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# **PHPMarkup**

**Mar 29, 2021**



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## Project Information

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**PHPMarkup** is an PHP implementation of a LHTML parser.

It is a powerful and flexible way to build dynamic web pages.

```
<?php
use Ouxsoft\PHPMarkup\Factory\ProcessorFactory;

$processor = ProcessorFactory::getInstance();

$processor->addElement([
'xpath' => '//partial',
'class_name' => 'Partial\{name\}'
]);

$processor->addRoutine([
'method' => 'onRender',
'execute' => 'RETURN_CALL'
]);

$processor->parseBuffer();
?>
<html lang="en">
<partial name="Alert" type="success">
    This is a success alert.
</partial>
</html>
```



# CHAPTER 1

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## Installation

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Get an instance of PHPMarkup up and running in less than 5 minutes.

PHPMarkup is available on Packagist.

Install with Composer:

```
composer require ouxsoft/phpmarkup
```

That's it. You're done! Please take the rest of the time to read our docs.



## CHAPTER 2

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### Contribute

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- Issue Tracker: <https://github.com/ouxsoft/PHPMarkup/issues>
- Source Code: <https://github.com/ouxsoft/PHPMarkup>



# CHAPTER 3

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## Navigation

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### 3.1 Processor

The `Processor` is the primary object instantiated and used within this library.

#### 3.1.1 ParseBuffer() Example

Shows a `Processor` with `Elements` and `Routines` defined during runtime processing the output buffer of the file.

```
<?php
use Ouxsoft\PHPMarkup\Factory\ProcessorFactory;

$processor = ProcessorFactory::getInstance();

$processor->addElement([
    'xpath' => '//partial',
    'class_name' => 'Partial\{name\}'
]);

$processor->addRoutine([
    'method' => 'onRender',
    'execute' => 'RETURN_CALL'
]);

$processor->parseBuffer();
?>
<html lang="en">
    <partial name="Alert" type="success">
        This is a success alert.
    </partial>
</html>
```

Outputs:

### 3.1.2 ParseBuffer() Inside Router Example

A server-side markup abstraction layer example. Shows using ParseBuffer inside a third party router to prevent the need to declare the Processor within each file.

```
<?php

use Ouxsoft\PHPMarkup\Factory\ProcessorFactory;
use Ouxsoft\Hoopless\Router;

require_once '../vendor/autoload.php';

// define common directories
define('ROOT_DIR', dirname(__DIR__, 1) . '/');
define('PUBLIC_DIR', ROOT_DIR . 'public/');
define('ASSET_DIR', ROOT_DIR . 'assets/');
define('IMAGE_DIR', ASSET_DIR . 'images/');
define('CONFIG_DIR', ROOT_DIR . 'config/');

// set include path
set_include_path(ROOT_DIR);

// instantiate processor with configuration and set to parse buffer
global $processor;
$processor = ProcessorFactory::getInstance();
$processor->loadConfig(CONFIG_DIR . 'config.dist.json');
$processor->parseBuffer();

// Route traffic to a specific file
$router = new Router();
$router->response();

// if response is a blank document chances are the page is missing a root element
```

### 3.1.3 ParseFile() Example

Shows a Processor defined with Elements and Routines defined in a loaded config and a parse file containing markup.

```
<?php
use Ouxsoft\PHPMarkup\Factory\ProcessorFactory;

$processor = ProcessorFactory::getInstance();

$processor->loadConfig('config.json');
$processor->parseFile('index.html')
```

Outputs:

### 3.1.4 ParseString() Example

Shows a Processor with Configuration Elements and Routines manually defined parsing a string.

```
<?php
use Ouxsoft\PHPMarkup\Factory\ProcessorFactory;

$processor = ProcessorFactory::getInstance();

$processor->addElement([
    'xpath' => '//partial',
    'class_name' => 'Partial\{name\}'
]);

$processor->addRoutine([
    'method' => 'onRender',
    'execute' => 'RETURN_CALL'
]);

$processor->parseString('<html lang="en">
<partial name="Alert" type="success">
    This is a success alert.
</partial>
</html>');
```

Outputs:

## 3.2 Routines

Routines are methods that are automatically called by the processor during run time.

During a routine call all instantiated elements featuring the routine's method are called.

### 3.2.1 Prefix

It is recommended to establish a naming convention for routines that distinguish them from other methods.

Often packages choose to prefix Routine methods with the word `before`, `on`, or `after` followed by an explanation of the stage of execute.

For example:

Parameter	Comments
<code>beforeLoad</code>	Execute before object data load
<code>onLoad</code>	Execute during object data load
<code>afterLoad</code>	Execute after object data loaded
<code>beforeRender</code>	Execute before object render
<code>onRender</code>	Execute during object render
<code>afterRender</code>	Execute after object rendered

## 3.3 Elements

Elements are the working bees of PHPMarkup.

Elements are instantiated DOMElements. Much of how an DOMElement is processed is determined by the `class_name` defined to process them.

### 3.3.1 Args

During the Element's construction, the Engine sends arguments that were found in both the DOMElement's attributes and child `arg` DOMElements.

### 3.3.2 Element Development

It is simple to make new Elements.

1. Create a class that extends the abstract class `\PHPMarkup\Element\AbstractElement`.
2. Add an Element to the Processor.
3. Run the Processor with Markup containing the DOMElement

#### Hello World Example

```
<?php

namespace Ouxsoft\PHPMarkup\Elements;

class HelloWorld extends Ouxsoft\PHPMarkup\Element
{
    public function onRender()
    {
        return 'Hello, World';
    }
}
```

#### Bootstrap 4 Alert Example

```
<?php
namespace Partial;

class Alert extends Ouxsoft\PHPMarkup\Element\AbstractElement
{
    public function onRender()
    {
        switch($this->getArgByName('type')) {
            case 'success':
                $class = 'alert-success';
                break;
            case 'warning':
                $class = 'alert-warning';
                break;
            default:
                $class = 'alert-info';
                break;
        }
        return "<div class=\"$class\" role=\"alert\">{$this->innerText()}</
        <div>";
    }
}
```

### 3.3.3 LHTML Elements

To allow for library reuse PHPMarkup comes packaged with only LHTML Elements used for test. For additional Elements, see:

- [Hoopless](<https://github.com/ouxsoft/hoopless>)

## 3.4 Configuration

The Configuration class is responsible for the instructions that explain to the Builder how to build the LHTML Document. These instructions can be set by modifying the config file that is loaded.

### 3.4.1 Config File

Configurations can be loaded from a file or created using an object. Below is an example of a config file.

#### Example

```
{
  "version": 3,
  "elements": [
    {
      "xpath": "//bitwise",
      "class_name": "PHPMarkup\\Test\\Bitwise"
    }
  ],
  "routines": [
    {
      "method": "beforeLoad",
      "description": "Execute before object data is loaded"
    },
    {
      "method": "onLoad",
      "description": "Execute when object data is loading"
    },
    {
      "method": "afterLoad",
      "description": "Execute after object data is loaded"
    },
    {
      "method": "beforeRender",
      "description": "Execute before object is rendered"
    },
    {
      "method": "onRender",
      "description": "Execute while object is rendering",
      "execute": "RETURN_CALL"
    },
    {
      "method": "afterRender",
      "description": "Execute after object is rendered"
    }
  ]
}
```

## Autoload

If a config file has been specified during construction, it will be loaded.

If a config file has not been specified the Configuration class tries to load a config.json file if present.

If the config.json is not present, the Configuration will try

to load the | packaged config config.dist.json file.

## Parameters

Parameter	Comments
version	Indicates the file structure to the Configuration for stability purposes.
elements	An array containing the types of elements to load at runtime. Each type contains contain an array with a name, a class_name, and a xpath expression.
element : *	Defines what the elements is named.
element : *	Specifies exactly how find DOMElements to initialize as elements. Xpath expressions are a powerful syntax for searching within a the Document for DOMElements.
element : *	Specifies which class to instantiate the DOMElement as. The class_name provided must refer to a class that extends the abstract Element class. The class name may feature a {name} variable which is automatically populated by the DOMElement's name attribute during runtime.
routines	An array containing automated method calls that will be made to all Elements during runtime. The order of items in this array determines the order of execution.
routines : *	The exact name of the method being executed.
routines : *	An explanation of what the method is doing that indicates its order.
routines : *	Determines whether the method should be ran differently. Currently, the following commands are supported * RETURN_CALL - The output of the method will replace the DOMElement in the DOMDocument. Is optional
markup :	String containing the actual LHTML that will be parsed by the Builder. This field is typically omitted from the config file and is instead appended to Configuration during runtime, often by the Autoloader.

## 3.5 Security

### 3.5.1 Escaping HTML and XSS

It is the responsibility of the library client to escape HTML to avoid XSS. This library itself will not alter its input.

### 3.5.2 Disable Entity Loader

You may want to choose to disable external entities.

```
libxml_disable_entity_loader(true);
```

For more information, see [PHP Security Injection Attacks](#)

## 3.6 API documentation

### 3.6.1 Builder namespace

#### DynamicPageBuilder

**Qualified name** Ouxsoft\PHPMarkup\Builder\DynamicPageBuilder

**Implements** *BuilderInterface*

**class** **DynamicPageBuilder**

**public \_\_construct** (*EngineInterface` \$engine, ConfigurationInterface` \$config*)

**Parameters**

- **\$engine** (*EngineInterface`*) –
- **\$config** (*ConfigurationInterface`*) –

**public createObject()**

Instantiate elements and call routines inside engine

**Returns** void

**public getObject()** → Engine

Gets Page object

**Returns** *Engine* –

#### SearchIndexBuilder

**Qualified name** Ouxsoft\PHPMarkup\Builder\SearchIndexBuilder

**Implements** *BuilderInterface*

**class** **SearchIndexBuilder**

**public \_\_construct** (*EngineInterface` \$engine, ConfigurationInterface` \$config*)

**Parameters**

- **\$engine** (*EngineInterface`*) –
- **\$config** (*ConfigurationInterface`*) –

**public createObject()**

Creates Page object using parameters supplied omits elements with search\_engine = false

**Returns** void

**public getObject()** → Engine

Gets Page object

**Returns** *Engine* –

## StaticPageBuilder

**Qualified name** Ouxsoft\PHPMarkup\Builder\StaticPageBuilder

**Implements** *BuilderInterface*

```
class StaticPageBuilder
```

**public \_\_construct** (*EngineInterface* ` \$engine, *ConfigurationInterface* ` \$config)

**Parameters**

- **\$engine** (*EngineInterface*) –
- **\$config** (*ConfigurationInterface*) –

**public createObject** ()

Creates Page object using parameters supplied

**Returns** void

**public getObject** () → *Engine*

Gets Page object

**Returns** *Engine* –

## 3.6.2 Contract namespace

### AbstractFactoryInterface

**Qualified name** Ouxsoft\PHPMarkup\Contract\AbstractFactoryInterface

```
interface AbstractFactoryInterface
```

**public makeBuilder** (*Container* & \$container) → *BuilderInterface*

**Parameters**

- & **\$container** (*Container*) –

**Returns** *BuilderInterface* –

**public makeConfig** (*Container* & \$container) → *Configuration*

**Parameters**

- & **\$container** (*Container*) –

**Returns** *Configuration* –

**public makeDocument** (*Container* & \$container) → *Document*

**Parameters**

- & **\$container** (*Container*) –

**Returns** *Document* –

**public makeElementPool** ()

**Returns** *ElementPool*

**public makeEngine** (*Container* & \$container) → *Engine*

**Parameters**

- & **\$container** (*Container*) –

**Returns** *Engine* –**public makeKernel** (*Container* & *\$container*) → *Kernel***Parameters**

- & **\$container** (*Container*) –

**Returns** *Kernel* –**BuilderInterface****Qualified name** Ouxsoft\PHPMarkup\Contract\BuilderInterface**interface BuilderInterface****public \_\_construct** (*EngineInterface*‘ *\$engine*, *ConfigurationInterface*‘ *\$config*)**Parameters**

- **\$engine** (*EngineInterface*‘) –
- **\$config** (*ConfigurationInterface*‘) –

**public createObject** ()**public getObject** ()**ConfigurationInterface****Qualified name** Ouxsoft\PHPMarkup\Contract\ConfigurationInterface**interface ConfigurationInterface****DocumentInterface****Qualified name** Ouxsoft\PHPMarkup\Contract\DocumentInterface**interface DocumentInterface****ElementPoolInterface****Qualified name** Ouxsoft\PHPMarkup\Contract\ElementPoolInterface**interface ElementPoolInterface****public add** (*AbstractElement*‘ *\$element*)**Parameters**

- **\$element** (*AbstractElement*‘) –

**public callRoutine** (*string* *\$routine*)**Parameters**

- **\$routine**(*string*) –

**public count()**

**public getById([ ])**

**Parameters**

- **\$element\_id**(?*string*) – Default: null

**public getIterator()**

**public getPropertiesById(*string \$element\_id*)**

**Parameters**

- **\$element\_id**(*string*) –

## EngineInterface

**Qualified name** Ouxsoft\PHPMarkup\Contract\EngineInterface

**interface EngineInterface**

**public \_\_construct(*DocumentInterface` \$document, ElementPoolInterface` \$element\_pool*)**

**Parameters**

- **\$document**(*DocumentInterface`*) –
- **\$element\_pool**(*ElementPoolInterface`*) –

**public \_\_toString()**

**public callRoutine(*array \$routine*)**

**Parameters**

- **\$routine**(*array*) –

**public getDomElementByPlaceholderId(*string \$element\_id*)**

**Parameters**

- **\$element\_id**(*string*) –

**public getElementAncestorProperties(*string \$element\_id*)**

**Parameters**

- **\$element\_id**(*string*) –

**public getElementArgs(*DOMElement \$element*)**

**Parameters**

- **\$element**(*DOMElement*) –

**public getElementInnerXML(*string \$element\_id*)**

**Parameters**

- **\$element\_id**(*string*) –

**public instantiateElements(*array \$lhtml\_element*)**

**Parameters**

```

    • $lhtml_element (array) –
public queryFetch (string $query[, DOMElement $node])
    Parameters
        • $query (string) –
        • $node (DOMElement) – Default: null
public queryFetchAll (string $query[, DOMElement $node])
    Parameters
        • $query (string) –
        • $node (DOMElement) – Default: null
public removeElements (array $lhtml_element)
    Parameters
        • $lhtml_element (array) –
public renderElement (string $element_id)
    Parameters
        • $element_id (string) –
public replaceDomElement (DOMElement $element, string $new_xml)
    Parameters
        • $element (DOMElement) –
        • $new_xml (string) –
public setType ([])
    Parameters
        • $value – Default: null
        • $type – Default: 'string'

```

## KernellInterface

**Qualified name** Ouxsoft\PHPMarkup\Contract\KernelInterface

```

interface KernelInterface

public __construct (EngineInterface` $engine, BuilderInterface` $builder, ConfigurationInterface` $config)
    Parameters
        • $engine (EngineInterface`) –
        • $builder (BuilderInterface`) –
        • $config (ConfigurationInterface`) –
public build()
public getBuilder()
public getConfig()

```

```
public setBuilder(string $builder_class)
Parameters
• $builder_class(string) –
public setConfig(ConfigurationInterface $config)
Parameters
• $config(ConfigurationInterface) –
```

### 3.6.3 Element namespace

#### AbstractElement

**Qualified name** Ouxsoft\PHPMarkup\Element\AbstractElement

**class AbstractElement**

```
public __construct([ ])
Element constructor
```

**Parameters**

- \$args(ArgumentArray) – Default: null

**public \_\_invoke(string \$method) → bool**

Invoke wrapper call to method if exists

**Parameters**

- \$method(string) –

**Returns** bool –

**public \_\_toString() → string**

Call onRender if exists on echo / output

**Returns** string –

**public getArgByName(string \$name)**

Get arg by name

**Parameters**

- \$name(string) –

**Returns** mixed|null

**public getArgs() → ArgumentArray**

Get all args

**Returns** ArgumentArray –

**public getId()**

Gets the ID of the Element, useful for *ElementPool*

**Returns** int|string

**public innerText()**

Get innerText

**Returns** string|null

---

```
public onRender() → mixed
Abstract output method called by magic method The extending class must define this method

Returns mixed –
```

## ElementPool

**Qualified name** Ouxsoft\PHPMarkup\Element\ElementPool

**Implements** *ElementPoolInterface*

```
class ElementPool
```

```
public add(AbstractElement` $element)
Add new element to pool
```

**Parameters**

- **\$element** (*AbstractElement`*) –

```
public callRoutine(string $routine)
Invoke a method if present in each element
```

**Parameters**

- **\$routine** (*string*) –

```
public count() → int
Returns a count of number of elements in collection
```

**Returns** int –

```
public getById([ ])
Get Element by placeholder id
```

**Parameters**

- **\$element\_id** (?*string*) – Default: null

**Returns** AbstractElement|null

```
public getIterator()
Iterator to go through element pool
```

**Returns** ArrayIterator

```
public getPropertiesById(string $element_id) → array
Get the public properties of a element using the elements ID
```

**Parameters**

- **\$element\_id** (*string*) –

**Returns** array –

## 3.6.4 Exception namespace

### Exception

**Qualified name** Ouxsoft\PHPMarkup\Exception\Exception

```
class Exception

public __construct([])
    Exception constructor.

Parameters
    • $log – Default: null

public getLog()
    Returns log

Returns string|null
```

### 3.6.5 Factory namespace

#### ConcreteFactory

**Qualified name** Ouxsoft\PHPMarkup\Factory\ConcreteFactory

**Implements** *AbstractFactoryInterface*

```
class ConcreteFactory

public makeBuilder(Container & $container)

Parameters
    • & $container (Container) –

Returns BuilderInterface

public makeConfig(Container & $container) → Configuration

Parameters
    • & $container (Container) –

Returns Configuration –

public makeDocument(Container & $container) → Document

Parameters
    • & $container (Container) –

Returns Document –

public makeElementPool()

Returns ElementPool

public makeEngine(Container & $container) → Engine

Parameters
    • & $container (Container) –

Returns Engine –

public makeKernel(Container & $container) → Kernel

Parameters
    • & $container (Container) –
```

**Returns** *Kernel* –

## ContainerFactory

**Qualified name** Ouxsoft\PHPMarkup\Factory\ContainerFactory

**class ContainerFactory**

**static buildContainer**(AbstractFactoryInterface \$abstractFactory)

**Parameters**

- **\$abstractFactory** (AbstractFactoryInterface) –

**Returns** Container

## ProcessorFactory

**Qualified name** Ouxsoft\PHPMarkup\Factory\ProcessorFactory

**class ProcessorFactory**

**static getInstance** → Processor

**Returns** Processor –

### 3.6.6 ArgumentArray

**Qualified name** Ouxsoft\PHPMarkup\ArgumentArray

**class ArgumentArray**

**public count()** → int

Returns count of containers

**Returns** int –

**public current()** → mixed

**Returns** mixed –

**public get()** → array

Return container property

**Returns** array –

**public key()**

**Returns** boollfloatintmixedstring|null

**public merge(\$array)**

Merge array passed with container property

**Parameters**

- **\$array** –

**public next()**

**Returns** boollmixed|void

**public offsetExists (\$offset) → bool**

Check if item exists inside container

**Parameters**

- **\$offset** –

**Returns** bool –

**public offsetGet (\$offset) → mixed**

Get item from container

**Parameters**

- **\$offset** –

**Returns** mixed –

**public offsetSet (\$offset, \$value)**

Adds new item to array, if only one item in array then it will be a string

**Parameters**

- **\$offset** –

- **\$value** –

**public offsetUnset (\$offset)**

Remove item from container

**Parameters**

- **\$offset** –

**public rewind()**

**public valid () → bool**

**Returns** bool –

### 3.6.7 Configuration

**Qualified name** Ouxsoft\PHPMarkup\Configuration

**Implements** ConfigurationInterface

**class Configuration**

**public \_\_construct (DocumentInterface `\$document[, ?string \$config\_file\_path ])**

Configuration constructor

**Parameters**

- **\$document** (DocumentInterface)` –
- **\$config\_file\_path** (?string) – Default: null

**public addElement (array \$element)**

Adds a element

**Parameters**

- **\$element** (array) –

**public addElements (array \$elements)**

Adds multiple elements at once

---

**Parameters**

- **\$elements** (*array*) –

**public addRoutine** (*array \$routine*)  
Adds a routine

**Parameters**

- **\$routine** (*array*) –

**public addRoutines** (*array \$routines*)  
Adds multiple routines at once

**Parameters**

- **\$routines** (*array*) –

**public clearConfig** ()  
Clear config

**public getElements** () → *array*  
Get elements

**Returns** array –

**public getMarkup** () → *string*  
Get source

**Returns** string –

**public getRoutines** () → *array*  
Get routines

**Returns** array –

**public loadFile** ([])  
load a configuration file

**Parameters**

- **\$filepath** (*string*) – Default: null

**Returns** void

**public setConfig** (*array \$config*)  
Set entire config at once

**Parameters**

- **\$config** (*array*) –

**public setMarkup** (*string \$markup*)  
Set LHTML source/markup

**Parameters**

- **\$markup** (*string*) –

### 3.6.8 Document

**Qualified name** Ouxsoft\PHPMarkup\Document  
**Implements** *DocumentInterface*

```
class Document

public __construct()
    Document constructor.

public loadSource(string $source) → bool
    Loads source, which is in LHTML format, as DomDocument
```

A custom load page wrapper is required for server-side HTML5 entity support. Using \$this->loadHTMLFile will removes HTML5 entities, such as

```
param string $source
returns bool -
```

### 3.6.9 Engine

**Qualified name** Ouxsoft\PHPMarkup\Engine

**Implements** *EngineInterface*

```
class Engine
```

```
public __construct(DocumentInterface '$document, ElementPoolInterface' $element_pool)
    Engine constructor.
```

**Parameters**

- **\$document** (*DocumentInterface*) -
- **\$element\_pool** (*ElementPoolInterface*) -

```
public __toString() → string
```

Returns DomDocument property as HTML5

**Returns** string -

```
public callRoutine(array $routine)
```

Call Hooks

**Parameters**

- **\$routine** (*array*) -

**Returns** bool-

```
public getDomElementByPlaceholderId(string $element_id)
```

Gets DOMElement using element\_id provided

**Parameters**

- **\$element\_id** (*string*) -

**Returns** DOMElement|null

```
public getElementAncestorProperties(string $element_id) → array
```

Get a Element ancestors' properties based on provided element\_id DOMElement's ancestors

**Parameters**

- **\$element\_id** (*string*) -

**Returns** array -

---

**public getEventArgs (DOMElement \$element) → ArgumentArray**

Get DOMElement's attribute and child <args> elements and return as a single list items within the list are called args as they are passed as parameters to element methods

**Parameters**

- **\$element** (*DOMElement*) –

**Returns** *ArgumentArray* –

**public getElementInnerText (string \$element\_id) → string**

Get Element inner XML

**Parameters**

- **\$element\_id** (*string*) –

**Returns** string –

**public instantiateElements (array \$lhtml\_element) → bool**

Instantiates elements from DOMElement's found during Xpath query against DOM property

**Parameters**

- **\$lhtml\_element** (*array*) –

**Returns** bool –

**public queryFetch (string \$query[, DOMElement \$node]) → mixed**

XPath query for class \$this->DOM property that fetches only first result

**Parameters**

- **\$query** (*string*) –
- **\$node** (*DOMElement*) – Default: null

**Returns** mixed –

**public queryFetchAll (string \$query[, DOMElement \$node]) → mixed**

XPath query for class \$this->DOM property that fetches all results as array

**Parameters**

- **\$query** (*string*) –
- **\$node** (*DOMElement*) – Default: null

**Returns** mixed –

**public removeElements (array \$lhtml\_element)**

Removes elements from the DOM

**Parameters**

- **\$lhtml\_element** (*array*) –

**Returns** void

**public renderElement (string \$element\_id) → bool**

Within DOMDocument replace DOMElement with Element->:class:\_\_toString() output

**Parameters**

- **\$element\_id** (*string*) –

**Returns** bool –

```
public replaceDomElement (DOMElement $element, string $new_xml)
    Replaces DOMElement from property DOM with contents provided
```

### Parameters

- **\$element** (*DOMElement*) –
- **\$new\_xml** (*string*) –

```
public setType ([])
```

Set a value type to avoid Type Juggling issues and extend data types

### Parameters

- **\$value** – Default: null
- **\$type** – Default: 'string'

**Returns** bool|mixed|string|null

```
private instantiateElement (DOMElement $element, string $class_name) → bool
```

Instantiate a DOMElement as a Element using specified class\_name

### Parameters

- **\$element** (*DOMElement*) –
- **\$class\_name** (*string*) –

**Returns** bool –

## 3.6.10 Entities

**Qualified name** Ouxsoft\PHPMarkup\Entities

**class Entities**

```
public fetchArray () → array
    Download and encode entities from url
```

**Returns** array –

```
public fetchString () → string
    Fetches entity string for use in DomDocument Doctype declaration
```

**Returns** string –

```
public getURL () → string
    Get url of fetch point
```

**Returns** string –

```
static get → string
    Get list of entities to pass to DOM. These will prevent the character from causing parse errors
```

**Returns** string –

## 3.6.11 Kernel

**Qualified name** Ouxsoft\PHPMarkup\Kernel

**Implements** *KernelInterface*

```
class Kernel

public __construct(EngineInterface ` $engine, BuilderInterface ` $builder, ConfigurationInterface ` $config)
Kernel constructor.

Parameters

- $engine (EngineInterface) –
- $builder (BuilderInterface) –
- $config (ConfigurationInterface) –

public build() → Engine
Calls Builder using parameters supplied

Returns Engine –

public getBuilder()
Get builder

Returns BuilderInterface

public getConfig()
Get config

Returns ConfigurationInterface

public setBuilder(string $builder_class)
Set builder

Parameters

- $builder_class (string) –

public setConfig(ConfigurationInterface $config)
Set config

Parameters

- $config (ConfigurationInterface) –

```

### 3.6.12 Processor

**Qualified name** Ouxsoft\PHPMarkup\Processor

```
class Processor

public __construct(KernelInterface ` $kernel, ConfigurationInterface ` $config)
Processor constructor.

Parameters

- $kernel (KernelInterface) –
- $config (ConfigurationInterface) –

public addElement(array $element)
Add definition for processor LHTML element

Parameters

- $element (array) –

```

**public addElements (array \$elements)**  
Add definition for processor LHTML element

**Parameters**

- **\$elements** (array) –

**public addRoutine (array \$routine)**  
Add definition for processor LHTML routine

**Parameters**

- **\$routine** (array) –

**public addRoutines (array \$routines)**  
Add definition for processor LHTML routine

**Parameters**

- **\$routines** (array) –

**public getBuilder ()**  
Get builder

**Returns** BuilderInterface

**public getConfig () → Configuration**  
Get config

**Returns** Configuration –

**public getStatus () → bool**  
Gets whether process runs or does not run

**Returns** bool –

**public loadConfig (string \$filepath)**  
Load config

**Parameters**

- **\$filepath** (string) –

**public parseBuffer ()**  
Process output buffer

**public parseFile (string \$filepath) → string**  
Process a file

**Parameters**

- **\$filepath** (string) –

**Returns** string –

**public parseString (string \$source) → string**  
Process string

**Parameters**

- **\$source** (string) –

**Returns** string –

**public setBuilder (string \$builder\_class)**  
Set builder

**Parameters**

```
    • $builder_class (string) –  
public setConfig (ConfigurationInterface $config)  
    Set config  
Parameters  
    • $config (ConfigurationInterface) –  
Returns void  
public setStatus (bool $status)  
    Set whether process runs or does not run  
Parameters  
    • $status (bool) –  
private parse () → string  
    Parse using a Kernel to build an Engine  
Returns string –
```

## 3.7 Code of Conduct

### 3.7.1 Our Pledge

In the interest of fostering an open and welcoming environment, we as contributors and maintainers pledge to making participation in our project and our community a harassment-free experience for everyone, regardless of age, body size, disability, ethnicity, sex characteristics, gender identity and expression, level of experience, education, socio-economic status, nationality, personal appearance, race, religion, or sexual identity and orientation.

### 3.7.2 Our Standards

Examples of behavior that contributes to creating a positive environment include:

- Using welcoming and inclusive language
- Being respectful of differing viewpoints and experiences
- Gracefully accepting constructive criticism
- Focusing on what is best for the community
- Showing empathy towards other community members

Examples of unacceptable behavior by participants include:

- The use of sexualized language or imagery and unwelcome sexual attention or advances
- Trolling, insulting/derogatory comments, and personal or political attacks
- Public or private harassment
- Publishing others' private information, such as a physical or electronic address, without explicit permission
- Other conduct which could reasonably be considered inappropriate in a professional setting

### **3.7.3 Our Responsibilities**

Maintainers are responsible for clarifying the standards of acceptable behavior and are expected to take appropriate and fair corrective action in response to any instances of unacceptable behavior.

Maintainers have the right and responsibility to remove, edit, or reject comments, commits, code, wiki edits, issues, and other contributions that are not aligned to this Code of Conduct, or to ban temporarily or permanently any contributor for other behaviors that they deem inappropriate, threatening, offensive, or harmful.

### **3.7.4 Scope**

This Code of Conduct applies both within project spaces and in public spaces when an individual is representing the project or its community. Examples of representing a project or community include using an official project e-mail address, posting via an official social media account, or acting as an appointed representative at an online or offline event. Representation of a project may be further defined and clarified by project maintainers.

### **3.7.5 Enforcement**

Instances of abusive, harassing, or otherwise unacceptable behavior may be reported by contacting the Code of Conduct Committee at <[conduct@ouxsoft.com](mailto:conduct@ouxsoft.com)>. All complaints will be reviewed and investigated and will result in a response that is deemed necessary and appropriate to the circumstances. The Code of Conduct Committee is obligated to maintain confidentiality with regard to the reporter of an incident. Further details of specific enforcement policies may be posted separately.

### **3.7.6 Attribution**

This Code of Conduct is adapted from the Contributor Covenant, version 1.4, available at <https://www.contributor-covenant.org/version/1/4/code-of-conduct.html>

# CHAPTER 4

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