

PHP XML

What is XML?

The XML language is a way to structure data for sharing across websites. Several web technologies like RSS Feeds and Podcasts are written in XML. XML is easy to create. It looks a lot like HTML, except that you make up your own tags.

If you want to learn more about XML, please visit our [XML tutorial](#). To read and update, create and manipulate an XML document, you will need an XML parser.

In PHP there are two major types of XML parsers:

- › Tree-Based Parsers
- › Event-Based Parsers

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Tree-Based Parsers

Tree-based parsers holds the entire document in Memory and transforms the XML document into a Tree structure. It analyzes the whole document, and provides access to the Tree elements (DOM).

This type of parser is a better option for smaller XML documents, but not for large XML document as it causes major performance issues.

Example of tree-based parsers:

- › SimpleXML
- › DOM

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Event-Based Parsers

Event-based parsers do not hold the entire document in Memory, instead, they read in one node at a time and allow you to interact with in real time. Once you move onto the next node, the old one is thrown away.

This type of parser is well suited for large XML documents. It parses faster and consumes less memory.

Example of event-based parsers:

- › XMLReader
- › XML Expat Parser

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The SimpleXML Parser

SimpleXML is a tree-based parser.

SimpleXML provides an easy way of getting an element's name, attributes and textual content if you know the XML document's structure or layout.

SimpleXML turns an XML document into a data structure you can iterate through like a collection of arrays and objects.

Compared to DOM or the Expat parser, SimpleXML takes a fewer lines of code to read text data from an element.

Installation

From PHP 5, the SimpleXML functions are part of the PHP core. No installation is required to use these functions.



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PHP SimpleXML - Read From String

The PHP `simplexml_load_string()` function is used to read XML data from a string.

Assume we have a variable that contains XML data, like this:

```
$myXMLData =  
"<?xml version='1.0' encoding='UTF-8'?>  
<note>  
<to>Tove</to>  
<from>Jani</from>  
<heading>Reminder</heading>  
<body>Don't forget me this weekend!</body>  
</note>";
```

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The example below shows how to use the `simplexml_load_string()` function to read XML data from a string:

```
<?php
$myXMLData =
"<?xml version='1.0' encoding='UTF-8'?>
<note>
<to>Tove</to>
<from>Jani</from>
<heading>Reminder</heading>
<body>Don't forget me this weekend!</body>
</note>";
$xml=simplexml_load_string($myXMLData) or die("Error: Cannot create
object");
print_r($xml);
?>
```

Run The example

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PHP SimpleXML - Get Node/Attribute Values

SimpleXML is a PHP extension that allows us to easily manipulate and get XML data.

PHP SimpleXML - Get Node Values

Get the node values from the "[note.xml](#)" file:

Example

```
<?php
$xml=simplexml_load_file("note.xml") or die("Error: Cannot create
object");
echo $xml->to . "<br>";
echo $xml->from . "<br>";
echo $xml->heading . "<br>";
echo $xml->body;
?>
```

Run The example



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PHP SimpleXML - Get Node Values of Specific Elements

The following example gets the node value of the <title> element in the first and second <book> elements in the ["books.xml"](#) file:

Example

```
<?php
$xml=simplexml_load_file("books.xml") or die("Error: Cannot create
object");
echo $xml->book[0]->title . "<br>";
echo $xml->book[1]->title;
?>
```

Run The example

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PHP SimpleXML - Get Node Values - Loop

The following example loops through all the <book> elements in the "books.xml" file, and gets the node values of the <title>, <author>, <year>, and <price> elements:

Example

```
<?php
```

```
$xml=simplexml_load_file("books.xml") or die("Error: Cannot create object");
```

```
foreach($xml->children() as $books) {
```

```
    echo $books->title . ", ";
```

```
    echo $books->author . ", ";
```

```
    echo $books->year . ", ";
```

```
    echo $books->price . "<br>";
```

```
}
```

```
?>
```

Run The example

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PHP SimpleXML - Get Attribute Values

The following example gets the attribute value of the "category" attribute of the first <book> element and the attribute value of the "lang" attribute of the <title> element in the second <book> element:

Example

```
<?php  
$xml=simplexml_load_file("books.xml") or die("Error: Cannot create  
object");  
echo $xml->book[0]['category'] . "<br>";  
echo $xml->book[1]->title['lang'];  
?>
```

Run The example

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PHP SimpleXML - Get Attribute Values – Loop

The following example gets the attribute values of the <title> elements in the "books.xml" file:

```
<?php
$xml=simplexml_load_file("books.xml") or die("Error: Cannot create
object");
foreach($xml->children() as $books) {
    echo $books->title['lang'];
    echo "<br>";
}
?>
```

Run The example

More PHP SimpleXML

For more information about the PHP SimpleXML functions, visit our [PHP SimpleXML Reference](#).