319
security_id (cybox.objects.win_computer_account_object.WinComputerAccount attribute), 245
security_id (cybox.objects.win_file_object.WinFile attribute), 278
security_id (cybox.objects.win_process_object.WinProcess attribute), 298
security_id (cybox.objects.win_user_account_object.WinUser attribute), 317
security_parameters_index (cybox.objects.network_packet_object.AuthenticationHeader attribute), 149
security_parameters_index (cybox.objects.network_packet_object.EncapsulatingSecurityPayload attribute), 151
security_type (cybox.objects.win_file_object.WinFile attribute), 278
security_type (cybox.objects.win_process_object.WinProcess attribute), 298
security_type (cybox.objects.win_user_account_object.WinUser attribute), 318
segments_left (cybox.objects.network_packet_object.Routing attribute), 183
selector (cybox.objects.win_kernel_object.IDTEntry attribute), 283
Semaphore (class in cybox.objects.semaphore_object), 215
sender (cybox.objects.email_message_object.EmailHeader attribute), 90
sender_hardware_addr (cybox.objects.network_packet_object.ARP attribute), 149
sender_phone_number (cybox.objects.sms_message_object.SMSMessage attribute), 216
sender_protocol_addr (cybox.objects.network_packet_object.ARP attribute), 149
sensor_id (cybox.objects.network_flow_object.SiLKSensorInfo attribute), 143
sensor_info (cybox.objects.network_flow_object.SiLKRecord attribute), 142
sent_datetime (cybox.objects.sms_message_object.SMSMessage attribute), 217
seq_num (cybox.objects.network_packet_object.TCPHeader attribute), 186
sequence_number (cybox.objects.network_flow_object.IPFIXMessageHead attribute), 125
sequence_number (cybox.objects.network_flow_object.NetflowV9PacketHe attribute), 136
sequence_number (cybox.objects.network_packet_object.AuthenticationHe attribute), 150
sequence_number (cybox.objects.network_packet_object.EncapsulatingSec attribute), 151
serial_number (cybox.objects.device_object.Device attribute), 80
serial_number (cybox.objects.volume_object.Volume attribute), 236
serial_number (cybox.objects.x509_certificate_object.X509Cert attribute), 321
server (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 111
server_name (cybox.objects.whois_object.WhoisEntry attribute), 240

service (cybox.objects.win_computer_account_object.KerberosDelegation attribute), 244
service_counter_table_base (cybox.objects.win_kernel_object.SSDTEntry attribute), 284
service_dll (cybox.objects.win_service_object.WinService attribute), 301
service_dll_certificate_issuer (cybox.objects.win_service_object.WinService attribute), 302
service_dll_certificate_subject (cybox.objects.win_service_object.WinService attribute), 302
service_dll_hashes (cybox.objects.win_service_object.WinService attribute), 302
service_dll_signature_description (cybox.objects.win_service_object.WinService attribute), 302
service_dll_signature_exists (cybox.objects.win_service_object.WinService attribute), 302
service_dll_signature_verified (cybox.objects.win_service_object.WinService attribute), 302
service_name (cybox.objects.win_service_object.WinService attribute), 302
service_pack (cybox.common.tools.ToolInformation attribute), 44
service_status (cybox.objects.win_service_object.WinService attribute), 302
service_table_base (cybox.objects.win_kernel_object.SSDTEntry attribute), 284
service_type (cybox.objects.win_service_object.WinService attribute), 302
service_used (cybox.objects.dns_query_object.DNSQuery attribute), 84
ServiceDescriptionList (class in cybox.objects.win_service_object), 301
session_id (cybox.objects.unix_process_object.UnixProcess attribute), 227
session_tcp_flags (cybox.objects.network_flow_object.SiLKRecord attribute), 142
set_ (cybox.objects.network_flow_object.IPFIXMessage attribute), 124
set_cookie (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 112
set_header (cybox.objects.network_flow_object.IPFIXDataSet attribute), 124
set_header (cybox.objects.network_flow_object.IPFIXOptionsTemplateSet attribute), 126
set_header (cybox.objects.network_flow_object.IPFIXTemplateSet attribute), 129
set_id (cybox.objects.network_flow_object.IPFIXSetHeader attribute), 127
setup() (in module cybox.utils.autoentity), 325
sgid (cybox.objects.unix_file_object.UnixFilePermissions attribute), 224
show_message_body (cybox.objects.win_task_object.IShowMessageAction attribute), 309
show_message_title (cybox.objects.win_task_object.IShowMessageAction attribute), 310
sighting_count (cybox.common.measuresource.MeasureSource attribute), 37
sighting_count (cybox.core.observable.Observable attribute), 60
signature (cybox.objects.file_object.Packer attribute), 99
signature (cybox.objects.win_executable_file_object.PEHeaders attribute), 264
signature (cybox.objects.x509_certificate_object.X509CertificateSignature attribute), 322
signature_algorithm (cybox.objects.x509_certificate_object.X509Cert attribute), 321
signature_algorithm (cybox.objects.x509_certificate_object.X509CertificateSignature attribute), 322
signature_description (cybox.common.digitalsignature.DigitalSignature attribute), 28
signature_exists (cybox.common.digitalsignature.DigitalSignature attribute), 28
signature_verified (cybox.common.digitalsignature.DigitalSignature attribute), 28
silk_app_label (cybox.objects.network_flow_object.YAFFlow attribute), 145
silk_record (cybox.objects.network_flow_object.UnidirectionalRecord attribute), 144
SiLKAddress (class in cybox.objects.network_flow_object), 140
SiLKCountryCode (class in cybox.objects.network_flow_object), 140
SiLKFlowAttributes (class in cybox.objects.network_flow_object), 140
SiLKRecord (class in cybox.objects.network_flow_object), 140
SiLKSensorClass (class in cybox.objects.network_flow_object), 143
SiLKSensorDirection (class in cybox.objects.network_flow_object), 143
SiLKSensorInfo (class in cybox.objects.network_flow_object), 143
simple_hash_value (cybox.common.hashes.Hash attribute), 34
size (cybox.objects.library_object.Library attribute), 116

size (cybox.objects.pdf_file_object.PDFTrailer attribute), 206
size (cybox.objects.sms_message_object.SMSMessage attribute), 217
size (cybox.objects.win_executable_file_object.PEDataDirectoryStruct attribute), 260
size (cybox.objects.win_executable_file_object.PEResource attribute), 271
size_in_bytes (cybox.objects.file_object.File attribute), 97
size_in_bytes (cybox.objects.win_file_object.Stream attribute), 277
size_of_code (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 269
size_of_headers (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 269
size_of_heap_commit (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 269
size_of_heap_reserve (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 269
size_of_image (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 269
size_of_initialized_data (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 269
size_of_optional_header (cybox.objects.win_executable_file_object.PEFileHeader attribute), 263
size_of_raw_data (cybox.objects.win_executable_file_object.PESectionHeader attribute), 273
size_of_stack_commit (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 270
size_of_stack_reserve (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 270
size_of_uninitialized_data (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 270
SMSMessage (class in cybox.objects.sms_message_object), 216
so_broadcast (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_conditional_accept (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_debug (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_dontlinger (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_dontroute (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_group_priority (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_keepalive (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_linger (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_oobinline (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_rcvbuf (cybox.objects.network_socket_object.SocketOptions attribute), 194
so_rcvtimeo (cybox.objects.network_socket_object.SocketOptions attribute), 195
so_reuseaddr (cybox.objects.network_socket_object.SocketOptions attribute), 195
so_sndbuf (cybox.objects.network_socket_object.SocketOptions attribute), 195
so_sndtimeo (cybox.objects.network_socket_object.SocketOptions attribute), 195
so_timeout (cybox.objects.network_socket_object.SocketOptions attribute), 195
so_update_accept_context (cybox.objects.network_socket_object.SocketOptions attribute), 195
socket_descriptor (cybox.objects.network_socket_object.NetworkSocket attribute), 193
SocketAddress (class in cybox.objects.socket_address_object), 215
SocketOptions (class in cybox.objects.network_socket_object), 193
solicited_flag (cybox.objects.network_packet_object.NeighborAdvertisement attribute), 177
source (cybox.objects.win_event_log_object.WinEventLog attribute), 253
source_host_isolated (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 155
source_id (cybox.objects.network_flow_object.NetflowV9PacketHeader attribute), 136
source_mac_addr (cybox.objects.network_packet_object.EthernetHeader attribute), 151
source_quench (cybox.objects.network_packet_object.ICMPv4ErrorMessage attribute), 156
source_quench (cybox.objects.network_packet_object.ICMPv4SourceQuench attribute), 159
source_route_failed (cybox.objects.network_packet_object.ICMPv4DestinationUnreachable attribute), 155
source_socket_address (cybox.objects.network_connection_object.NetworkConnection attribute), 122
source_tcp_state (cybox.objects.network_connection_object.NetworkConnection attribute), 122
source_type (cybox.common.measuresource.MeasureSource attribute), 37

space_left (cybox.objects.disk_partition_object.DiskPartition attribute), 83
space_used (cybox.objects.disk_partition_object.DiskPartition attribute), 83
specialbuild (cybox.objects.win_executable_file_object.PEVersionInfoResource attribute), 275
spin_count (cybox.objects.win_critical_section_object.WinCriticalSection attribute), 245
sponsoring_registrar (cybox.objects.whois_object.WhoisEntry attribute), 240
src_addr_failed_policy (cybox.objects.network_packet_object.ICMPv6DestinationUnreachable attribute), 162
src_autonomous_system (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 131
src_country_code (cybox.objects.network_flow_object.SiLKRecord attribute), 142
src_ip_mask_bit_count (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 131
src_ip_type (cybox.objects.network_flow_object.SiLKRecord attribute), 142
src_ipv4_addr (cybox.objects.network_packet_object.IPv4Header attribute), 168
src_ipv6_addr (cybox.objects.network_packet_object.IPv6Header attribute), 171
src_link_addr (cybox.objects.network_packet_object.NeighborSolicitationOptions attribute), 178
src_link_addr (cybox.objects.network_packet_object.RouterAdvertisementOptions attribute), 182
src_link_addr (cybox.objects.network_packet_object.RouterSolicitationOptions attribute), 183
src_mapname (cybox.objects.network_flow_object.SiLKRecord attribute), 142
src_port (cybox.objects.network_packet_object.TCPHeader attribute), 186
src_socket_address (cybox.objects.network_flow_object.NetworkLayerInfo attribute), 139
srcport (cybox.objects.network_packet_object.UDPHeader attribute), 188
ssdt (cybox.objects.win_kernel_object.WinKernel attribute), 285
ssdt_entry (cybox.objects.win_kernel_object.SSDTEntryList attribute), 285
SSDTEntry (class in cybox.objects.win_kernel_object), 284
SSDTEntryList (class in cybox.objects.win_kernel_object), 285
stack_size (cybox.objects.win_thread_object.WinThread attribute), 316
standard_extensions (cybox.objects.x509_certificate_object.X509Cert attribute), 321
start_address (cybox.objects.code_object.Code attribute), 78
start_address (cybox.objects.win_thread_object.WinThread attribute), 316
start_date (cybox.common.daterange.DateRange attribute), 26
start_time (cybox.common.execution_environment.ExecutionEnvironment attribute), 30
start_time (cybox.common.time.Time attribute), 43
start_time (cybox.objects.network_flow_object.SiLKRecord attribute), 142
start_time (cybox.objects.process_object.Process attribute), 213
started_as (cybox.objects.win_service_object.WinService attribute), 303
startup_command_line (cybox.objects.win_service_object.WinService attribute), 303
startup_info (cybox.objects.win_process_object.WinProcess attribute), 298
startup_type (cybox.objects.win_service_object.WinService attribute), 303
StartupInfo (class in cybox.objects.win_process_object), 295
state (cybox.core.object.Object attribute), 58
state (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 289
status (cybox.objects.process_object.Process attribute), 213
status (cybox.objects.whois_object.WhoisEntry attribute), 240
status (cybox.objects.whois_object.WhoisStatuses attribute), 242
status (cybox.objects.win_task_object.WinTask attribute), 314
status_code (cybox.objects.http_session_object.HTTPStatusLine attribute), 114
Stream (class in cybox.objects.win_file_object), 277
stream (cybox.objects.win_file_object.StreamList attribute), 277
stream_contents (cybox.objects.pdf_file_object.PDFIndirectObjectContents attribute), 201
stream_list (cybox.objects.win_file_object.WinFile attribute), 279
StreamList (class in cybox.objects.win_file_object), 277
strict_transport_security (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 112
String (class in cybox.common.properties), 41
string_value (cybox.common.extracted_string.ExtractedString attribute), 33
strings (cybox.common.extracted_features.ExtractedFeatures

attribute), 32
structured_authentication_mechanism (cybox.objects.account_object.Authentication attribute), 67
StructuredAuthenticationMechanism (class in cybox.objects.account_object), 67
StructuredText (class in cybox.common.structured_text), 42
structuring_format (cybox.common.structured_text.StructuredText attribute), 42
sub_language (cybox.objects.win_executable_file_object.PEResource attribute), 271
subject (cybox.objects.email_message_object.EmailHeader attribute), 90
subject (cybox.objects.pdf_file_object.PDFDocumentInformationDict attribute), 198
subject (cybox.objects.x509_certificate_object.X509Cert attribute), 321
subject_alternative_name (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 325
subject_directory_attributes (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 325
subject_key_identifier (cybox.objects.x509_certificate_object.X509V3Extensions attribute), 325
subject_public_key (cybox.objects.x509_certificate_object.X509Cert attribute), 321
SubjectPublicKey (class in cybox.objects.x509_certificate_object), 320
subkey (cybox.objects.win_registry_key_object.RegistrySubkeys attribute), 298
subkeys (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 300
subnet_mask (cybox.objects.system_object.IPInfo attribute), 218
subsection (cybox.objects.pdf_file_object.PDFXrefTableSubsectionList attribute), 208
subsections (cybox.objects.pdf_file_object.PDFXRefTable attribute), 207
subsystem (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 270
successful (cybox.objects.dns_query_object.DNSQuery attribute), 85
suid (cybox.objects.unix_file_object.UnixFilePermissions attribute), 224
suspected_malicious (cybox.objects.artifact_object.Artifact attribute), 71
sym_link (cybox.objects.file_object.SymLinksList attribute), 100
sym_links (cybox.objects.file_object.File attribute), 97
symbolic_name (cybox.objects.win_system_object.GlobalFlag attribute), 304
SymLinksList (class in cybox.objects.file_object), 99
syn (cybox.objects.network_packet_object.TCPFlags attribute), 185
sys_up_time (cybox.objects.network_flow_object.NetflowV5FlowHeader attribute), 130
sys_up_time (cybox.objects.network_flow_object.NetflowV9PacketHeader attribute), 136
System (class in cybox.objects.system_object), 221
system (cybox.common.execution_environment.ExecutionEnvironment attribute), 31
system (cybox.common.measuresource.MeasureSource attribute), 38
system (cybox.common.platform_specification.PlatformIdentifier attribute), 39
system_details (cybox.objects.device_object.Device attribute), 80
system_ref (cybox.common.platform_specification.PlatformIdentifier attribute), 39
system_time (cybox.objects.system_object.System attribute), 222
sysuptime_end (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 131
sysuptime_start (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 131

T

target_ipv6_addr (cybox.objects.network_packet_object.NeighborAdvertise attribute), 177
target_ipv6_addr (cybox.objects.network_packet_object.NeighborSolicitation attribute), 177
target_ipv6_addr (cybox.objects.network_packet_object.Redirect attribute), 181
target_link_addr (cybox.objects.network_packet_object.NeighborOptions attribute), 177
target_link_addr (cybox.objects.network_packet_object.RedirectOptions attribute), 181
targeted_platform (cybox.objects.code_object.TargetedPlatforms attribute), 79
targeted_platforms (cybox.objects.code_object.Code attribute), 78
TargetedPlatforms (class in cybox.objects.code_object), 79
TaskAction (class in cybox.objects.win_task_object), 310
TaskActionList (class in cybox.objects.win_task_object), 311
TCP (class in cybox.objects.network_packet_object), 184
tcp (cybox.objects.network_packet_object.TransportLayer attribute), 187
tcp_flags (cybox.objects.network_flow_object.NetflowV5FlowRecord attribute), 131

tcp_flags (cybox.objects.network_flow_object.SiLKRecord attribute), 142
tcp_flags (cybox.objects.network_packet_object.TCPHeader attribute), 186
tcp_flow (cybox.objects.network_flow_object.YAFFlow attribute), 145
tcp_header (cybox.objects.network_packet_object.TCP attribute), 184
tcp_nodelay (cybox.objects.network_socket_object.SocketOptions attribute), 195
tcp_reverse_flow (cybox.objects.network_flow_object.YAFReverseFlow attribute), 147
tcp_sequence_number (cybox.objects.network_flow_object.YAFTCPFlow attribute), 148
TCPFlags (class in cybox.objects.network_packet_object), 184
TCPHeader (class in cybox.objects.network_packet_object), 185
te (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 106
template_flow_set (cybox.objects.network_flow_object.NetflowV9FlowSet attribute), 134
template_id (cybox.objects.network_flow_object.IPFIXOptionsTemplateRecord attribute), 126
template_id (cybox.objects.network_flow_object.IPFIXTemplateRecord attribute), 128
template_id (cybox.objects.network_flow_object.NetflowV9OptionsTemplateRecord attribute), 135
template_id (cybox.objects.network_flow_object.NetflowV9TemplateRecord attribute), 138
template_record (cybox.objects.network_flow_object.IPFIXSet attribute), 129
template_record (cybox.objects.network_flow_object.NetflowV9Set attribute), 137
template_record_header (cybox.objects.network_flow_object.IPFIXTemplateRecord attribute), 127
template_set (cybox.objects.network_flow_object.IPFIXSet attribute), 127
thread (cybox.objects.win_process_object.WinProcess attribute), 298
thread_id (cybox.objects.win_hook_object.WinHook attribute), 283
thread_id (cybox.objects.win_thread_object.WinThread attribute), 316
ticket (cybox.objects.win_computer_account_object.KerberosTicket attribute), 243
Time (class in cybox.common.properties), 41
Time (class in cybox.common.time), 42
time (cybox.common.measuresource.MeasureSource attribute), 38
time_date_stamp (cybox.objects.win_executable_file_object.PEFileHeader attribute), 263
time_exceeded (cybox.objects.network_packet_object.ICMPv4ErrorMessage attribute), 156
time_exceeded (cybox.objects.network_packet_object.ICMPv6ErrorMessage attribute), 163
times_executed (cybox.objects.win_prefetch_object.WinPrefetch attribute), 295
timestamp (cybox.core.action.Action attribute), 51
timestamp (cybox.objects.email_message_object.ReceivedLine attribute), 93
timestamp (cybox.objects.network_packet_object.ICMPv4TimestampRequest attribute), 161
timestamp (cybox.objects.unix_process_object.UnixProcessStatus attribute), 227
timestamp_reply (cybox.objects.network_packet_object.ICMPv4InfoMessage attribute), 158
timestamp_reply (cybox.objects.network_packet_object.ICMPv4TimestampReply attribute), 160
timestamp_request (cybox.objects.network_packet_object.ICMPv4InfoMessage attribute), 158
timezone_dst (cybox.objects.system_object.System attribute), 222
timezone_standard (cybox.objects.system_object.System attribute), 222
title (cybox.core.observable.Observable attribute), 61
title (cybox.objects.pdf_file_object.PDFDocumentInformationDictionary attribute), 198
TLSData (cybox.objects.win_executable_file_object.DataDirectory attribute), 259
to_port (cybox.objects.network_connection_object.NetworkConnection attribute), 122
To (cybox.objects.email_message_object.EmailHeader attribute), 90
to_dict() (cybox.common.datetimewithprecision.DateTimeWithPrecision method), 26
to_dict() (cybox.common.datetimewithprecision.DateWithPrecision method), 27
to_dict() (cybox.common.location.Location method), 36
to_dict() (cybox.common.object_properties.ObjectProperties method), 39
to_dict() (cybox.common.structured_text.StructuredText method), 42
to_dict() (cybox.common.tools.ToolSpecificData method), 46
to_dict() (cybox.common.vocabs.VocabString method), 48
to_dict() (cybox.core.object.DomainSpecificObjectProperties method), 56
to_dict() (cybox.core.object.RelatedObject method), 58
to_dict() (cybox.objects.artifact_object.Artifact method), 71
to_dict() (cybox.objects.process_object.ProcessStatus method), 213
to_dict() (cybox.objects.user_account_object.Group

method), 232
to_dict() (cybox.objects.user_account_object.Privilege method), 232
to_dict() (cybox.objects.win_executable_file_object.PEResource method), 271
to_obj() (cybox.common.object_properties.ObjectProperties method), 39
to_obj() (cybox.common.vocabs.VocabString method), 49
to_obj() (cybox.core.object.DomainSpecificObjectProperties method), 56
to_obj() (cybox.core.object.RelatedObject method), 58
to_obj() (cybox.objects.artifact_object.Artifact method), 71
tool (cybox.common.tools.ToolInformationList attribute), 45
tool_configuration (cybox.common.tools.ToolInformation attribute), 45
tool_hashes (cybox.common.tools.ToolInformation attribute), 45
tool_specific_data (cybox.common.tools.ToolInformation attribute), 45
tool_type (cybox.common.measuresource.MeasureSource attribute), 38
ToolConfiguration (class in cybox.common.tools), 43
ToolInformation (class in cybox.common.tools), 43
ToolInformationList (class in cybox.common.tools), 45
ToolReference (class in cybox.common.tools), 46
ToolReferences (class in cybox.common.tools), 46
tools (cybox.common.measuresource.MeasureSource attribute), 38
ToolSpecificData (class in cybox.common.tools), 46
ToolType (class in cybox.common.vocabs), 48
tos_host_redirect (cybox.objects.network_packet_object.ICMPv4RedirectMessage attribute), 159
tos_network_redirect (cybox.objects.network_packet_object.ICMPv4RedirectMessage attribute), 159
total_allocation_units (cybox.objects.volume_object.Volume attribute), 236
total_length (cybox.objects.network_packet_object.IPv4Header attribute), 168
total_physical_memory (cybox.objects.system_object.System attribute), 223
total_space (cybox.objects.disk_partition_object.DiskPartition attribute), 83
traceroute (cybox.objects.network_packet_object.ICMPv4Packet attribute), 159
traffic_class (cybox.objects.network_packet_object.IPv6Header attribute), 171
trailer (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 112
trailer (cybox.objects.pdf_file_object.PDFTrailerList attribute), 206
trailers (cybox.objects.pdf_file_object.PDFFile attribute), 198
transaction_id (cybox.objects.dns_query_object.DNSQuery attribute), 85
transfer_encoding (cybox.objects.http_session_object.HTTPResponseHeade attribute), 112
transmit_timestamp (cybox.objects.network_packet_object.ICMPv4TimestampReply attribute), 160
transport_layer (cybox.objects.network_packet_object.NetworkPacket attribute), 178
TransportLayer (class in cybox.objects.network_packet_object), 186
trapped (cybox.objects.pdf_file_object.PDFDocumentInformationDictionar attribute), 198
trend (cybox.core.frequency.Frequency attribute), 56
Trigger (class in cybox.objects.win_task_object), 311
trigger (cybox.objects.win_task_object.TriggerList attribute), 312
trigger_begin (cybox.objects.win_task_object.Trigger attribute), 311
trigger_delay (cybox.objects.win_task_object.Trigger attribute), 311
trigger_end (cybox.objects.win_task_object.Trigger attribute), 311
trigger_frequency (cybox.objects.win_task_object.Trigger attribute), 311
trigger_list (cybox.objects.win_task_object.WinTask attribute), 314
trigger_max_run_time (cybox.objects.win_task_object.Trigger attribute), 311
trigger_session_change_type (cybox.objects.win_task_object.Trigger attribute), 312
trigger_type (cybox.objects.win_task_object.Trigger attribute), 312
TriggerList (class in cybox.objects.win_task_object), 312
ttl (cybox.objects.dns_cache_object.DNSCacheEntry attribute), 84
ttl (cybox.objects.dns_record_object.DNSRecord attribute), 87
ttl (cybox.objects.network_packet_object.IPv4Header attribute), 168
ttl (cybox.objects.network_packet_object.IPv6Header attribute), 171
ttl_exceeded_in_transit (cybox.objects.network_packet_object.ICMPv4TimeExceeded attribute), 160
type (cybox.core.action.ActionRelationship attribute), 52
type (cybox.common.hashes.Hash attribute), 34
type_ (cybox.common.tools.ToolInformation attribute),

45
type_ (cybox.core.action.Action attribute), 51
type_ (cybox.core.event.Event attribute), 55
type_ (cybox.objects.arp_cache_object.ARPCacheEntry attribute), 77
type_ (cybox.objects.artifact_object.Artifact attribute), 71
type_ (cybox.objects.code_object.Code attribute), 78
type_ (cybox.objects.disk_object.Disk attribute), 81
type_ (cybox.objects.disk_partition_object.DiskPartition attribute), 83
type_ (cybox.objects.domain_name_object.DomainName attribute), 87
type_ (cybox.objects.file_object.EntryPointSignature attribute), 94
type_ (cybox.objects.file_object.Packer attribute), 99
type_ (cybox.objects.library_object.Library attribute), 116
type_ (cybox.objects.network_flow_object.SiLKSensorInfo attribute), 143
type_ (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 190
type_ (cybox.objects.network_socket_object.NetworkSocket attribute), 193
type_ (cybox.objects.pdf_file_object.PDFIndirectObject attribute), 200
type_ (cybox.objects.pdf_file_object.PDFXrefEntry attribute), 207
type_ (cybox.objects.unix_file_object.UnixFile attribute), 224
type_ (cybox.objects.uri_object.URI attribute), 230
type_ (cybox.objects.win_computer_account_object.WinComputerAccount attribute), 245
type_ (cybox.objects.win_event_log_object.WinEventLog attribute), 253
type_ (cybox.objects.win_event_object.WinEvent attribute), 254
type_ (cybox.objects.win_executable_file_object.PEResource attribute), 271
type_ (cybox.objects.win_executable_file_object.WinExecutableFile attribute), 277
type_ (cybox.objects.win_handle_object.WinHandle attribute), 282
type_ (cybox.objects.win_hook_object.WinHook attribute), 283
type_ (cybox.objects.win_kernel_hook_object.WinKernelHook attribute), 286
type_ (cybox.objects.win_memory_page_region_object.WinMemoryPageRegion attribute), 289
type_ (cybox.objects.win_network_share_object.WinNetworkShare attribute), 291
type_ (cybox.objects.win_waitable_timer_object.WinWaitableTimer attribute), 319
type_attr (cybox.objects.win_kernel_object.IDTEntry attribute), 283
type_or_length (cybox.objects.network_packet_object.EthernetHeader attribute), 151
type_specific_data (cybox.objects.network_packet_object.Routing attribute), 184
TypeLength (class in cybox.objects.network_packet_object), 187

U

UDP (class in cybox.objects.network_packet_object), 187
udp (cybox.objects.network_packet_object.TransportLayer attribute), 187
udp_header (cybox.objects.network_packet_object.UDP attribute), 187
UDPHeader (class in cybox.objects.network_packet_object), 188
uexec (cybox.objects.unix_file_object.UnixFilePermissions attribute), 224
unformatted_message (cybox.objects.win_event_log_object.UnformattedMessageList attribute), 251
unformatted_message_list (cybox.objects.win_event_log_object.WinEventLog attribute), 253
UnformattedMessageList (class in cybox.objects.win_event_log_object), 251
unidirectional_flow_record (cybox.objects.network_flow_object.NetworkFlow attribute), 138
UnidirectionalRecord (class in cybox.objects.network_flow_object), 143
union_tcp_flags (cybox.objects.network_flow_object.YAFTCPFlow attribute), 148
units (cybox.common.data_segment.DataSize attribute), 25
units (cybox.core.frequency.Frequency attribute), 56
unix_nsecs (cybox.objects.network_flow_object.NetflowV5FlowHeader attribute), 130
unix_secs (cybox.objects.network_flow_object.NetflowV5FlowHeader attribute), 130
unix_secs (cybox.objects.network_flow_object.NetflowV9PacketHeader attribute), 136
UnixFile (class in cybox.objects.unix_file_object), 223
UnixFilePermissions (class in cybox.objects.unix_file_object), 224
UnixGroup (class in cybox.objects.unix_user_account_object), 227
UnixGroupList (class in cybox.objects.unix_user_account_object), 228
UnixNetworkRouteEntry (class in cybox.objects.unix_network_route_entry_object), 225
UnixPipe (class in cybox.objects.unix_pipe_object), 226
UnixPrivilege (class in cybox.objects.unix_user_account_object), 228

UnixPrivilegeList (class in cybox.objects.unix_user_account_object), 228
UnixProcess (class in cybox.objects.unix_process_object), 226
UnixProcessState (class in cybox.objects.unix_process_object), 227
UnixProcessStatus (class in cybox.objects.unix_process_object), 227
UnixUserAccount (class in cybox.objects.unix_user_account_object), 228
UnixVolume (class in cybox.objects.unix_volume_object), 229
UnknownObjectType, 325
unpack() (cybox.objects.artifact_object.Base64Encoding method), 72
unpack() (cybox.objects.artifact_object.Bz2Compression method), 72
unpack() (cybox.objects.artifact_object.Compression method), 72
unpack() (cybox.objects.artifact_object.Encoding method), 73
unpack() (cybox.objects.artifact_object.Encryption method), 74
unpack() (cybox.objects.artifact_object.PasswordProtectedZipEncryption method), 74
unpack() (cybox.objects.artifact_object.XOREncryption method), 75
unpack() (cybox.objects.artifact_object.ZlibCompression method), 75
unrecognized_ipv6_option (cybox.objects.network_packet_object.ICMPv6ParameterProblem attribute), 165
unrecognized_next_header_type (cybox.objects.network_packet_object.ICMPv6ParameterProblem attribute), 166
UnsignedInteger (class in cybox.common.properties), 41
UnsignedLong (class in cybox.common.properties), 41
unwrap_cdata() (in module cybox.utils), 326
update (cybox.objects.product_object.Product attribute), 214
updated_date (cybox.objects.whois_object.WhoisEntry attribute), 240
uptime (cybox.objects.system_object.System attribute), 223
uread (cybox.objects.unix_file_object.UnixFilePermissions attribute), 225
urg (cybox.objects.network_packet_object.TCPFlags attribute), 185
urg_ptr (cybox.objects.network_packet_object.TCPHeader attribute), 186
URI (class in cybox.objects.uri_object), 230
url (cybox.objects.url_history_object.URLHistoryEntry attribute), 231
url_history_entry (cybox.objects.url_history_object.URLHistory attribute), 230
url_label (cybox.objects.link_object.Link attribute), 117
URLHistory (class in cybox.objects.url_history_object), 230
URLHistoryEntry (class in cybox.objects.url_history_object), 230
usage_context_assumption (cybox.common.usage_context.UsageContextAssumptions attribute), 47
usage_context_assumptions (cybox.common.tools.ToolConfiguration attribute), 43
UsageContextAssumptions (class in cybox.common.usage_context), 46
use (cybox.objects.unix_network_route_entry_object.UnixNetworkRouteEn attribute), 225
user (cybox.objects.win_computer_account_object.KerberosService attribute), 244
user (cybox.objects.win_event_log_object.WinEventLog attribute), 253
user_account_info (cybox.common.execution_environment.ExecutionEnvir attribute), 31
user_agent (cybox.objects.email_message_object.EmailHeader attribute), 90
user_agent (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 106
user_data_header (cybox.objects.sms_message_object.SMSMessage attribute), 217
user_id (cybox.objects.unix_user_account_object.UnixUserAccount attribute), 229
user_id (cybox.objects.file_object.File attribute), 97
user_password_age (cybox.objects.user_account_object.UserAccount attribute), 234
user_profile_name (cybox.objects.url_history_object.URLHistoryEntry attribute), 232
user_right (cybox.objects.win_user_account_object.WinPrivilege attribute), 317
user_time (cybox.objects.process_object.Process attribute), 213
UserAccount (class in cybox.objects.user_account_object), 233
username (cybox.objects.process_object.Process attribute), 213
username (cybox.objects.system_object.System attribute), 223
username (cybox.objects.user_account_object.UserAccount attribute), 234
UserSession (class in cybox.objects.user_session_object), 234
uwrite (cybox.objects.unix_file_object.UnixFilePermissions attribute), 225

V

valid_lifetime (cybox.objects.network_packet_object.NDPPrefixInfo attribute), 176
valid_lifetime (cybox.objects.network_route_entry_object.NetworkRouteEntry attribute), 190
valid_lifetime (cybox.objects.network_route_object.NetRoute attribute), 191
validate_artifact_type() (in module cybox.objects.artifact_object), 75
validate_byte_order_endianness() (in module cybox.objects.artifact_object), 75
validate_date_precision() (in module cybox.common.datetimewithprecision), 27
validate_datetime_precision() (in module cybox.common.datetimewithprecision), 27
validate_event() (in module cybox.core.observable), 62
validate_id_string() (in module cybox.objects.pdf_file_object), 209
validate_object() (in module cybox.core.observable), 62
validate_observable_composition() (in module cybox.core.observable), 62
validate_operator() (in module cybox.core.observable), 62
validate_pdf_object_type() (in module cybox.objects.pdf_file_object), 209
validate_pdf_ref_entry_type() (in module cybox.objects.pdf_file_object), 209
validate_time_precision() (in module cybox.common.datetimewithprecision), 27
validate_value() (in module cybox.common.vocabs), 49
Validity (class in cybox.objects.x509_certificate_object), 320
validity (cybox.objects.x509_certificate_object.X509Cert attribute), 321
value (cybox.common.datetimewithprecision.DateTimeWithPrecision attribute), 26
value (cybox.common.datetimewithprecision.DateWithPrecision attribute), 27
value (cybox.common.environment_variable.EnvironmentVariable attribute), 29
value (cybox.common.structured_text.StructuredText attribute), 42
value (cybox.common.tools.ToolReference attribute), 46
value (cybox.common.vocabs.VocabString attribute), 49
value (cybox.objects.domain_name_object.DomainName attribute), 87
value (cybox.objects.http_session_object.HTTPRequestLine attribute), 107
value (cybox.objects.uri_object.URI attribute), 230
value (cybox.objects.win_executable_file_object.Entropy attribute), 259
value (cybox.objects.win_registry_key_object.RegistryValues attribute), 299
values (cybox.objects.win_registry_key_object.WinRegistryKey attribute), 301
vary (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 112
vendor (cybox.common.tools.ToolInformation attribute), 45
vendor (cybox.objects.linux_package_object.LinuxPackage attribute), 118
vendor (cybox.objects.product_object.Product attribute), 214
version (cybox.common.libraries.Library attribute), 36
version (cybox.common.tools.ToolInformation attribute), 45
version (cybox.objects.archive_file_object.ArchiveFile attribute), 70
version (cybox.objects.file_object.Packer attribute), 99
version (cybox.objects.http_session_object.HTTPRequestLine attribute), 107
version (cybox.objects.http_session_object.HTTPStatusLine attribute), 114
version (cybox.objects.library_object.Library attribute), 116
version (cybox.objects.linux_package_object.LinuxPackage attribute), 118
version (cybox.objects.network_flow_object.IPFIXMessageHeader attribute), 125
version (cybox.objects.network_flow_object.NetflowV5FlowHeader attribute), 130
version (cybox.objects.network_flow_object.NetflowV9PacketHeader attribute), 136
version (cybox.objects.pdf_file_object.PDFFile attribute), 199
version (cybox.objects.product_object.Product attribute), 214
version (cybox.objects.x509_certificate_object.X509Cert attribute), 321
via (cybox.objects.email_message_object.ReceivedLine attribute), 93
via (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 106
via (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 112
virtual_address (cybox.objects.win_executable_file_object.PEDataDirectory attribute), 261
virtual_address (cybox.objects.win_executable_file_object.PEImport attribute), 265
virtual_address (cybox.objects.win_executable_file_object.PEImportedFunc attribute), 266
virtual_address (cybox.objects.win_executable_file_object.PEResource attribute), 271
virtual_address (cybox.objects.win_executable_file_object.PESectionHeade attribute), 273
virtual_size (cybox.objects.win_executable_file_object.PESectionHeaderSt attribute), 273
visit_count (cybox.objects.url_history_object.URLHistoryEntry

attribute), 232
vlan_id_mac_addr (cybox.objects.network_flow_object.YAFFlow attribute), 146
vlan_name (cybox.objects.address_object.Address attribute), 68
vlan_num (cybox.objects.address_object.Address attribute), 68
vocab_name (cybox.common.vocabs.VocabString attribute), 49
vocab_reference (cybox.common.vocabs.VocabString attribute), 49
VocabString (class in cybox.common.vocabs), 48
Volume (class in cybox.objects.volume_object), 235
Volume (class in cybox.objects.win_prefetch_object), 293
volume (cybox.objects.win_prefetch_object.WinPrefetch attribute), 295
VolumeFileSystemFlag (class in cybox.objects.volume_object), 237
volumeitem (cybox.objects.win_prefetch_object.Volume attribute), 294

W

warning (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 106
warning (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 112
whois_server (cybox.objects.whois_object.WhoisRegistrar attribute), 242
WhoisContact (class in cybox.objects.whois_object), 237
WhoisContacts (class in cybox.objects.whois_object), 238
WhoisEntry (class in cybox.objects.whois_object), 238
WhoisNameservers (class in cybox.objects.whois_object), 240
WhoisRegistrant (class in cybox.objects.whois_object), 240
WhoisRegistrants (class in cybox.objects.whois_object), 241
WhoisRegistrar (class in cybox.objects.whois_object), 241
WhoisStatus (class in cybox.objects.whois_object), 242
WhoisStatuses (class in cybox.objects.whois_object), 242
width (cybox.objects.gui_object.GUI attribute), 100
win32_version_value (cybox.objects.win_executable_file_object.PEOptionalHeader attribute), 270
WinComputerAccount (class in cybox.objects.win_computer_account_object), 244
WinCriticalSection (class in cybox.objects.win_critical_section_object), 245
window (cybox.objects.network_packet_object.TCPHeader attribute), 186
window (cybox.objects.unix_network_route_entry_object.UnixNetworkRou attribute), 225
window_display_name (cybox.objects.gui_window_object.GUIWindow attribute), 101
window_title (cybox.objects.win_process_object.WinProcess attribute), 298
windows_directory (cybox.objects.win_system_object.WinSystem attribute), 305
windows_system_directory (cybox.objects.win_system_object.WinSystem attribute), 306
windows_temp_directory (cybox.objects.win_system_object.WinSystem attribute), 306
WindowsDrive (class in cybox.objects.win_volume_object), 318
WindowsFileAttribute (class in cybox.objects.win_file_object), 279
WindowsFileAttributes (class in cybox.objects.win_file_object), 279
WindowsFilePermissions (class in cybox.objects.win_file_object), 279
WindowsVolumeAttribute (class in cybox.objects.win_volume_object), 318
WindowsVolumeAttributesList (class in cybox.objects.win_volume_object), 318
WinDriver (class in cybox.objects.win_driver_object), 247
WinEvent (class in cybox.objects.win_event_object), 254
WinEventLog (class in cybox.objects.win_event_log_object), 251
WinExecutableFile (class in cybox.objects.win_executable_file_object), 275
WinFile (class in cybox.objects.win_file_object), 277
WinFilemapping (class in cybox.objects.win_filemapping_object), 280
WinGroup (class in cybox.objects.win_user_account_object), 316
WinGroupList (class in cybox.objects.win_user_account_object), 316
WinHandle (class in cybox.objects.win_handle_object), 281
WinHandleList (class in cybox.objects.win_handle_object), 282
WinHook (class in cybox.objects.win_hook_object), 282
WinKernel (class in cybox.objects.win_kernel_object), 285
WinKernelHook (class in cybox.objects.win_kernel_hook_object), 285
WinMailslot (class in cybox.objects.win_mailslot_object), 286

WinMemoryPageRegion (class in cybox.objects.win_memory_page_region_object), 287
WinMutex (class in cybox.objects.win_mutex_object), 289
WinNetworkRouteEntry (class in cybox.objects.win_network_route_entry_object), 290
WinNetworkShare (class in cybox.objects.win_network_share_object), 290
WinPipe (class in cybox.objects.win_pipe_object), 292
WinPrefetch (class in cybox.objects.win_prefetch_object), 294
WinPrivilege (class in cybox.objects.win_user_account_object), 317
WinPrivilegeList (class in cybox.objects.win_user_account_object), 317
WinProcess (class in cybox.objects.win_process_object), 297
WinRegistryKey (class in cybox.objects.win_registry_key_object), 299
WinSemaphore (class in cybox.objects.win_semaphore_object), 303
WinService (class in cybox.objects.win_service_object), 301
WinSystem (class in cybox.objects.win_system_object), 304
WinSystemRestore (class in cybox.objects.win_system_restore_object), 306
WinTask (class in cybox.objects.win_task_object), 312
WinThread (class in cybox.objects.win_thread_object), 315
WinUser (class in cybox.objects.win_user_account_object), 317
WinVolume (class in cybox.objects.win_volume_object), 318
WinWaitableTimer (class in cybox.objects.win_waitable_timer_object), 319
with_ (cybox.objects.email_message_object.ReceivedLine attribute), 93
work_item_data (cybox.objects.win_task_object.WinTask attribute), 314
working_directory (cybox.objects.win_task_object.WinTask attribute), 314
wrap_cdata() (in module cybox.utils), 326
write (cybox.objects.win_file_object.WindowsFilePermissions attribute), 280
write_time (cybox.objects.win_event_log_object.WinEventLog attribute), 254
wshowwindow (cybox.objects.win_process_object.StartupInfo attribute), 297
www_authenticate (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 112

X

X509Cert (class in cybox.objects.x509_certificate_object), 320
X509Certificate (class in cybox.objects.x509_certificate_object), 322
X509CertificateSignature (class in cybox.objects.x509_certificate_object), 322
X509NonStandardExtensions (class in cybox.objects.x509_certificate_object), 322
X509V3Extensions (class in cybox.objects.x509_certificate_object), 323
x_att_deviceid (cybox.objects.http_session_object.HTTPRequestHeaderFie attribute), 107
x_content_type_options (cybox.objects.http_session_object.HTTPResponseHeaderFields attribute), 113
x_forwarded_for (cybox.objects.http_session_object.HTTPRequestHeaderF attribute), 107
x_forwarded_proto (cybox.objects.http_session_object.HTTPRequestHeaderFields attribute), 107
x_frame_options (cybox.objects.http_session_object.HTTPResponseHeade attribute), 113
x_mailer (cybox.objects.email_message_object.EmailHeader attribute), 90
x_originating_ip (cybox.objects.email_message_object.EmailHeader attribute), 90
x_powered_by (cybox.objects.http_session_object.HTTPResponseHeaderFi attribute), 113
x_priority (cybox.objects.email_message_object.EmailHeader attribute), 90
x_requested_with (cybox.objects.http_session_object.HTTPRequestHeade attribute), 107
x_ua_compatible (cybox.objects.http_session_object.HTTPResponseHeade attribute), 113
x_wap_profile (cybox.objects.http_session_object.HTTPRequestHeaderFiel attribute), 107
x_xss_protection (cybox.objects.http_session_object.HTTPResponseHeade attribute), 113
xfa_count (cybox.objects.pdf_file_object.PDFKeywordCounts attribute), 204
xor_pattern (cybox.objects.code_object.CodeSegmentXOR attribute), 79
XOREncryption (class in cybox.objects.artifact_object), 75
xsi_type (cybox.common.vocabs.VocabString attribute), 49

Y

yaf_record (cybox.objects.network_flow_object.BidirectionalRecord

attribute), 122
YAFFlow (class in cybox.objects.network_flow_object), 144
YAFRecord (class in cybox.objects.network_flow_object), 146
YAFReverseFlow (class in cybox.objects.network_flow_object), 146
YAFTCPFlow (class in cybox.objects.network_flow_object), 147

Z

ZlibCompression (class in cybox.objects.artifact_object), 75