

:mod:`xml.sax.xmlreader` --- Interface for XML parsers

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 1); [backlink](#)

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 4)

Unknown directive type "module".

```
.. module:: xml.sax.xmlreader
   :synopsis: Interface which SAX-compliant XML parsers must implement.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 7)

Unknown directive type "moduleauthor".

```
.. moduleauthor:: Lars Marius Garshol <larsga@garshol.priv.no>
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 8)

Unknown directive type "sectionauthor".

```
.. sectionauthor:: Martin v. LÃ¶wis <martin@v.loewis.de>
```

Source code: `:source:`Lib/xml/sax/xmlreader.py``

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 10); [backlink](#)

Unknown interpreted text role "source".

SAX parsers implement the `:class:`XMLReader`` interface. They are implemented in a Python module, which must provide a function `:func:`create_parser``. This function is invoked by `:func:`xml.sax.make_parser`` with no arguments to create a new parser object.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 14); [backlink](#)

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 14); [backlink](#)

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 14); [backlink](#)

Unknown interpreted text role "func".

Base class which can be inherited by SAX parsers.

In some cases, it is desirable not to parse an input source at once, but to feed chunks of the document as they get available. Note that the reader will normally not read the entire file, but read it in chunks as well; still `:meth:`parse`` won't return until the entire document is processed. So these interfaces should be used if the blocking behaviour of `:meth:`parse`` is not desirable.

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Unknown interpreted text role "meth".

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Unknown interpreted text role "meth".

When the parser is instantiated it is ready to begin accepting data from the feed method immediately. After parsing has been finished with a call to close the reset method must be called to make the parser ready to accept new data, either from feed or using the parse method.

Note that these methods must *not* be called during parsing, that is, after parse has been called and before it returns.

By default, the class also implements the parse method of the XMLReader interface using the feed, close and reset methods of the IncrementalParser interface as a convenience to SAX 2.0 driver writers.

Interface for associating a SAX event with a document location. A locator object will return valid results only during calls to DocumentHandler methods; at any other time, the results are unpredictable. If information is not available, methods may return `None`.

Encapsulation of the information needed by the `:class:'XMLReader'` to read entities.

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Unknown interpreted text role "class".

This class may include information about the public identifier, system identifier, byte stream (possibly with character encoding information) and/or the character stream of an entity.

Applications will create objects of this class for use in the `:meth:'XMLReader.parse'` method and for returning from `EntityResolver.resolveEntity`.

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Unknown interpreted text role "meth".

An `:class:'InputSource'` belongs to the application, the `:class:'XMLReader'` is not allowed to modify `:class:'InputSource'` objects passed to it from the application, although it may make copies and modify those.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 67); [backlink](#)

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 67); [backlink](#)

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 67); [backlink](#)

Unknown interpreted text role "class".

This is an implementation of the `:class:'Attributes'` interface (see section [ref:attributes-objects](#)). This is a dictionary-like object which represents the element attributes in a `:meth:'startElement'` call. In addition to the most useful dictionary operations, it supports a number of other methods as described by the interface. Objects of this class should be instantiated by readers; `attrs` must be a dictionary-like object containing a mapping from attribute names to attribute values.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 74); [backlink](#)

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 74); [backlink](#)

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 74); [backlink](#)

Unknown interpreted text role "meth".

Namespace-aware variant of `:class:`AttributesImpl``, which will be passed to `:meth:`startElementNS``. It is derived from `:class:`AttributesImpl``, but understands attribute names as two-tuples of *namespaceURI* and *localname*. In addition, it provides a number of methods expecting qualified names as they appear in the original document. This class implements the `:class:`AttributesNS`` interface (see section [ref:`attributes-ns-objects`](#)).

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 85); [backlink](#)

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 85); [backlink](#)

Unknown interpreted text role "meth".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 85); [backlink](#)

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 85); [backlink](#)

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 85); [backlink](#)

Unknown interpreted text role "ref".

XMLReader Objects

The `:class:`XMLReader`` interface supports the following methods:

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Unknown interpreted text role "class".

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Unknown directive type "method".

```
.. method:: XMLReader.parse(source)
```

Process an input source, producing SAX events. The **source** object can be a system identifier (a string identifying the input source -- typically a file name or a URL), a `:class:`pathlib.Path`` or `:term:`path-like`` `<path-like object>` object, or an `:class:`InputSource`` object. When `:meth:`parse`` returns, the input is completely processed, and the parser object can be discarded or reset.

```
.. versionchanged:: 3.5
   Added support of character streams.
```

```
.. versionchanged:: 3.8
   Added support of path-like objects.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 117)

Unknown directive type "method".

```
.. method:: XMLReader.getContentHandler()  
  
Return the current :class:`~xml.sax.handler.ContentHandler`.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 122)

Unknown directive type "method".

```
.. method:: XMLReader.setContentHandler(handler)  
  
Set the current :class:`~xml.sax.handler.ContentHandler`. If no  
:class:`~xml.sax.handler.ContentHandler` is set, content events will be  
discarded.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 129)

Unknown directive type "method".

```
.. method:: XMLReader.getDTDHandler()  
  
Return the current :class:`~xml.sax.handler.DTDHandler`.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 134)

Unknown directive type "method".

```
.. method:: XMLReader.setDTDHandler(handler)  
  
Set the current :class:`~xml.sax.handler.DTDHandler`. If no  
:class:`~xml.sax.handler.DTDHandler` is set, DTD  
events will be discarded.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 141)

Unknown directive type "method".

```
.. method:: XMLReader.getEntityResolver()  
  
Return the current :class:`~xml.sax.handler.EntityResolver`.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 146)

Unknown directive type "method".

```
.. method:: XMLReader.setEntityResolver(handler)  
  
Set the current :class:`~xml.sax.handler.EntityResolver`. If no  
:class:`~xml.sax.handler.EntityResolver` is set,  
attempts to resolve an external entity will result in opening the system  
identifier for the entity, and fail if it is not available.
```

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main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 154)

Unknown directive type "method".

```
.. method:: XMLReader.getErrorHandler()  
  
Return the current :class:`~xml.sax.handler.ErrorHandler`.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 159)

Unknown directive type "method".

```
.. method:: XMLReader.setErrorHandler(handler)  
  
Set the current error handler. If no :class:`~xml.sax.handler.ErrorHandler`  
is set, errors will be raised as exceptions, and warnings will be printed.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 165)

Unknown directive type "method".

```
.. method:: XMLReader.setLocale(locale)  
  
Allow an application to set the locale for errors and warnings.  
  
SAX parsers are not required to provide localization for errors and warnings; if  
they cannot support the requested locale, however, they must raise a SAX  
exception. Applications may request a locale change in the middle of a parse.
```

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Unknown directive type "method".

```
.. method:: XMLReader.getFeature(featurename)  
  
Return the current setting for feature *featurename*. If the feature is not  
recognized, :exc:`~SAXNotRecognizedException` is raised. The well-known  
featurenames are listed in the module :mod:`~xml.sax.handler`.
```

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Unknown directive type "method".

```
.. method:: XMLReader.setFeature(featurename, value)  
  
Set the *featurename* to *value*. If the feature is not recognized,  
:exc:`~SAXNotRecognizedException` is raised. If the feature or its setting is not  
supported by the parser, *SAXNotSupportedException* is raised.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 188)

Unknown directive type "method".

```
.. method:: XMLReader.getProperty(propertyname)  
  
Return the current setting for property *propertyname*. If the property is not  
recognized, a :exc:`~SAXNotRecognizedException` is raised. The well-known  
propertynames are listed in the module :mod:`~xml.sax.handler`.
```

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Unknown directive type "method".

```
.. method:: XMLReader.setProperty(propertyname, value)
```

Set the **propertyname** to **value**. If the property is not recognized, :exc:`SAXNotRecognizedException` is raised. If the property or its setting is not supported by the parser, **SAXNotSupportedException** is raised.

IncrementalParser Objects

Instances of :class:`IncrementalParser` offer the following additional methods:

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Unknown interpreted text role "class".

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Unknown directive type "method".

```
.. method:: IncrementalParser.feed(data)
```

Process a chunk of **data**.

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Unknown directive type "method".

```
.. method:: IncrementalParser.close()
```

Assume the end of the document. That will check well-formedness conditions that can be checked only at the end, invoke handlers, and may clean up resources allocated during parsing.

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Unknown directive type "method".

```
.. method:: IncrementalParser.reset()
```

This method is called after close has been called to reset the parser so that it is ready to parse new documents. The results of calling parse or feed after close without calling reset are undefined.

Locator Objects

Instances of :class:`Locator` provide these methods:

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Unknown interpreted text role "class".

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Unknown directive type "method".

```
.. method:: Locator.getColumnNumber()
```

Return the column number where the current event begins.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 242)

Unknown directive type "method".

```
.. method:: Locator.getLineNumber()
```

Return the line number where the current event begins.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 247)

Unknown directive type "method".

```
.. method:: Locator.getPublicId()
```

Return the public identifier for the current event.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 252)

Unknown directive type "method".

```
.. method:: Locator.getSystemId()
```

Return the system identifier for the current event.

InputSource Objects

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 263)

Unknown directive type "method".

```
.. method:: InputSource.setPublicId(id)
```

Sets the public identifier of this :class:`InputSource`.

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Unknown directive type "method".

```
.. method:: InputSource.getPublicId()
```

Returns the public identifier of this :class:`InputSource`.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 273)

Unknown directive type "method".

```
.. method:: InputSource.setSystemId(id)
```

Sets the system identifier of this :class:`InputSource`.

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Unknown directive type "method".

```
.. method:: InputSource.getId()
```

Returns the system identifier of this :class:`InputSource`.

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Unknown directive type "method".

```
.. method:: InputSource.setEncoding(encoding)
```

Sets the character encoding of this :class:`InputSource`.

The encoding must be a string acceptable for an XML encoding declaration (see section 4.3.3 of the XML recommendation).

The encoding attribute of the :class:`InputSource` is ignored if the :class:`InputSource` also contains a character stream.

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Unknown directive type "method".

```
.. method:: InputSource.getEncoding()
```

Get the character encoding of this InputSource.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 299)

Unknown directive type "method".

```
.. method:: InputSource.setByteStream(bytefile)
```

Set the byte stream (a :term:`binary file`) for this input source.

The SAX parser will ignore this if there is also a character stream specified, but it will use a byte stream in preference to opening a URI connection itself.

If the application knows the character encoding of the byte stream, it should set it with the setEncoding method.

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Unknown directive type "method".

```
.. method:: InputSource.getByteStream()
```

Get the byte stream for this input source.

The getEncoding method will return the character encoding for this byte stream, or ``None`` if unknown.

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Unknown directive type "method".

```
.. method:: InputSource.setCharacterStream(charfile)
```


Set the character stream (a `:term:`text file``) for this input source.

If there is a character stream specified, the SAX parser will ignore any byte stream and will not attempt to open a URI connection to the system identifier.

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Unknown directive type "method".

```
.. method:: InputSource.getCharacterStream()
```

Get the character stream for this input source.

The `:class:`Attributes`` Interface

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Unknown interpreted text role "class".

`:class:`Attributes`` objects implement a portion of the `:term:`mapping protocol`` `<mapping>`, including the methods `:meth:`~collections.abc.Mapping.copy``, `:meth:`~collections.abc.Mapping.get``, `:meth:`~object.__contains__``, `:meth:`~collections.abc.Mapping.items``, `:meth:`~collections.abc.Mapping.keys``, and `:meth:`~collections.abc.Mapping.values``. The following methods are also provided:

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Unknown interpreted text role "class".

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Unknown interpreted text role "term".

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Unknown interpreted text role "meth".

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Unknown interpreted text role "meth".

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Unknown interpreted text role "meth".

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Unknown interpreted text role "meth".

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Unknown interpreted text role "meth".

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Unknown interpreted text role "meth".

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Unknown directive type "method".

```
.. method:: Attributes.getLength()  
  
    Return the number of attributes.
```

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Unknown directive type "method".

```
.. method:: Attributes.getNames()  
  
    Return the names of the attributes.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 354)

Unknown directive type "method".

```
.. method:: Attributes.getType(name)  
  
    Returns the type of the attribute *name*, which is normally ``CDATA``.
```

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Unknown directive type "method".

```
.. method:: Attributes.getValue(name)  
  
    Return the value of attribute *name*.
```

The `:class: `AttributesNS`` Interface

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Unknown interpreted text role "class".

This interface is a subtype of the `:class: `Attributes`` interface (see section [ref: `attributes-objects`](#)). All methods supported by that interface are also available on `:class: `AttributesNS`` objects.

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Unknown interpreted text role "class".

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Unknown interpreted text role "ref".

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main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 372); [backlink](#)

Unknown interpreted text role "class".

The following methods are also available:

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Unknown directive type "method".

```
.. method:: AttributesNS.getValueByQName(name)
```

Return the value for a qualified name.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 384)

Unknown directive type "method".

```
.. method:: AttributesNS.getNameByQName(name)
```

Return the ``(namespace, localname)`` pair for a qualified *name*.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 389)

Unknown directive type "method".

```
.. method:: AttributesNS.getQNameByName(name)
```

Return the qualified name for a ``(namespace, localname)`` pair.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\ (cpython-main) (Doc) (library)xml.sax.reader.rst, line 394)

Unknown directive type "method".

```
.. method:: AttributesNS.getQNames()
```

Return the qualified names of all attributes.