# **CFXMLParser Reference**

**Core Foundation** 



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# **CFXMLParser Reference**

**Derived From:** CFType

Framework: CoreFoundation/CoreFoundation.h

**Companion guide** XML Programming Topics for Core Foundation

**Declared in** CFXMLParser.h

## Overview

CFXMLParser provides an XML parser you can use to find and extract data in XML documents. You can use a high-level interface to load an XML document into a Core Foundation collection object. A low-level callback-based interface allows you to perform any action you wish on an XML structured type when it is detected by the parser. This opaque type is relevant for applications that need information about an XML document's structure or content.

# **Functions**

## **CFXMLParserAbort**

Causes a parser to abort with the given error code and description.

```
void CFXMLParserAbort (
    CFXMLParserRef parser,
    CFXMLParserStatusCode errorCode,
    CFStringRef errorDescription
);
```

#### **Parameters**

parser

The parser to abort.

errorCode

The error code to return to the parser.

errorDescription

The error description string to return to the parser. This value may not be NULL.

#### Discussion

This function cannot be called asynchronously. In other words, it must be called from within a parser callback function.

## **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

## CFXMLParserCopyErrorDescription

Returns the user-readable description of the current error condition.

#### **Parameters**

parser

The XML parser to examine.

#### **Return Value**

A user-readable description of the current error condition, or NULL if no error occurred. Ownership follows the Create Rule.

#### **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

#### Declared In

CFXMLParser.h

#### **CFXMLParserCreate**

Creates a new XML parser for the specified XML data.

## **Parameters**

allocator

The allocator to use to allocate memory for the new object. Pass NULL or kCFAllocatorDefault to use the current default allocator.

xm1Data

The XML data to parse. Do not pass NULL.

dataSource

The URL from which the XML data was obtained. The URL is used to resolve any relative references found in XML Data. Pass NULL if a valid URL is unavailable.

parseOptions

Flags which control how the XML data will be parsed. See Parsing Options (page 22) for the list of available options.

versionOfNodes

Determines which version of CFXMLNode objects are produced by the parser.

callBacks

Callbacks called by the parser as the XML is processed. The callbacks are called as each XML tag is encountered, when an external entity needs to be resolved, and when an error occurs. See CFXMLParserCallBacks (page 18) and the individual callbacks for more details. Do not pass NULL.

context

Determines what, if any, information pointer is passed to the callbacks as the parse progresses; context may be NULL.

#### **Return Value**

The newly created parser. Ownership follows the Create Rule.

#### **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

#### Declared In

CFXMLParser.h

## **CFXMLParserCreateWithDataFromURL**

Creates a new XML parser for the specified XML data at the specified URL.

#### **Parameters**

allocator

The allocator to use to allocate memory for the new object. Pass NULL or kCFAllocatorDefault to use the current default allocator.

dataSource

The URL from which to load the XML data. The URL is used to resolve any relative references found in XML Data. It must be a valid CFURL object; NULL is an unacceptable value.

parseOptions

Flags which control how the XML data will be parsed. See Parsing Options (page 22) for the list of available options.

versionOfNodes

Determines which version of CFXMLNode objects are produced by the parser.

Functions 2008-10-15 | © 2003, 2008 Apple Inc. All Rights Reserved. callBacks

Callbacks called by the parser as the XML is processed. The callbacks are called as each XML tag is encountered, when an external entity needs to be resolved, and when an error occurs. See CFXMLParserCallBacks (page 18) and the individual callbacks for more details. Do not pass NULL.

context

Determines what, if any, information pointer is passed to the callbacks as the parse progresses; may be NULL.

#### **Return Value**

The newly created parser. Ownership follows the Create Rule.

## **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

## **CFXMLParserGetCallBacks**

Returns the callbacks associated with an XML parser when it was created.

```
void CFXMLParserGetCallBacks (
    CFXMLParserRef parser,
    CFXMLParserCallBacks *callBacks
);
```

## **Parameters**

parser

The XML parser to examine.

callBacks

On return, contains the callbacks for parser.

## **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

## **Declared In**

CFXMLParser.h

## CFXMLParserGetContext

Returns the context for an XML parser.

```
void CFXMLParserGetContext (
     CFXMLParserRef parser,
     CFXMLParserContext *context
);
```

## **Parameters**

parser

The XML parser to examine.

context

On return, a pointer to the context structure for parser.

#### Discussion

If you set a context for the parser, it will be passed to you as a parameter in each of the parser callback functions. The context data structure is application defined and associated with a parser using one of the CFXMLParserCreate... functions.

#### **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

#### CFXMLParserGetDocument

Returns the top-most object returned by the create XML structure callback.

```
void *CFXMLParserGetDocument (
   CFXMLParserRef parser
);
```

#### **Parameters**

parser

The XML parser to examine.

## **Return Value**

The top-most object returned by the createXMLStructure field in the CFXMLParserCallBacks (page 18) structure. If the returned value is a Core Foundation object, ownership follows the Get Rule.

## **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

## **CFXMLParserGetLineNumber**

Returns the line number of the current parse location.

```
CFIndex CFXMLParserGetLineNumber (
   CFXMLParserRef parser
);
```

## **Parameters**

parser

The XML parser to examine.

## **Return Value**

The line number of the current location.

**Functions** 2008-10-15 | © 2003, 2008 Apple Inc. All Rights Reserved.

#### Discussion

This function is typically used in conjunction with the CFXMLParserHandleErrorCallBack (page 15) function so that error location information can be reported.

## **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

## **CFXMLParserGetLocation**

Returns the character index of the current parse location.

#### **Parameters**

parser

The XML parser to examine.

## **Return Value**

The character index of the current parse location.

#### Discussion

This function is typically used in conjunction with the CFXMLParserHandleErrorCallBack (page 15) function so that error location information can be reported.

## **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

## **Declared In**

CFXMLParser.h

## **CFXMLParserGetSourceURL**

Returns the URL for the XML data being parsed.

```
CFURLRef CFXMLParserGetSourceURL (
          CFXMLParserRef parser
);
```

## **Parameters**

parser

The XML parser to examine.

#### Return Value

The URL for the XML document being parsed. Ownership follows the Get Rule.

## **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

## **CFXMLParserGetStatusCode**

Returns a numeric code indicating the current status of the parser.

## **Parameters**

parser

The XML parser to examine.

## **Return Value**

A status code indicating the current parser. See Parser Status Codes (page 20) for a list of possible status codes.

## Discussion

If an error has occurred, the code for the last error is returned. If no error has occurred, a status code is returned.

## **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

## **Declared In**

CFXMLParser.h

## **CFXMLParserGetTypeID**

Returns the type identifier for the CFXMLParser opaque type.

```
CFTypeID CFXMLParserGetTypeID ();
```

## **Return Value**

The type identifier for the CFXMLParser opaque type.

## **Availability**

Available in CarbonLib v1.3 and later.

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

## **CFXMLParserParse**

Begins a parse of the XML data that was associated with the parser when it was created.

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```
Boolean CFXMLParserParse (
          CFXMLParserRef parser
);
```

#### **Parameters**

parser

The XML parser to start.

#### **Return Value**

true if the parse was successful, false otherwise.

#### Discussion

Upon success, use the CFXMLParserGetDocument (page 9) function to get the product of the parse. Upon failure, use the CFXMLParserGetContext (page 8) or CFXMLParserCopyErrorDescription (page 6) functions to get information about the error. It is an error to call the CFXMLParserParse (page 11) function while a parse is already underway.

## **Availability**

Available in CarbonLib v1.1 and later.

Available in Mac OS X v10.0 and later.

## **Declared In**

CFXMLParser.h

## **Callbacks**

## **CFXMLParserAddChildCallBack**

Callback function invoked by the parser to notify your application of parent/child relationships between XML structures.

```
typedef void (*CFXMLParserAddChildCallBack) (
    CFXMLParserRef parser,
    void *parent,
    void *child,
    void *info
);
```

If you name your function MyCallBack, you would declare it like this:

```
void MyCallBack (
    CFXMLParserRef parser,
    void *parent,
    void *child,
    void *info
);
```

## **Parameters**

parser

The CFXMLParser object making the callback.

parent

The program-defined value representing the XML element to whom child is being added. This value was returned by the CFXMLParserCreateXMLStructureCallBack (page 14) callback when this element's open tag was detected.

child

The program-defined value representing the XML element that is being added to parent. This value was returned by the CFXMLParserCreateXMLStructureCallBack (page 14) callback when this element's open tag was detected.

info

The program-defined context data you specified in the CFXMLParserContext (page 19) structure when creating the parser.

#### Discussion

If the CFXMLParserCreateXMLStructureCallBack (page 14) function returns NULL for a given structure, that structure is omitted entirely, and this callback will not be called for either a NULL child or parent.

## **Availability**

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

## CFXMLParserCopyDescriptionCallBack

Callback function invoked by the parser when handling the information pointer.

```
typedef CFStringRef (*CFXMLParserCopyDescriptionCallBack) (
   const void *info
```

If you name your function MyCallBack, you would declare it like this:

```
CFStringRef MyCallBack (
   const void *info
);
```

## **Parameters**

info

The program-defined context data you specified in the CFXMLParserContext (page 19) structure when creating the parser.

## Return Value

A textual description of info. The caller is responsible for releasing this object.

## **Availability**

Available in Mac OS X v10.0 and later.

## **Declared In**

CEXMI Parser.h

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## **CFXMLParserCreateXMLStructureCallBack**

Callback function invoked when the parser encounters an XML open tag.

```
typedef void *(*CFXMLParserCreateXMLStructureCallBack) (
    CFXMLParserRef parser,
    CFXMLNodeRef nodeDesc,
    void *info
);
```

If you name your function MyCallBack, you would declare it like this:

```
void *MyCallBack (
    CFXMLParserRef parser,
    CFXMLNodeRef nodeDesc,
    void *info
);
```

#### **Parameters**

parser

The CFXMLParser object making the callback.

nodeDesc

The CFXMLNode object that represents the XML structure encountered.

info

The program-defined context data you specified in the CFXMLParserContext (page 19) structure when creating the parser.

## **Return Value**

A program-defined value representing the new XML element or NULL to indicate that the given structure should be skipped. This value is passed to the other callbacks.

#### Discussion

If NULL is returned for a given structure, only minimal parsing is done for that structure (enough to correctly determine its end, and to extract any data necessary for the remainder of the parse, such as Entity definitions). This callback (or any of the tree-creation callbacks) will not be called for any children of the skipped structure. The only exception is that the top-most element will always be reported even if NULL was returned for the document as a whole. For performance reasons, the node passed to this callback cannot be safely retained by the client; the node as a whole must be copied (using the CFXMLNodeCreateCopy function), or its contents must be extracted and copied. You are required to implement this callback for the parser to operate.

## **Availability**

Available in Mac OS X v10.0 and later.

## **Declared In**

CFXMLParser.h

## **CFXMLParserEndXMLStructureCallBack**

Callback function invoked by the parser to notify your application that an XML structure (and all its children) have been completely parsed.

```
typedef void (*CFXMLParserEndXMLStructureCallBack) (
     CFXMLParserRef parser,
     void *xmlType,
     void *info
);
```

If you name your function MyCallBack, you would declare it like this:

```
void MyCallBack (
    CFXMLParserRef parser,
    void *xmlType,
    void *info
);
```

#### **Parameters**

parser

The CFXMLParser object making the callback.

xm1Type

The program-defined value representing the XML element whose end tag has been detected. This value was returned by the CFXMLParserCreateXMLStructureCallBack (page 14) callback.

info

The program-defined context data you specified in the CFXMLParserContext (page 19) structure when creating the parser.

#### Discussion

As elements are encountered, this callback is called first, then the CFXMLParserAddChildCallBack (page 12) callback to add the new structure to its parent, then the CFXMLParserAddChildCallBack (page 12) callback (potentially several times) to add the new structure's children to it, and then finally the CFXMLParserEndXMLStructureCallBack (page 14) callback to show that the structure has been fully parsed. This callback is optional.

#### **Availability**

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

#### **CFXMLParserHandleErrorCallBack**

Callback function invoked by the parser to notify your application that an error has occurred.

```
typedef Boolean (*CFXMLParserHandleErrorCallBack) (
        CFXMLParserRef parser,
        CFXMLParserStatusCode error,
        void *info
);
```

If you name your function MyCallBack, you would declare it like this:

```
Boolean MyCallBack (
CFXMLParserRef parser,
CFXMLParserStatusCode error,
void *info
```

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);

#### **Parameters**

parser

A CFXMLParser object making the callback.

error

A status code describing the error.

info

The program-defined context data you specified in the CFXMLParserContext (page 19) structure when creating the parser.

#### **Return Value**

true if the parser should continue parsing the XML, false if the parser should stop.

#### Discussion

If this callback is not defined, the parser will silently attempt to recover. Otherwise, this callback may return false to force the parser to stop. If this callback returns true, the parser will attempt to recover (fatal errors will still cause the parse to abort immediately). This callback is optional.

## **Availability**

Available in Mac OS X v10.0 and later.

## **Declared In**

CFXMLParser.h

## CFXMLParserReleaseCallBack

Callback function invoked by the parser when it wants to release a reference to the information pointer.

```
typedef void (*CFXMLParserReleaseCallBack) (
    const void *info
);
```

If you name your function MyCallBack, you would declare it like this:

```
void MyCallBack (
     const void *info
);
```

#### **Parameters**

info

The program-defined context data you specified in the CFXMLParserContext (page 19) structure when creating the parser.

## **Availability**

Available in Mac OS X v10.0 and later.

## **Declared In**

CFXMLParser.h

## CFXMLParserResolveExternalEntityCallBack

Callback function invoked by the parser to notify your application that an external entity has been referenced.

```
typedef CFDataRef (*CFXMLParserResolveExternalEntityCallBack) (
    CFXMLParserRef parser,
    CFXMLExternalID *extID,
    void *info
);
```

If you name your function MyCallBack, you would declare it like this:

```
CFDataRef MyCallBack (
    CFXMLParserRef parser,
    CFXMLExternalID *extID,
    void *info
);
```

#### **Parameters**

parser

The CFXMLParser object making the callback.

extID

The identifier for the external entity.

info

The program-defined context data you specified in the CFXMLParserContext (page 19) structure when creating the parser.

## **Return Value**

The external entity or NULL if it should not be resolved.

#### Discussion

If this callback is not defined, the parser uses its internal routines to try and resolve the entity. Otherwise, if this callback returns NULL, a place holder for the external entity is inserted into the tree. In this manner, the parser's client can prevent any external network or file accesses. This callback is optional.

## **Availability**

Available in Mac OS X v10.0 and later.

## **Declared In**

CFXMLParser.h

## **CFXMLParserRetainCallBack**

Callback function invoked by the parser when it needs another reference to the information pointer.

```
typedef const void *(*CFXMLParserRetainCallBack) (
    const void *info
);
```

If you name your function MyCallBack, you would declare it like this:

```
const void *MyCallBack (
     const void *info
);
```

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#### **Parameters**

info

The program-defined context data you specified in the CFXMLParserContext (page 19) structure when creating the parser.

## **Availability**

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

# **Data Types**

## **CFXMLParserCallBacks**

Contains version information and function pointers to callbacks needed when parsing XML.

```
struct CFXMLParserCallBacks {
    CFIndex version;
    CFXMLParserCreateXMLStructureCallBack createXMLStructure;
    CFXMLParserAddChildCallBack addChild;
    CFXMLParserEndXMLStructureCallBack endXMLStructure;
    CFXMLParserResolveExternalEntityCallBack resolveExternalEntity;
    CFXMLParserHandleErrorCallBack handleError;
};
typedef struct CFXMLParserCallBacks CFXMLParserCallBacks;
```

#### **Fields**

version

Version number. Must be 0.

 ${\tt createXMLStructure}$ 

Called when an XML structure is created.

addChild

Called when a child is added.

 $\verb"endXMLStructure"$ 

Called when an XML structure has ended.

resolveExternalEntity

Called when an external entity needs to be resolved.

handleError

Called when a parse error needs to be handled.

## Discussion

This structure is passed to one of the <code>CFXMLParserCreate...</code> functions. Only the <code>createXMLStructure</code>, <code>addChild</code>, and <code>endXMLStructure</code> fields are required. Set the others to <code>NULL</code> if you don't wish to implement them.

## **Availability**

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

## **CFXMLParserContext**

Contains version information and function pointers to callbacks used when handling a program-defined context.

```
struct CFXMLParserContext {
    CFIndex version;
    void *info;
    CFXMLParserRetainCallBack retain;
    CFXMLParserReleaseCallBack release;
    CFXMLParserCopyDescriptionCallBack copyDescription;
};
typedef struct CFXMLParserContext CFXMLParserContext;
```

#### **Fields**

version

Version number of this structure. Must be 0.

info

An arbitrary program-defined value passed to all the callbacks in this structure and in the CFXMLParserCallBacks (page 18) structure.

retain

A retain callback for your program-defined context data. Optional.

release

A release callback for your program-defined context data. Optional.

copyDescription

A copy description callback for your program-defined context data. Optional.

#### Discussion

You can associate a context with a parser when the parser is created. The context can be anything you wish and will be passed as a parameter to all of the XML parser callbacks.

## **Availability**

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

## **CFXMLParserRef**

A reference to an XML parser object.

```
typedef struct __CFXMLParser *CFXMLParserRef;
```

#### Availability

Available in Mac OS X v10.0 and later.

#### **Declared In**

CFXMLParser.h

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## **Constants**

## **Parser Status Codes**

The various status and error flags that can be returned by the parser.

```
enum CFXMLParserStatusCode {
    kCFXMLStatusParseNotBegun = -2.
    kCFXMLStatusParseInProgress = -1,
    kCFXMLStatusParseSuccessful = 0,
    kCFXMLErrorUnexpectedEOF = 1,
    kCFXMLErrorUnknownEncoding = 2,
    kCFXMLErrorEncodingConversionFailure = 3,
    kCFXMLErrorMalformedProcessingInstruction = 4,
    kCFXMLErrorMalformedDTD = 5,
    kCFXMLErrorMalformedName = 6,
    kCFXMLErrorMalformedCDSect = 7,
    kCFXMLErrorMalformedCloseTag = 8,
    kCFXMLErrorMalformedStartTag = 9,
    kCFXMLErrorMalformedDocument = 10,
    kCFXMLErrorElementlessDocument = 11,
    kCFXMLErrorMalformedComment = 12,
    kCFXMLErrorMalformedCharacterReference = 13,
    kCFXMLErrorMalformedParsedCharacterData = 14,
    kCFXMLErrorNoData = 15
};
typedef enum CFXMLParserStatusCode CFXMLParserStatusCode;
Constants
kCFXMLStatusParseNotBegun
     Indicates the parser has not begun.
     Available in Mac OS X v10.0 and later.
     Declared in CFXMLParser.h.
kCFXMLStatusParseInProgress
     Indicates the parser is in progress.
     Available in Mac OS X v10.0 and later.
      Declared in CFXMI Parser.h.
kCFXMLStatusParseSuccessful
     Indicates the parser was successful.
     Available in Mac OS X v10.0 and later.
     Declared in CFXMLParser.h.
kCFXMLErrorUnexpectedEOF
     Indicates an unexpected EOF occurred.
     Available in Mac OS X v10.0 and later.
     Declared in CFXMLParser.h.
kCFXMLErrorUnknownEncoding
     Indicates an unknown encoding error.
```

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

## kCFXMLErrorEncodingConversionFailure

Indicates an encoding conversion error.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

## kCFXMLErrorMalformedProcessingInstruction

Indicates a malformed processing instruction.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

#### kCFXMLErrorMalformedDTD

Indicates a malformed DTD.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

## kCFXMLErrorMalformedName

Indicates a malformed name.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

## kCFXMLErrorMalformedCDSect

Indicates a malformed CDATA section.

Available in Mac OS X v10.0 and later.

Declared in CFXMI Parser.h.

#### kCFXMLErrorMalformedCloseTag

Indicates a malformed close tag.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

## kCFXMLErrorMalformedStartTag

Indicates a malformed start tag.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

## kCFXMLErrorMalformedDocument

Indicates a malformed document.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

#### kCFXMLErrorElementlessDocument

Indicates a document containing no elements.

Available in Mac OS X v10.0 and later.

Declared in CFXMI Parser.h.

#### kCFXMLErrorMalformedComment

Indicates a malformed comment.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

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```
kCFXMLErrorMalformedCharacterReference
```

Indicates a malformed character reference.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

kCFXMLErrorMalformedParsedCharacterData

Indicates malformed character data.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

kCFXMLErrorNoData

Indicates a no data error.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

#### Discussion

Parser status is determined by calling the CFXMLParserGetStatusCode (page 11) function. The parser reports errors to your application by invoking the CFXMLParserHandleErrorCallBack (page 15) function.

## **Parsing Options**

Options you can use to control the parser's treatment of an XML document.

```
enum CFXMLParserOptions {
    kCFXMLParserValidateDocument = (1 << 0),
    kCFXMLParserSkipMetaData = (1 << 1),
    kCFXMLParserReplacePhysicalEntities = (1 << 2),
    kCFXMLParserSkipWhitespace = (1 << 3),
    kCFXMLParserResolveExternalEntities = (1 << 4),
    kCFXMLParserAddImpliedAttributes = (1 << 5),
    kCFXMLParserAllOptions = 0x00FFFFFF,
    kCFXMLParserNoOptions = 0
};
typedef enum CFXMLParserOptions CFXMLParserOptions;</pre>
```

## Constants

kCFXMLParserValidateDocument

Validates the document against its grammar from the DTD, reporting any errors. Currently not supported.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

kCFXMLParserSkipMetaData

Silently skip over metadata constructs (the DTD and comments).

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

kCFXMLParserReplacePhysicalEntities

Replaces declared entities like <. Note that other than the 5 predefined entities (lt, gt, quot, amp, apos), these must be defined in the DTD. Currently not supported.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

## kCFXMLParserSkipWhitespace

Skip over all whitespace that does not abut non-whitespace character data. In other words, given "<foo> <bar> blah </bar></foo>," the whitespace between foo's open tag and bar's open tag would be suppressed, but the whitespace around blah would be preserved.

Available in Mac OS X v10.0 and later.

Declared in CEXMI Parser.h.

#### kCFXMLParserResolveExternalEntities

Resolves all external entities.

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

#### kCFXMLParserAddImpliedAttributes

Where the DTD specifies implied attribute-value pairs for a particular element, add those pairs to any occurrences of the element in the element tree. Currently not supported.

Available in Mac OS X v10.0 and later.

Declared in CFXMI Parser.h.

#### kCFXMLParserAllOptions

Makes the parser do the most work, returning only the pure elementtree.

Available in Mac OS X v10.0 and later.

Declared in CEXMI Parser.h.

## kCFXMLParserNoOptions

Leaves the XML as "intact" as possible (reports all structures; performs no replacements).

Available in Mac OS X v10.0 and later.

Declared in CFXMLParser.h.

#### Discussion

These are the various options you use to configure the parser. An option flag of 0 (kCFXMLParserNoOptions (page 23)) leaves the XML as "intact" as possible (reports all structures; performs no replacements). Hence, to make the parser do the most work, returning only the pure element tree, set the option flag to kCFXMLParserAllOptions (page 23).

Constants 23

# **Document Revision History**

This table describes the changes to CFXMLParser Reference.

Date	Notes
2008-10-15	Corrected description of dataSource parameter for CFXMLParserCreateWithDataFromURL.
2006-02-07	Made formatting changes.
2003-01-01	First version of this document.

## **REVISION HISTORY**

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