
Novius OS Documentation

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Novius

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Summary

1.1 PHP API

1.1.1 Novius OS configuration

Multi-Contexts

Configuration

To change the contexts of your Novius OS instance, edit the `local/config/contexts.config.php` file.

Default configuration After installation, Novius OS is configured with three contexts, one site in three languages:

```
<?php
return array(
    'sites' => array(
        'main' => array(
            'title' => 'Main site',
            'alias' => 'Main',
        ),
    ),

    'locales' => array(
        'fr_FR' => array(
            'title' => 'Français',
            'flag' => 'fr',
        ),
        'en_GB' => array(
            'title' => 'English',
            'flag' => 'gb',
        ),
        'ja_JP' => array(
            'title' => '',
            'flag' => 'jp',
        ),
    ),

    'contexts' => array(
        'main::en_GB' => array(),
        'main::fr_FR' => array(),
    ),
);
```

```

        'main::ja_JP' => array(),
    ),
);

```

Multi-sites / multi-languages Here is an example configuration with five contexts across three sites and three languages:

```

<?php
return array(
    'sites' => array(
        'main' => array(
            'title' => 'Main site',
            'alias' => 'main',
        ),
        'mobile' => array(
            'title' => 'Mobile site',
            'alias' => 'Mobile',
        ),
        'event' => array(
            'title' => 'Event site',
            'alias' => 'Event',
        ),
    ),
    'locales' => array(
        'en_GB' => array(
            'title' => 'English',
            'flag' => 'gb',
        ),
        'fr_FR' => array(
            'title' => 'Français',
            'flag' => 'fr',
        ),
        'es_ES' => array(
            'title' => 'Español',
            'flag' => 'es',
        ),
    ),
    'contexts' => array(
        'main::en_GB' => array(),
        'main::fr_FR' => array(),
        'main::es_ES' => array(),
        'mobile::fr_FR' => array(),
        'event::en_GB' => array(),
    ),
);

```

One site in one language Here is an example configuration for just one site in one language:

```

<?php
return array(
    'sites' => array(
        'main' => array(
            'title' => 'Main site',
            'alias' => 'main',
        ),
    ),
);

```



```

        ),
        'locales' => array(
            'en_GB' => array(
                'title' => 'English',
                'flag' => 'gb',
            ),
        ),
        'contexts' => array(
            'main::en_GB' => array(),
        ),
    );

```

Domain Names

By default, the first context will answer to the root of your domain, the following contexts in a `site_code/language_code/ subdirectory` (e.g.: `main/es_ES/`).

But for each context, you can choose the URI (including a domain and optionally a directory) it will answer to, by specifying it the the associated configuration array.

Contexts on subdirectory

```

<?php
'contexts' => array(
    'main::en_GB' => array(), // Uses the default domain
    'main::fr_FR' => array(
        'http://www.mysite.com/fr/',
    ),
    'main::es_ES' => array(
        'http://www.mysite.com/es/',
    ),
    'mobile::fr_FR' => array(
        'http://www.mysite.com/mobile/',
    ),
    'event::en_GB' => array(
        'http://www.mysite.com/event/',
    ),
),

```

Warning: If your main context (the first) has a `fr/example.html` page and your `main::fr_FR` context has an `example.html` page, their URLs are identical (ie: `http://www.mysite.com/fr/example.html`). In this situation, only the page of your main context will be accessible.

Contexts on domains

```

<?php
'contexts' => array(
    'main::en_GB' => array(
        'http://www.monsite.com/',
    ),
),

```

```
'main::fr_FR' => array(
    'http://www.mysite.fr/',
),
'main::es_ES' => array(
    'http://www.monsite.es/',
),
'mobile::fr_FR' => array(
    'http://mobile.monsite.fr/',
),
'event::en_GB' => array(
    'http://event.monsite.com/',
),
),
```

Note: Of course, your domains should also be properly configured in **Apache**.

Contexts with multiple URLs

```
<?php
'contexts' => array(
    'main::en_GB' => array(
        'http://www.monsite.com/',
    ),
    'main::fr_FR' => array(
        'http://www.mysite.fr/',
    ),
    'main::es_ES' => array(
        'http://www.monsite.es/',
    ),
    'mobile::fr_FR' => array(
        'http://mobile.monsite.fr/',
        'http://www.monsite-mobile.fr/',
        'http://www.mysite.com/mobile/',
    ),
    'event::en_GB' => array(
        'http://event.monsite.en/',
    ),
),
```

Going live

You will probably need to define, for each of your contexts, different URLs between your local (development) and production instances. You can do that using *environment-specific config files*.

Novius OS

A sample configuration file is available in `local/config/config.php.sample`. Just rename (or copy) it to `local/config/config.php`, and update it to your case.

cache

Boolean for use of cache on front. By default is `true`, except in `DEVELOPMENT` environment.

New in version 0.2.0.2.

cache_duration_page

Int, number of seconds of cache validity. By default is 60.

cache_model_properties

Boolean for use of cache on `Nos\Orm\Model` properties. By default is `false`. If is `true`, all models properties will be cached with a auto-refresh mechanism : if you add a column on a model which has properties defined, the cache will be refreshed by a DB `list_columns` request when you access this column with `get()` or `set()`.

New in version Chiba: 1.0.1

upload

Array :

Parameters

- **disabled_extensions** – Array of invalid extensions for files uploaded in Novius OS. By default `php` is disabled.

assets_minified

Boolean for use of assets minified in back-office. By default is `true`, except in `DEVELOPMENT` environment.

temp_dir

Path of a temp directory. Set to `local/data/temp` by default.

Database

The DB configuration was initially created by the installation wizard. But you can (and you must to go live) update it after installation.

The DB configuration is in `local/config/db.php`.

See also:

[FuelPHP Database documentation](#) for details.

Email

By default, your Novius OS is not configured to send mail, because it's too dependent on the server.

A sample configuration file is available in `local/config/email.config.php.sample`. Just rename (or copy) it to `local/config/email.config.php`, and update it to your case.

See also:

[FuelPHP email package documentation](#) for details.

WYSIWYG

You can modify default configuration of WYSIWYGs in your Novius OS. You can also have multiple configurations, especially configurations for [contexts](#).

A sample configuration file is available in `local/config/wysiwyg.config.php.sample`. Just rename (or copy) it to `local/config/wysiwyg.config.php`, and update it to your case.

To set a configuration for a context, set a key with the context id in the array `setups`:

```

<?php
return array(
    'default' => array(
    ),

    'active_setup' => 'default',

    'setups' => array(
        'default' => array(),
        'main::en_GB' => array(
            //... Set here your specific configuration for context main::en_GB
        ),
        //'main::fr_FR' => array(),
        //'main::ja_JP' => array(),
    ),
);

```

See also:

TinyMCE documentation for details.

Friendly slug

All segments of URLs built in Novius OS are cleaned by the friendly slug mechanism.

A sample configuration file is available in `local/config/friendly_slug.config.php.sample`. Just rename (or copy) it to `local/config/friendly_slug.config.php`, and update it to your case.

active_setup The active setup key. This key must be present in `setups`. Execute in all case. Default value: `default`.

setups Array of different setups.

In `setups`, key can be a context ID. In this case, this setup is excute for slugs in this context.

Four setups of rules are defined:

- `default` setup. All characters `?, :, \, /, #, [,], @, &` and space are replaced by `-`. Transform to lower case. Remove trailing `-`. Replace multiple `-` by one.
- `no_accent` setup. All accent characters are replaced by the equivalent character without accent.
- `no_special` setup. All characters that are not a word character, a `-` or a `_` are replaced by `-`.
- `no_accent_and_special` setup. Combination of `no_accent` and `no_special` setups.

A setup value is an array. This array can contains :

- an other setup ID
- A key => value, in this case, all occurrence of key in the slug are replaced by value.
- Value can be also an array, with a key replacement and a key flags for the regular expression.

Sample:

```

<?php
return array(
    'setups' => array(
        'my_default' => array(
            // Use the 'no_accent' setup
            'no_accent',

```

```

        // Replace space by '_'
        ' ' => '_',

        // All characters that are not a word character, a '-' or a '_' or a '*' are replaced by '-'
        '[^\w\*\_\-]' => array('replacement' => '-', 'flags' => 'i'),
    ),
),
);

```

1.1.2 Application configuration

PHP to Javascript

Application configuration is mostly done in PHP, but a lot of code also runs in the browser, and is powered by JavaScript.

Some PHP configuration patterns have been created to define JavaScript behaviours from a PHP configuration file.

PHP nosActions

`$container.nosAction()` executes an action bound to a DOM element.

To define an action in PHP:

```

<?php
'action' => array(
    'action' => 'actionName', // nosTabs, nosDialog, confirmationDialog, nosAjax, window.open, d
    // Other keys are array and depends on the actionName
),

// Example with nostabs
'action' => array(
    'action' => 'nosTabs',
    'tab' => array(
        'url' => 'admin/nos/page/page/insert_update/{{id}}',
        'label' => '{{title}}',
    ),
),

```

This syntax is used to define actions for:

- *Launchers*
- *Data catchers*
- buttons and menus in the Appdesk
- Crud Controller

PHP cellFormatters

Used to format the value displayed in a column of a grid in the Appdesk.

A `cellFormatter` is an associative array.

You can have multiple `cellFormatter`, just use arrays.

You can assign a key to a `cellFormatter`. This way, someone else can delete or modify it by overloading configuration.

Common keys

type The `cellFormatter` type. Can one of `bold`, `css`, `icon`, `iconClasses` or `link`.

replace If `true`, `cellFormatter` empties the current content.

ignore Column name to check if we should ignore this `cellFormatter` for the current item. If `'1'` (the string containing the digit 1), the `cellFormatter` will be ignored for this item.

Types

bold Formats the text in bold. No additional key.

css Apply CSS styles to the content.

css An associative array of all CSS styles to apply.

```
<?php
array(
    'type' => 'css',
    'css' => array(
        'text-align' => 'center',
    ),
),
```

icon Prepends an icon to the text, using an URL.

column Use a `data_mapping` column to fetch the icon URL.

src The icon URL.

mapping A mapping array to fetch URL depending on the value of the column.

size Force a size in pixels for the icon. Used for both width and height.

```
<?php
array(
    'type' => 'icon',
    'column' => 'column_icon', // URL is retrieved from the 'column_icon' column
    'size' => 16
),
// Or
array(
    'type' => 'icon',
    'src' => 'static/path/icon.png',
),
// Or
array(
    'type' => 'icon',
    'mapping' => array(
        '1' => 'static/path/icon-1.png', // If column value is '1', use this URL
        '2' => 'static/path/icon-2.png',
    ),
),
```

```

    ),
),

```

iconClasses Prepends an icon to the text, using CSS classes.

column Use a `data_mapping` column to fetch the icon CSS classes.

classes The icon CSS classes.

```

<?php
array(
    'type' => 'iconClasses',
    'column' => 'column_icon_classes', // CSS classes are fetch from the 'column_icon_classes' column
),

// Or
array(
    'type' => 'iconClasses',
    'classes' => 'icon icon-foo',
),

```

link Wraps a link to the text (which performs an action upon click).

action Action to perform when the link is clicked. Can be `default` to use the default action of the item, an *action name* of the item or a *nosAction*.

```

<?php
array(
    'type' => 'link',
    'action' => 'default', // Binds the default action (e.g.: 'edit the item' in the most of the items)
),

// Or
array(
    'type' => 'link',
    'action' => 'Namespace\Model_Example.result', // Binds the 'result' action of the item, which is the default action of the item
),

// Or
array(
    'type' => 'link',
    'action' => array(
        'action' => 'nosTabs', // Open a new tab
        'tab' => array(
            'url' => 'admin/nos/page/page/insert_update/{_id}', // {_id} will be replaced by the item's id
            'label' => '{_title}', // {_title} will be replaced by the item's title
        )
    ),
),

```

Custom cellFormatters It is possible to create custom *cellFormatters*. You just have to indicate your javascript url in the *type* key.

Here is a *cellFormatter* sample allowing you to change the font size of a column.

```
define(function(require, exports) {
    exports.format = function(formatter, args) {
        args.$container.css({
            'font-size': 20
        });
    }
});
```

Full example

```
<?php
'data_mapping' => array(
    'column_a' => array(
        'title' => 'Column a'
        'cellFormatters' => array(
            'bold' => array(
                'type' => 'bold',
            ),
            'center' => array(
                'type' => 'css',
                'css' => array(
                    'text-align' => 'center',
                ),
            ),
        ),
    ),
    'column_b' => array(
        'title' => 'Column b'
        'cellFormatters' => array(
            'icon' => array(
                'type' => 'icon',
                'column' => 'column_icon',
                'size' => 16
            ),
        ),
    ),
    'column_icon' => array(
        value => function($item) {
            return $item->icon();
        },
    ),
),
```

Metadata

The `metadata.config.php` file is how an application is defined. It tells what contains the application and what it does.

The most important keys are:

name The name of the application.

namespace In which PHP namespace all the classes of the application must be defined.

icons In the 3 standard sizes 16*16, 32*32 and 64*64.

requires Optional. Which applications does your application requires. Array or string (in the last case, considered as an array with a unique element).

extends Optional. Application can extend other applications. Extend mechanism can extended config file, lang file and views.

```
<?php
return array(
    'name' => 'Webpages',
    'namespace' => 'Nos\Page',
    'version' => '0.2',
    'provider' => array(
        'name' => 'Novius OS',
    ),
    'extends' => array(
        // Optional,
    ),
    'requires' => array(
        // Optional
    ),
    'icons' => array(
        64 => 'static/apps/noviusos_page/img/64/page.png',
        32 => 'static/apps/noviusos_page/img/32/page.png',
        16 => 'static/apps/noviusos_page/img/16/page.png',
    ),
    'permission' => array(
        // Empty array for now. Leave it.
    ),
    'i18n_file' => 'noviusos_page::metadata',
    'launchers' => array(
        // Optional
    ),
    'enhancers' => array(
        // Optional
    ),
    'templates' => array(
        // Optional
    ),
    'data_catchers' => array(
        // Optional
    ),
);
```

An application provides:

Extends

An application can extend multiple others applications.

An application that extends an other application will be loaded when the extended application is loaded.

Configuration and language files of an extended application can be extended by an application that extends. Views can be replaced.

To proceed, put extended files in subdirectory apps/application_extended.

Example: the app_a application extends app_b application, especially config/common.config.php, lang/common.lang.php and views/common.view.php.

Files structure will be:

- local/applications/app_a/
 - config/apps/app_b/common.config.php
 - lang/apps/app_b/common.lang.php
 - views/apps/app_b/common.view.php

Launchers

A *launcher* is an icon on the home tab.

A launcher is defined by an associative array. Key is launcher ID, launcher properties is an associative array:

name Text to display for the icon.

icon Optional. URL to a 64*64 image, default will use the 64*64 icon of the app.

action What is done when clicking on the launcher. See *PHP nosActions*.

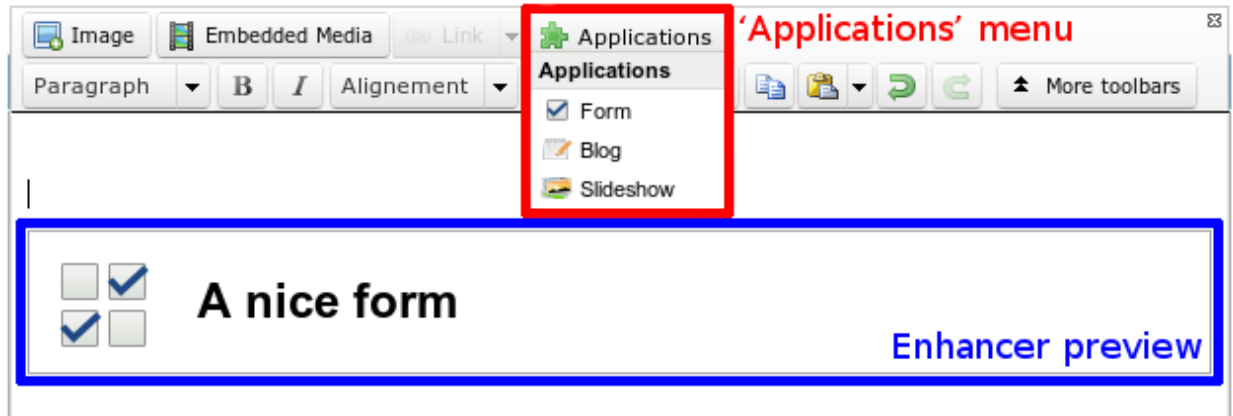
```
<?php
return array(
    'launchers' => array(
        'noviusos_page' => array(
            'name' => 'Webpages',
            // 'icon' is not set, so the default icon will be used
            'action' => array(
                // open a tab
                'action' => 'nosTabs',
                'tab' => array(
                    'url' => 'admin/noviusos_page/appdesk/index',
                    // 'iconUrl' is not set, so the default icon will be used
                ),
            ),
        ),
    ),
);
```

Enhancers

Enhancers are used in WYSIWYG editors. They provide functionalities for the front-office.

For example, the 'Forms' application allows users to insert forms in their web pages (using an enhancer).

URL enhancers, a specific type of enhancers, handle their own URLs. For example, every blog post has an URL.



An enhancer is defined with:

title Title of the enhancer displayed when opening the 'Application' menu from the wysiwyg.

desc Optional. Description of the enhancer.

iconUrl Optional. URL to a 16*16 icon, displayed when opening the 'Application' menu from the wysiwyg, default will use the 16*16 icon of the app ;

enhancer URL of the front-office controller used to render the enhancer.

urlEnhancer Same that `enhancer`. Only one of the two keys can be used, depending if you want an URL enhancer or just a plain regular enhancer.

previewUrl Optional. URL of the controller used to render the preview in the wysiwyg.

dialog Optional. If you want a configuration popup, URL of the controller used to display and save the enhancer configuration. See `$container.nosDialog()` for the list of parameters.

valid_container

Optional. A [callback function](#) to check if the enhancer is available for a specific container.

If the function returns false, the enhancer won't be available.

The function takes two parameters: the enhancer's configuration and the `container` instance.

```
<?php
return array(
    'noviusos_form' => array(
        'title' => 'Form',
        'desc' => '',
        // Here it's just a regular enhancer
        'enhancer' => 'noviusos_form/front/main',
        // 'urlEnhancer' => 'noviusos_form/front/main',
        'iconUrl' => 'static/apps/noviusos_form/img/icons/form-16.png',
        // We'll use our controller to generate the preview
        'previewUrl' => 'admin/noviusos_form/enhancer/preview',
        // And the user has to configure it
        'dialog' => array(
            'contentUrl' => 'admin/noviusos_form/enhancer/popup',
            'width' => 450,
            'height' => 400,
            'ajax' => true,
        ),
        // The callback function which check availability of the enhancer
```

```

        'valid_container' => 'validContainer',
    ),
);

// In this example, the enhancer won't be available in WYSIWYGs of monkeys.
function validContainer($enhancer, $container)
{
    $container_class = get_class($container);
    return $container_class !== 'Nos\Monkey\Model_Monkey';
}

```

Templates

Templates are similar to other CMS' templates or themes. They provide a layout for the front-office.

In Novius OS, a template contains one or more WYSIWYG editable area(s), which are placed inside a grid.

The grid has a size of `cols * rows`, and each editable area is positioned using absolute coordinates (it's similar to `position: absolute` in CSS).

Each WYSIWYG editable area has:

- a **name**: it's the key in the `layout` array (see below);
- a **position**: absolute coordinates inside the grid (similar to `left` and `top` in CSS);
- a **size**: similar to `width` and `height` in CSS.

In the end, a template is defined with:

file path to the template file (it's a view)

title title of the template, it's shown when selecting a template for a page

cols grid width (in units)

rows grid height (in units)

layout list of the WYSIWYG editors inside the grid :

- the key is the name of the WYSIWYG ;
- the value is a comma-separated string containing (in this order) :
 - the left position (0-indexed) ;
 - the top position (0-indexed) ;
 - the width (in units) ;
 - the height (in units).

screenshot Optional. URL of the image representing the template.

Here's an example:

```

<?php
return array(
    'templates' => array(
        'top_menu' => array(
            'file' => 'noviusos_templates_basic::top_menu',
            'title' => 'Default template with a top menu',
            'cols' => 1,

```

```

        'rows' => 1,
        'layout' => array(
            // There is one WYSIWYG named 'content'
            // Position inside the grid: <left>,<top>,<width>,<height>
            'content' => '0,0,1,1',
        ),
    ),
);

```

Templates are not used directly in Novius OS. Template variations by context is used.

See also:

Template variation

Data catchers

Common

Configuration for `Nos\Orm\Model`, used in `Appdesk`, `Crud Controller` or `Inspectors`.

Associative array:

- data_mapping** columns on `Appdesk` and `Inspectors`.
- i18n** Optional, common translation
- actions** Optional, common actions on the `Nos\Orm\Model`.
- icons** Optional, common icons related to the `Nos\Orm\Model`.

Data mapping

Associative array where each key => value defines a column, all keys are optionals.

- title** Title of the grid column. If not set, column will not be displayed.
- column** Default value is same as key.
- search_column** Default value is column key value. Defines on which SQL column search / order.
- search_relation** Default value is deduced from key (ex: `rel->col`). Relation to load (via related function on query).
- sorting_callback** A closure function taking two parameters: the `$query` object and the `$sortDirection`.
- multiContextHide** Hide grid column when items are filtered on more than one contexts.
- isSafeHtml** If `true`, the content won't be escaped when displayed (inside the grid).
- value** A closure function taking current item `Nos\Orm\Model` in first parameter. Overloads value displayed in the grid.
- cellFormatters** Associative array of `cellFormatters` for formatting column display.
- preview_url** allow to custom url of the current item (used through "visualise" action).
 - method** A callback taking current item as paramter.
 - value** Simple string value corresponding to the URL of the item.

```

<?php
return array(
    'data_mapping' => array(
        'column_a' => array(
            'title' => 'Column A',
            'column' => 'col_a',
            'multiContextHide' => true,
            'cellFormatters' => array(
                'center' => array(
                    'type' => 'css',
                    'css' => array('text-align' => 'center'),
                ),
            ),
        ),
        'column_b' => array(
            'title' => 'B',
            'search_column' => 'col_b_search',
            'search_relation' => 'rel',
            'value' => function($item) {
                return 'test';
            },
            // ...
        ),
    ),
);

```

Particular cases In the following example, `column_a` is sent in json but is not displayed in the grid.

```

<?php
return array(
    'data_mapping' => array(
        'column_a',
    ),
);

```

In the following example, `col_b` is sent in json under the `column_b` key but is not displayed in the grid.

```

<?php
return array(
    'data_mapping' => array(
        'column_b' => 'col_b',
    ),
);

```

If the Model has the `Orm_Behaviour_Twinnable` behaviour, a pseudo column context is automatically added at the end of the `data_mapping`. But, if you want to place it elsewhere, you can force its position like this:

```

<?php
return array(
    'data_mapping' => array(
        'column_a' => array(
            'title' => 'Column a'
        ),
        'context',
        'column_b' => array(
            'title' => 'Column b'
        ),
    ),
);

```

```
// ...
);
```

I18n

This key contains all the common translations.

```
<?php
return array(
    'i18n' => array(
        // Crud
        'notification item added' => __('Done! The item has been added.'),
        'notification item saved' => __('OK, all changes are saved.'),
        'notification item deleted' => __('The item has been deleted.'),

        // General errors
        'notification item does not exist anymore' => __('This item doesn't exist any more. It has be
        'notification item not found' => __('We cannot find this item.'),

        // ... see the 'framework/config/i18n_common.config.php' file to include the appropriate keys
    ),
);
```

Actions

This key contains all the common actions related to the model. 5 actions are automatically added:

- add** The *Add model* button located on the appdesk's toolbar
- edit** The *Edit* button located on the grids and the crud's toolbar
- delete** The *Delete* button located on the grids and the crud's toolbar
- visualise** The *Visualise* button located on the grids and crud's toolbar, if the item can be displayed in front-office.
- share** The *Share* button located on the crud's toolbar, if the item has the `Nos\Orm_Behaviour_Sharable` behaviour.

The action key can be filled in two different ways.

The most common way is to use an associative array:

```
<?php
return array(
    // ...
    'actions' => array(
        'action_1' => array(/* configuration */),
        'action_2' => array(/* configuration */),
        // ...
    ),
);
```

If you want to change the order in which the actions are displayed, two keys are to be defined:

- list** associative array of actions (similar to the previous `actions` key)
- order** array of action's key defining their order

```

<?php
return array(
    // ...
    'actions' => array(
        'list' => array(
            'action_1' => array(/* configuration */),
            'action_2' => array(/* configuration */),
            // ...
        ),
        'order' => array(
            'action_2',
            'action_1'
        ),
    ),
);

```

Each action is an associative array. Key is the action ID, and value is an array defining the action configuration:

- action** which action is executed when clicking on the button (using `nosAction`).
- label** Text associated with the action (either shown as text or in a tooltip).
- primary** Is it a primary action? Primary actions have a dedicated button, and secondary actions appears in the action drop down.
- icon** Icon of the action. It's a `jquery ui icon class`, but without the leading `ui-icon-` string.
- red** Is it a red action? (especially used for 'Delete')
- align** Alignment of the button. Can be a string (`begin` or `end`) or a number (`begin` is equivalent to `-10` and `end` is equivalent to `10`). Defines actions default order (`align` in ascending order).
- targets** Where is the action displayed? This has no effect if the action is not `visible` (see below). There are 3 locations available:
 - grid** Is the action displayed on the grid (appdesk and inspector)?
 - toolbar-grid** Is the action displayed on the grid's toolbar?
 - toolbar-edit** Is the action displayed on the crud's toolbar (edition form)?
- disabled** Callback function or array of callback functions (the one taken into account is the first which doesn't return `false`) that returns a boolean or a string defining if the action is disabled or not for an item (a string disable the action and the value is used as title). There is two sent parameters: the current `$item`, and `$params` containing the common configuration.
- visible** Callback function or array of callback functions (the one taken into account is the first which doesn't return `true`) that returns a boolean defining if the action is visible or not on a context. There is only one parameter sent, an associative array:
 - model** Model tested.
 - target** Target where action is displayed. Value can be `grid`, `toolbar-grid` or `toolbar-edit` (related to action's targets).
 - item** Only populated when `target == 'toolbar-edit'`.
 - class** Name of the controller class calling the function (this way you can differentiate appdesk and inspectors for instance).

```

<?php
return array(
    'actions' => array(

```



```

        'action_id' => array(
            'action' => array(
                'action' => 'confirmationDialog',
                'dialog' => array(
                    'contentUrl' => '{{controller_base_url}}delete/{{_id}}',
                    'title' => 'Delete',
                ),
            ),
        ),
        'label' => __('Delete'),
        'primary' => true,
        'icon' => 'trash',
        'red' => true,
        'targets' => array(
            'grid' => true,
            'toolbar-edit' => true,
        ),
        'disabled' => function($item) {
            return false;
        },
        'visible' => function($params) {
            return !isset($params['item']) || !$params['item']->is_new();
        },
    ),
),
);

```

Default actions and particular cases Default actions (such as add or edit) can be overloaded with this actions key. `Arr::merge` is used to merge defined actions with default actions.

To hide an action, set its value to false:

```

<?php
return array(
    // ...
    'actions' => array(
        'add' => false,
    ),
);

```

Placeholders Placeholders are available in order to simplify action targets and labels. First, some placeholders are always available:

- `controller_base_url`: URL of the crud controller
- `model_label`: generated from model class name
- `_id`: ID of the item
- `_title`: Title of the item
- `_context`: if the item has the `Contextable` behaviour

Additionally, all dataset keys can be used as placeholders.

Icons

This key contains all common icons related to the model. Structure is similar to the icons key of the [Metadata](#) configuration file :

```
<?php
return array(
    'icons' => array(
        64 => 'static/apps/noviusos_page/img/64/page.png',
        32 => 'static/apps/noviusos_page/img/32/page.png',
        16 => 'static/apps/noviusos_page/img/16/page.png',
    ),
);
```

Appdesk

Configuration for *Nos\Orm\Model*'s appdesk.

Associative array:

model Model name.

css Optional. List of css file to load in order to add specific styles.

notify Optional. Allows you to notify the user when displaying the appdesk.

query Optional. Additional informations about the query.

search_text Optional. Array of columns in which we search when the user fills appdesk's search bar.

data_mapping Optional. Defines which data_mapping items are displayed.

inspectors Optional.

views Optional.

selectedView Optional. Default selected view identifier.

inputs Optional. How to process additional parameters sent to the appdesk.

i18n Optional. Extends default text items.

thumbnails Optional, boolean. Can the appdesk display items as thumbnails ?

tree Optional (automatically filled when model has the [Tree](#) behaviour enabled).

appdesk Optional. Additional display information about the appdesk.

notify

Allows you to notify the user when displaying the appdesk.

message Message you want to display.

type Type of notification.

query

Associative array. All keys are optional. Most keys are similar than the [find function second parameters](#).

model Model on which query is executed.

limit**order_by****related****callback** Array of callback functions allowing you to customize the query (first parameter is the current query, must return the modified query).**data_mapping**

Associative or simple array. Defines which data_mapping items from [Common](#) configuration we display (mostly filtering).

Is is also possible to define new custom data_mapping items which will be only used on the appdesk.

If only value is defined, appdesk will display the data_mapping item from common configuration.

If it is a key => value association (value must then be an array), then the data_mapping item from common configuration is extended by the value.

```
<?php
return array(
    // ...
    'data_mapping' => array(
        'col1', // will display the col1 data_mapping item from common configuration.
        'col2' => array( // if col2 exists on common configuration data_mapping key then it is extended
            // ...
        ),
    ),
);
```

inspectors

Associative or simple array. Defines which inspectors are used on appdesk.

If is also possible to define new custom inspectors which will be only used on the appdesk.

If only value is defined: * appdesk will display the inspector located at *inspector/inspector_name* if the value is *inspector_name*. * it also supports inspector class names (*MyAppController_Admin_Inspector_Name*).

If it is a key => value association (value must then be an array), then the inspector configuration is extended by the value.

```
<?php
return array(
    // ...
    'inspectors' => array(
        'inspector1', // will display the inspector located at inspector/inspector1.
        '\My\App\Controller_Admin_Inspector_Name', // will display the inspector which class is \My\
        'inspector2' => array( // if inspector/inspector2 exists, then it is extended ; otherwise it
            // ...
        ),
    ),
);
```

views

Associative array defining different way of displaying the appdesk. The key is the view identifier. Value is view configuration:

name Optionnal. Display view name in view selector

virtual Optionnal. Is the view present on the view selector ?

json Array of javascript files to load. These javascript extends appdesk configuration.

inputs

How to process additional parameters sent to the appdesk. Associative array, to define a callback for each parameter.

```
<?php
return array(
    // ...
    'inputs' => array(
        'monk_species_id' => function($value, $query) {
            // ...
            return $query;
        },
    ),
);
```

thumbnails

Can the appdesk display items as thumbnails ?

If defined to true, data_mapping has to define two keys:

thumbnail url of item thumbnail.

thumbnailAlternate Default thumbnail when there is no thumbnails or thumbnail can't be found.

tree

Defines how the model tree is constructed on the appdesk. It is automatically filled when model has the [Tree](#) behaviour. Associative array:

models Models to be loaded on the tree. Array of associative array:

model Model class name

order_by

childs Array of model class name. Which models instances are children.

dataset dataset information sent by objects in json format.

callback Array of callback functions allowing you to customize the query (first parameter is the query).

roots

model Model class name

order_by

where

appdesk

Associative array describing how appdesk interacts and is displayed. All items are automatically generated, but can be overloaded.

appdesk Defines how appdesk is displayed. Associative array:

defaultView Default view of appdesk. It can be 'grid' (default), 'treeGrid' or 'thumbnails'.

buttons Associative array containing grid toolbar actions information. See *Actions*.

splitterVertical Size of the vertical splitter.

inspectors Associative array containing information about inspectors. Key is the inspector identifier, value is its configurations. See *Inspectors* configuration.

grid Grids informations. Associative array:

urlJson Url of the json API to get items

columns Columns informations

treeGrid

urlJson Url of the json API to get items

initialDepth Initial depth of the tree opening

tab Tab information (see *nosTabs*).

reloadEvent Event name that will reload appdesk.

actions Associative array containing main grid actions information. See *Actions*.

Inspectors

Configuration for an inspector. Associative array depending on inspector type.

The only common keys are *input*, which describes how the inspector will affect the main grid, and *appdesk*, which defines how it is displayed.

input

Associative array:

key Key name on which the main grid will be filtered. By default, if query key is not defined, must be the column name on which you want to filter the model.

query Optional. Callback function defining how to interact with the main grid query. The function gets two parameters ; the first is the value sent by the inspectors (when items are selected), and the second is the current query. The function must return the transformed query.

appdesk

Associative array. All keys are optional:

label Main label of the inspector.

contextChange Does the inspector reloads when user selects an other context.

reloadEvent Event name that will reload the inspector?

vertical Is the appdesk vertical or horizontal ?

inputName Key on which selected values are sent.

multiContextHide Hide inspector when appdesk filtered on more than one contexts.

Model inspector

Associative array:

model Model class name

query Optional. Additional informations about the query. See *query in appdesk configuration*.

data_mapping Optional. Defines which data_mapping items are displayed. See *data_mapping in appdesk configuration*.

appdesk Optional. Additional display information about the appdesk.

appdesk Associative array:

grid Optional. Grids informations. Associative array:

urlJson Url of the json API to get items

columns Columns informations.

Model tree inspector

Associative array:

model Model class name

data_mapping Optional. Defines which data_mapping items are displayed. See *data_mapping in appdesk configuration*.

appdesk Optional. Additional display information about the appdesk.

models Optional. See *appdesk tree configuration*.

roots Optional. See *appdesk tree configuration*.

root_node Optional. Add a global root node. Associative array containing dataset values (columns to be displayed).

appdesk Associative array:

treeGrid Optional. Grids informations. Associative array:

urlJson Url of the json API to get items

columns Columns informations.

Date inspector

Associative array:

input_begin Name of the input for the begin date. Default value: `date_begin`.

input_end Name of the input for the end date. Default value: `date_end`.

labels

Custom dates Default value: `Custom dates`.

from begin to end Default value: `from {{begin}} to {{end}}`.

until end Default value: `until {{end}}`.

since begin Default value: `since {{begin}}`.

options

Array of options displayed by inspector. Default value: `array('custom', 'since', 'month', 'year')`.

since

optgroup Label of this group in the inspector. Default value: `Since`.

options Associative array. Key is the date, [string is processed by Date Class](#), value is the label of the date.

month

optgroup Label of this group in the inspector. Default value: `Previous months`.

first_month Month to start list from. Default value: `now`.

limit_type Limit type where the list end (value can be `year` or `month`). Default value: `year`.

limit_value Number of items to display. For example, if `limit_type` is `month` and `limit_value` is 5, it will display the last 5 months. Default value: 1.

year

optgroup Label of this group in the inspector. Default value: `Years`.

first_year Year to start list from. Default value: `now`.

limit Number of years to display. Default value: 4.

Plain data inspector

Displays static data. Associative array:

data Array of items. Each item is an associative array:

id

title

icon Optional.

input

query Here this key is mandatory.

appdesk

url Url to load in order to display list extension.

grid How is the inspector grid displayed

columns Grid columns. Associative array, key is column identifier and value is an associative array:

headerText Column title

visible Is key visible

dataKey For each data item, defines which key is displayed

Crud Controller

The CRUD controller is in charge of generating the forms (add, edit & delete) related to an item / model and handling automatically the multilingual / translation problematic.

controller_url Url of the CRUD controller.

css Optional. List of css file to load in order to add specific styles.

model Which model it generates the form for.

environment_relation Relation name. Allows to define a children / parent relationship.

tab Tab informations (such as the icon & label), see *nosTabs*

views Optional. Views locations.

layout How the form looks like and where fields are displayed inside it. Optional if *layout_insert* and *layout_update* are defined.

layout_insert Optional. Specific layout for insert. Will use *layout* as default value.

layout_update Optional. Specific layout for update. Will use *layout* as default value.

fields All fields displayed in the form.

```
<?php
return array(
    'controller_url' => '',
    'environment_relation' => null,
    'model' => '',
    'tab' => array(
        'iconUrl' => '',
        'labels' => array(
            'update' => null,
            'insert' => 'New item',
            'blankSlate' => 'Translate an item',
        ),
    ),
    'layout' => array(),
    'fields' => array(),
    'require_js' => array(),
    'views' => array(
        'form' => 'nos::crud/form',
        'delete' => 'nos::crud/delete_popup',
    ),
);
```


environment_relation

The `environment_relation` must contain a relation name of type `Orm\BelongsTo`.

It allows to use the `GET['environment_id']` in an action of this model.

It will be used to populate the column associated with the relation. Examples include:

- Add a page at a specific location inside the tree (with a pre-selected parent) ;
- Add a media in a specific folder ;
- Add a monkey inside a species ;
- Add an blog post inside a category.

Some examples:

```
<?php
// Add a sub-page action
'action' => array(
    'action' => 'nosTabs',
    'tab' => array(
        // The 'page_parent_id' will be populated with $_GET['environment_id'] from the action
        'url' => '{{controller_base_url}}insert_update?environment_id={{_id}}&context={{_context}}',
    ),
),

// Add a media in this folder action
'action' => array(
    'action' => 'nosTabs',
    'tab' => array(
        // The 'media_folder_id' will be populated with $_GET['environment_id'] from the action
        'url' => '{{controller_base_url}}insert_update?environment_id={{id}}',
    ),
),
```

tab

See also:

nosTabs

The `tab` configuration array has a special `labels` key, to handle several `label` depending on the case.

insert Adding an new item

blankSlate Translating an existing item

update Editing an existing item

- `insert` and `update` must contain plain string value ;
- `update` can either contain a plain string value, or a callable taking one argument: the `$item` ;
- The default value for `labels.update` is the item's title.

```
<?php
return array(
    'tab' => array(
```

```
'iconUrl' => 'static/apps/noviusos_monkey/img/16/monkey.png',
// Add form will use 'insert'
// Edit form will use item's title
// Translate form (multilingual) will use 'blankSlate'
'labels' => array(
    'insert' => __('Add a monkey'),
    'blankSlate' => __('Translate a monkey'),
),
),
);
```

views

form View for the form (both insert and update). Default is `nos::crud/form`.

delete View for the delete popup. Default is `nos::crud/delete_popup`.

insert Optional. View for the insert form (will use `form` value as default)

update Optional. View for the update form (will use `form` value as default)

layout

The `layout` is a data passed to the parameters of the view. It list all the views needed to render the form.

There are two syntaxes:

- the full syntax ;
- a simplified syntax, which is used 90% of the time.

The **full syntax** for using a layout is the following:

```
<?php
'layout' => array(
    'first_view' => array(
        'view' => 'nos::form/layout_standard',
        'params' => array(
            // View data (depends on the view).
            'title' => '',
            'content' => '',
        ),
    ),
    'second_view' => array(
        'view' => 'noviusos_page::admin/page_form',
        // No 'params'
    ),
    // More views can be used here.
),
```

In addition to view-specific params / data, Novius OS always include the following vars:

- `$item` : the instance of the model currently edited (or added / translated).
- `$fieldset` : the form instance which holds all fields definition.

Because 90% of the time, we want to use `nos::form/layout_standard` as the view for the layout, a **simplified syntax** was created: only write the view params of the standard layout.

It's much more limiting because you can only use one view to render the layout, and it has to be `nos::form/layout_standard`. But that's what should be used 90% of the time.

```
<?php
'layout' => array(
    // View data
    'title' => '',
    'content' => '',
),
```

We only need to define the view data for the standard layout, and it will be wrapped like so:

```
<?php
$layout = array(
    array(
        'view' => 'nos::form/layout_standard',
        'params' => $layout,
    ),
);
```

```
<?php
// The following...
return array(
    'layout' => array(
        'view_1' => array(
            'view' => 'nos::form/layout_standard',
            'params' => array(
                // View data (depends on the view).
            ),
        ),
    ),
);

// ... is the same as this:
return array(
    'layout' => array(
        // View params for ``nos::form/layout_standard``.
    ),
);
```

Native views included in Novius OS

- Used as **container** for other layouts / views
 - *Standard layout*: used as a container for other views ;
 - *Expander*: used inside `layout_standard.content` in the Pages application ;
- Used as **final** views:
 - *Fields*: used inside `layout_standard.content` in the User application ;
 - *Accordion*: used inside `layout_standard.menu` in the Pages application.

See also:

Views

fields

Contains the fields definition array.

The `fields` syntax is based on an existing FuelPHP feature, which is used to configure form attributes for each column of a Model :

See also:

[FuelPHP documentation on Model::\\$_properties](#)

In addition to standard form fields, Novius OS has *renderers*, which are a bit more advanced. For instance, they allow to select a media, a page, a date...

The field name is determined using the key. Then, for each field:

label Text for the label. Won't be shown for hidden fields

form array Attributes of the `<input>` tag

renderer Class name of a renderer

renderer_options (optional) array Options for the renderer

validation (optional) array rules used to validate the field.

expert (optional) boolean Should the field be visible only to expert users? Default `false`.

show_when (optional) callable Custom callback function to alter the visibility of the field. Must return `true` for the field to be shown.

populate (optional) callable Custom callback function to set value(s) of the field. Takes the item as param.

before_save (optional) callable Custom callback function to perform changes on the field before saving it. Takes the item and validated POST content as params.

To choose how the field is displayed, you only need to specify either `form` (a native HTML `<input>`) or a `renderer` (like a date picker or a wysiwyg), you don't need both. If both keys are filled, the `renderer` will be used to display the field (and the `form` key will be ignored).

Configuration example:

```
<?php
return array(
    'name' => array(
        'label' => 'Text shown next to the field',
        'form' => array(
            'type' => 'text',
            'value' => 'Default value',
        ),
        'validation' => array(),
    );
```

Advanced configuration example:

```
<?php
$options = array(
    $value => $label
    ...
);
return array(
    'name' => array(
```

```

        'label' => 'Text shown next to the field',
        'form' => array(
            'type' => 'select',
            'options' => $options,
        ),
        'populate' => function($item) {
            //example: returns the id of a related model
            return $item->relation->rel_id;
        },
        'before_save' => function($item, $data) {
            //example: set relation properly
            unset($item->relation);
            if (!empty($data['name'])) {
                $item->relation = Model::find($data['name']);
            }
        }
    }
);

```

Standard fields Bold text is the value for the type property.

- `<input type="text">`
- `<input type="password">`
- `<textarea>`
- `<select>`
- `<input type="radio">`
- `<input type="checkbox">`
- `<input type="submit">`
- `<input type="button">`
- `<input type="file">`

```

<?php
return array(
    'gender' => array(
        'label' => 'Gender',
        'form' => array(
            'type' => 'select',
            'options' => array(
                'm' => 'Male',
                'f' => 'Female',
            )
        ),
        'validation' => array('required'),
    ),
);

```

`<button type="submit">`

- type = submit generates `<input type="submit">`
- type = button generates `<input type="button">`

The `tag` property can be used to force a precise HTML tag, it's useful for a submit button.

FuelPHP will automatically use the `value` as the button's text.

```
<?php
return array(
    'save' => array(
        'form' => array(
            'type' => 'submit',
            'tag' => 'button',
            'value' => 'Save',
        ),
    ),
);
```

New in version Chiba2.1.

The `save` key no longer required in CRUD fields configuration.

Renderers (advanced fields) The renderer list is available *in a dedicated page*.

Glossary

Launcher Icon on the *home tab*. It's often the most visible part of an application.

Enhancer They are used in WYSIWYG editors and provide functionalities for the front-office.

URL Enhancer A specific type of enhancers, which handle its own URLs. For example, every blog post has dedicated URL.

Template They are similar to other CMS' templates or themes and provide a view for the front-office.

Permissions

This configuration file is used to define the permissions used in your application.

It has the same syntax as the **full** version of the *crud layout*.

i.e. You need to configure one or several (`view + params`) pair(s), like so:

```
<?php
return array(
    'all' => array(
        'view' => 'nos::form/accordion',
        'params' => array(
            'accordions' => array(
                'standalone' => array(
                    'title' => __('Permissions for this application'),
                    'view' => 'nos::admin/permissions/standalone',
                    'params' => array(
                        'list' => array(
                            'noviusos_app::create' => array(
                                'label' => __('Can create new items'),
                                'checked' => true,
                            ),
                            'noviusos_app::delete_locked' => array(
                                'label' => __('Can delete locked item'),
```

```

    ),
    ),
    ),
    ),
    ),
    ),
    ),
    ),
    ),
    ),
);

```

In addition to view-specific params / data, Novius OS always include the following vars:

- `$role` : Current *role* for which the permissions are applicable to.

We (kindly) provide a native view to cover basic usage: *Permissions standalone*.

Menu item driver

name The name of the driver

texts Array

add Label of the add button for the driver

new Label for a new item build with the driver

attributes Array of EAV attributes save in the *Nos\Menu\Model_Menu_Item*

icon URL of the icon representing the driver

view Optional. Path of the view use to display an item build with the driver

See also:

Nos\Menu\Menu_Item_Driver::html

admin Array

layout How the form, for item build with the driver, looks like and where fields are displayed inside it.

fields All fields displayed in the form.

See also:

Crud Controller

```

<?php
return array(
    'name' => __('Link to a page'),
    'texts' => array(
        'add' => __('Add a new link to a page'),
        'new' => __('New link to a page'),
    ),
    'icon' => 'static/apps/noviusos_menu/img/16/page.png',

    'attributes' => array(
        'page_id',
    ),

    'view' => 'noviusos_menu::driver/page',

    'admin' => array(

```

```

'layout' => array(
    'standard' => array(
        'view' => 'nos::form/accordion',
        'params' => array(
            'accordions' => array(
                'main' => array(
                    'fields' => array(
                        'mitem_page_id',
                    ),
                ),
            ),
        ),
    ),
    array(
        'view' => 'noviusos_menu::admin/driver/page',
    ),
),
'fields' => array(
    'mitem_page_id' => array(
        'label' => __('Page:'),
        'form' => array(
            'type' => 'hidden',
            'class' => 'menu_item_page_id',
        ),
    ),
    'renderer' => 'Nos\Renderer_Item_Picker',
    'renderer_options' => array(
        'model' => 'Nos\Page\Model_Page',
        'appdesk' => 'admin/noviusos_page/appdesk',
        'defaultThumbnail' => 'static/apps/noviusos_page/img/64/page.png',
        'texts' => array(
            'empty' => __('No page selected'),
            'add' => __('Pick a page'),
            'edit' => __('Pick another page'),
            'delete' => __('Un-select this page'),
        ),
    ),
),
),
);

```

Template variation

The configuration of a template variation is assumed to be `application_name::variation/template_name`.

init Optional. A callback function. Call to initialize a `Nos\Template\Variation\Model_Template_Variation`. Returns an array with fields names in keys and the initial values in values.

admin Array

layout How the form, for item build with the driver, looks like and where fields are displayed inside it.

fields All fields displayed in the form.

See also:

Crud Controller

layout Optional. A callback function. If exist, the return value overload the template configuration. Take the *Nos\Template\Variation\Model_Template_Variation* in parameter.

cols Optional. A callback function. If exist, the return value overload the template configuration. Take the *Nos\Template\Variation\Model_Template_Variation* in parameter.

rows Optional. A callback function. If exist, the return value overload the template configuration. Take the *Nos\Template\Variation\Model_Template_Variation* in parameter.

file Optional. A callback function. If exist, the return value overload the template configuration. Take the *Nos\Template\Variation\Model_Template_Variation* in parameter.

screenshot Optional. A callback function. If exist, the return value overload the template configuration. Take the *Nos\Template\Variation\Model_Template_Variation* in parameter.

See also:

Templates

```
<?php
return array(
    'cols' => function($tpvar) {
        return int_val($tpvar->tpvar_data['cols']);
    },
    'admin' => array(
        'layout' => array(
            'content' => array(
                'expander' => array(
                    'view' => 'nos::form/expander',
                    'params' => array(
                        'title' => __('Configuration'),
                        'options' => array(
                            'allowExpand' => false,
                        ),
                    ),
                    'content' => array(
                        'view' => 'nos::form/fields',
                        'params' => array(
                            'fields' => array(
                                'menus->principal->menu_id',
                                'cols',
                            ),
                        ),
                    ),
                ),
            ),
        ),
    ),
    'fields' => array(
        'menus->principal->menu_id' => array(
            'label' => __('Menu'),
            'renderer' => 'Nos\Renderer_Item_Picker',
            'renderer_options' => array(
                'model' => 'Nos\Menu\Model_Menu',
                'appdesk' => 'admin/noviusos_menu/menu/appdesk',
                'defaultThumbnail' => 'static/apps/noviusos_menu/img/64/menu.png',
                'texts' => array(
                    'empty' => __('No menu selected'),
                    'add' => __('Pick a menu'),
                    'edit' => __('Pick another menu'),
                    'delete' => __('Un-select this menu'),
                ),
            ),
        ),
    ),
);
```

```
        ),
    ),
    'cols' => array(
        'label' => __('Column number'),
        'form' => array(
            'type' => 'number',
        ),
    ),
),
);
```

1.1.3 Constants

All native constants of FuelPHP are available but links to specific Novius OS directories.

See also:

[FuelPHP native constants documentation.](#)

constant NOSROOT

Path where Novius OS is installed.

constant PUBLIC_DIR

Contains the name of the public directory. Initialized to `public` if not set.

New in version 4.2.

constant NOSPATH

Path of Novius OS core: `NOSROOT/novius-os/framework/`.

constant APPPATH

Overload of the native FuelPHP's constant. Path to the application directory: `NOSROOT/local/`.

constant COREPATH

Overload of the native FuelPHP's constant. Path to the FuelPHP core directory: `NOSROOT/novius-os/fuel-core/`.

constant DOCROOT

Overload of the native FuelPHP's constant. Path to the location where the *startup script* is: `NOSROOT/public/`.

constant PKGPATH

Overload of the native FuelPHP's constant. Path to the packages directory: `NOSROOT/novius-os/packages/`.

1.1.4 i18n functions

`__ ($message, $default = null)`

Retrieves a translation from the last loaded dictionary.

Parameters

- **\$message** (*string*) – The message to translate.
- **\$default** (*string*) – The default text to return when the message is not found. Default value is the message itself.

Returns The translation or `null` if not founded

n___ (*\$singular, \$plural, \$n = false*)

The plural version of ___. Some languages have more than one form for plural messages dependent on the count.

Parameters

- **\$singular** (*string*) – The singular form of the string to be converted. Used as the key for the search in the dictionary
- **\$plural** (*string*) – The plural form
- **\$n** (*string*) – Used to determine which plural form to used depending locale.

Returns

The translation or, if not founded, \$singular is returned if `n == 1`, otherwise \$plural
If third parameter is omitted and translation founded, return an `array` of singular and plural forms

_____ (*\$group, \$message, \$default = null*)

Retrieves a translation from a specific dictionary.

Parameters

- **\$group** (*string*) – Which dictionary to look into.
- **\$message** (*string*) – The message to translate.
- **\$default** (*string*) – The default text to return when the message is not found. Default value is the message itself.

Returns The translation or `null` if not founded

1.1.5 Models

Model

class `Nos\Orm\Model`

Extends *Model of FuelPHP ORM*.

Novius OS Model have some differences compare with FuelPHP Model :

- Novius OS implements a cache mechanism for properties when they are fetched from the database. By default, cache files are save in `NOSPATH/local/cache/fuelphp/list_columns`.
- In property definition, put `convert_empty_to_null` key to `true` if you want that this property stores a null value when it receives empty string.

Configuration

property `Nos\Orm\Model::$title_property`

Defines the title property of a model. Can be a column name or a closure (which take current `$iitem` as parameter).

If not defined, automatically set to first column which has `title`, `label` or `name` in its name, or (as last resort) the first `varchar`.

property `Nos\Orm\Model::$behaviours`

Defines the behaviours of model. Same syntax as *observers*.

property `Nos\Orm\Model::$attachment`

Defines the attachments of a model. Attachment is a special type of *relations* created for Novius OS. See *Nos\Attachment*.

property `Nos\Orm\Model::$providers`

Defines the behaviours of model.

Relation Required. Wherein the relation is based on the provider. Must be a multiple relation and have `cascade_save` activate.

Value_property Optional. Set to `value` if empty. The fields containing the provider value.

Key_property Optional. Set to `key` if empty. The fields containing the provider key.

Value_relation Optional. If set, must contains a single relation name and then the provider value become the model.

In Novius OS, you can configure model by a file configuration. For sample: if in your application you define a `Model_Monkey` class, you can create a file `config/model/monkey.config.php` to extend configuration. All this attributes can be defined in configuration file : `properties`, `table_name`, `title_property`, `observers`, `behaviours`, `providers` and all relations types (`has_many`, `belongs_to`, `has_one`, `many_many`, `twinnable_has_many`, `twinnable_belongs_to`, `twinnable_has_one`, `twinnable_many_many` and `attachment`).

Examples Example in the class definition:

```
<?php
class Model_Example extends \Nos\Orm\Model
{
    // In this example, attachments use defaults properties
    protected static $_attachment = array(
        'avatar' => array(),
        'cv' => array(),
    );

    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Contextable' => array(
            'events' => array('before_insert'),
            'context_property' => 'ex_context',
        ),
    );

    // In this example, use a column name for defined title_property
    protected static $_title_property = 'ex_reference';
```

Example in configuration file:

```
<?php
return array(
    'attachment' => array(
        'avatar' => array(
            'dir' => 'namespace/model_name/avatar/',
            'image' => true,
            'alias' => 'avatar',
        ),
        'curriculum_vitae' => array(
            'dir' => 'namespace/model_name/curriculum_vitae/',
            'alias' => 'cv',
            'extensions' => array('doc', 'odt', 'pdf'),
```

```

        'check' => array('ClassName', 'methodName'),
    ),
),
'behaviours' => array(
    'Nos\Orm_Behaviour_Contextable' => array(
        'events' => array('before_insert'),
        'context_property' => 'ex_context',
    ),
),
// In this example, use a closure for defined title_property
'title_property' => function($item) {
    return $item->ex_reference;
},
);

```

Relations

property `Nos\Orm\Model::$linked_wysiwygs`

- Relation type: *has_many*.
- Model: `Nos\Model_Wysiwyg`

property `Nos\Orm\Model::$linked_medias`

- Relation type: *has_many*.
- Model: `Nos\Media\Model_Link`

Warning: Don't use these relations directly, we created providers for them.

Native Providers

property `Nos\Orm\Model::$medias`

Provider for `Nos\Media\Model_Link` linked to model.

```

<?php
$item->medias->avatar; // Get a Model_Link named 'avatar'
$item->medias->avatar->media; // Get Model_Media named 'avatar'

$item->medias->cv = $Model_Media; // Attach a Model_Media named 'cv'

$item->medias->cv = null; // Detach a media from an item
// or
unset($item->medias->cv);

```

property `Nos\Orm\Model::$wysiwygs`

Provider for `Nos\Model_Wysiwyg` linked to model.

```

<?php
$item->wysiwygs->content; // Get a Model_Wysiwyg named 'content'
$item->wysiwygs->content->wysiwyg_text; // Get content of Model_Wysiwyg named 'content'

$item->wysiwygs->summary = 'foo'; // Set a Model_Wysiwyg named 'content', with content 'foo'.

```

```
$item->wysiwygs->summary = null; // Remove a wysiwyg from an item
// or
unset($item->wysiwygs->summary);
```

Methods

static `Nos\Orm\Model::title_property`

Returns Title property of model. See `Model::$title_property`.

static `Nos\Orm\Model::table`

Returns The DB table name of model.

static `Nos\Orm\Model::behaviours` (*\$specific = null, \$default = null*)

static `Nos\Orm\Model::add_properties` (*\$properties*)

Parameters

- **\$properties** (*array*) – Additional properties (merged).

static `Nos\Orm\Model::addRelation` (*\$type, \$name, array \$options = array()*)

Add a relation to model

Parameters

- **\$type** (*string*) – A valid relation type.
- **\$name** (*string*) – The relation name to add.
- **\$options** (*array*) – The relation options

Throws `\FuelException` if `$type` is not a valid one.

static `Nos\Orm\Model::providers` (*\$specific = null, \$default = null*)

Get the class's providers and what they provide

Parameters

- **\$specific** (*string*) – Provider to retrieve info of, allows direct param access by using dot notation
- **\$default** (*mixed*) – Return value when specific key wasn't found

Throws `Nos\Orm\UnknownProviderException`

Returns The specific provider if it exist and is requested or the default value. Else, array of all providers.

static `Nos\Orm\Model::addProvider` (*\$name, array \$properties*)

Add a provider to model

Parameters

- **\$name** (*string*) – The provider name
- **\$properties** (*array*) – The provider properties

Throws `Nos\Orm\InvalidProviderException`

static `Nos\Orm\Model::configModel`

Returns Array configurations of the model.

static `Nos\Orm\Model::getApplication`

Returns Application name of the model.

`Nos\Orm\Model::event` (*\$method, \$args = array()*)

Trigger an event (caught by behaviours) on the item.

Parameters

- **\$method** (*string*) – Name of the event, also name of the method Behaviours.
- **\$args** (*array*) – Arguments of the event.

static `Nos\Orm\Model::eventStatic($method, $args = array())`

Trigger an event (caught by behaviours) on the model class.

Parameters

- **\$method** (*string*) – Name of the event, also name of the method Behaviours.
- **\$args** (*array*) – Arguments of the event.

static `Nos\Orm\Model::prefix`

Returns Prefix of column name. Computed from the primary key name (everything before the first `_` character).

`Nos\Orm\Model::title_item()`

Returns Returns the item's title, calculated from `Model::$title_property`.

`Nos\Orm\Model::pick($column[, $column[, $column[, ...]]])`

Parameters

- **\$column** (*array*) – A column name.

Returns Returns the first non empty column. Will add column prefix (see `Model::prefix`) when needed.

Model_Page

class `Nos\Page\Model_Page`

Extends `Nos\Orm\Model`.

Constants**Page types**

constant `Nos\Page\Model_Page::TYPE_CLASSIC`

constant `Nos\Page\Model_Page::TYPE_EXTERNAL_LINK`

Possible values of the `page_type` column.

External target types

constant `Nos\Page\Model_Page::EXTERNAL_TARGET_NEW`

constant `Nos\Page\Model_Page::EXTERNAL_TARGET_SAME`

Possible values of the `page_external_link_type` column.

Lock types

constant `Nos\Page\Model_Page::LOCK_UNLOCKED`

constant `Nos\Page\Model_Page::LOCK_DELETION`

Possible values of the `page_lock` column.

Relations

property `Nos\Page\Model_Page::`**\$children**

- Relation type: *has_many*.
- Model: *Model_Page*

property `Nos\Page\Model_Page::`**\$parent**

- Relation type: *belongs_to*.
- Model: *Model_Page*

Behaviours

- *Twinnable*
- *Tree*
- *Virtual path*
- *Sortable*
- *Publishable*

Methods

`Nos\Page\Model_Page::`**htmlAnchor** (*\$attributes = array()*)

Parameters

- **\$attributes** (*array*) –
Array of attributes to be applied to the anchor tag.
If key ‘href’ is set in \$attributes parameter:
 - if is a string, used for href attribute
 - if is an array, used as argument of `->url()` method

If key ‘text’ is set in \$attributes parameter, its value replace page title

Returns Returns an HTML anchor tag with, by default, page URL in href and page title in text.

`Nos\Page\Model_Page::`**url** (*\$params = array()*)

Parameters

- **\$params** (*array*) –
preview If set, returns a preview URL

Returns The absolute URL of the page

Media Models

Model_Media

class `Nos\Media\`**Model_Media**

Extends `Nos\Orm\Model`.

Relations

property `Nos\Media\Model_Media::$folder`

- Relation type: *belongs_to*.
- Model: *Model_Folder*

Behaviours

- *Virtual path*

Methods

`Nos\Media\Model_Media::deleteFromDisk()`

Delete the original media file from the disk.

`Nos\Media\Model_Media::deleteCache()`

Delete all the cached versions (thumbnails) of the media files from the disk.

`Nos\Media\Model_Media::path()`

Returns Private absolute media file path.

`Nos\Media\Model_Media::htmlImg($params = array())`

Parameters

- **\$params** (*array*) – the attributes array

Returns If the media file is an image, return an html image tag of the media.
Sets width, height, alt attributes is not supplied.

`Nos\Media\Model_Media::htmlImgResized($max_width = null, $max_height = null, $params = array())`

Parameters

- **\$max_width** (*array*) – Max width of the image.
- **\$max_height** (*array*) – Max height of the image.
- **\$params** (*array*) – the attributes array

Returns If the media file is an image, return an html image tag of the media resized.
Sets width, height, alt attributes is not supplied.

`Nos\Media\Model_Media::htmlAnchor($attributes = array())`

Parameters

- **\$attributes** (*array*) –
Array of attributes to be applied to the anchor tag.
If key 'text' is set in \$attributes parameter, its value replace media title

Returns Returns an HTML anchor tag with, by default, media URL in href and media title in text.

`Nos\Media\Model_Media::url($absolute = true)`

Parameters

- **\$absolute** (*bool*) – Default true, if false return relative URL :returns: Public media file URL.

`Nos\Media\Model_Media::urlResized($max_width = 0, $max_height = 0, $absolute = true)`

Parameters

- **\$max_width** (*array*) – Max width of the image.
- **\$max_height** (*array*) – Max height of the image.
- **\$absolute** (*bool*) – Default true, if false return relative URL

Returns If the media file is an image, media URL for specify size parameters. `False` otherwise.

`Nos\Media\Model_Media::isImage()`

Returns True or false, depend if media is an image.

`Nos\Media\Model_Media::getToolkitImage()`

Returns Returns a `Nos\Toolkit_Image` based on the media if is an image, `False` otherwise.

Model_Link

class `Nos\Media\Model_Link`

Link between a `Model_Media` and a `Nos\Orm\Model`.

Extends `Nos\Orm\Model`.

Columns

medil_id `Model_Link` primary key.

medil_from_table DB table name of the model which the media is linked to.

medil_foreign_id ID of the model which the media is linked to.

medil_foreign_context_common_id Common ID of the model which the media is linked to.

medil_key `string` key identifying the linked media.

medil_media_id ID of the linked media.

One of `medil_foreign_id` and `medil_foreign_context_common_id` columns is `NULL` for each row.

Relations

property `Nos\Media\Model_Link::$media`

•Relation type: *belongs_to*.

•Model: *Model_Media*

Model_Folder

class `Nos\Media\Model_Folder`

Extends `Nos\Orm\Model`.

Relations

property `Nos\Media\Model_Folder::$children`

•Relation type: *has_many*.

•Model: *Model_Folder*

property `Nos\Media\Model_Folder::$media`

•Relation type: *has_many*.

•Model: *Model_Media*

property `Nos\Media\Model_Folder::$parent`

•Relation type: *belongs_to*.

•Model: *Model_Folder*

Behaviours

- *Tree*
- *Virtual path*

Methods

Nos\Media\Model_Folder::**deleteFromDisk** ()

Delete the folder and all its content (recursively).

Nos\Media\Model_Folder::**deleteCache** ()

Delete all the public and cached entries (image thumbnails) of this folder

Nos\Media\Model_Folder::**path** (\$file = '')

Parameters

- **\$file** (*string*) – A file name to append to the path.

Returns Absolute folder path.

Nos\Media\Model_Folder::**count_media** ()

Returns Number of media contained in the folder and all its sub-folders.

Nos\Media\Model_Folder::**count_media_usage** ()

Returns Number of media in use (by the applications) contained in this folder and all its sub-folders.

User Models

Model_User

```
class Nos\User\Model_User
```

```
    Extend Nos\Orm\Model.
```

Relations

property Nos\User\Model_User::**\$roles**

- Relation type : *many_many*.
- Model : *Model_Role*

Nos\User\Model_User::**check_permission** (\$permission_name, \$category_key = null)

Parameters

- **\$permission_name** (*string*) – Name of the permission to check against
- **\$category_key** (*string*) – (optional) If the permission has categories, the category key to check against

Returns True if the user has the required authorisation, *false* otherwise

Methods

Nos\User\Model_User::**check_password** (\$password)

Parameters

- **\$password** (*string*) – Password to check if it matches the user's password

Returns True if passwords match, *false* otherwise.

Nos\User\Model_User::**generate_md5** ()

Generate a new md5 for the user (store in the *user_md5* column).

Model_Role

```
class Nos\User\Model_Role
    Extend Nos\Orm\Model.
```

Relations

property Nos\User\Model_Role::\$users

- Relation type : *many_many*.
- Model : *Model_User*

Methods

```
Nos\User\Model_Role::checkPermission($permission_name, $category_key = null, $allow_empty = false)
```

Check whether a permissions exists with the given category.

Parameters

- **\$permission_name** (*string*) – Name of the permission to check against
- **\$category_key** (*string*) – (optional) If the permission has categories, the category key to check against
- **\$allow_empty** (*bool*) – Should we grant access when nothing is configured?

Returns bool true or false

```
Nos\User\Model_Role::listPermissionCategories($permission_name)
```

List all the categories of a given permission name. Returns an array of string or false when the role has not access, or the permission name does not exists.

Parameters

- **\$permission_name** (*string*) – The name of the permission to retrieve categories from
- **\$category_key** (*string*) – (optional) If the permission has categories, the category key to check against

Returns array|false An array containing the list of categories (values) for the request permission name

```
Nos\User\Model_Role::checkPermissionOrEmpty($permission_name, $category_key = null)
    Alias to Nos\User\Model_Role::checkPermission with $allow_empty = true.
```

```
Nos\User\Model_Role::checkPermissionExists($permission_name, $category_key = null, $allow_empty = false)
    Alias to Nos\User\Model_Role::checkPermission.
```

```
Nos\User\Model_Role::checkPermissionExistsOrEmpty($permission_name, $category_key = null, $allow_empty = false)
    Alias to Nos\User\Model_Role::checkPermission with $allow_empty = true.
```

```
static Nos\User\Model_Role::checkPermissionIsAllowed($permission_name, $allow_empty = false)
```

Check against a binary permission (without categories).

Parameters

- **\$permission_name** (*string*) – Name of the permission
- **\$allow_empty** (*bool*) – Should we grant access when nothing is configured?

Returns bool true or false

```
Nos\User\Model_Role::checkPermissionAtLeast ($permission_name, $threshold,
                                             $value_when_empty = 0)
```

Check against a numeric / range permission.

You can use `string` for the 2nd and 3rd parameters, they will be casted to `(int)`. i.e. `'2_write' === 2`.

Parameters

- **\$permission_name** (*string*) – Name of the permission
- **\$threshold** (*int*) – Minimum value to grant access
- **\$value_when_empty** (*int*) – Default value to compare with when nothing is configured

Returns bool `true` or `false`

```
Nos\User\Model_Role::checkPermissionAtMost ($permission_name, $threshold,
                                             $value_when_empty = 0)
```

Check against a numeric / range permission.

You can use `string` for the 2nd and 3rd parameters, they will be casted to `(int)`. i.e. `'2_write' === 2`.

Parameters

- **\$permission_name** (*string*) – Name of the permission
- **\$threshold** (*int*) – Maximum value to grant access
- **\$value_when_empty** (*int*) – Default value to compare with when nothing is configured

Returns bool `true` or `false`

```
Nos\User\Model_Role::getPermissionValue ($permission_name, $default = 0)
```

Retrieve the value of a given permission.

Parameters

- **\$permission_name** (*string*) – Name of the permission
- **\$default** (*mixed*) – Default value to return when the permission does not exists

Returns string

Menu Models

Model_Menu

```
class Nos\Menu\Model_Menu
    Extends Nos\Orm\Model.
```

Relations

```
property Nos\Menu\Model_Menu::$items
```

- Relation type: *has_many*.
- Model: *Model_Menu_Item*

Behaviours

- *Twinnable*

Methods

Nos\Menu\Model_Menu::html (array \$params = array())

Parameters

- **\$params** (array) – the parameters array:
 - view** The view path to use. Default: noviusos_menu::menu

Returns A View forged with \$params

Nos\Menu\Model_Menu::branch (\$parent = null)

Parameters

- **\$parent** (mixed) – If null, return the root branch. Can be a *Model_Menu_Item*, then return his branch.

Returns Array of *Model_Menu_Item*

static Nos\Menu\Model_Menu::buildFromPages (\$context, \$page_id = null, \$depth = -1)

Build a *Model_Menu* where items reproduce the pages tree of the context.

Parameters

- **\$context** (string) – The context ID
- **\$page_id** (mixed) – The root page ID, can be null
- **\$depth** (int) – The depth of the menu. Default: -1, unlimited.

Returns Array of *Model_Menu_Item*

Model_Menu_Item

class Nos\Menu\Model_Menu_Item

Extends *Nos\Orm\Model*.

Relations

property Nos\Menu\Model_Menu_Item::\$parent

- Relation type: *belongs_to*.
- Model: *Model_Menu_Item*

property Nos\Menu\Model_Menu_Item::\$children

- Relation type: *has_many*.
- Model: *Model_Menu_Item*

property Nos\Menu\Model_Menu_Item::\$menu

- Relation type: *belongs_to*.
- Model: *Model_Menu*

Methods

Nos\Menu\Model_Menu_Item::html (array \$params = array())

Parameters

- **\$params** (array) – Parameters array use by driver to renderer the item

Returns HTML representation of the item

Nos\Menu\Model_Menu_Item::driver (\$reload = false)

Parameters

- **\$reload** (bool) – If true, reload the menu item driver

Returns The *Nos\Menu\Menu_Item_Driver* instance of the item

Model_Template_Variation

```
class Nos\Template\Variation\Model_Template_Variation
    Extends Nos\Orm\Model.
```

Relations

```
property Nos\Template\Variation\Model_Template_Variation::$pages
    •Relation type: has_many.
    •Model: Nos\Page\Model_Page
```

Providers

```
property Nos\Template\Variation\Model_Template_Variation::$menus
    •Model: Nos\Menu\Model_Menu
```

Behaviours

- *Contextable*
- *Author*

Methods

```
Nos\Template\Variation\Model_Template_Variation::configCompiled($reload =
    false)
```

Parameters

- **\$reload** (*bool*) – If true, reload the variation config

Returns Returns the configuration array of the template variation.

```
Nos\Template\Variation\Model_Template_Variation::templateConfig()
```

Returns Returns the configuration array of the template use by the variation.

```
static Nos\Template\Variation\Model_Template_Variation::getTemplateVariationDefault($context)
```

Parameters

- **\$context** (*string*) – The context ID

Returns The default *Model_Template_Variation* for this context

Model_Wysiwyg

```
class Nos\Model_Wysiwyg
    Extend Nos\Orm\Model.
```

Columns

wysiwyg_id *Model_Wysiwyg* primary key.

wysiwyg_join_table DB table name of the model which the wysiwyg is linked to.

wysiwyg_foreign_id ID of the model which the wysiwyg is linked to.

wysiwyg_foreign_context_common_id Common ID of the model which the wysiwyg is linked to.

wysiwyg_key `string` key identifying the linked wysiwyg.

wysiwyg_text Wysiwyg content.

One of `wysiwyg_foreign_id` and `wysiwyg_foreign_context_common_id` columns is NULL for each row.

Model_Content_Nuggets

class `Nos\Model_Content_Nuggets`

Extends `Nos\Orm\Model`.

Constants

constant `Nos\Model_Content_Nuggets::DEFAULT_CATCHER`

Default value for the `content_catcher` column.

Columns

content_id `Model_Content_Nuggets` primary key.

content_catcher `Data` catcher name.

content_model_name Name of the model this `content_nuggets` originates from.

content_model_id ID of the model this `content_nuggets` originates from.

content_data The `content_nuggets`. Stored as a serialized associative array.

1.1.6 Behaviours

Author

class `Nos\Orm_Behaviour_Author`

Keeps track of who created an item and who updated it. Great to use in combination of `Observer_CreatedAt` and `Observer_UpdatedAt`.

Configuration

property `Nos\Orm_Behaviour_Author::$created_by_property`

Column used to store the user ID when the item is created. Its data type must be `unsigned int`.

property `Nos\Orm_Behaviour_Author::$updated_by_property`

Column used to store the user ID when the item is updated (also used upon creation). Its data type must be `unsigned int`.

Example

```

<?php

class Model_Page extends \Nos\Orm\Model
{
    protected static $_properties = array(
        // ...
        'page_created_by_id' => array(
            'default' => null,
            'data_type' => 'int unsigned',
            'null' => true,
            'convert_empty_to_null' => true,
        ),
        'page_updated_by_id' => array(
            'default' => null,
            'data_type' => 'int unsigned',
            'null' => true,
            'convert_empty_to_null' => true,
        ),
    );

    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Author' => array(
            'created_by_property' => 'page_created_by_id',
            'updated_by_property' => 'page_updated_by_id',
        ),
    );
}

```

Contextable

class `Nos\Orm_Behaviour_Contextable`

Allows a `Nos\Orm\Model` to be bound to a context.

See also:

Multi-Contexts.

Configuration

property `Nos\Orm_Behaviour_Contextable::$context_property`

Required. Column used to store the item's context. Its data type must be `varchar(25)`.

property `Nos\Orm_Behaviour_Contextable::$default_context`

Default context to use if not set when creating an item.

Methods

`Nos\Orm_Behaviour_Contextable::get_context()`

Returns The item's context.

Other

This behaviour extends *Model->find()*.

Add option to where array passed to method: you can use the context key as an alias to search in the column *Orm_Behaviour_Contextable::\$context_property*.

Example

```
<?php
class Model_Page extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Contextable' => array(
            'events' => array('before_insert'),
            'context_property' => 'form_context',
        ),
    );
}
```

Publishable

class `Nos\Orm_Behaviour_Publishable`

Adds a publication status on a *Nos\Orm\Model*. 2 modes are available:

- Yes / No state ;
- Publication depending on start / end dates (yes / no choice remains).

Configuration

property `Nos\Orm_Behaviour_Publishable::$publication_state_property`

Always required, both for the **yes/no** and the **date range** modes.

Column used to store the publication state. Its data type must be `int`:

- **0** means not published;
- **1** means always published;
- **2** means publication depends on a date range (when combining the 2 modes).

property `Nos\Orm_Behaviour_Publishable::$publication_start_property`

Required for **date range** mode. Column used to store the publication start date. Its data type must be `datetime`.

property `Nos\Orm_Behaviour_Publishable::$publication_end_property`

Required for **date range** mode. Column used to store the publication end date. Its data type must be `datetime`.

property `Nos\Orm_Behaviour_Publishable::$options`

allow_publish Callback function or array of callback functions. If any returns `false` then the item will be restricted from publication.

Methods

`Nos\Orm_Behaviour_Publishable::published()`

Returns `true` or `false` depending on whether the item is currently published or not.

Nos\Orm_Behaviour_Publishable::planificationStatus()
Returns 0 (not published), 1 (published) or 2 (scheduled).

Nos\Orm_Behaviour_Publishable::publicationStart()
Returns the publication start date, MySQL format.

Nos\Orm_Behaviour_Publishable::publicationEnd()
Returns the publication end date, MySQL format.

Other

This behaviour extends *Model->find()*.

You can use the `published` key in the `where` array. Appropriate conditions will be added, according to the configuration of the behaviour. Especially useful with the **date range** mode (and start / end dates).

CRUD form If you're using the `standard_layout` included in Novius OS, this behaviour will automatically prepend a field in the `subtitle` section to select publication status and/or dates (according to the behaviour configuration).

Example

```
<?php
// Yes/No state
class Model_Page extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Publishable' => array(
            'publication_state_property' => 'page_published',
        ),
    );
}

$page = Model_Page::find(1);

if ($page->published()) {
    // Do something
}
```

```
<?php
// Date range mode (combined with Yes/No state)
class Model_Page extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Publishable' => array(
            'publication_state_property' => 'page_published',
            'publication_start_property' => 'page_publication_start',
            'publication_end_property' => 'page_publication_end',
        ),
    );
}
```

Sharable

class `Nos\Orm_Behaviour_Sharable`
 Adds the sharable behaviour on a `Nos\Orm\Model`.

Configuration

property `Nos\Orm_Behaviour_Sharable::$data`

Associative array of different types of data forming a content nuggets.

- Keys can be one of `Data_Catcher` constants.
- Values are associative array.

value A column name or a closure. See *Examples*.

useTitle Help label indicate which property of item is use as default value.

options Associative array of different options. Only for
`Data_Catcher::TYPE_URL`.

possibles Associative array of possibles values. Only for
`Data_Catcher::TYPE_IMAGE`.

Methods

`Nos\Orm_Behaviour_Sharable::get_default_nuggets()`
Returns Array containing the default content nuggets of an item.

`Nos\Orm_Behaviour_Sharable::get_catcher_nuggets($catcher = Model_Content_Nuggets::DEFAULT_CATCHER)`

Parameters

- **\$catcher** (*string*) – Data catchers ID.

Returns The `Model_Content_Nuggets` of this item for the specified data catcher.

`Nos\Orm_Behaviour_Sharable::get_sharable_property($property = null, $default = null)`

Parameters

- **\$property** (*string*) – A property name.
- **\$default** (*string*) – A default value if data property is null.

Returns `Orm_Behaviour_Sharable::$data` if `$property` is null. Otherwise, property value with default fallback.

`Nos\Orm_Behaviour_Sharable::data_catchers()`
 Retrieves all the data catchers that can use the content nugget of this item (checks the `required_data` of a data catcher and).

returns All the valid data catchers for this item (keys are the data catcher names).

`Nos\Orm_Behaviour_Sharable::possible_medias()`
 Retrieves all possible medias that can be associated with the item. Search for linked medias and images inserted in the WYSIWYGs.

returns Associative array of all `Model_Media`, `Model_Media` ID in keys, of item.

`Nos\Orm_Behaviour_Sharable::get_nugget_content($catcher)`

Retrieves the personalised content nugget of a data catcher, merged with the default content nugget of the item.

param string \$catcher Data catchers ID.

returns Array A content nugget.

Examples

A column for the default value

```
<?php
array(
    \Nos\DataCatcher::TYPE_TITLE => array(
        'value' => 'monk_name',
    ),
);
```

A closure which returns a default value

```
<?php
array(
    \Nos\DataCatcher::TYPE_TITLE => array(
        'value' => function($monkey) {
            return $monkey->monk_name;
        },
    ),
);
```

Real example From the Monkey example application. `config/model/monkey.config.php` (we're using a config file here, because we can't put functions in a class property):

```
<?php

return array(
    'behaviours' => array(
        \Nos\Orm_Behaviour_Sharable' => array(
            'data' => array(
                \Nos\DataCatcher::TYPE_TITLE => array(
                    'value' => 'monk_name',
                    'useTitle' => __('Use monkey name'),
                ),
                \Nos\DataCatcher::TYPE_URL => array(
                    'value' => function($monkey) {
                        $urls = $monkey->urls();
                        if (empty($urls)) {
                            return null;
                        }
                        reset($urls);

                        return key($urls);
                    },
                    'options' => function($monkey) {
                        return $monkey->urls();
                    },
                ),
            ),
        ),
    ),
);
```

```

    ),
    \Nos\DataCatcher::TYPE_TEXT => array(
        'value' => function($monkey) {
            return $monkey->monk_summary;
        },
        'useTitle' => __('Use monkey summary'),
    ),
    \Nos\DataCatcher::TYPE_IMAGE => array(
        'value' => function($monkey) {
            $possible = $monkey->possible_medias();

            return Arr::get(array_keys($possible), 0, null);
        },
        'possibles' => function($monkey) {
            return $monkey->possible_medias();
        },
    ),
),
),
);

```

Sortable

class `Nos\Orm_Behaviour_Sortable`
 Makes a `Nos\Orm\Model` sortable.

Configuration

property `Nos\Orm_Behaviour_Sortable::$sort_property`
 Required. Column name use for save sort index. Column must have type double.

property `Nos\Orm_Behaviour_Sortable::$sort_order`
 ASC (default) ou DESC

property `Nos\Orm_Behaviour_Sortable::$sort_twins`
 True by default. If false and the model is twinnable, the sorting won't be common to all contexts.

Methods

`Nos\Orm_Behaviour_Sortable::move_before($item)`

Parameters

- `$item (Model)` – Moves the current item before this one.

`Nos\Orm_Behaviour_Sortable::move_after($item)`

Parameters

- `$item (Model)` – Moves the current item after this one.

`Nos\Orm_Behaviour_Sortable::move_to_last_position()`

Moves the current item to the last position (of its siblings).

Example

```

<?php
class Model_Page extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Sortable' => array(
            'events' => array('after_sort', 'before_insert'),
            'sort_property' => 'page_sort',
        ),
    );
}

$page_1 = Model_Page::find(1);
$page_2 = Model_Page::find(2);

$page_2->move_after($page_1);

```

Tree

```
class Nos\Orm_Behaviour_Tree
```

Makes a *Nos\Orm\Model* behaves like a Tree.

An item can then have a parent and children (all of the same Model).

Configuration

property *Nos\Orm_Behaviour_Tree::\$parent_relation*

Required. Name of the parent *relation*.

property *Nos\Orm_Behaviour_Tree::\$children_relation*

Required. Name of the children *relation*.

property *Nos\Orm_Behaviour_Tree::\$level_property*

Column used to store the item's depth inside the tree. Data type must be *int*.

Method

Nos\Orm_Behaviour_Tree::get_parent()

Returns Model parent item, if it exists, null otherwise.

Nos\Orm_Behaviour_Tree::set_parent(\$new_parent)

Set a new parent for the item.

If the item is *twinnable* and if it exists in several contexts, all contexts will be moved synchronously.

Parameters

- **\$new_parent** (*Model*) – New parent Model of the item (use *null* to remove the parent).

Throws Exception when:

- the item is moved in its own tree ;

- the item is *twinnable* and its parent does not exist in one of the contexts of the current item.

Nos\Orm_Behaviour_Tree::find_children (\$where = array(), \$order_by = array(), \$options = array())

Returns All direct children of item.
Children can be filter and / or sort by parameters.

This method use native method *Model->find()*.
Options parameter are passed to *->find()* like that:

```
<?php
$options = \Arr::merge($options, array(
    'where' => $where,
    'order_by' => $order_by,
));
```

Nos\Orm_Behaviour_Tree::find_children_recursive (\$include_self = true)

Parameters

- **\$include_self** (*boolean*) – If true, include current item in return.

Returns All children of item and their descendants.

Nos\Orm_Behaviour_Tree::find_root ()

Returns First ascendant of item in tree or null if item has no parent.

Other

This behaviour extends *Model->find()*.

Add option to where array passed to method : you can use parent key as alias for search in *Orm_Behaviour_Tree::\$parent_relation* relation.

Example

```
<?php
class Model_Page extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Tree' => array(
            'events' => array('before_query', 'after_delete'),
            'parent_relation' => 'parent',
            'children_relation' => 'children',
            'level_property' => 'page_level',
        ),
    );

    protected static $_has_many = array(
        'children' => array(
            'key_from' => 'page_id',
            'model_to' => 'Nos\Model_Page',
            'key_to' => 'page_parent_id',
```



```

        'cascade_save' => false,
        'cascade_delete' => false,
    ),
);

protected static $_belongs_to = array(
    'parent' => array(
        'key_from' => 'page_parent_id',
        'model_to' => 'Nos\Model_Page',
        'key_to' => 'page_id',
        'cascade_save' => false,
        'cascade_delete' => false,
    ),
);
}

```

Twinnable

class `Nos\Orm_Behaviour_Twinnable`

Extends `Nos\Orm_Behaviour_Contextable`.

It adds the ability to twin together different items with different contexts.

- Multi-Contexts.
- `Nos\Orm_Behaviour_Contextable` for configuration and methods.

Configuration

property `Nos\Orm_Behaviour_Twinnable::$common_id_property`

Required. Column used to store the common ID between twinned items. Data type must be int.

property `Nos\Orm_Behaviour_Twinnable::$is_main_property`

Required. Column used to store if the item is the main item among twin items. Data type must be boolean.

property `Nos\Orm_Behaviour_Twinnable::$common_fields`

Array of fields which are common to all context twins.

Providers

This behaviour adds 2 *providers* to link WYSIWYGs and medias to context twins.

property `Nos\Orm_Behaviour_Twinnable::$shared_medias_context`

Provider for `Nos\Media\Model_Link` linked to context twins.

```

<?php
$item->shared_medias_context->avatar; // Get a Model_Link named 'avatar'
$item->shared_medias_context->avatar->media; // Get Model_Media named 'avatar'

$item->shared_medias_context->cv = $Model_Media; // Attach a Model_Media named 'cv'

$item->shared_medias_context->cv = null; // Detach a media from items context twins
// or
unset($item->shared_medias_context->cv);

```

property `Nos\Orm_Behaviour_Twinnable::$shared_wysiwygs_context`
Provider for `Nos\Model_Wysiwyg` linked to context twins.

```
<?php
$item->shared_wysiwygs_context->content; // Get a Model_Wysiwyg named 'content'
$item->shared_wysiwygs_context->content->wysiwyg_text; // Get content of Model_Wysiwyg named 'co

$item->shared_wysiwygs_context->summary = 'foo'; // Set a Model_Wysiwyg named 'content', with co

$item->shared_wysiwygs_context->summary = null; // Remove a wysiwyg from items context twins
// or
unset($item->shared_wysiwygs_context->summary);
```

Methods

static `Nos\Orm_Behaviour_Twinnable::hasCommonFields`
Returns True if model has common fields, medias or WYSIWYGs.

static `Nos\Orm_Behaviour_Twinnable::isCommonField($name)`

Parameters

- **\$name** (*string*) – The field name to check.

Returns True if the field name is a common field or, media or WYSIWYG.

`Nos\Orm_Behaviour_Twinnable::delete_all_context()`

Removes all items twinned to the current item, including the current item itself.

`Nos\Orm_Behaviour_Twinnable::is_main_context()`

Returns True if item is the main among twin items.

`Nos\Orm_Behaviour_Twinnable::find_context($context)`

Parameters

- **\$context** (*mixed*) – Can be
 - Array of contexts ID.
 - all, to receive all contexts.
 - Context ID.
 - main, to receive main twin item.

Returns A twinned item, or an array of twinned items, null or array() if none.

`Nos\Orm_Behaviour_Twinnable::find_main_context()`

Returns The main item among the twins.

Alias for `->find_context('main')`.

`Nos\Orm_Behaviour_Twinnable::find_other_context($filter = array())`

Parameters

- **\$filter** (*array*) – Array of contexts ID. If set, return only twin items which the context belongs to array \$filter.

Returns Array of twin items, current item exclude.

`Nos\Orm_Behaviour_Twinnable::get_all_context()`

Returns Array of all twinned contexts, including the one of the current item.

`Nos\Orm_Behaviour_Twinnable::get_other_context($filter = array())`

Parameters

- **\$filter** (*array*) – Array of contexts ID. If set, return only twinned contexts which belongs to array \$filter.

Returns Array of all twinned contexts ID, excluding the one of the current item.

Nos\Orm_Behaviour_Twinnable::get_possible_context()

Returns Array of possible contexts ID for current item.

static Nos\Orm_Behaviour_Twinnable::findMainOrContext(\$context, array \$options = array())

Parameters

- **\$context** (*mixed*) – A context ID or array of context IDs.
- **\$options** (*array*) – Array of others options like in find().

Returns Array of items, like find(), either in the given context, either the main.

See also:

FuelPHP native find() method.

Example

```
<?php
class Model_Page extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Twinnable' => array(
            'events' => array('before_insert', 'after_insert', 'before_save', 'after_delete'),
            'context_property' => 'page_context',
            'common_id_property' => 'page_context_common_id',
            'is_main_property' => 'page_context_is_main',
            'common_fields' => array(),
        ),
    );
}
```

Urlenhancer

class Nos\Orm_Behaviour_Urlenhancer

Used for *Nos\Orm\Model* displayed in the front-office by an *URL Enhancer*.

Configuration

property Nos\Orm_Behaviour_Urlenhancer::\$enhancers

Required. Array of *enhancers* ID which can generate an URL for the item.

Listed *enhancers* must define a getUrlEnhanced(\$params) method.

Methods

`Nos\Orm_Behaviour_Urlenhancer::urls($params = array())`

Parameters

- **\$params** (*array*) –
 - enhancer** Specify *enhancer* ID. Restricts the search to the specified *enhancer*.

Returns

Associative array of all possible URLs for this item

- **key**: `page_id::item_slug`. `item_slug` is the URL part generate by *enhancer*.
- **value**: Absolute URL.

`Nos\Orm_Behaviour_Urlenhancer::url($params = array())`

Parameters

- **\$params** (*array*) – See *Orm_Behaviour_Urlenhancer::urls*.
 - canonical** If `true`, return canonical URL of item.
 - preview** If `true`, return even unpublished URL of item.

Returns Absolute URL of item or `null` if item can't be displayed in front.

`Nos\Orm_Behaviour_Urlenhancer::url_canonical($params = array())`

Parameters

- **\$params** (*array*) – See *Orm_Behaviour_Urlenhancer::url*.

Returns Absolute canonical URL of item or `null` if item can't be displayed in front.

Alias for `->url(array('canonical' => true))`.

If the item is *sharable*, returns the URL set in the shared data (`content nugget`).

`Nos\Orm_Behaviour_Urlenhancer::preview_url()`

Returns Absolute canonical URL of item, even if it's not published, or `null` if item can't be displayed in the front-office.

Alias for `->url_canonical(array('preview' => true))`.

`Nos\Orm_Behaviour_Urlenhancer::deleteCacheItem()`

Delete the cache of the pages containing this item only (this will not delete the cache for the whole enhancer).

`Nos\Orm_Behaviour_Urlenhancer::deleteCacheEnhancer()`

Delete the cache of the pages containing an URL enhancer for the item. Warning: this will delete for all the enhancer, not only the pages containing the item.

`Nos\Orm_Behaviour_Urlenhancer::htmlAnchor($attributes = array())`

Parameters

- **\$attributes** (*array*) –
 - Array of attributes to be applied to the anchor tag.
 - If key 'href' is set in \$attributes parameter:
 - if is a string, used for href attribute
 - if is an array, used as argument of `->url()` method

If key 'text' is set in \$attributes parameter, its value replace item title

Returns Returns an HTML anchor tag with, by default, item URL in href and item title in text.

Example

```
<?php
class Model_Monkey extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Urlenhancer' => array(
            'enhancers' => array('noviusos_monkey'),
        ),
    );
}
```

Virtualname

class `Nos\Orm_Behaviour_Virtualname`

Adds a slug property to item.

The slug is automatically generated based on the `title_property` of the model if it is not specified.

If `Orm_Behaviour_Virtualname::$unique` is set, `->save()` method can throw an Exception if slug already in use.

Configuration

property `Nos\Orm_Behaviour_Virtualname::$virtual_name_property`

Required. Column used to store the slug.

property `Nos\Orm_Behaviour_Virtualname::$unique`

true, false or 'context' if uniqueness must be checked by context.

Methods

`Nos\Orm_Behaviour_Virtualname::virtual_name($virtual_name = null)`

Getter and setter for the `virtual_name`. Setter if a `$slug` is passed in parameters.

When use as setter, the new virtual name is transform to friendly slug.

Parameters

- `$virtual_name` (*string*) – The new virtual name

Returns The item slug.

`Nos\Orm_Behaviour_Virtualname::friendly_slug($slug)`

Parameters

- `$slug` (*string*) – A slug to clean.

Returns A clean slug, lowercase, without forbidden characters.

Example

```
<?php
class Model_Monkey extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Virtualname' => array(
            'events' => array('before_save', 'after_save'),
            'virtual_name_property' => 'monk_virtual_name',
        ),
    );
}
```

Virtualpath

class `Nos\Orm_Behaviour_Virtualpath`

Extends `Nos\Orm_Behaviour_Virtualname`.

Adds a virtual path to an item.

See also:

`Nos\Orm_Behaviour_Virtualname` for configuration and methods.

Configuration

property `Nos\Orm_Behaviour_Virtualpath::$virtual_path_property`

Required. Column name use for save virtual path.

property `Nos\Orm_Behaviour_Virtualpath::$extension_property`

Required. If it's a string, it will be appended to the virtual path. If it's an array:

before String to add to extension start.

after String to add to extension end.

property Column name used to store the extension.

property `Nos\Orm_Behaviour_Virtualpath::$extension_property`

Required. Name of the parent *relation* use to generate the first part of the virtual path.

Methods

`Nos\Orm_Behaviour_Virtualpath::virtual_path($dir = false)`

Parameters

- **\$dir** (*boolean*) – If true, extension is replaced by a final /.

Returns Virtual path of the item.

`Nos\Orm_Behaviour_Virtualpath::extension()`

Returns Return extension part of the virtual path.

Example

```

<?php
class Model_Page extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Orm_Behaviour_Virtualpath' => array(
            'events' => array('before_save', 'after_save', 'change_parent'),
            'virtual_name_property' => 'page_virtual_name',
            'virtual_path_property' => 'page_virtual_url',
            'extension_property' => '.html',
            'parent_relation' => 'parent',
        ),
    );
}

```

Behaviour events

Behaviours can catch events triggered on a *Nos\Orm\Model* or on a instance of *Nos\Orm\Model*.

Instance events

dataset (&\$dataset)

Trigger when fill dataset of an item.

Parameters

- **\$dataset** (*array*) – Current dataset of the item.

form_fieldset_fields (&\$config)

Trigger when build a fieldset from an item.

Parameters

- **\$config** (*array*) – Current fieldset configuration.

form_processing (\$data, &\$json_response)

Trigger when receive a form response.

Parameters

- **\$data** (*array*) – Data received.
- **\$json_response** (*array*) – JSON response to send.

wysiwygOptions (&\$options)

Trigger when construct WYSIWYG options for an item.

Parameters

- **\$options** (*array*) – Current option for WYSIWYG.

Static events

gridQueryConfig (&\$config)

Trigger when building a query configuration for a grid of model's items.

Parameters

- **\$config** (*array*) – Configuration for the query.

New in version 4.3.

gridQuery (*\$config*, &*\$query*)

Trigger when building a query for a grid of model's items.

Parameters

- **\$config** (*array*) – Configuration for the query.
- **\$query** (*mixed*) – Current query.

gridItem (*\$object*, &*\$item*)

Trigger when building a grid's item.

Parameters

- **\$object** (*mixed*) – Instance of Model's item.
- **\$item** (*array*) – Current item in array style.

gridAfter (*\$config*, *\$objects*, &*\$items*)

Trigger after execute query for a grid of model's items.

Parameters

- **\$config** (*array*) – Configuration of the query.
- **\$objects** (*array*) – Array of instances of model, result of the query.
- **\$items** (*array*) – Current array of items in array style.

commonConfig (&*\$config*)

Trigger when building a common configuration of a model.

Parameters

- **\$config** (*array*) – Current configuration.

crudConfig (&*\$config*, *\$controller*)

Trigger when building the configuration of the CRUD controller of the model.

Parameters

- **\$config** (*array*) – Current configuration of the CRUD controller.
- **\$controller** (*mixed*) – Instance of the CRUD controller.

crudFields (&*\$fields*, *\$controller*)

Trigger when building the fields for the CRUD controller of the model.

Parameters

- **\$fields** (*array*) – Current fields of the CRUD controller.
- **\$controller** (*mixed*) – Instance of the CRUD controller.

buildRelations ()

Trigger when building relations of the model.

buildProviders ()

Trigger when building providers of the model.

before_query (&*\$options*)

Trigger before execute a query build on the model.

Parameters

- **\$options** (*array*) – Current options for the query.

1.1.7 Relations

Novius OS adds relation types to FuelPHP native relations (`belongs_to`, `has_one`, `has_many` and `many_many`).

See also:

FuelPHP native relations.

Twinnable Belongs To

The `twinnable_belongs_to` relation is the equivalent of the FuelPHP native `belongs_to` relation (moreover, it extends `belongs_to`). The difference is that the link is not made on the primary key but on the context common ID.

If you use the `twinnable_belongs_to` relation, the model must implement [Twinnable behaviour](#). The field `key_from` must be declared common field in the twinnable behaviour.

Changed in version 4.2: Before the 4.2 (Dubrovka) version, the linked model also need to implement Twinnable behaviour.

See also:

- [Twinnable behaviour](#)
- [Multi-Contexts](#).
- [FuelPHP native belongs_to](#)

Configuration

key_from The key used for the relation in the current model.

model_to The full class name of the target model. Calculated from alias.

key_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_from Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_is_main_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

Examples The `Model_Monkey` belongs to a `Model_Species` independently of context. A monkey, in one context, has the same species than in other, just the translation can be changed. If the species not exists in the same context that the monkey, the relation returns the species in the main context.

```
<?php
protected static $_twinnable_belongs_to = array(
    'species' => array(
        'key_from' => 'monk_species_common_id',
        'model_to' => 'Nos\Monkey\Model_Species',
        'cascade_save' => false,
        'cascade_delete' => false,
    ),
);
```

Twinnable Has One

The `twinnable_has_one` relation is the equivalent of the FuelPHP native `has_one` relation (moreover, it extends `has_one`). The difference is that the link is not made on the primary key but on the context common ID.

If you use the `twinnable_has_one` relation, the model must implement [Twinnable behaviour](#).

Changed in version 4.2: Before the 4.2 (Dubrovka) version, the linked model also need to implement Twinnable behaviour.

See also:

- [Twinnable behaviour](#)
- [Multi-Contexts.](#)
- [FuelPHP native has_one](#)

Configuration

key_from Calculated from the behaviour Twinnable.

model_to The full class name of the target model. Calculated from alias.

key_to The key used for the relation in the linked model if `model_to` is twinnable.

column_context_from Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_is_main_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

Twinnable Has Many

The `twinnable_has_many` relation is the equivalent of the FuelPHP native `has_many` relation (moreover, it extends `has_many`). The difference is that the link is not made on the primary key but on the context common ID.

If you use the `twinnable_has_many` relation, the model must implement [Twinnable behaviour](#).

Changed in version 4.2: Before the 4.2 (Dubrovka) version, the linked model also need to implement Twinnable behaviour.

See also:

- [Twinnable behaviour](#)
- [Multi-Contexts.](#)
- [FuelPHP native has_many](#)

Configuration

key_from Calculated from the behaviour Twinnable.

model_to The full class name of the target model. Calculated from alias.

key_to The key used for the relation in the linked model if `model_to` is twinnable.

column_context_from Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_is_main_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

Twinnable Many to Many

The `twinnable_many_many` relation is the equivalent of the FuelPHP native `many_many` relation (moreover, it extends `many_many`). The difference is that the link is not made on primary keys but on context common IDs.

If you use the `twinnable_many_many` relation, the model must implement [Twinnable behaviour](#).

Changed in version 4.2: Before the 4.2 (Dubrovka) version, the linked model also need to implement Twinnable behaviour.

See also:

- [Twinnable behaviour](#)
- [Multi-Contexts](#).
- [FuelPHP native many_many](#)

Configuration

key_from The key used for the relation in the current model

model_to The full class name of the target model. Calculated from alias.

key_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

table_through This is the table that connects the 2 models and has both their common IDs in it.

key_through_from The key that matches the current model's common ID.

key_through_to The key that matches the related model's common ID.

column_context_from Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_common_id_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

column_context_is_main_to Calculated from the behaviour Twinnable if `model_to` is twinnable.

Use

When you use the relation in a find, you can add `main context` in conditions. If it's set to false, relation only retrieves related items of the same context.

```
<?php
Model_Example::find('all', array(
    'related' => array(
        'manymany_twinnable' => array(
            'main_context' => false,
        ),
    ),
),
);
```

Attachment

Binds files to model instances. Based on the [attachment class](#).

Configuration

key_from Calculated from the primary key.

attachment_config Array for attachment configuration. `dir` key is optional, calculated from model and relation names.

See also:

[Attachment class](#).

Examples In this case, each item of the model have 2 attachments: avatar and cv.

```
<?php
protected static $_attachment = array(
    'avatar' => array(),
    'cv' => array(),
);
```

1.1.8 Classes

Attachment

class `Nos\Attachment`
Binds a file to an object.

Configuration

property `Nos\Attachment::$attached`
Required. The attached ID.

property `Nos\Attachment::$dir`
Required. Directory path, where the attachment is stored. Relative to `local/data/files`.

property `Nos\Attachment::$alias`
An URL alias to access the directory path.

property `Nos\Attachment::$extensions`
Array of valid files extensions.

property `Nos\Attachment::$image`
If `true`, accepts only files with an image extension. Same that extensions set to `array('jpg', 'gif', 'png', 'jpeg')`.

property `Nos\Attachment::$check`
Used it to make the attachment private. A [callback function](#) to check permissions against. It takes a single parameter: Attachment instance.

Methods

static `Nos\Attachment::forge($attached, $config)`

Parameters

- **\$attached** (*string*) – The attached ID.

- **\$config** (*mixed*) – If is a string, use it to load configuration array. Array otherwise:

```

dir Attachment::$dir
alias Attachment::$alias
extensions Attachment::$extensions
image Attachment::$image
check Attachment::$check

```

Returns A new *Nos\Attachment*.

Nos\Attachment::**newFile**()

Returns Get the new attachment file path if one, *false* if no file exists.

Nos\Attachment::**path**()

Returns Get the attachment file path or *false* if no file exists.

Nos\Attachment::**filename**()

Returns Get the attachment filename or *false* if no file exists.

Nos\Attachment::**extension**()

Returns Get the attachment extension or *false* if no file exists.

Nos\Attachment::**isImage**()

Returns True if the Attachment is an image, *false* otherwise.

Nos\Attachment::**url** (*\$absolute = true*)

Parameters

- **\$absolute** (*bool*) – Default true, if false return relative URL

Returns Get the attachment url or *false* if no file exists.

Nos\Attachment::**urlResized** (*\$max_width = 0, \$max_height = 0, \$absolute = true*)

Parameters

- **\$max_width** (*array*) – Max width of the image.
- **\$max_height** (*array*) – Max height of the image.
- **\$absolute** (*bool*) – Default true, if false return relative URL

Returns Get the resized url for the Attachment or *false* if no file exists or it's not an image.

Nos\Attachment::**htmlAnchor** (*\$attributes = array()*)

Parameters

- **\$attributes** (*array*) –
Array of attributes to be applied to the anchor tag.
If key 'text' is set in \$attributes parameter, its value replace attachment filename

Returns Returns an HTML anchor tag with, by default, attachment URL in href and attachment filename in text.

Nos\Attachment::**getToolkitImage**()

Returns Returns a *Nos\Toolkit_Image* based on the attachment if is an image, *False* otherwise.

Nos\Attachment::**set** (*\$file, \$filename = null*)

Parameters

- **\$file** (*array*) – File path

- **\$filename** (*array*) – File name

Returns Set a new Attachment file.

Throws FuelCoreFileAccessException if new file have a not allowed extension.

Nos\Attachment::save()

Save a new Attachment file

Returns True if the Attachment have been saved, false otherwise.

Nos\Attachment::delete()

Delete the Attachment file

Returns True if the Attachment have been deleted, false otherwise.

Example

```
<?php

$attachment = \Nos\Attachment::forge('my_id', array(
    'dir' => 'apps'.DS.'myapps',
    'alias' => 'myapps-attachment',
    'extensions' => array('pdf'),
    'check' => 'check_attachment',
));

// It's for example
$_SESSION['user_connected'] = true;

function check_attachment($attachment) {
    return $GLOBALS['user_connected'];
}

try {
    $attachment->set('/path/a_doc.doc');
} catch (\Fuel\Core\FileAccessException $e) {
    // Exception will be throw, extension is doc, not a pdf.
}

$attachment->set('/path/a_pdf.pdf');
$attachment->save();

// Now file saved in local/data/files/apps/myapps/my_id/a_pdf.pdf

echo $attachment->url();
// Echo http://www.domain.ext/data/files/myapps-attachment/my_id/a_pdf.pdf

$_SESSION['user_connected'] = false;
// Now URL http://www.domain.ext/data/files/myapps-attachment/my_id/a_pdf.pdf return 404

$attachment->delete();
```

Config

class Config

Extends FuelPHP config class and provides new functionalities.

::mergeWithUser(\$key, \$config)**static** Config::mergeWithUser (\$key, \$config)**Parameters**

- **\$key** (*string*) – Key in which the user’s configuration is saved.
- **\$config** (*mixed*) – Configuration to merge.

Returns The configuration merged.Merge configuration with the one saved in user in the key *\$key*.**::getDbName(\$key)****static** Config::getDbName (\$key)**Parameters**

- **\$key** (*string*) – Key to be transformed.

Returns Valid user configuration key.**::configFile(\$class)****static** Config::configFile (\$class)**Parameters**

- **\$class** (*string*) – Class we want to retrieve the configuration from.

Returns Returns a two element array: first element is the class’s application, and the second element is the relative path of the configuration file.**::metadata(\$application_name)****static** Config::metadata (\$application_name)**Parameters**

- **\$application_name** (*string*) – Application we want to retrieve the metadata configuration from.

Returns The metadata configuration.**::application(\$application_name)****static** Config::application (\$application_name)**Parameters**

- **\$application_name** (*string*) – Application we want to retrieve the global configuration from (located at *application::config*)

Returns The global configuration.

::actions(\$params)

static Config::actions (\$params = array())

Parameters

- **\$params** (*array*) – Set of filters on actions.
 - models** *array* Models on which we retrieve actions list.
 - item** *object* (optional) Item which we want to associate the actions with (will allow to process the `disabled` key).
 - all_targets** *boolean* Specify if we want to retrieve all actions (no matter target or visible value).
 - target** *string* Which target we want to filter the actions on.

Returns The filtered actions.

::getActionDisabledState(\$disabled, \$item)

static Config::getActionDisabledState (\$disabled, \$item)

Parameters

- **\$disabled** (*mixed*) – Disabled value to be processed.
- **\$item** (*object*) – Item necessary to process the disabled value.

Returns The processed disabled value.

::processCallbackValue(\$value, \$positive_value, \$argument_1, \$argument_2, ...)

static Config::getActionDisabledState (\$value, \$positive_value, \$argument_1, \$argument_2, ...)

Parameters

- **\$value** (*mixed*) – Value to process.
- **\$positive_value** (*object*) – If the value is an array of callbacks, it defines which value is expected. If callback return the expected value, then we call next callback. Otherwise, we return the value.
- **\$arguments** (*mixed*) – All appended parameters are sent to the callback functions (if there is any).

Returns The first value which is different of *\$positive_value*, otherwise *\$positive_value*.

For instance:

```
<?php

// ----- With a simple value
getActionDisabledState(true, true); // returns true
getActionDisabledState(true, false); // returns true

// ----- With a callback
$value = function() {
    return true;
}

getActionDisabledState($value, true); // returns true
```



```

getActionDisabledState($value, false); // returns true

// ----- With a list of callbacks
$value = array(
    function() {
        return true;
    },
    function() {
        return false;
    }
);

getActionDisabledState($value, true); // returns false, since second callback is different from
getActionDisabledState($value, false); // returns true, since first callback is different from p

// ----- With a list of mixed values
$value = array(
    true,
    function() {
        return false;
    }
);

// the first value is equivalent to a callback returning true, so there is no difference with pr
getActionDisabledState($value, true); // returns false, since second value is different from pos
getActionDisabledState($value, false); // returns true, since first callback is different from p

// ----- With additionnal parameters
$value = array(
    function($param1, $param2) {
        return $param1 == $param2;
    },
    function ($param1, $param2) {
        return $param1 != $param2;
    }
);

getActionDisabledState($value, true, 1, 1); // returns false, since second value is different fr
getActionDisabledState($value, true, 1, 2); // returns false, since first value is different fro
getActionDisabledState($value, false, 1, 1); // returns false, since first value is different fr
getActionDisabledState($value, false, 1, 2); // returns false, since second value is different f

```

::placeholderReplace(\$to_be_replaced, \$placeholders, \$remove_unset)

static Config::placeholderReplace (\$to_be_replaced, \$placeholders, \$remove_unset = true)

Parameters

- **\$to_be_replaced** (*mixed*) – Value to replace placeholders into. Can be a *string* or *array*.
- **\$placeholders** (*array*) – Associative array containing replacements.
- **\$remove_unset** (*boolean*) – If set to *true*, all placeholders which have not a associated replacements are replaced by an empty string. Otherwise, they are not replaced.

Returns The replaced value.

::icon(\$application_or_model_name, \$icon_key)

static Config::icon (*\$application_or_model_name*, *\$icon_key*)

Parameters

- **\$application_or_model_name** (*string*) – Application or model name on which we want to retrieve the icon.
- **\$icon_key** (*array*) – Icon size.

Returns The icon url.

Front controller

class `Nos\Controller_Front`

Novius OS front-office controller

Use `Nos::main_controller` to retrieve its instance and call the methods.

Methods

`Nos\Controller_Front::getContext` ()

Returns The current *context*.

`Nos\Controller_Front::getContextUrl` ()

Returns Absolute URL of the current *context*.

`Nos\Controller_Front::getPage` ()

Returns Current *Model_Page* displayed.

`Nos\Controller_Front::getWysiwygName` ()

Returns Current *wysiwyg* ID processed.

`Nos\Controller_Front::getUrl` ()

Returns Current absolute URL.

`Nos\Controller_Front::getPageUrl` ()

Returns Relative (to `Controller_Front::getContextUrl`) URL of the current page.

`Nos\Controller_Front::getEnhancedUrlPath` ()

Returns

Relative (to `Controller_Front::getContextUrl`) URL of the current *URL enhancer*.

False if no current *URL enhancer*.

Same that `Controller_Front::getPageUrl` ending with / instead of .html.

`Nos\Controller_Front::getEnhancerUrl` ()

Returns

Part of the URL processed by the *URL enhancer*.

False if no current *URL enhancer*.

Nos\Controller_Front::getItemDisplayed()

Returns The current item displayed.

New in version 4.1.

Nos\Controller_Front::setItemDisplayed(*OrmModel \$item, array \$properties = array(), array \$templates = array()*)

param Model \$item The current Model instance displayed.

param array \$properties Array of properties

param array \$templates Array of templates use to set properties

New in version 4.1: Set de current item displayed, by default this item is the page displayed, but can be call by an URL enhancer. This method set automatically title, h1, meta_description and meta_keywords for the current HTML.

Nos\Controller_Front::setBaseHref(*\$base_href*)

Parameters

- **\$base_href** (*string*) – Sets a new <base href=""> for the current HTML output.

Nos\Controller_Front::setTitle(*\$title, \$template = null*)

Parameters

- **\$title** (*string*) – Set a new title for the current HTML.
- **\$template** (*string*) – If set, use it to calculate the title. Placeholders :title will be replaced by \$title, :page_title will be replace by the curent page title.

Nos\Controller_Front::setH1(*\$title, \$template = null*)

param string \$title Set a new H1 for the current HTML.

param string \$template If set, use it to calculate the H1. Placeholders :h1 will be replaced by \$h1.

New in version 4.1.

Nos\Controller_Front::setMetaDescription(*\$meta_description, \$template = null*)

Parameters

- **\$meta_description** (*string*) – Set a meta description for the current HTML output.
- **\$template** (*string*) – If set, use it to calculate the meta_description. Placeholders :meta_description will be replaced by \$meta_description, :page_meta_description will be replace by the curent page meta_description.

Nos\Controller_Front::setMetaKeywords(*\$meta_keywords, \$template = null*)

Parameters

- **\$meta_keywords** (*string*) – Set a meta keywords for the current HTML output.
- **\$template** (*string*) – If set, use it to calculate the meta_keywords. Placeholders :meta_keywords will be replaced by \$meta_keywords, :page_meta_keywords will be replace by the curent page meta_keywords.

Nos\Controller_Front::setMetaRobots(*\$meta_robots, \$template = null*)

Parameters

- **\$meta_robots** (*string*) – Set a meta robots for the current HTML output.
- **\$template** (*string*) – If set, use it to calculate the meta_robots. Placeholders :meta_robots will be replaced by \$meta_robots, :page_meta_robots will be replace by the curent page meta_robots.

Nos\Controller_Front::addMeta(*\$meta*)

Parameters

- **\$meta** (*string*) – A HTML meta tag to add in the current HTML output.

`Nos\Controllor_Front::addJavascript ($url, $footer = true)`

Parameters

- **\$url** (*string*) – URL of a JavaScript library to add in the current HTML output.
- **\$footer** (*boolean*) – If `true`, add script at the end of HTML output. If `false`, add in the `<head>`.

`Nos\Controllor_Front::addJavascriptInline ($js, $footer = true)`

Parameters

- **\$js** (*string*) – Javascript code to add in the current HTML output.
- **\$footer** (*boolean*) – If `true`, add at the end of HTML output. If `false`, add in the `<head>`.

`Nos\Controllor_Front::addCss ($url)`

Parameters

- **\$url** (*string*) – URL of a CSS file to add in the current HTML output.

`Nos\Controllor_Front::addCssInline ($css)`

Parameters

- **\$css** (*string*) – CSS code to add in the current HTML output.

`Nos\Controllor_Front::isPreview ()`

Returns Boolean, `true` if current page is requested in the preview mode.

`Nos\Controllor_Front::disableCaching ()`

Disable caching and cache retrieve of the current page.

`Nos\Controllor_Front::setCacheDuration ($cache_duration)`

Parameters

- **\$cache_duration** (*int*) – Set a new cache duration of the current cache saving.

`Nos\Controllor_Front::setStatus ($status)`

Parameters

- **\$cache_duration** (*int*) – Set a new response status of the current response. This status will be saved in cache.

`Nos\Controllor_Front::setHeader ($name, $value, $replace = true)`

Add or replace a header to current response. Headers will be saved in cache.

Parameters

- **\$name** (*string*) – The header name
- **\$value** (*string*) – The header value
- **\$replace** (*boolean*) – Whether to replace existing value for the header, will never overwrite/be overwritten when `false`

`Nos\Controllor_Front::getCustomData ($item, $default = null)`

Returns a (dot notated) custom data of the current process.

Parameters

- **\$item** (*string*) – Name of the custom data, can be dot notated.
- **\$default** (*mixed*) – The return value if the custom data isn't found.

Returns The custom data or default if not found.

`Nos\Controller_Front::setCustomData ($item, $value, $cached = false)`

Sets a (dot notated) custom data to the current process.

Parameters

- **\$item** (*string*) – A (dot notated) custom data key
- **\$value** (*mixed*) – The custom data value
- **\$cached** (*boolean*) – If custom data have to be cached

`Nos\Controller_Front::sendContent ($content)`

Replace the template by a specific content and stop treatments

Parameters

- **\$content** (*mixed*) – The new content, can be a string or a View.

`Nos\Controller_Front::addCacheSuffixHandler ($handler)`

Add a cache suffix handler for the current page

Parameters

- **\$handler** (*array*) – The cache suffix handler

Returns The cache instance if the cache path have changed, null otherwise.

DataCatcher

`class Nos\DataCatcher`

`constant Nos\DataCatcher::TYPE_TITLE`

`constant Nos\DataCatcher::TYPE_URL`

`constant Nos\DataCatcher::TYPE_TEXT`

`constant Nos\DataCatcher::TYPE_IMAGE`

FrontCache

`class Nos\FrontCache`

Manage front cache

Methods

`static Nos\FrontCache::callHmvcUncached ($uri, $args = array())`

Write a HMVC call in cache for after cache execution.

Parameters

- **\$uri** (*string*) – Route for the request.
- **\$args** (*array*) – The method parameters.

See also:

`Nos\Nos::hmvc`

`static Nos\FrontCache::viewForgeUncached ($file = null, $data = null, $auto_filter = null)`

Write a View forge in cache for after cache execution.

Parameters

- **\$file** (*string*) – The view filename
- **\$data** (*array*) – Array of values

- **\$auto_filter** (*boolean*) – Set to true or false to set auto encoding

I18n

class `Nos\I18n`

Provides the translation related functions.

::setLocale()

static `Nos\I18n::setLocale` (*\$locale*)

Configure the locale to use for translations.

Parameters

- **\$locale** (*string*) – A valid locale (`en`, `en_GB`, `en_GB.utf-8` and `en_GB.utf-8@variant` are all valid).

::restoreLocale()

static `Nos\I18n::restoreLocale`

Restores the previous locale.

::load()

static `Nos\I18n::load` (*\$file*)

Loads a dictionary for the current locale.

Parameters

- **\$file** (*string*) – Dictionary path.
- **\$group** (*string*) – Group name. Default `null`, use `$file`.

::get()

static `Nos\I18n::get` (*\$message*, *\$default = null*)

Retrieves a translation from the last loaded dictionary.

Parameters

- **\$message** (*string*) – The message to translate.
- **\$default** (*string*) – The default text to return when the message is not found. Default value is the message itself.

Returns The translation or `null` if not founded

::gget()

static `Nos\I18n::gget` (*\$file*, *\$message*, *\$default = null*)

Retrieves a translation from a specific dictionary.

Parameters

- **\$file** (*string*) – Which dictionary to look into.
- **\$message** (*string*) – The message to translate.

- **\$default** (*string*) – The default text to return when the message is not found. Default value is the message itself.

Returns The translation or `null` if not founded

Warning: The dictionary must have been loaded manually before.

::nget()

static `Nos\I18n::nget` (*\$singular*, *\$plural*, *\$n*)

The plural version of `I18n::get`. Some languages have more than one form for plural messages dependent on the count.

Parameters

- **\$singular** (*string*) – The singular form of the string to be converted. Used as the key for the search in the dictionary
- **\$plural** (*string*) – The plural form
- **\$n** (*string*) – Used to determine which plural form to used depending locale.

Returns The translation or, if not founded, `$singular` is returned if `n == 1`, otherwise `$plural`

::ngget()

static `Nos\I18n::gget` (*\$group*, *\$singular*, *\$plural*, *\$n*)

Retrieves a plural translation from a specific dictionary.

Parameters

- **\$group** (*string*) – Which dictionary to look into.
- **\$singular** (*string*) – The singular form of the string to be converted. Used as the key for the search in the dictionary
- **\$plural** (*string*) – The plural form
- **\$n** (*string*) – Used to determine which plural form to used depending locale.

Returns The translation or, if not founded, `$singular` is returned if `n == 1`, otherwise `$plural`

Warning: The dictionary must have been loaded manually before.

::current_dictionary()

static `Nos\I18n::current_dictionary` (*\$list*)

Set the current dictionary

Parameters

- **\$list** (*string|array*) – A dictionary file or list of dictionaries.

::dictionary()

static `Nos\I18n::dictionary` (*\$files*)

Returns a closure that translate messages from a specific dictionary.

Parameters

- **\$files** (*string|array*) – A dictionary file or list of dictionaries.

Returns A callable to translate a message

```
<?php
// Retrieves an anonymous function
$dictionary = Nos\I18n::dictionary('mon_appli::common');

echo $dictionary('Translate this');
```

::addPriorityDictionary()

static `Nos\I18n::addPriorityDictionary($locale, $dictionary)`

Add a priority dictionary for a locale

Parameters

- **\$locale** (*string*) – A valid locale
- **\$dictionary** (*string*) – Dictionary path

::addPriorityMessages()

static `Nos\I18n::addPriorityMessages($locale, $messages)`

Add some priorities translations for a locale

Parameters

- **\$locale** (*string*) – A valid locale
- **\$messages** (*array*) – An array of translations

Menu_Item

class `Nos\Menu\Menu_Item`

This class is use to build `Nos\Menu\Menu_Item_Driver`.

static `Nos\Menu\Menu_Item::forge($item)`

Parameters

- **\$item** (*mixed*) – Can be:
 - a `Nos\Menu\Model_Menu_Item` instance
 - a int for `Nos\Menu\Model_Menu_Item` ID
 - or a string for the driver name of a new `Nos\Menu\Model_Menu_Item` instance

Returns A `Nos\Menu\Menu_Item_Driver`, driver of the `Nos\Menu\Model_Menu_Item` in entrance

static `Nos\Menu\Menu_Item::drivers`

Returns An array of all available `Nos\Menu\Menu_Item_Driver`. Driver name in key, driver configuration in value.

Menu_Item_Driver

class `Nos\Menu\Menu_Item_Driver`

This is an abstract class that must be extend by all declared drivers of `Nos\Menu\Model_Menu_Item`.

To declare a driver of `Nos\Menu\Model_Menu_Item`, you have to extend the `noviusos_menu::config` configuration file.

`Nos\Menu\Menu_Item_Driver::title()`

Returns The title of the `Nos\Menu\Model_Menu_Item`

static `Nos\Menu\Menu_Item_Driver::html(array $params = array())`

By default, if the driver have a key `view` in his config, this view is forged with 2 parameters `params` and `item_driver`

If the driver have no view, build a div tag with `html_tag` function with `$params` and the driver title in parameters

Parameters

- `$params` (*array*) – Array of parameters

Returns A HTML representation of the `Nos\Menu\Model_Menu_Item`

static `Nos\Menu\Menu_Item_Driver::config($reload = false)`

The config file is assumed to be `application_name::driver_path`.

Parameters

- `$reload` (*bool*) – If `true`, reload the configuration and not use cache

Returns array The configuration of the driver

See also:

Menu item driver configuration.

Migration

class `Nos\Migration`

Provides migration automation and methods useful for migrations.

Default usage

All you need is to declare the class in the right namespace.

```
<?php
namespace Nos\Monkey\Migrations;

class Install extends \Nos\Migration
{
}
```

If the migration name is `001_install.php` it will try to execute `001_install.sql`.

If you want a more complex migration (e.g. update files), you can overload up and down functions.

->up()

`Nos\Migration::up()`

Tries to execute a sql file with same path (if migration filename is 001_install.php, it will try to execute 001_install.sql).

->down()

`Nos\Migration::down()`

Does nothing. Need to be overloaded if you want to support this operation.

::executeSqlFile(\$sql_file)

`static Nos\Migration::executeSqlFile($sql_file)`

Parameters

- `$sql_file` (*string*) – Sql file location to be executed.

Nos

`class Nos\Nos`

Provides static methods useful in Novius OS.

Entry points

`property Nos\Nos::$entry_point`

The Novius OS entry point. Equal to one of the following constants.

`constant Nos\Nos::ENTRY_POINT_ADMIN`

`constant Nos\Nos::ENTRY_POINT_FRONT`

`constant Nos\Nos::ENTRY_POINT_404`

`constant Nos\Nos::ENTRY_POINT_INSTALL`

`constant Nos\Nos::ENTRY_POINT_OIL`

New in version 0.2.0.1.

::main_controller()

`static Nos\Nos::main_controller`

Returns Instance of the main *controller*.

::hmvc()

`static Nos\Nos::hmvc($where, $args = null)`

Parameters

- `$where` (*mixed*) – Route for the request.
- `$args` (*array*) – The method parameters.

Executes an *HMVC* request.

Permission

class `Nos\User\Permission`

This class checks the permissions for the current logged in user.

When multiple roles are enable, if any role has the requested permission, it means the user is authorised to do it.

static `Nos\User\Permission::check` (*\$permission_name*, *\$category_key* = *null*, *\$allow_empty* = *false*)

Alias to `Nos\User\Permission::exists`

static `Nos\User\Permission::exists` (*\$permission_name*, *\$category_key* = *null*, *\$allow_empty* = *false*)

Check whether a permissions exists (against all the roles of the current logged in user).

Parameters

- **\$permission_name** (*string*) – Name of the permission to check against
- **\$category_key** (*string*) – (optional) If the permission has categories, the category key to check against
- **\$allow_empty** (*bool*) – (optional) Should we grant access when nothing is configured?

Returns bool `true` or `false`

static `Nos\User\Permission::existsOrEmpty` (*\$permission_name*, *\$category_key* = *null*, *\$allow_empty* = *false*)

Alias to `Nos\User\Permission::exists` with the optional parameter `$allowEmpty` = `true`.

Parameters

- **\$permission_name** (*string*) – Name of the permission to check against
- **\$category_key** (*string*) – (optional) If the permission has categories, the category key to check against

Returns bool `true` or `false`

static `Nos\User\Permission::isAllowed` (*\$permission_name*, *\$allow_empty* = *false*)

Check against a binary permission (without categories) against all the roles of the current logged in user.

Parameters

- **\$permission_name** (*string*) – Name of the permission
- **\$allow_empty** (*bool*) – Should we grant access when nothing is configured?

Returns bool `true` or `false`

static `Nos\User\Permission::atLeast` (*\$permission_name*, *\$threshold*, *\$value_when_empty* = *0*)

Check against a numeric / range permission (for all the roles of the current logged in user).

You can use `string` for the 2nd and 3rd parameters, they will be casted to `(int)`. i.e. `'2_write' === 2`.

Parameters

- **\$permission_name** (*string*) – Name of the permission
- **\$threshold** (*int*) – Minimum value to grant access
- **\$value_when_empty** (*int*) – Default value to compare with when nothing is configured

Returns bool `true` or `false`

static `Nos\User\Permission::atMost` (*\$permission_name*, *\$threshold*, *\$value_when_empty* = 0)
Check against a numeric / range permission (for all the roles of the current logged in user).

You can use `string` for the 2nd and 3rd parameters, they will be casted to `(int)`. i.e. `'2_write' === 2`.

Parameters

- **\$permission_name** (*string*) – Name of the permission
- **\$threshold** (*int*) – Maximum value to grant access
- **\$value_when_empty** (*int*) – Default value to compare with when nothing is configured

Returns `bool` `true` or `false`

static `Nos\User\Permission::listPermissionCategories` (*\$permission_name*)
List all the categories of a given permission name (merged values from all the roles of the current logged in user).

Returns an array of `string` or `false` when access is denied, or the permission name does not exists.

Parameters

- **\$permission_name** (*string*) – The name of the permission to retrieve categories from

Returns `array|false` An array containing the list of categories (values) for the requested permission name

static `Nos\User\Permission::isApplicationAuthorised` (*\$application_name*)
Check whether a user can access a particular application

Parameters

- **\$application_name** (*string*) – Name of the application :returns `bool`: `true` or `false`

static `Nos\User\Permission::contexts`

See also:

`Nos\Tools_Context::contexts`

Returns an array of all the contexts the user can access.

static `Nos\User\Permission::locales`

See also:

`Nos\Tools_Context::locales`

Returns an array of all the locales the user can access.

static `Nos\User\Permission::sites`

See also:

`Nos\Tools_Context::sites`

Returns an array of all the sites the user can access.

Renderer

class `Nos\Renderer`

Extends the class `Fieldset_Field` of FuelPHP.

Configuration

property `Nos\Renderer::$DEFAULT_RENDERER_OPTIONS`

Static and protected. The default renderer options.

property `Nos\Renderer::$renderer_options`

Protected. The renderer options.

Methods

`Nos\Renderer::setRendererOptions($options)`

Parameters

- **`$options`** (*array*) – Options merged with current renderer options.

`static Nos\Renderer::parseOptions($renderer = array())`

Parameters

- **`$renderer`** (*array*) – The renderer configuration.

Returns array 0: attributes, 1: renderer options

Toolkit Image

class `Nos\Toolkit_Image`

Toolkit for image manipulation.

Usage

To get a `Toolkit_Image`, use method `getToolkitImage` on classes supporting it.

- `Nos\Media\Model_Media::getToolkitImage()`
- `Nos\Attachment::getToolkitImage()`

Methods

`Nos\Toolkit_Image::transformations($transformations)`

Add multiple transformations to the image.

Parameters

- **`$transformations`** (*array*) – Transformations to add to the image.
A transformation is an array where first value is the method name, others values are method arguments.

Returns The current `Toolkit_Image` for chaining.

`Nos\Toolkit_Image::crop($x1, $y1, $x2, $y2)`

Add a crop transformation to the image.

Parameters

- **\$x1** (*integer*) – X-Coordinate based from the top-left corner.
- **\$y1** (*integer*) – Y-Coordinate based from the top-left corner.
- **\$x2** (*integer*) – X-Coordinate based from the bottom-right corner.
- **\$y2** (*integer*) – Y-Coordinate based from the bottom-right corner.

Returns The current `Toolkit_Image` for chaining.

`Nos\Toolkit_Image::resize($width, $height, $keepar = true, $pad = false)`

Resizes the image. If the width or height is `null`, it will resize retaining the original aspect ratio.

Parameters

- **\$width** (*integer*) – The new width of the image.
- **\$height** (*integer*) – The new height of the image.
- **\$keepar** (*boolean*) – Defaults to `true`. If `false`, allows resizing without keeping aspect ratio.
- **\$pad** (*boolean*) – If set to `true` and `$keepar` is `true`, it will pad the image with the configured background color.

Returns The current `Toolkit_Image` for chaining.

`Nos\Toolkit_Image::shrink($max_width, $max_height)`

Resizes the image only if too big

Parameters

- **\$max_width** (*integer*) – The max width of the image.
- **\$max_height** (*integer*) – The max height of the image.

Returns The current `Toolkit_Image` for chaining.

`Nos\Toolkit_Image::crop_resize($width, $height)`

Resizes the image. If the width or height is `null`, it will resize retaining the original aspect ratio.

Parameters

- **\$width** (*integer*) – The new width of the image.
- **\$height** (*integer*) – The new height of the image.

Returns The current `Toolkit_Image` for chaining.

`Nos\Toolkit_Image::rotate($degrees)`

Rotates the image

Parameters

- **\$degrees** (*integer*) – The degrees to rotate, negatives integers allowed.

Returns The current `Toolkit_Image` for chaining.

`Nos\Toolkit_Image::flip($direction)`

Creates a vertical / horizontal or both mirror image.

Parameters

- **\$direction** (*string*) – `vertical`, `horizontal`, `both`

Returns The current `Toolkit_Image` for chaining.

Nos\Toolkit_Image::**watermark** (*\$filename*, *\$position*, *\$padding = 5*)

Adds a watermark to the image.

Parameters

- **\$filename** (*string*) – The filename of the watermark file to use.
- **\$position** (*string*) – The position of the watermark, ex: bottom right, center center, top left
- **\$padding** (*integer*) – The spacing between the edge of the image.

Returns The current Toolkit_Image for chaining.

Nos\Toolkit_Image::**border** (*\$size*, *\$color = null*)

Adds a border to the image.

Parameters

- **\$size** (*integer*) – The side of the border, in pixels.
- **\$color** (*string*) – A hexadecimal color.

Returns The current Toolkit_Image for chaining.

Nos\Toolkit_Image::**mask** (*\$maskimage*)

Masks the image using the alpha channel of the image input.

Parameters

- **\$maskimage** (*string*) – The location of the image to use as the mask

Returns The current Toolkit_Image for chaining.

Nos\Toolkit_Image::**rounded** (*\$radius*, *\$sides = null*, *\$antialias = null*)

Adds rounded corners to the image.

Parameters

- **\$radius** (*integer*) –
- **\$sides** (*integer*) – Accepts any combination of tl tr bl br seperated by spaces, or null for all sides
- **\$antialias** (*integer*) – Sets the antialias range.

Returns The current Toolkit_Image for chaining.

Nos\Toolkit_Image::**grayscale** ()

Turns the image into a grayscale version

Returns The current Toolkit_Image for chaining.

Nos\Toolkit_Image::**url** (*\$absolute = true*)

Build and return the URL of the modify image

Parameters

- **\$absolute** (*bool*) – Default true, if false return relative URL

Returns The URL of the modify image.

Nos\Toolkit_Image::**sizes** ()

Returns The dimensions of the modify image (an object containing width and height variables).

Nos\Toolkit_Image::**html** (*\$params = array()*)

Creates an html image tag of the modify image

Sets width, height, alt attributes if not supplied.

Parameters

- **\$params** (*array*) – The attributes array

Returns The image tag

Nos\Toolkit_Image::save()

Apply transformations of the Image_URL instance on a file and save it

Returns The save file path

Nos\Toolkit_Image::parse(\$image_url)

Parse an existing modify URL and set transformations in queue. Check if the hash part of the URL match.

Parameters

- **\$image_url** (*string*) – Modify URL of the image

Returns True or false if the hash part of the URL not match.

Example

```
<?php
$all_media_png = \Nos\Media\Model_Media::find('all', array(
    'where' => array(
        array('media_ext', 'png'),
    ),
)); // Get all images PNG in media

// Display all PNG, shrinked in 200x100, grayscale and rounded with a 5px radius, in a <img class="c
foreach ($all_media_png as $media) {
    echo $media->getToolkitImage()->shrink(200, 100)->grayscale()->rounded(5)->html(array(
        'class' => 'css_class',
    ));
}
```

Tools_Context

class Nos\Tools_Context

Provides static methods to work with yours contexts, sites and languages.

See also:

[Multi-Contexts](#)

::contexts()

static Nos\Tools_Context::contexts

Returns An array of all your valid contexts.

```
<?php
$contexts = \Nos\Tools_Context::contexts();
foreach ($contexts as $context_code => $context_urls) {
    // ....
}
```

::sites()

static Nos\Tools_Context::sites

Returns An array of all your valid sites. Each site has a `title` and an `alias`.

```
<?php
$sites = \Nos\Tools_Context::sites();
foreach ($sites as $site_key => $site_params) {
    $title = $site_params['title'];
    $alias = $site_params['alias'];
}
```

::locales()

static `Nos\Tools_Context::locales`

Returns An array of all your valid locales. Each locale has a `title` and a `flag's code flag`.

```
<?php
$locales = \Nos\Tools_Context::locales();
foreach ($locales as $locale_key => $locale_params) {
    $title = $locale_params['title'];
    $flag = $locale_params['flag'];
}
```

::defaultContext()

static `Nos\Tools_Context::defaultContext`

Returns The code of default context of your Novius OS instance.

```
<?php
$default_context_code = \Nos\Tools_Context::defaultContext();
```

::locale(\$container)

static `Nos\Tools_Context::locale($container)`

Parameters

- **\$container** (*string*) – A context code.

Returns Array of context's locale.

```
<?php
$locale = \Nos\Tools_Context::locale('main::en_GB');
$title = $locale['title'];
$code_flag = $locale['flag'];
```

::site(\$container)

static `Nos\Tools_Context::site($container)`

Parameters

- **\$container** (*string*) – A context code.

Returns Array of context's site.

```
<?php
$site = \Nos\Tools_Context::site('main::en_GB');
$title = $site['title'];
$alias = $site['alias'];
```

Tools_RSS

class Nos\Tools_RSS

Used to build a RSS feed.

Methods

::forge()

static Nos\Tools_RSS::forge (\$channel = array(), array \$items = array())

Parameters

- **\$channel** (*mixed*) – If it is a string, used as channel's title. Associative array otherwise:
- **\$items** (*array*) – Associative array. Each key will be transformed into XML tag in a <item />.

Encoding Default UTF-8. Used for the XML encoding attribute.

Version Default 2.0. Used for XML version attribute (<rss> tag).

You can define any other key, which will be transformed into XML tag in the <channel />

Returns A instance of *Tools_RSS*.

::set()

Nos\Tools_RSS::set (\$property, \$value = null)

Parameters

- **\$property** (*mixed*) – A single string to set a channel property, or an associative array for multiple settings.
- **\$value** (*mixed*) – If \$property is a string, the value of the property.

Set one or multiple channel properties.

::set_items()

Nos\Tools_RSS::set_items (array \$items)

Parameters

- **\$items** (*array*) – Array of items.

Set a new array of items.

::add_item()

Nos\Tools_RSS::add_item (array \$item)

Parameters

- **\$item** (*array*) – An item.

Add a new item to the \$items array.

::build()

Nos\Tools_RSS::**build** (*array \$channel = array(), array \$items = array()*)

Parameters

- **\$channel** (*mixed*) –
- **\$items** (*array*) –

Returns The XML description of the RSS

See `Tools_RSS::forge` for parameters.

The `pubDate` key can be a `Fuel\Core\Date` instance, or a string (date representation) or a timestamp.

Examples

```
<?php
$rss = \Nos\Tools_RSS::forge('RSS title');
$rss->set_items(array(
    'title' => 'Item title',
    'link' => 'http://www.mydomain.com/item_url.html',
    'description' => '<p>A description of item </p>',
    'pubDate' => '2012-08-16',
    'author' => 'Me',
));
$xml = $rss->build();

$rss->set('subtitle', 'A subtitle for ma RSS');
echo $rss; // Call $rss->build() with magic method __toString()
```

Tools_Url

class Nos\Tools_Url

Provides static methods for URL.

::page()

static Nos\Tools_Url::**page** (*\$page_id*)

Parameters

- **\$page_id** (*int*) – A Model_Page ID.

Returns URL of the specified page.

::context()

static Nos\Tools_Url::**context** (*\$context*)

Parameters

- **\$context** (*string*) – A context ID. See [Multi-Contexts](#).

Returns Home URL of the specified context.

::encodePath()

static `Nos\Tools_Url::encodePath ($url)`

Parameters

- **\$url** (*string*) – Url to encode

Returns Encode the path part of an URL.

Tools_Wysiwyg

class `Nos\Tools_Wysiwyg`

Provides static methods to work with WYSIWYG.

::parse()

static `Nos\Tools_Wysiwyg::parse ($content)`

Parameters

- **\$content** (*string*) – A `Nos\Model_Wysiwyg` content.

Returns Prepare wysiwyg content for display.

Replace enhancers by their content.

Replace `Model_Page` and `Model_Media` IDs by theirs URLs

Wysiwyg anchors are processed in case the href attribute begin with # :

- If it begins with only one # then the href will be prefixed by the page url.
- If it begins with two ## then it is transformed to only one #.

View

class `View`

Extends `FuelPHP view class` and provides new functionalities.

__construct(\$file, \$data, \$filter)

`View::__construct ($file = null, $data = null, $filter = null)`

Same specifications as in `FuelPHP view class`, except when you prefix the view name by `!`, view redirections are ignored.

::redirect(\$from, \$to, \$callback)

static `View::redirect ($from, $to, $callback = true)`

Parameters

- **\$from** (*string*) – The view to redirect from.
- **\$to** (*mixed*) – The view to redirect to or callback.
- **\$callback** (*mixed*) – Callback

The function can redirect views: you can, for instance, make `View::forge('a')` return the content of view `b`.

Usages examples:

```
<?php

View::redirect('a', 'b'); // redirects view `a` to `b`

View::redirect('a', 'b', function($data, $filter) { return false; }); // won't have any effect

View::redirect('a', 'b', function($data, $filter) { return false; });
View::redirect('a', 'c', function($data, $filter) { return true; });
// will redirect `a` to `c`

View::redirect('a', false, function($data, $filter) { return 'd'; })
// or
View::redirect('a', function($data, $filter) { return 'd'; })
// will redirect `a` to `d`
```

1.1.9 Renderers

Date Picker

```
class Nos\Renderer_Date_Picker
```

Extends `Nos\Renderer_Datetime_Picker`.

Since Chiba 2.2, this renderer is just an alias of `Nos\Renderer_Datetime_Picker` with format set to date.

New in version chiba.2.2.

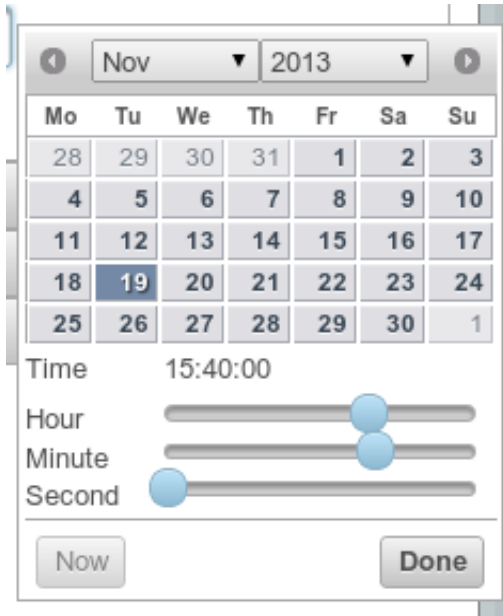
Date Time Picker

```
class Nos\Renderer_Datetime_Picker
```

Extends `Nos\Renderer`.

This renderer is used to pick a date and time.

It's based on jQuery UI Date Time Picker addon.



Configuration

property `Nos\Renderer_Datetime_Picker::$wrapper`

HTML string to wrap the `<input>` + the generated image to open the datetimepicker

property `Nos\Renderer_Datetime_Picker::$format`

(Default: `datetime`). Format saved and displayed : date or datetime

New in version `chiba.2.2`.

property `Nos\Renderer_Datetime_Picker::$null_allowed`

(Default: `false`). Set to `true` if the date can be null.

New in version `chiba.2.3`.

property `Nos\Renderer_Datetime_Picker::$datetimepicker`

Options for the datepicker widget used to render the UI. See the [jQuery UI documentation](#) for all available options.

Default values below:

showOn `both`

buttonImage `static/novius-os/admin/novius-os/img/icons/date-picker.png`

buttonImageOnly `true`

autoSize `true`

hiddenTimeFormat `HH:mm:ss`

hiddenDateFormat `yy-mm-dd`

dateFormat `HH:mm:ss`

timeFormat `HH:mm`

dateFormat `dd/mm/yy`

altFieldTimeOnly `false`

showButtonPanel `true`

changeMonth true
changeYear true
showOtherMonths true
selectOtherMonths true
gotoCurrent true
firstDay 1
showAnim slideDown

property `Nos\Renderer_Datetime_Picker::$mysql_input_format`
 (Datetime default: %Y-%m-%d %H:%M:%S, Date default: %Y-%m-%d). Defines how to decode input value
 New in version chiba.2.2.

property `Nos\Renderer_Datetime_Picker::$mysql_store_format`
 (Datetime default: mysql, Date default: mysql_date). Defines how to store value in the database
 New in version chiba.2.2.

property `Nos\Renderer_Datetime_Picker::$plugin`
 (Datetime default: datetimpicker, Date default: datepicker). Defines which jquery ui plugin to call on the form input
 New in version chiba.2.2.

Methods

`Nos\Renderer_Datetime_Picker::renderer($renderer)`

Parameters

- **\$renderer** (*Model*) – HTML attributes (name, class, id, value, etc.), with a special key `renderer_options`

Returns The `<input>` tag with JavaScript to initialise it
 Displays a date time picker in a standalone manner.

Example

Adding a date time picker in a CRUD form configuration:

```

<?php
return array(
    'label' => '',
    'renderer' => 'Nos\Renderer_Datetime_Picker',
    'renderer_options' => array(
        'datepicker' => array(),
        'wrapper' => '<div class="datetimepicker-customwrapper"></div>',
    ),
);
  
```

Displaying a date time picker:

```
<?php
echo Nos\Renderer_Datetime_Picker::renderer(array(
    'name' => 'my_datetime',
    'class' => 'some_class',
    'value' => '2013-02-13',
    'renderer_options' => array(
        'datetimepicker' => array(),
        'wrapper' => '<div class="datetimepicker-customwrapper"></div>',
    ),
));
```

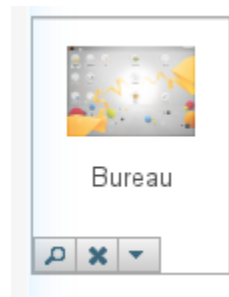
Item Picker

```
class Nos\Renderer_Item_Picker
```

Extends *Nos\Renderer*.

This renderer is used to pick a item.

It displays a thumbnail of the item with buttons to manage the selected item



Configuration

```
property Nos\Renderer_Item_Picker::$model
    The model name
```

```
property Nos\Renderer_Item_Picker::$appdesk
    URL of the model appdesk.
```

```
property Nos\Renderer_Item_Picker::$size
    Size of the thumbnail. Default 64
```

```
property Nos\Renderer_Item_Picker::$texts
    Labels use for UI
```

empty Label when no item selected. Default No item selected.

add Label of button to pick an item. Default Pick an item.

edit Label of button to pick another item. Default Pick another item.

delete Label of button to un-select item. Default Un-select this item.

```
property Nos\Renderer_Item_Picker::$defaultThumbnail
    URL of the default thumbnail
```


Methods

Nos\Renderer_Item_Picker::renderer(\$renderer)

Parameters

- **\$renderer** (*Model*) – Array the attributes.

Returns The <input> tag with JavaScript to initialise it
Displays a item picker renderer in a standalone manner.

Example

Adding a page item picker in a CRUD form configuration:

```
<?php
return array(
    'label' => __('Page:'),
    'renderer' => 'Nos\Renderer_Item_Picker',
    'renderer_options' => array(
        'model' => 'Nos\Page\Model_Page',
        'appdesk' => 'admin/noviusos_page/appdesk',
        'defaultThumbnail' => 'static/apps/noviusos_page/img/64/page.png',
        'texts' => array(
            'empty' => __('No page selected'),
            'add' => __('Pick a page'),
            'edit' => __('Pick another page'),
            'delete' => __('Un-select this page'),
        ),
    ),
);
```

Media Selector

class Nos\Media\Renderer_Media

Extends *Nos\Renderer*.

This renderer is used to pick a file from the media centre.

It's based on the jQuery UI input-file-thumb widget.

Wallpaper



Default UI

Wallpaper



Hover state UI

Wallpaper



Hover state with a selected media UI

Configuration

property `Nos\Media\Renderer_Media::$mode`

Possible values are `image` (default) or `all`.

property `Nos\Media\Renderer_Media::$inputFileThumb`

Options for the `inputFileThumb` widget used to render the UI. See the [inputFileThumb](#) documentation for all available options.

Note: The `inputFileThumb.file` key will automatically be populated with the URL of the media if a value is provided in the renderer.

Methods

`Nos\Media\Renderer_Media::renderer($renderer)`

Parameters

- **\$renderer** (*Model*) – HTML attributes (name, class, id, value, etc.), with a special key `renderer_options`

Returns The `<input>` tag with JavaScript to initialise it
Displays a media selector in a standalone manner.

Example

Adding a media in a CRUD form configuration:

```
<?php
return array(
    'label' => '',
    'renderer' => 'Nos\Media\Renderer_Media',
    'renderer_options' => array(
        'mode' => 'image',
        'inputFileThumb' => array(
            'title' => 'Title of the image',
        ),
    ),
);
```

Displaying a media selector:

```
<?php
echo Nos\Media\Renderer_Media::renderer(array(
```

```

'name' => 'my_image',
'class' => 'some_class',
'value' => 2, // ID of the previously selected media
'renderer_options' => array(
    'mode' => 'image',
    'inputFileThumb' => array(
        'title' => 'Title of the image',
    ),
),
));

```

Page Selector

class `Nos\Page\Renderer_Selector`

Extends `Nos\Renderer`.

This renderer is used to pick a page.

It displays a tree of the pages with radio buttons.



Configuration

property `Nos\Page\Renderer_Selector::$input_name`
Name for the radio input.

property `Nos\Page\Renderer_Selector::$multiple`
Set to true if you want to select multiple pages. Default false.

property `Nos\Page\Renderer_Selector::$selected`
An array, or an array of array iff `multiple` is true, containing:
id Pre-selected page id (value).

model `Nos\Page\Model_Page`

property `Nos\Page\Renderer_Selector::$treeOptions`
Array

Context Context of the pages displayed in the page selector.

property `Nos\Page\Renderer_Selector::$height`
Height of the renderer. Default is 150px.

property `Nos\Page\Renderer_Selector::$width`
Width of the renderer. Default is none.

Methods

`Nos\Page\Renderer_Selector::render($renderer)`

Parameters

- **\$renderer** (*Model*) – Array the attributes.

Returns The `<input>` tag with JavaScript to initialise it
Displays a page selector renderer in a standalone manner.

Example

Adding a page in a CRUD form configuration:

```
<?php
return array(
    'label' => __('Location:'),
    'renderer' => 'Nos\Page\Renderer_Selector',
    'renderer_options' => array(
        'height' => '250px',
    ),
);
```

Displaying a media selector:

```
<?php
echo Nos\Page\Renderer_Selector::render(array(
    'input_name' => 'my_page',
    'selected' => array(
        'id' => 2, // ID of the previously selected page
    ),
    'treeOptions' => array(
        'context' => 'main::en_GB',
    ),
    'height' => '250px',
));
```

Set of radio buttons

class `Nos\Renderer_Radioset`

Extends `Nos\Renderer`.

This renderer is used to display a set of radio buttons.

Status:  Refused

Configuration

property `Nos\Renderer_Radioset::$name`

Name for the radio input.

property `Nos\Renderer_Radioset::$choices`

List of radio buttons. Key is the value and value is an array.

label Text or image to display around the radio button

side_label Text on the side for the selected option

property `Nos\Renderer_Radioset::$value`

Value of the selected input.

property `Nos\Renderer_Radioset::$class`

Class for the container div.

Example

Adding set of radio button in a CRUD form configuration:

```
<?php
return array(
    'label' => __('Status:'),
    'renderer' => '\Nos\Renderer_Radioset',
    'renderer_options' => array(
        'choices' => array(
            'refused' => array(
                'label' => '',
                'side_label' => __('Refused'),
            ),
            'pending' => array(
                'label' => '',
                'side_label' => __('Pending'),
            ),
            'published' => array(
                'label' => '',
                'side_label' => __('Published'),
            ),
        ),
    ),
    'class' => 'flat',
),
);
```

Select Model

class `Nos\Renderer_Select_Model`

Extends `Nos\Renderer`.

This renderer is used to display a `select` tag fill with items from a model.

This renderer manage automatically behaviours *Twinnable* and *Twinnable*
The select is refresh automatically if an item of the model ise created, saved or deleted.

Configuration

property `Nos\Renderer_Select_Model::$model`
The name of the model

property `Nos\Renderer_Select_Model::$multiple`
Set to `true` if you want to select multiple items. Default `false`.

property `Nos\Renderer_Select_Model::$empty_option`
Set to `true` if you want an empty option in select. Default `true`.

property `Nos\Renderer_Select_Model::$choose_label`
The label of the empty option. Default `empty`.

Example

Adding a select model on page in a CRUD form configuration:

```
<?php
return array(
    'label' => __('Location:'),
    'renderer' => 'Nos\Renderer_Select_Model',
    'renderer_options' => array(
        'model' => 'Nos\Page\Model_Page',
    ),
);
```

Tag

class `Nos\Renderer_Tag`

Extends `Nos\Renderer`.

This renderer is used to add tags on an item.

It's based on jQuery UI Tag-it.

Tags



Configuration

Any options for the jQuery UI Tag-it widget. See the [documentation](#) for all available options.

Example

Adding a tags editor in a CRUD form configuration:

```
<?php
return array(
    'label' => '',
    'renderer' => 'Nos\Renderer_Tag',
    'renderer_options' => array(
        'model' => 'Model_Tag',
        'label_column' => 'tag_label',
        'relation_name' => 'tags'
    ),
);
```

Text

class Nos\Renderer_Text

This renderer will show the value of the field as plain-text.

Example

Adding a text in a CRUD form configuration:

```
<?php
return array(
    'label' => '',
    'renderer' => 'Nos\Renderer_Text',
);
```

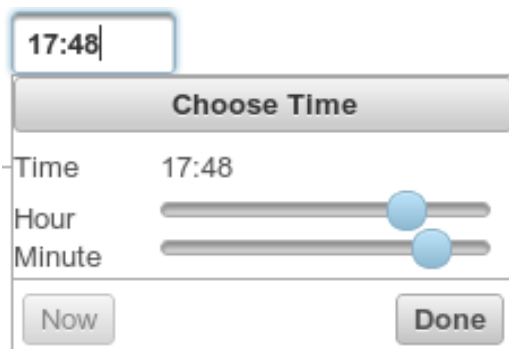
Time Picker

class Nos\Renderer_Time_Picker

Extends *Nos\Renderer*.

This renderer is used to pick a time.

It's based on jQuery UI Time Picker.



Configuration

All the jQuery UI Time Picker options can be used.

Methods

Nos\Renderer_Time_Picker::**renderer**(\$renderer)

Parameters

- **\$renderer** (*Model*) – HTML attributes (name, class, id, value, etc.), with a special key `renderer_options`

Returns The <input> tag with JavaScript to initialise it
Displays a time picker in a standalone manner.

Example

Adding a time picker in a CRUD form configuration:

```
<?php
return array(
    'label' => '',
    'renderer' => 'Nos\Renderer_Time_Picker',
    'renderer_options' => array(
        // jQuery UI Time Picker options
    ),
);
```

Displaying a time picker:

```
<?php
echo Nos\Renderer_Time_Picker::renderer(array(
    'name' => 'my_time',
    'class' => 'some_class',
    'value' => '17:48',
    'renderer_options' => array(
        // jQuery UI Time Picker options
    ),
));
```

Virtual name

class Nos\Renderer_Virtualname

Extends *Nos\Renderer*.

This renderer is used for modify an item slug.

See also:

NosOrm_Behaviour_Virtualname

URL: *

 .html Use title

Example

Adding a Virtual name in a CRUD form configuration:

```
<?php
return array(
    'label' => '',
    'renderer' => 'Nos\Renderer_Virtualname',
);
```

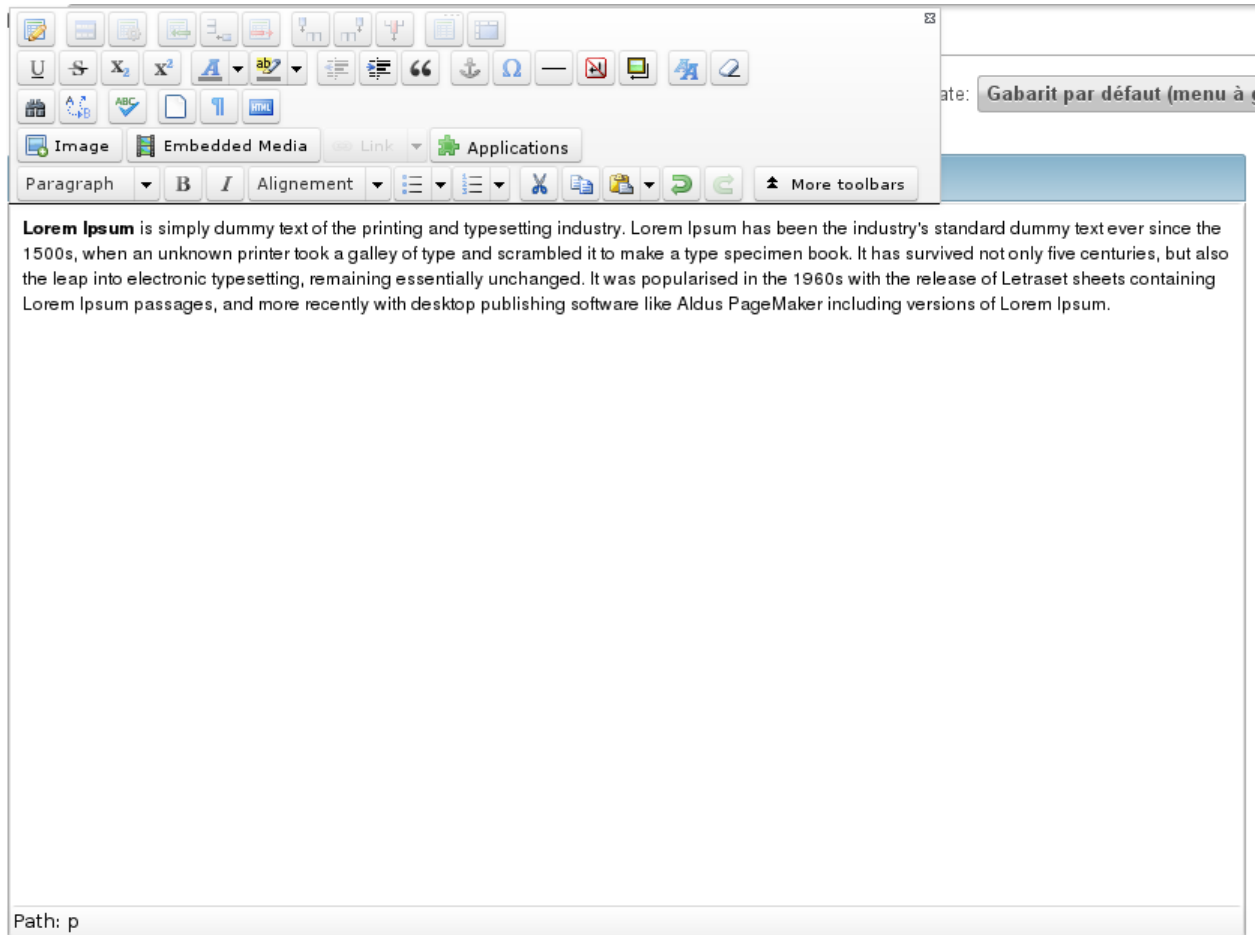
WYSIWYG

class `Nos\Renderer_Wysiwyg`

Extends `Nos\Renderer`.

This renderer is used to display a WYSIWYG editor.

It's based on [TinyMCE](#).



Configuration

Any options for the TinyMCE WYSIWYG editor. See the [TinyMCE documentation](#) for all available options.

Methods

Nos\Renderer_Wysiwyg::**renderer** (*\$renderer*)

Parameters

- **\$renderer** (*Model*) – HTML attributes (name, class, id, value, etc.), with a special key `renderer_options`

Returns The `<textarea>` tag with JavaScript to initialise it
Displays a TinyMCE WYSIWYG editor in a standalone manner.

Example

Adding a WYSIWYG in a CRUD form configuration:

```
<?php
```

```
return array(
  'label' => '',
  'renderer' => 'Nos\Renderer_Wysiwyg',
  'renderer_options' => array(
    // TinyMCE options
  ),
);
```

Displaying a WYSIWYG editor:

```
<?php

echo Nos\Renderer_Wysiwyg::renderer(array(
  'name' => 'my_wysiwyg',
  'value' => '<p>My contents</p>',
  'renderer_options' => array(
    // TinyMCE options
  ),
));
```

1.1.10 Views

Standard layout

View path: `nos::form/layout_standard`.

The screenshot shows a web form for creating a page. At the top left is a 'medias' icon. Next to it is a 'Main' label with a flag icon. The title field contains 'Homepage' and is labeled 'title'. Below the title is a status bar with 'Published', 'Type: Page', and 'Template: Default template (top menu)'. The main content area is labeled 'Content' and 'content'. On the right side, there is a sidebar with 'Menu', 'URL (page address)' (containing 'homepage.html'), 'SEO', and 'Advanced options'.

Params:

title Main fields at the top of the form.

medias Medias are shown at the left of the title.

large Default layout has spaces on the sides. If true, the form will use 100% of the width.

save Which field is the save button.

subtitle Fields under title.

content It has the same syntax as the **full** version of the *crud layout*.

menu Shown on the right. Data for the **accordion** view (see below). Optionally comes with an **simplified syntax**.

Standard syntax for the accordion:

```
array(  
  'first_accordion' => array(  
    'title' => __('My first accordion'),  
    'fields' => array('field_1', 'field_2'),  
  ),  
  'second_accordion' => array(  
    'title' => __('My second accordion'),  
    'fields' => array('field_3', 'field_4'),  
  ),  
)
```

- if `title` is omitted, it will use the key as default value ;
- if `fields` is omitted, it will use the whole array as the list of fields.

(so you can't omit the `fields` if you set a `title`).

Simplified syntax for the accordion:

```
array(  
  __('My first accordion') => array(  
    'field_1',  
    'field_2',  
  ),  
  __('My second accordion') => array(  
    'field_3',  
    'field_4',  
  ),  
)  
  
// OR  
  
array(  
  __('My first accordion') => array(  
    'fields' => array('field_1', 'field_2'),  
  ),  
  __('My second accordion') => array(  
    'fields' => array('field_4', 'field_4'),  
  ),  
)
```

Expander

View path: `nos::form/expander`

See also:

Wijmo Expander

Params:

- title** Expander's title.
- options** Options for the wijexpander.
- content** Either a plain *string*, a *callable*, or a *view + params* pair (array).
- show_when_empty** Optional. Default false. Should the expander be displayed if there is no content inside of it?

Accordion

View path: `nos::form/accordion`

See also:

Wijmo Accordion

For each accordion, you can either set:

- a **view + params** pair ;
- or a **fields** list.

Params:

- accordions** A list of accordions
 - title** Optional. Default value is *empty string*.
 - view** Optional. Path to a view.
 - params** Optional. Data for the `view`.
 - fields** Optional. A list of field names.
 - field_template** Optional. Template to wrap each field. Default value is `<p>{field}</p>`
 - header_class** Optional. CSS classes for the `<h3>` tag.
 - content_class** Optional. CSS classes for the `<div>` panel.
 - show_when_empty** Optional. Default false. Should the panel be displayed if there is no content inside of it?

Fields

View path: `nos::form/fields`

Params:

- begin** String to display at the beginning.
- end** String to display at the end.
- fields** A list of field names.
- callback** Optional. Callback function used to render the field. By default, a field will be rendered by calling its `build()` method.
- show_when_empty** Optional. Default false. Should the `begin` and `end` variables be displayed if there is no content inside of it?

Permissions standalone

View path: nos::admin/permissions/standalone

Params:

list A list of permissions

label Label of the permission.

checked `boolean` Initial state when the permission is not set (default: `false`).

permission_name (optional) Name of the permission. Default is to re-use this array key (see example below).

category_key (optional) Category of the permission

1.1.11 Events

Configuration

config|<path>

config|<path> (\$config)

A configuration file is loaded.

Parameters

- **&\$config** (*array*) – The loaded array from the file

```
<?php
// Listening to the event
Event::register_function('config|nos::controller/admin/page/page', function(&$config)
{
    // ...
})
// Triggering the event
$config = Config::load('nos::controller/admin/page/page', true);
```

Also works with absolute paths :

```
<?php
// Listening to the event
Event::register_function('config|/data/www/novius-os/local/config/test.php', function(&$config)
{
    // ...
})
// Triggering the event (file must exists)
$config = Config::load('/data/www/novius-os/local/config/test.php', true);
```

config|<group>

config|<group> (\$config)

A configuration array is loaded.

Parameters

- **&\$config** (*array*) – The loaded array

```
<?php

// Listening to the event
Event::register_function('config|group', function(&$config)
{
    // ...
}
// Triggering the event
Config::load(array(), 'group');
```

Front-office (website)

front.start

front.start(\$params)

An .html page is requested.

Parameters

- **\$params** (*array*) –
 - **&\$url** *string* Current URL (without leading domain, with trailing .html)
 - **&\$cache_path** *string* Which entry should be checked / written in the cache

```
<?php

Event::register_function('front.start', function($params)
{
    $url =& $params['url'];
    $cache_path =& $params['cache_path'];
    // ...
});
```

front.parse_wysiwyg

front.parse_wysiwyg(\$html)

Additional processing on a WYSIWYG (HTML content).

Parameters

- **\$html** (*string*) – HTML content, already pre-processed by the core

```
<?php

Event::register_function('front.parse_wysiwyg', function(&$content)
{
    // ...
});
```

front.display

front.display(\$html)

Additional processing on the page (HTML content).

Parameters

- **\$html** (*string*) – HTML content of the page (will be written in the cache)

```
<?php
Event::register_function('front.display', function(&$html)
{
    // ...
});
```

front.pageFound

front.pageFound(\$params)

Page to display have been found.

Parameters

- **\$params** (*array*) –

\$page *Nos\Page\Model_Page*

```
<?php
Event::register('front.pageFound', function($params)
{
    $page = $params['page'];
    // ...
});
```

front.response

front.response(\$params)

Before that the response be send.

Parameters

- **\$params** (*array*) –

&\$content *string* The response body

&\$status *int* The HTTP response status for this response

&\$headers *array* HTTP headers for this response

```
<?php
Event::register_function('front.response', function($params)
{
    $content =& $params['content'];
    $status =& $params['status'];
    $headers =& $params['headers'];
    // ...
});
```


front.404NotFound

front.404NotFound(\$params)

An .html page was requested, but not found.

Parameters

- **\$params** (*array*) –

\$url string Current URL (without leading domain, with trailing .html)

```
<?php
Event::register('front.404NotFound', function($params)
{
    $url = $params['url'];
    // ...
});
```

404 entry point

New in version 0.2.0.2.

404.start

404.start(\$params)

A inexistant file is requested. Can be media or attachment file.

Parameters

- **\$params** (*array*) –

&\$url string URL requested (without leading domain)

```
<?php
Event::register_function('404.start', function($params)
{
    $url =& $params['url'];
    // ...
});
```

404.mediaFound

404.mediaFound(\$params)

Media to send have been found.

Parameters

- **\$params** (*array*) –

\$url string The requested URL

\$media *Nos\Media\Model_Media*

&\$send_file string The path of the file to be sent

```
<?php
Event::register_function('404.mediaFound', function($params)
{
    $url = $params['url'];
    $media = $params['media'];
    $send_file =& $params['send_file'];
    // ...
});
```

404.mediaNotFound

404.mediaNotFound(\$url)

A inexistant media file is requested.

Parameters

- **\$url** (*string*) – URL requested (without leading domain)

```
<?php
Event::register('404.mediaNotFound', function($url)
{
    // ...
});
```

404.attachmentFound

404.attachmentFound(\$params)

Attachment file to send have been found.

Parameters

- **\$params** (*array*) –
 - \$url** *string* The requested URL
 - \$attachement** *Nos\Attachment*
 - &\$send_file** *string* The path of the file to be sent

```
<?php
Event::register_function('404.attachmentFound', function($params)
{
    $url = $params['url'];
    $attachement = $params['attachement'];
    $send_file =& $params['send_file'];
    // ...
});
```

404.attachmentNotFound

404.attachmentNotFound(\$url)

A inexistant attachment file is requested.

Parameters

- **\$url** (*string*) – URL requested (without leading domain)

```
<?php
Event::register('404.attachmentNotFound', function($url)
{
    // ...
});
```

404.end**404.end(\$url)**

A inexistant file is requested. No attachment or media file matched the URL.

Parameters

- **\$url** (*string*) – URL requested (without leading domain)

```
<?php
Event::register('404.end', function($url)
{
    // ...
});
```

Back-office**admin.launchers****admin.launchers()**

Triggered after recuperation and before parsing of installed launchers.

Parameters

- **\$launchers** (*array*) – Associative array of installed launchers

```
<?php
Event::register_function('admin.launchers', function(&$launchers)
{
    // ...
});
```

New in version 4.2.

admin.loginSuccess**admin.loginSuccess()**

A user just successfully connected to the back-office.

```
<?php
Event::register('admin.loginSuccess', function()
{
    // ...
});
```

admin.loginFail

admin.loginFail()

A user is trying to connect to the back-office with an email or an invalid password.

```
<?php
Event::register('admin.loginFail', function()
{
    // ...
});
```

admin.loginSuccessWithCookie

admin.loginSuccessWithCookie()

A user just successfully re-connected to the back-office using the cookie.

```
<?php
Event::register('admin.loginSuccessWithCookie', function()
{
    // ...
});
```

admin.loginFailWithCookie

admin.loginFailWithCookie()

A user has failed to connect to the back-office using the cookie.

```
<?php
Event::register('admin.loginFailWithCookie', function()
{
    // ...
});
```

Emails

email.before_send

email.before_send(\$email)

Before sending an email.

Parameters

- **\$email** (*object*) – Email_Driver instance

```
<?php
Event::register('email.before_send', function($email)
{
    // ...
})
```

email.after_send**email.after_send(\$email)**

After a mail was sent.

Parameters

- **\$email** (*object*) – Email_Driver instance

```
<?php
Event::register('email.after_send', function($email)
{
    // ...
})
```

email.error**email.error(\$params)**

On email send error.

Parameters

- **\$params** (*object*) – Email_Driver instance

\$email The email driver object

\$exception The exception object

```
<?php
Event::register('email.error', function($params)
{
    $email = $params['email'];
    $exception = $params['exception'];
    // ...
})
```

Deprecated**nos.deprecated****nos.deprecated(\$params)**

A deprecated message will be write in log.

Parameters

- **\$params** (*array*) –
 - \$message** The message to log.
 - \$since** The version since deprecation.
 - \$debug_backtrace** The debug_backtrace

```
<?php
Event::register('nos.deprecated', function($params)
{
    $message = $params['message'];
    $since = $params['since'];
    $debug_backtrace = $params['debug_backtrace'];
    // ...
});
```

Migration

migrate.exception

migrate.exception(\$params)

A migration throw an exception. Exception propagation can be stopped.

Parameters

- **\$params** (*array*) –
 - \$e** The exception object
 - &\$ignore** boolean If the event change is value to true, the exception will not be propagated.
 - \$migration** array The migration array

```
<?php
Event::register_function('migrate.exception', function($params)
{
    $e = $params['e'];
    $ignore = $params['ignore'];
    $migration =& $params['migration'];
    // ...

    $ignore = true; // The exception will not be propagated
});
```

1.1.12 FuelPHP

Glossary

Orm\Model

Native FuelPHP ORM Model. The M of MVC.

See http://fuelphp.com/docs/packages/orm/creating_models.html

Controller

The C of MVC.

See <http://fuelphp.com/docs/general/controllers/base.html>

Relations

FuelPHP ORM mechanism to link Model between them.

See <http://fuelphp.com/docs/packages/orm/relations/intro.html>

Observers

FuelPHP ORM mechanism to add event on Model.

See <http://fuelphp.com/docs/packages/orm/observers/intro.html>

Environments

FuelPHP manages environments natively.

See <http://fuelphp.com/docs/general/environments.html>

HMVC

A FuelPHP concept.

See <http://fuelphp.com/docs/general/hmvc.html>

has_many

A native *FuelPHP ORM relation*.

See http://fuelphp.com/docs/packages/orm/relations/has_many.html

belongs_to

A native *FuelPHP ORM relation*.

See http://fuelphp.com/docs/packages/orm/relations/belongs_to.html

many_many

A native *FuelPHP ORM relation*.

See http://fuelphp.com/docs/packages/orm/relations/many_many.html

Model->find()

Native method of FuelPHP ORM Model.

See <http://fuelphp.com/docs/packages/orm/crud.html#read>

Extended Classes

We extended some classes from FuelPHP. The additions we made are listed in this page.

- *Core Classes*
 - *Arr*
 - *Autoloader*
 - *Cache_Storage_File*
 - *Config*
 - *Date*
 - *Email_Driver*
 - *Event_Instance*
 - *Fieldset and Fieldset_Field*
 - *File*
 - *Finder*
 - *Image*
 - *Log*
 - *Module*
 - *Response*
 - *Security*
 - *Session*
 - *Str*
 - *View*
- *ORM Package*
 - *Model*
 - *Query*

Core Classes

Arr Added the static **recursive_filter**(\$array, \$callback) method.

Autoloader

- Filename suffixes are available for *model*, *controller*, and *view*, as follow: **model.model.php**, **controller.ctrl.php**, **view.view.php**. For instance, if you have a `Controller_Admin_Page` controller, its filename can either be `classes/controller/admin/page.php` or `classes/controller/admin/page.ctrl.php`.
- It is possible to add new class aliases and access existing aliases using the **addClassAlias** and **getClassAliases** functions.
- The **generateSuffixedNamespace** function allow to generate a customized namespace for files such as tasks or migrations

Cache_Storage_File **__construct()** will try to create the specified cache directory when it doesn't exists.

Config Added events to alter the loaded configuration.

Date

- Added the static method **compare**(\$date1, \$date2)
- Added the instance method **modify**(\$modify)

Email_Driver **send()**: we added *two events* `email.before_send` and `email.after_send`

Event_Instance Added two methods **register_function()** and **trigger_function()** to deal with by-reference arguments.

Fieldset and Fieldset_Field

- Added the static method **Fieldset::build_from_config()**
- Added the public method **\$fieldset->getInstance()**: it gets the current model instance processed by the fieldset
- Integration of **renderers** in the methods of these two classes

File Added the method **relativeSymlink()**

Finder

- Added the Novius OS framework path in the searched paths
- Allow for filename suffixes for *config*, *views* and *lang* files (same rule as the `Autoloader`, see above)

Image Added the static method **shrink(\$max_width, \$max_height = null, \$keepar = true, \$pad = false)**

Log

- Added the static method **Log::deprecated(\$message, \$since)**
- Added the static method **Log::exception(\$e, \$prefix)**

Module Allow for a custom namespace retrieved from the config when loading a module (used in our applications).

Response Added the static method **json()** to return JSON data

Security Added the method **htmlspecialchars()**

Session Added the static method **user()** to retrieve the current logged in user in the back-office.

Str Added the static methods **textToHtml(\$text)**

View Added the static method **redirect(\$from, \$to, \$callback)**

ORM Package

Model

- Added a cache for `Model::$_properties`
- Added *behaviours*
- Added some *relations*
- Added two options in build options:

before_where

An array, `search_column => $replace`, where `$replace` can be a string or a closure which takes the `$condition` array by parameter
If `$replace` return null, the `$condition` will be remove from the where options

before_order_by

An array, `search_column => $replace`, where `$replace` can be a string or a closure which takes the entry column by parameter
If `$replace` return null, the column will be remove from the `order_by` options

Query Added getters for alias, connection and model.

1.2 Javascript API

1.2.1 \$ functions

\$

In this documentation, `$` means the jQuery object itself.

```
$.nosNotify('message');
```

Functions

nosDataReplace

`$.nosDataReplace` (*object*, *data*)

Replaces placeholder defined by the `{{placeholder}}` pattern in a string or JSON.

Arguments

- **object** (*mixed*) – A string or a JSON, where to search placeholder to replace.
- **data** (*JSON*) – A JSON, `placeholder => replacement` value.

Returns Initial object with placeholders replaced.

```
$.nosDataReplace(obj, data);

$.nosDataReplace('exemple {{foo}}', {foo : 'bar'});
// returns 'exemple bar'

$.nosDataReplace({
  astring: 'example {{foo}}',
  json: {
    string: 'sample {{bar}}',
  }
},
{
  foo : 'bar',
  bar : 'foo'
});
//returns {
```

```
//    astring: 'example bar',
//    json: {
//        string: 'sample foo',
//    }
```

nosNotify

`$.nosNotify (message[, type])`

Displays notification(s) to the user. This is a wrapper of the jQuery plugin [Pines Notify](#).

Arguments

- **message** (*mixed*) – string The message to display or a JSON for special configuration.
- **type** (*string*) – Type of the message. Can be notice (default), info, success or error.

```
$.nosNotify('message');

$.nosNotify('message', 'error');

$.nosNotify({
    title: 'It\'s working',
    type: 'success'
    sticker: false, // Don't provide a button for the user to manually stick the notice.
    hide: false, // Don't remove the notification after a delay.
});
```

nosUIElement

`$.nosUIElement (element[, data])`

Arguments

- **element** (*JSON*) – JSON definition of the element to create.
 - type** string. button (default) or link. See `$.container.nosFormUI()` for buttons data, those of links are almost the same.
 - label** string. Element label.
 - action** {}. Action bound to the click event. See `$.container.nosAction()`.
 - bind** {}. Event(s) bound to the element. See `$.bind()`.
 - disabled** boolean or string. If true or string, the element is disabled. If it is a string, it will fill the element's title.
 - menu** {}. If set, binds a context menu to element.
 - menus** [{}]. Array containing each menu line.
 - action** {}. Action bound to the click event of the menu line. See `$.container.nosAction()`.
 - content** string. HTML content of the menu line.

label string. Label of the menu line.

icon Icon name (See [icons name of jQuery UI](#)) without the `ui-icon-` prefix.

iconClasses CSS classes of icon.

iconUrl Icon URL.

options {}. Settings for [Wijmo widget wijmenu](#).

- **data** (JSON) – Data attached to element and passed to action. See `$container.nosAction()`.

Returns A DOM element detach from DOM.

```
$.nosUIElement({
  type: 'button',
  label: 'A button'
},
{
  id: 5
  foo: 'bar'
});
```

Note: `content` and `label` are exclusive. You don't need both. Same goes for the `icon` (either use a name, CSS classes or an URL).

1.2.2 \$container functions

\$container

In this documentation, `$container` means a jQuery collection of DOM elements.

```
$('#id').nosTabs('open', {
  url: 'url',
  iframe: false,
  label: 'Title',
  labelDisplay: true,
  iconUrl: 'icon.png',
  iconSize: 16
});
```

Function with sub-functions Many functions of the Novius OS Javascript API have sub-functions. The first parameter is the name of a sub-function. If this parameter is omitted, the default sub-function is called.

```
$('#id').nosTabs('open', {
  url: 'url',
  iframe: false,
  label: 'Title',
  labelDisplay: true,
  iconUrl: 'icon.png',
  iconSize: 16
});

// This call do the same thing that the previous
$('#id').nosTabs({
  url: 'url',
```

```

        iframe: false,
        label: 'Title',
        labelDisplay: true,
        iconUrl: 'icon.png',
        iconSize: 16
    });

```

Functions

nosAction

`$container.nosAction (action[, data])`

Executes an action

Arguments

- **action** (*JSON*) – JSON defines the action to execute. JSON must have an `action` key, can be :

nosTabs *nosAction.nosTabs*

nosDialog *nosAction.nosDialog*

confirmationDialog *nosAction.confirmationDialog*

nosAjax *nosAction.nosAjax*

window.open *nosAction.windowOpen*

document.location *nosAction.documentLocation*

nosMediaVisualise *nosAction.nosMediaVisualise*

dialogPick *nosAction.dialogPick*

- **data** (*JSON*) – JSON contextual data. Used to replace placeholder in `action` by calling `$.nosDataReplace()`.

Actions list

- *nosTabs*
- *nosDialog*
- *confirmationDialog*
- *nosAjax*
- *window.open*
- *document.location*
- *nosMediaVisualise*
- *dialogPick*

nosTabs

`nosAction.nosTabs`

Action *nosTabs*

Method Any sub-function name of `$container.nosTabs()`.

Tab First parameter passed to sub-function of `$container.nosTabs()`.

Dialog Second parameter passed to sub-function of `$container.nosTabs()`.

```

$(domContext).nosAction({
    action: 'nosTabs',

```

```
        method: 'add',
        tab: {
            url: 'path/url',
            label: 'A title',
            iconUrl: 'url/of/icon.png'
        },
        dialog: {
            width: 800,
            height: 400
        }
    });
```

nosDialog

nosAction.nosDialog

Action nosDialog

Dialog Second parameter passed to *nosDialog.open()*.

```
$(domContext).nosAction({
    action: 'nosDialog',
    dialog: {
        ajax: true,
        contentUrl: 'path/url/',
        title: 'A title',
        width: 500,
        height: 200
    }
});
```

confirmationDialog

nosAction.confirmationDialog

A special form of *nosAction.nosDialog* for confirmation.

Action confirmationDialog

Dialog Second parameter passed to *nosDialog.open()*.

```
$(domContext).nosAction({
    action: 'confirmationDialog',
    dialog: {
        contentUrl: 'path/url/',
        title: 'A title'
    }
});
```

nosAjax

nosAction.nosAjax

Action nosAjax

Params Settings of *\$container.nosAjax()*.

```
$(domContext).nosAction({
    action: 'nosAjax',
    params: {
        url: 'path/url',
        method: 'POST',
        data: {
            id: '{{_id}}'
        }
    }
});
```

```

    )
  }, {
    _id: 5
  });

```

window.open**nosAction.windowOpen**

Open a new browser window.

Action window.open**Url** URL of the new window.

```

$(domContext).nosAction({
  action: 'window.open',
  url: 'path/url'
});

```

document.location**nosAction.documentLocation**

Redirects the browser window to a new URL.

Action document.location**Url** The new URL.

```

$(domContext).nosAction({
  action: 'document.location',
  url: 'path/url'
});

```

nosMediaVisualise**nosAction.nosMediaVisualise**

This action has no parameters. It only depends on the data passed with action. See [\\$.nosMediaVisualise\(\)](#).

Action nosMediaVisualise

```

$(domContext).nosAction({
  action: 'nosMediaVisualise'
}, {
  path: 'url/of/media/',
  image: true
});

```

dialogPick**nosAction.dialogPick****Action** dialogPick**Event** Name of the event to trigger.

```

$(domContext).nosAction({
  action: 'dialogPick',
  'event' => 'event_name'
});

```

nosAjax

`$container.nosAjax` (*options*)

Performs an asynchronous HTTP (AJAX) request. This is a wrapper of `jQuery.ajax()`.

Arguments

- **options** (*JSON*) – JSON that configure the AJAX request. Same that `jQuery.ajax()` with some differences:
 - Some defaults options.
 - Callback functions `success` and `error` are monkey-patched to execute defaults operations.
 - * Function `$container.nosAjaxSuccess()` is automatically called if the request succeeds and return type is JSON.
 - * Function `$container.nosAjaxError()` is automatically call if the request fails.

```
$(domContext).nosAjax({
  dataType: 'json', // datatype is default 'json'.
  type: 'POST', // The request is made in POST by default.
  data: {}
});
```

nosAjaxSuccess

`$container.nosAjaxSuccess` (*options*)

Process JSON of a succeeded AJAX request.

Arguments

- **options** (*JSON*) –
 - notify** A string or {object}. Use for call `$.nosNotify()`. If only a string is given, notification type will be 'notice', otherwise call `$.nosNotify` with the object parameters.
 - error** A string or {object}. Use for call `$.nosNotify()` with error for notification type.
 - action** A string or {object}. Use for call `$container.nosAction()`.
 - closeDialog** Boolean. If true, call `nosDialog.close()`.
 - closeTab** Boolean. If true, call `nosTabs.close()`.
 - replaceTab** {}. Use to call `nosTabs.update()`.
 - redirect** string. Redirect browser window to this URL.
 - dispatchEvent** Use to call `$container.dispatchEvent()`.
 - internal_server_error** Display error and backtrace in the browser console.

nosAjaxError

`$container.nosAjaxError` (*jqXHR, textStatus*)

Process a failed AJAX request.

Display the reconnection popup if the error comes to an end of the authentication session.
Display a notification otherwise.

Arguments

- **jqXHR** (*jqXHR*) – An XMLHttpRequest object.
- **textStatus** (*string*) – Text status of the AJAX request.

nosDialog

`$container.nosDialog([method[, options[, ...]]])`

Manages back-office's popup. This is a *function with sub-functions*.

Arguments

- **method** (*mixed*) – The sub-function name, `open` (default) or `close`. If omitted this is the first parameter of the default sub-function `nosDialog.open()`.
- **options** (*mixed*) – Parameters of the sub-function.

nosDialog('open')

`nosDialog.open(dialog)`

Opens a popup. This is a wrapper of [Wijmo widget Dialog](#).

A popup can be created in three ways:

- From an existing DOM element.
- From an URL loaded into an `iframe`.
- From an URL loaded into a `<div>` from an AJAX request.

Catch events dispatched by `$.nosDispatchEvent()`.

Arguments

- **options** (*JSON*) – JSON that configures the popup. Same as `$.wijdialog()` with some differences:

Some defaults options:

width Container width minus 200 pixels.

height Container height minus 100 pixels.

modal True

captionButtons Buttons `pin`, `refresh`, `toggle`, `minimize` and `maximize` are hidden.

Additional options:

destroyOnClose boolean. Destroys the popup when it's closed. Default true.

ajax boolean. If true, `contentUrl` is loaded using AJAX rather than using an `iframe`. Default true.

ajaxData `{}`. Data passed to the AJAX request (if `ajax` is true).

```
// Popup containing the HTML result of the AJAX request on contentUrl
$(domContext).nosDialog('open', {
  contentUrl: 'path/url',
  ajaxData: {
    foo: 'bar'
  },
  title: 'title of the popup',
```

```

        height: 400,
        width: 700
    });

    // Same as previous, without first parameter, open is the default sub-function
    $(domContext).nosDialog({
        contentUrl: 'path/url',
        ajaxData: {
            foo: 'bar'
        },
        title: 'title of the popup',
        height: 400,
        width: 700
    });

    // Popup containing an iframe with contentUrl href
    $(domContext).nosDialog({
        iframe: true
        contentUrl: 'path/url',
        title: 'title of the popup',
        height: 400,
        width: 700
    });

    // Popup containing <div> with the id 'id_de_div'
    $('#id_de_div').nosDialog({
        title: 'title of the popup',
        height: 400,
        width: 700
    });

```

nosDialog('close')

`nosDialog.close()`

Closes the current popup dialog (i.e. from the current `js:data::DOM container <$container>`).

```
$(domContext).nosDialog('close');
```

nosFormUI

`$container.nosFormUI()`

Will perform UI enhancements on DOM elements on all the children of `js:data::$container` using [Wijmo](#) and [jQuery UI](#) widgets.

Element with a `.notransform` CSS class will be left unchanged.

Input text Using the `wijtextbox` widget.

Select Using the `wijdropdown` widget.

Checkbox Using the `wijcheckbox` widget.

Radio Using the `wijradio` widget.

Expander

Elements with the `.expander` CSS class using `wijexpander` widget.

You can set options with the `data-wijexpander-options` HTML attribute (JSON for additional settings).

Accordion Elements with CSS class `.accordion` using `wijaccordion` widget.

Submit

Using the [button widget](#). | You can set options with the `data-` HTML attributes (additional settings).

red Makes the button red.

icons {}. Define icons for the button.

icon Defines the left icon using a name (See [icons names of jQuery UI](#)).

iconClasses Defines the left icon CSS classes for left icon.

iconUrl Define URL of the left icon.

```
$(domContext).nosFormUI();
```

nosFormAjax

`$container.nosFormAjax()`

Will use the [jquery-form](#) plugin to submit any form inside `js:data::$container` using Ajax rather than the native browser action.

The default response data type is `json`, and the success and error callbacks functions will call `$container.nosAjaxSuccess()` and `$container.nosAjaxError()`.

```
$(domContext).nosFormAjax();
```

nosFormValidate

`$container.nosFormValidate()`

Will use the [jquery-validation](#) plugin to perform inline validation on any form inside `js:data::$container`.

It's already configured to display error messages nicely, and take into account some specificity from the UI enhancements (like the accordion).

Most forms are using it, since it's part of the form's standard layout.

```
$(domContext).nosFormValidate({});
```

nosMedia

`$container.nosMedia([options])`

Transforms an `<input type="hidden">` element into a media selector UI in Media Center using plugin [inputFileThumb](#).

Arguments

- **options** (*JSON*) – Optional options

mode string. Can be `image` (default) or `all`.

inputFileThumb {}. options for [inputFileThumb](#) plugin.

```
$(input).nosMedia();

$(input).nosMedia({
  mode: 'image',
  inputFileThumb: {
    title: 'a title'
  }
});
```

```
    }
  });
```

See also:

Media Selector.

nosMediaVisualise

`$.nosMediaVisualise (media)`

Displays a media, in a popup for images or in a new browser window for other documents (like PDF).

Arguments

- **media** (*JSON*) – Media parameters

path string. Media URL.

image boolean.

```
$.nosMediaVisualise({
  path: 'url/of/media/',
  image: true
});
```

nosOnShow

`$container.nosOnShow ([method[, options[, ...]]])`

Special API which delays the rendering of UI elements when they become visible. A lot of UI elements don't initialise correctly when they are hidden (they can't calculate sizes properly).

This is a *function with sub-functions*.

Arguments

- **method** (*mixed*) – The sub-function name, `show` (default), `one` or `bind`. If omitted, this is the first parameter of the default sub-function `nosOnShow.show()`.
- **options** (*mixed*) – Parameters of the sub-function.

nosOnShow('show')

`nosOnShow.show()`

Triggers all functions bounded with `nosOnShow.bind()` for any children of `$container`.

Warning: You have to actually show the element before calling this function.

```
$(domContext).show().nosOnShow();

// Or
$(domContext).show().nosOnShow('show');
```

nosOnShow('one')

`nosOnShow.one (callback)`

Binds a callback function which will be called only the one time (at the first display).

Arguments

- **callback** (*function*) – A callback function.

```
$(element).nosOnShow('one', function() {
    $(this).widget();
});
```

nosOnShow('bind')

`nosOnShow.bind` (*callback*)

Binds a callback function which will be called each time that the element becomes visible.

Arguments

- **callback** (*function*) – A callback function.

```
$(element).nosOnShow('bind', function() {
    $(this).widgetRefresh(); // widgetRefresh don't exist, it's an example.
});
```

nosTabs

`$container.nosTabs` (*[method[, options[, ...]]*)

Manages back-office's tabs. This is a *function with sub-functions*.

Arguments

- **method** (*mixed*) – The sub-function name, `open` (default), `add`, `close`, `update` or `current`. If omitted, this is the first parameter of the default sub-function `nosTabs.open()`.
- **options** (*mixed*) – Parameters of the sub-function.

nosTabs('open')

`nosTabs.open` (*tab[, dialogOptions]*)

Open a new tab or re-open an existing tab if it has the same URL.

Arguments

- **tab** (*mixed*) – JSON definition of tab.
 - url** Required. Tab URL.
 - iframe** If true, open tab in an iframe. Default `false`.
 - label** Tab label.
 - labelDisplay** If false, don't display the label, only the icon. Default `true`.
 - iconUrl** Icon URL.
 - iconSize** Icon size in pixel (square icon). Default 16.
- **dialogOptions** (*JSON*) – Within a popup, a tab will rather open another new popup instead (by calling `$container.nosDialog()`). This parameter set options for `$container.nosDialog()`.

```
$(domContext).nosTabs('open', {
    url: 'path/url',
    iframe: false,
    label: 'title',
    labelDisplay: true,
    iconUrl: 'path/icon.png',
    iconSize: 16
});
```

```
// Call simplified
$(domContext).nosTabs({
    url: 'path/url',
    iframe: false,
    label: 'title',
    labelDisplay: true,
    iconUrl: 'path/icon.png',
    iconSize: 16
});
```

nosTabs('add')

`nosTabs.add` (*tab* [, *dialogOptions*, *position*])

Adds a new tab, even if an existing has the same URL.

Arguments

- **tab** (*mixed*) – JSON definition of tab.
 - url** Required. Tab URL.
 - iframe** If true, open tab in an iframe. Default *false*.
 - label** Tab label.
 - labelDisplay** If false, don't display the label, only the icon. Default *true*.
 - iconUrl** Icon URL.
 - iconSize** Icon size in pixel (square icon). Default 16.
- **position** (*string*) – Position of the new tab. Can be *end*, *before* or *after* the current tab of the `js:data::jQuery $container <$container>`.
- **dialogOptions** (*JSON*) – If DOM element in jQuery container is in popup, open a new popup by calling `$container.nosDialog()` instead of a tab. This parameter set options for `$container.nosDialog()`.

```
$(domContext).nosTabs(
    'add',
    {
        url: 'path/url',
        iframe: false,
        label: 'title',
        labelDisplay: true,
        iconUrl: 'path/icon.png',
        iconSize: 16
    },
    'end'
);
```

nosTabs('close')

`nosTabs.close` ()

Close current tab (compared to the tab where is the DOM element in jQuery container).

```
$(domContext).nosTabs('close');
```

nosTabs('update')

`nosTabs.update` (*tab*)

Update current `js:data::$container` tab. Can load a new URL.

Arguments

- **tab** (*mixed*) – JSON definition of tab.
 - url** Required. Tab URL.
 - label** Tab label.
 - labelDisplay** If false, don't display the label, only the icon. Default `true`.
 - iconUrl** Icon URL.
 - iconSize** Icon size in pixel (square icon). Default 16.
 - reload** If true and `url` is set, load the new URL in the current tab. Default `false`.

```
$(domContext).nosTabs('update', {
  url: 'path/url',
  label: 'Title',
  labelDisplay: true,
  iconUrl: 'path/icon.png',
  iconSize: 16
  reload: true
});
```

nosTabs('reload')

`nosTabs.reload()`

Reload current `js:data::$container` tab.

```
$(domContext).nosTabs('reload');
```

nosTabs('current')

`nosTabs.current(tab)`

Returns Index of the current `js:data::$container` tab.

```
var current = $(domContext).nosTabs('current');
```

nosToolbar

`$container.nosToolbar([method[, options[, ...]]])`

Manage back-office's toolbars. This is a *function with sub-functions*.

Arguments

- **method** (*mixed*) – The sub-function name, `add` (default) or `create`. If omitted, this is the first parameter of the default sub-function `nosToolbar.add()`.
- **options** (*mixed*) – Parameters of the sub-function.

nosToolbar('add')

`nosToolbar.add(element[, right_side])`

Adds an element to the toolbar of the current `js:data::$container`. If no toolbar exists, creates a new one on-the-fly.

Arguments

- **element** (*mixed*) – Can be HTML code, a DOM element or a jQuery container.
- **right_side** (*boolean*) – Default `false`, if `true` element added at the right side of the toolbar.

```
$(domContext).nosToolbar('add', element, right_side);

\\ or
$(domContext).nosToolbar(element, right_side);

\\ Add a button, right side of toolbar
$(domContext).nosToolbar('<button>Exemple</button>', true);

\\ Add a link, left side of toolbar
var $a = $('<a href="#">Exemple</a>');
$(domContext).nosToolbar($a);
```

nosToolbar('create')

`nosToolbar.create()`

Creates a toolbar in the current `js:data::$container`.

```
$(domContext).nosToolbar('create');
```

1.2.3 Events

The back-office of Novius OS is one “big HTML page”. Actions performed in one tab can affect other tabs (ex: adding, modifying or deleting an item).

An event system has been established to enable the various interface elements to communicate with each other.

On the one side, the interface elements are listening to events (by binding callbacks functions) by connecting to *dispatchers*.

On the other side, the different actions trigger events, usually returned by AJAX requests (see `$container.nosAjax()`), which are then dispatched to all interface elements via *dispatchers*.

Dispatched events are executed immediately on the current active tab or popup (the one which has focus). For other tabs (or popups), they are executed only when the tab or popup becomes active / focused.

dispatcher

A DOM element that receives system events. The child elements of the dispatcher can listen for events by connecting to it.

Each tab and popup have a dispatcher.

Structure of an event

Event

`Event.name`

string

Required

Event name. For events on a `Model`, the name is the Model name, including its PHP namespace.

Event.id

int or [int]

For events on a Model, ID(s) of the item to which they relate.

Event.action

string

Name of the action item that triggered the event. Ex: insert, update or delete.

Event.context

string or [string]

Context of the item that triggered the event. See [Multi-Contexts](#).**nosListenEvent**`$container.nosListenEvent (event, callback[, caller])`

Listen one (or many) event(s), i.e. register a callback function to be called when the event occurs.

Listening will be on current *dispatcher* (closest relatives in the DOM element in jQuery container).

For the callback function to be triggered, listened and triggered events should not match exactly. The listened event can just match one property of the triggered event.

Arguments

- **event** (*mixed*) – {} or [{}]. Required. JSON event to listen.
- **callback** (*function*) – Required. The callback function to execute when the event occurs. The function takes as parameter the triggered event.
- **caller** (*string*) – Caller name. If set, can stop listening to specific listener. See `$container.nosUnlistenEvent()`.

```
// Listen all events with name 'Nos\Model_Page'
$(domContext).nosListenEvent({
  name: 'Nos\Model_Page'
}, function(event) {
  // ...
}, 'caller');

// Listen all events with the 'Nos\Model_Page' name and 'insert' or 'delete' actions
$(domContext).nosListenEvent({
  name: 'Nos\Model_Page',
  action: ['insert', 'delete']
},
function(event) {
  // ...
});

// Listen all events with the 'Nos\Model_Page' name and 'insert' or 'delete' actions,
// or events with the 'Nos\Model_Page' name and the 'main::en_GB' context
$(domContext).nosListenEvent([
  {
    name: 'Nos\Model_Page',
    action: ['insert', 'delete']
  },
  {
    name: 'Nos\Model_Page',
    context: 'main::en_GB'
  }
],
function(event) {
  // ...
});
```

```
        {
            name; 'Nos\Model_Page',
            context; 'main::en_GB'
        }
    ], function(event) {
        // ...
    });
```

nosUnlistenEvent

`$container.nosUnlistenEvent (caller)`

Stop listening events for a specific caller. See *caller param of nosListenEvent*.

Arguments

- **caller** (*string*) – Caller name.

```
$(domContext).nosUnlistenEvent('caller');
```

nosDispatchEvent

`$.nosDispatchEvent (event)`

Dispatches an event to all available *dispatchers*.

Arguments

- **event** (*JSON*) – See *Event*.

```
// Dispatch event, page with ID 4 has been create with 'main::en_GB' context
$.nosDispatchEvent({
    name: 'Nos\Model_Page',
    action: 'insert',
    id: 4,
    context: 'main::en_GB',
});
```

1.3 Applications

1.3.1 Form Application

Events

noviusos_form::rendering

`noviusos_form::rendering ($params)`

Triggered by the enhancer before displaying the form to the user.

Allows to modify the `$fields` and the `$layout`. The `$item` (Model_Form instance) and `$enhancer_args` (label_position, etc.) variables are read-only.

Parameters

- **\$params** (*array*) –

&\$fields Fields list

label Callback used to generate the label

callback *string* Callback function name

args array Callback function args

field Callback used to generate the field

callback string Callback function name

args array Callback function args

instructions Callback used to generate the instructions

callback string Callback function name

args array Callback function args

new_row bool Should the field be on a new row?

new_page bool Should the field be on a new page?

width int Column size (value between 1 and 4)

item Model_Field Field instance

&\$layout string Path to the view used to render the form

\$item Model_Form Form instance

```
<?php
Event::register_function('noviusos_form::rendering', function(array &$args)
{
    $fields =& $args['fields'];
    $layout =& $args['layout'];
    $form = $args['item']; // Instance of Nos\Form\Model_Form
    $enhancer_args = $args['enhancer_args'];

    // This is an exemple of what $layout contains
    $layout = 'noviusos_form::foundation';

    foreach ($fields as &$field) {

        // This is an exemple of what $field contains
        $field = array(
            'label' => array(
                'callback' => array('Form', 'label'),
                'args' => array('Label:', 'technical_id', array(
                    'for' => 'field_technical_id',
                )),
            ),
            'field' => array(
                'callback' => array('Form', 'input'),
                'args' => array('field_name', 'field_value', array(
                    'id' => 'field_technical_id',
                    'class' => 'field_technical_css',
                    'title' => 'Label:',
                    'placeholder' => 'Label:',
                    'required' => 'required',
                )),
            ),
            'instructions' => array(
                'callback' => 'html_tag',
                'args' => array('p', array('class' => 'instructions'), 'Instructions for the use
            ),
            'new_row' => true,
```

```

        'new_page' => true,
        'width' => 4,
        'item' => $item, // Instance of Nos\Form\Model_Field
    );
}

// ...
}

```

noviusos_form::rendering.<virtual_name>

Same as `noviusos_form::rendering`, but only triggered for a form with the specified `<virtual_name>`.

noviusos_form::data_validation

Warning: This function must return an array containing the detected validation errors.

`noviusos_form::data_validation (&$data, $fields, $form)`

Additional data validation after submitting a form from the Form application.

Parameters

- **&\$data** (*array*) – Received data (roughly `$_POST`)
- **\$fields** (*object*) – Array of `Model_Field` Field instance, field names in keys
- **\$form** (*object*) – `Model_Form` Form instance

Return array List of validation errors

```

<?php

Event::register_function('noviusos_form::data_validation', function(&$data, $fields, $form) {

    $errors = array();
    // This will mark all fields as error
    foreach ($data as $name => $value) {
        $errors[$name] = '{{label}}: '{{value}}' non valid.';
    }
    return $errors;
});

```

The messages can contain the `{{label}}` and `{{value}}` *placeholders* (they will be replaced appropriately).

noviusos_form::data_validation.<virtual_name>

Same as `noviusos_form::data_validation`, but only triggered for a form with the specified `<virtual_name>`.

noviusos_form::before_submission

`noviusos_form::before_submission (&$data, $form, $enhancer_args)`

Before saving the answer in the database

Parameters

- **&\$data** (*array*) – Received data (to save in DB)

- **\$form** (*object*) – Model_Form Form instance
- **\$enhancer_args** (*array*) – Enhancer configuration

Return bool false to prevent saving the answer in the database

```
<?php
Event::register_function('noviusos_form::before_submission', function(&$data, $form, $enhancer_a
    // You can alter $data before saving them into the database
    // Or you can return 'false' if you don't want the answer to be saved in the database
    return false;
});
```

noviusos_form::before_submission.<virtual_name>

Same as noviusos_form::before_submission, but only triggered for a form with the specified <virtual_name>.

noviusos_form::after_submission

noviusos_form::after_submission(\$params)

After the answer has been created (not saved in the DB yet)

Parameters

- **\$params** (*array*) –
 - \$answer** Model_Answer Answer instance
 - \$enhancer_args** Array, enhancer configuration

```
<?php
Event::register('noviusos_form::after_submission', function($params) {
    $answer = $params['answer'];
    $enhancer_args = $params['enhancer_args'];
    // ...
});
```

noviusos_form::after_submission.<virtual_name>

Same as noviusos_form::after_submission, but only triggered for a form with the specified <virtual_name>.

1.3.2 Slideshow Application

To modify configuration of slideshow, extend configuration file noviusos_slideshow::slideshow.

Configuration

default_format The default format. flexslider-big by default.

formats

flexslider-big

view The view use to display the slideshow. Default `noviusos_slideshow::flexslider/slideshow`.

label The label of the format, displayed in enhancer popup.

config

slides_with_link Boolean. Add a link on image if true and slide linked to a page. Default `true`.

slides_preview Boolean. Add a toolbar preview on the slideshow. Default `true`.

width Width in pixels of the slideshow. Default `800`.

height Height in pixels of the slideshow. Default `600`.

class CSS class add on the slideshow HTML container. Default `slide-home`.

js

jquery Relative URL of jQuery script.

flexslider Relative URL of Flexslider script.

flexpreview Relative URL of Flexslider preview script.

css

flexslider Relative URL of Flexslider CSS file.

flexpreview Relative URL of Flexslider preview CSS file.

flexslider-small

view The view use to display the slideshow. Default `noviusos_slideshow::flexslider/slideshow`.

label The label of the format, displayed in enhancer popup.

config

slides_with_link Boolean. Add a link on image if true and slide linked to a page. Default `true`.

slides_preview Boolean. Add a toolbar preview on the slideshow. Default `true`.

width Width in pixels of the slideshow. Default `414`.

height Height in pixels of the slideshow. Default `300`.

class CSS class add on the slideshow HTML container. Default `slide-small`.

js**jquery** Relative URL of jQuery script.**flexslider** Relative URL of Flexslider script.**flexpreview** Relative URL of Flexslider preview script.**css****flexslider** Relative URL of Flexslider CSS file.**flexpreview** Relative URL of Flexslider preview CSS file.

You can add your own formats. Keys `view` and `label` are required in your format. If defined, the key `config` is passed to the displaying view.

Flexslider

You can configure Flexslider formats by extend configuration file `noviusos_slideshow::formats/flexslider`.

animation Select your animation type, `fade` or `slide`. Default `fade`.**slideDirection** Select the sliding direction, `horizontal` or `vertical`.**slideshow** Boolean, animate slider automatically. Default `true`.**slideshowSpeed** Integer, set the speed of the slideshow cycling, in milliseconds.**animationDuration** Integer, set the speed of animations, in milliseconds.**directionNav** Boolean, create navigation for previous/next navigation.**controlNav** Boolean, create navigation for paging control of each slide. Note: Leave `true` for manual-Controls usage.**keyboardNav** Boolean, allow slider navigating via keyboard left/right keys.**mousewheel** Boolean, allow slider navigating via mousewheel.**prevText** Set the text for the `previous` `directionNav` item.**nextText** Set the text for the `next` `directionNav` item.**pausePlay** Boolean, create pause/play dynamic element.**pauseText** Set the text for the `pause` `pausePlay` item.**playText** Set the text for the `play` `pausePlay` item.**randomize** Boolean, randomize slide order.**slideToStart** Integer, the slide that the slider should start on. Array notation (0 = first slide).**animationLoop** Boolean, should the animation loop? If `false`, `directionNav` will received “disable” classes at either end.**pauseOnAction** Boolean, pause the slideshow when interacting with control elements, highly recommended.**pauseOnHover** Boolean, pause the slideshow when hovering over slider, then resume when no longer hovering.

controlsContainer Selector, declare which container the navigation elements should be appended too. Default container is the flexSlider element. Example use would be ".flexslider-container", "#container", etc. If the given element is not found, the default action will be taken.

manualControls Selector, declare custom control navigation. Example would be ".flex-control-nav li" or "#tabs-nav li img", etc. The number of elements in your controlNav should match the number of slides/tabs.

1.3.3 Blog/News Application

To modify configuration of Blog or News, extend respectively configuration files `noviusos_blog::config` or `noviusos_news::config`.

Configuration

categories

enabled Boolean, true to enable categories. Default true for Blog and News.

show Boolean, true to show categories in front. Default true for Blog and News.

tags

enabled Boolean, true to enable tags. Default true for Blog and false for News.

show Boolean, true to show tags in front. Default true for Blog and News.

authors

enabled Boolean, true to enable authors. Default true for Blog and false for News.

show Boolean, true to show authors in front. Default true for Blog and News.

summary

enabled Boolean, true to enable summary. Default true for Blog and News.

show Boolean, true to show summary in front. Default true for Blog and News.

comments

enabled Boolean, true to enable comments. Default true for Blog and false for News.

show Boolean, true to show comments in front. Default true for Blog and News.

show_nb Boolean, true to show the number of comments in front. Default true for Blog and News.

can_post Boolean, true if user can post new comments. Default true for Blog and News.

publication_date

enabled Boolean, true to enable publication dates. Default true for Blog and News.

show Boolean, true to show publication dates in front. Default true for Blog and News.

thumbnail

front**list**

link_to_item Boolean, `true` if you want a link to item on the thumbnail. Default `true` for Blog and News.

max_width Integer, width in pixels of the thumbnail. Default 120 for Blog and News.

item

link_to_fullsize Boolean, `true` if you want a link to fullsize image on the thumbnail. Default `true` for Blog and News.

max_width Integer, width in pixels of the thumbnail. Default 200 for Blog and News.

1.3.4 Comments Application API

Behaviour Commentable

class `Nos\Comments\Orm_Behaviour_Commentable`
Adds the ability to use the Comment API on an a `Nos\Orm\Model`.

Methods

static `Nos\Comments\Orm_Behaviour_Commentable::commentApi`
Returns An instance of `Nos\Comments\Api`, configured for this item.

`Nos\Comments\Orm_Behaviour_Commentable::count_comments()`
Returns and caches the number of comments related to one item
Returns Number of comments

`Nos\Comments\Orm_Behaviour_Commentable::setNbComments($nb)`
Allow to enter a custom cached number of comments related to the item. Can be useful when adding or removing a comment for instance.

Parameters

- `$nb` – number of comments

static `Nos\Comments\Orm_Behaviour_Commentable::count_multiple_comments($items)`
From a items' list, retrieve the number of comments in an optimal way.

Parameters

- `$items` –

Relations

This behaviour adds a **comments** relation to retrieve all the published comments of the Model.

Others

- This behaviours adds a **Comments** action on the Model's App Desk, which will open a tab listing all the comments of the item.

- This behaviours adds a **Comments** column in the App Desk, containing the number of comments for each item.

Example

```
<?php
class Model_Monkey extends \Nos\Orm\Model
{
    protected static $_behaviours = array(
        'Nos\Comments\Orm_Behaviour_Commentable' => array(
        ),
    );
}
```

API Class

class Nos\Comments\Api

Nos\Comments\Api::__construct (\$config)

Parameters

- **\$config** (*array*) – API configuration

Nos\Comments\Api::addComment (\$data)

Parameters

- **\$data** (*array*) –

ismm Must be equal to anti_spam_identifier.passed of the [comments API configuration](#).

id Id of the item on which the comment was post

comm_email Email of the commenter

comm_author Name of the commenter

comm_content Content of the comment

subscribe_to_comments True if the commenter accept to receive new comments by email

recaptcha_challenge_field The content of recaptcha challenge field

recaptcha_response_field The content of recaptcha response field

Returns True if comment is added, false if not passed recaptcha, 'none' if not passed anti spam.

Nos\Comments\Api::sendNewCommentToAuthor (Model_Comment \$comment)

Parameters

- **\$comment** (*Model_Comment*) – The new comment

Nos\Comments\Api::sendNewCommentToCommenters (Model_Comment \$comment)

Parameters

- **\$comment** (*Model_Comment*) – The new comment

Nos\Comments\Api::getConfig ()

Returns the API configuration.

Nos\Comments\Api::getRssComment (\$comment)

Parameters

- **\$comment** – Comment item

Returns An array (to be used with `Nos\Tools_RSS`)

`Nos\Comments\Api::getRss($options = array())`

Parameters

- **\$options** (*array*) – If no key `item`, returns all comments of the model for the current context.

item A `Nos\Orm\Model` instance. If set, returns all comments of the item.

Returns A `Nos\Tools_RSS` instance.

`Nos\Comments\Api::changeSubscriptionStatus($from, $email, $subscribe)`

Parameters

- **\$from** (*string*) – A `Nos\Orm\Model` instance
- **\$email** (*string*) – Email of the commenter to change the subscription status
- **\$subscribe** (*boolean*) – New subscription status (true to receive notifications, false to disable)

Configuration

To modify the comments API configuration, you need to extend the configuration file `noviusos_comments::api`.

default

default_state published or pending (if you want moderation)

use_recaptcha false

anti_spam_identifier

failed 548

passed 327

rss

model

nb 20

item

nb 20

send_email

to_author true

to_commenters true

gravatar

size 64

setups Array. The setup id in key, array like `default` for the value.

You can modify the `default` configuration, or add a setup for a specific model or a specific context.

If you want to change configuration for all cases:

```
<?php
array(
    'default' => array(
        'use_recaptcha' => true,
    ),
);
```

If you want to change configuration only for a specific model:

```
<?php
array(
    'setups' => array(
        'My\Namespace\Model_Item' => array(
            'use_recaptcha' => true,
        ),
    ),
);
```

If you want to change configuration only for a specific context:

```
<?php
array(
    'setups' => array(
        'main::en_GB' => array(
            'use_recaptcha' => true,
        ),
    ),
);
```

Note: If you want to activate Recaptcha, you have to install [this package](#) in local/packages.

Model Comment

class `Nos\Comments\Model_Comment`
Extends `Nos\Orm\Model`.

Methods

`Nos\Comments\Model_Comment::getRelatedItem()`

Retrieves the instance of the related item model, if it exists.

Returns Returns the Model instance, if it exists

`Nos\Comments\Model_Comment::changeSubscriptionStatus($from, $email, $subscribe)`

Changes the user subscription status to new comments on an item.

Parameters

- **\$from** (`Nos\Orm\Model`) – Related item
- **\$email** (*string*) – The user's email address
- **\$subscribe** (*boolean*) – false to disable the subscription, true to enabled it

1.3.5 Application Wizard API

Application_Generator Class

class Nos\AppWizard\Application_Generator

static Nos\AppWizard\Application_Generator::generate(*\$config*, *\$input*)

Parameters

- **\$config** (*array*) –

generation_path Location of all files needed for the application generation

folders Folders to create when generating an application

files callback function

param string \$root_dir Root directory where all files must be generated (likely to be the generated application path)

param array \$data Form input

param array \$config Generator configuration

returns Array of array, each array defining a file to be generated:

template Generate from this view

data View data

destination

category_types

Key => value array defining categories (fields group type). Key is the category identifier.

Value is an array containing:

label

fields Key => value array defining field types. Key is the field type identifier. Value is an array containing:

label

on_model_properties Will the field create an associated model property.

- **\$input** (*array*) – Form input

static Nos\AppWizard\Application_Generator::indent(*\$pre*, *\$str*)

View helper that allows to keep a consistent indentation when generating code.

Parameters

- **\$pre** (*string*) – Piece of string to be appended before each line (likely to be spaces)
- **\$str** (*string*) – Code to be indented

static Nos\AppWizard\Application_Generator::generateFolders(*\$root_dir*, *\$folders*)

Generates folders from a list of folder paths

Parameters

- **\$root_dir** (*string*) – Root directory where all folders are generated
- **\$folders** (*array*) – List of folder paths

static `Nos\AppWizard\Application_Generator::generateFiles ($root_dir, $config, $input)`

Generates applications files (models, controllers, view), from information on the configuration file and the form values.

Parameters

- **\$root_dir** (*string*) – Root director (likely to be the generated application directory)
- **\$config** (*array*) – Configuration
- **\$input** (*array*) – Form values

Configuration

The configuration is organized in a key => value structure to allow eventually multiple configuration management; for instance, one key's purpose could be to generate a basic application, an other key's purpose could be to generate a template.

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