DEBBUGGING

Stud.IP

WUSSTEST DU, DASS ES DAS GIBT?

Funktionen und Tools, die noch nicht "jeder" kennt

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STUD.IP "MAKE"

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WER ERKENNT DAS HIER?

```php
// customized #url_for for plugins
public function url_for($to = '') {
  $args = func_get_args();
  // find params
  $params = array();
  if (is_array(end($args))) {
    $params = array_pop($args);
  }
  // urlencode all but the first argument
  $args = array_map("urlencode", $args);
  $args[0] = $to;
  return PluginEngine::getURL($this->plugin, $params, join("/", $
}
?>
```

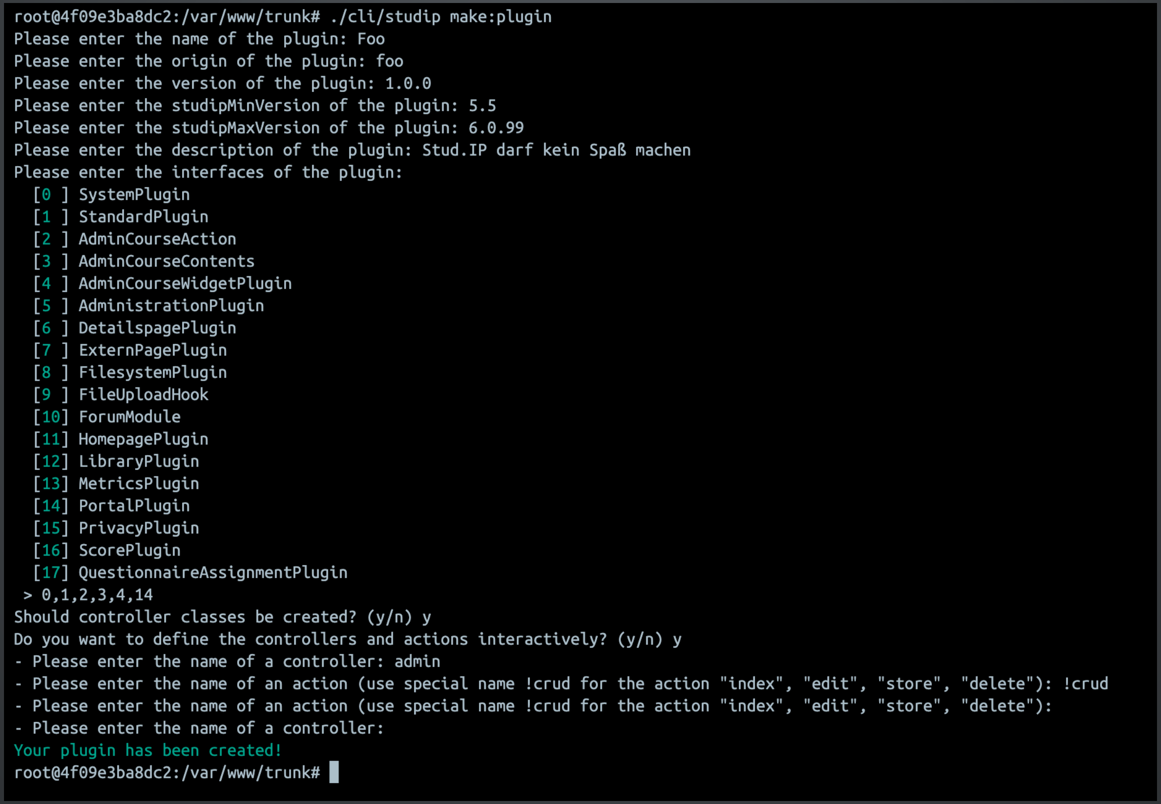
JAN'S PLUGINGENERATOR

ALTERNATIVE

```bash
#!/bin/bash
/var/www/studip/cli/studip make:plugin
```

```
/var/www/foobar/cli/studip make:plugin -h

Description:
Create a new plain plugin frame

Usage:
make:plugin [options] [--] [name]

Arguments:
name                                         Name of the plugin

Options:
-o, --origin[=ORIGIN]                        Origin of the plugin
-d, --description[=DESCRIPTION]              Description of the plugin
-I, --plugin-interfaces[=PLUGIN-INTERFACES]  Comma separated list of plugin interfaces
-c, --with-controller[=WITH-CONTROLLER]      Create default controller
-F, --force|--no-force                       Force creation of the plugin (even if a plugin with that name and origin already exists)
-h, --help                                   Display help for the given command. When no command is given display help for the list command
-q, --quiet                                  Do not output any message
-V, --version                                Display this application version
  --ansi|--no-ansi                         Force (or disable --no-ansi) ANSI output
-n, --no-interaction                         Do not ask any interactive question
-pv, --plugin-version[=PLUGIN-VERSION]       Version of the plugin
-min, --min-version[=MIN-VERSION]            Minimum version of Stud.IP the plugin supports
-max, --max-version[=MAX-VERSION]            Maximum version of Stud.IP the plugin supports
-v|vv|vvv, --verbose                         Increase the verbosity of messages: 1 for normal output, 2 for more verbose output and 3 for debug
```

PLUGINGENERATOR



```
root@4f09e3ba8dc2:/var/www/trunk# ./cli/studip make:plugin
Please enter the name of the plugin: Foo
Please enter the origin of the plugin: foo
Please enter the version of the plugin: 1.0.0
Please enter the studipMinVersion of the plugin: 5.5
Please enter the studipMaxVersion of the plugin: 6.0.99
Please enter the description of the plugin: Stud.IP darf kein Spaß machen
Please enter the interfaces of the plugin:
  [0 ] SystemPlugin
  [1 ] StandardPlugin
  [2 ] AdminCourseAction
  [3 ] AdminCourseContents
  [4 ] AdminCourseWidgetPlugin
  [5 ] AdministrationPlugin
  [6 ] DetailspagePlugin
  [7 ] ExternPagePlugin
  [8 ] FilesystemPlugin
  [9 ] FileUploadHook
  [10] ForumModule
  [11] HomepagePlugin
  [12] LibraryPlugin
  [13] MetricsPlugin
  [14] PortalPlugin
  [15] PrivacyPlugin
  [16] ScorePlugin
  [17] QuestionnaireAssignmentPlugin
 > 0,1,2,3,4,14
Should controller classes be created? (y/n) y
Do you want to define the controllers and actions interactively? (y/n) y
- Please enter the name of a controller: admin
- Please enter the name of an action (use special name !crud for the action "index", "edit", "store", "delete"): !crud
- Please enter the name of an action (use special name !crud for the action "index", "edit", "store", "delete"):
- Please enter the name of a controller:
Your plugin has been created!
root@4f09e3ba8dc2:/var/www/trunk# 
```

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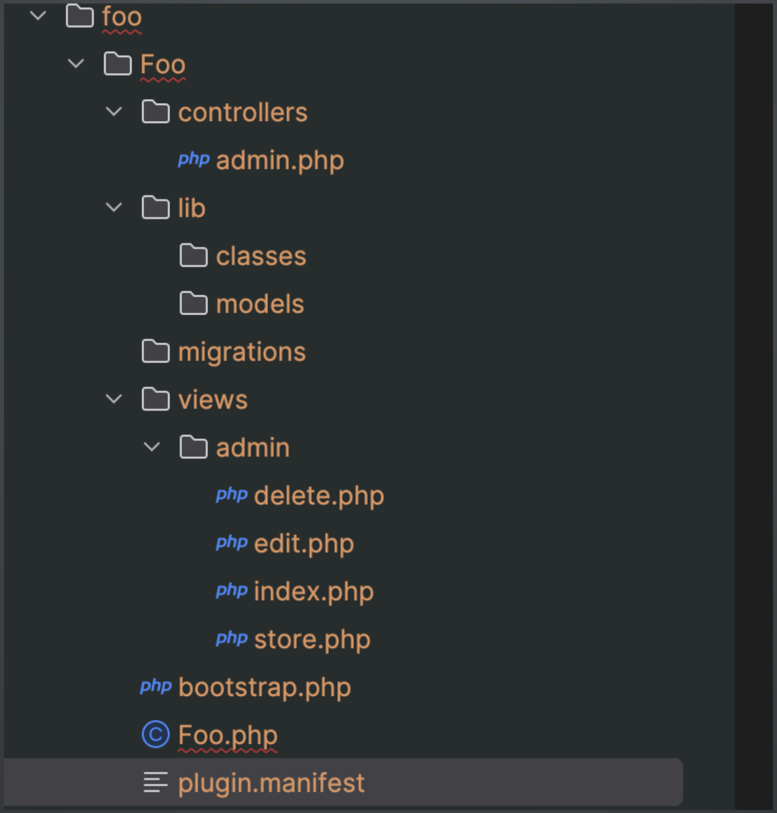
PLUGINGENERATOR



```
foo
  Foo
    controllers
      admin.php
    lib
      classes
      models
    migrations
    views
      admin
        delete.php
        edit.php
        index.php
        store.php
    bootstrap.php
    Foo.php
    plugin.manifest
```

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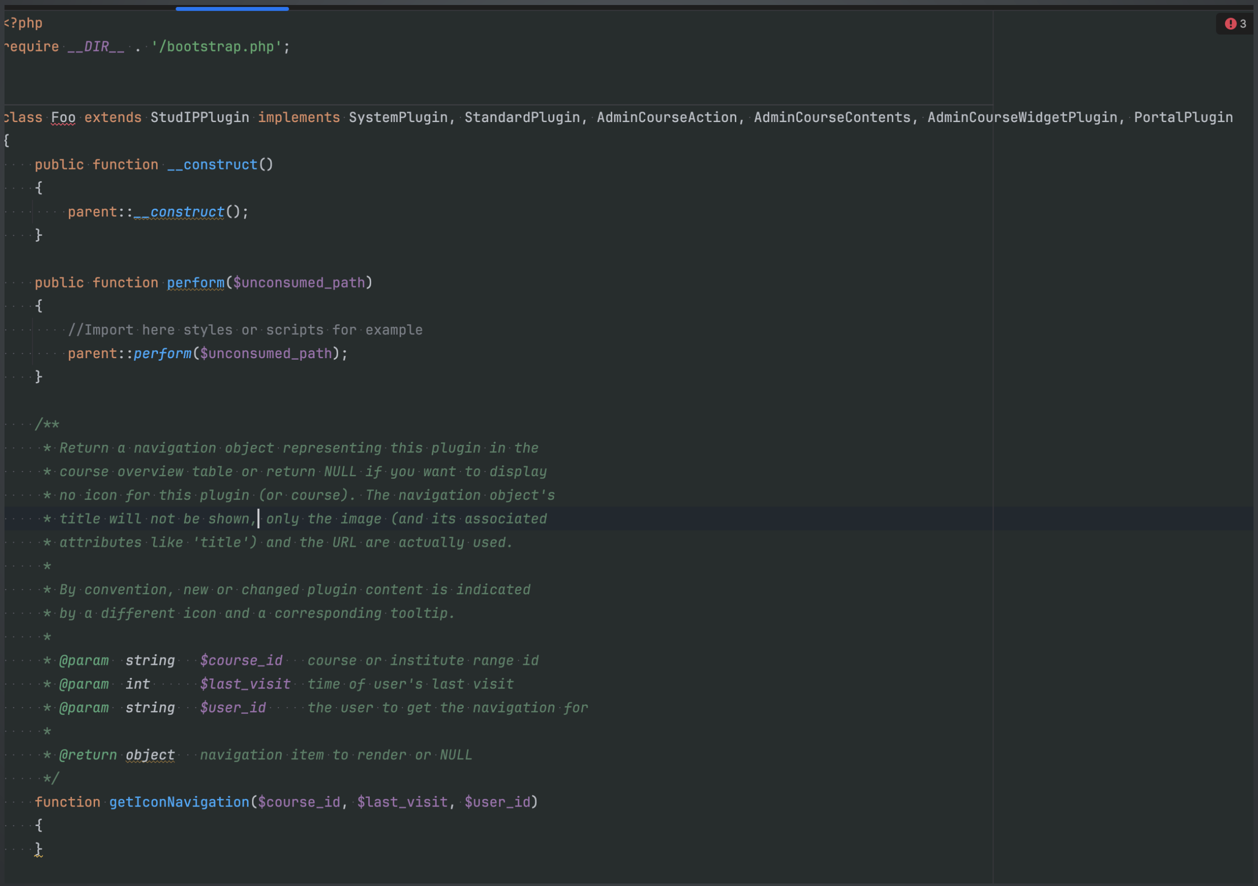
PLUGINGENERATOR



```php
<?php
require __DIR__ . '/bootstrap.php';


class Foo extends StudIPPlugin implements SystemPlugin, StandardPlugin, AdminCourseAction, AdminCourseContents, AdminCourseWidgetPlugin, PortalPlugin
{
    public function __construct()
    {
        parent::__construct();
    }

    public function perform($unconsumed_path)
    {
        //Import here styles or scripts for example
        parent::perform($unconsumed_path);
    }

    /**
     * Return a navigation object representing this plugin in the
     * course overview table or return NULL if you want to display
     * no icon for this plugin (or course). The navigation object's
     * title will not be shown, only the image (and its associated
     * attributes like 'title') and the URL are actually used.
     *
     * By convention, new or changed plugin content is indicated
     * by a different icon and a corresponding tooltip.
     *
     * @param  string   $course_id   course or institute range id
     * @param  int      $last_visit  time of user's last visit
     * @param  string   $user_id     the user to get the navigation for
     *
     * @return object   navigation item to render or NULL
     */
    function getIconNavigation($course_id, $last_visit, $user_id)
    {
    }
```

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MIGRATIONEN

```bash
#!/bin/bash
/var/www/studip/cli/studip make:migration
```

```
/var/www/studip/cli/studip mak:migration -h
Description:
Create a new migration file

Usage:
make:migration [options] [--] [name]

Arguments:
name                             The name of the migration

Options:
-b, --branch[=BRANCH]            The branch of the migration file [default: "0"]
-d, --domain[=DOMAIN]            The domain of the migration file [default: "studip"]
-p, --path[=PATH]                The location where the migration file should be created [default: "/var/www/trunk/db/migrations"]
-D, --description[=DESCRIPTION]  The description for the migration [default: ""]
-h, --help                       Display help for the given command. When no command is given display help for the list command
-q, --quiet                      Do not output any message
-V, --version                    Display this application version
  --ansi|--no-ansi              Force (or disable --no-ansi) ANSI output
-n, --no-interaction             Do not ask any interactive question
-v|vv|vvv, --verbose             Increase the verbosity of messages: 1 for normal output, 2 for more verbose output and 3 for debug
```

MODELS

```bash
#!/bin/bash
/var/www/studip/cli/studip make:model
```

```
Description:
Create a sorm-model file

Usage:
make:model [options] [--] [name] [db-table]

Arguments:
name                         The name of the sorm-model
db-table                     The name of the related db-table

Options:
-s, --namespace[=NAMESPACE]  Namespace [default: ""]
-p, --path[=PATH]            The location where the model file should be created [default: "/var/www/trunk/lib/models"]
-h, --help                   Display help for the given command. When no command is given display help for the list command
-q, --quiet                  Do not output any message
-V, --version                Display this application version
  --ansi|--no-ansi         Force (or disable --no-ansi) ANSI output
-n, --no-interaction         Do not ask any interactive question
-v|vv|vvv, --verbose         Increase the verbosity of messages: 1 for normal output, 2 for more verbose output and 3 for debug
```

DEBUGGING

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```php
var_dump($foo);
```

```php
var_dump($foo);
die;
```

```php
echo "<pre>";
var_dump($foo);
die;
```

DEBBUGGING

```bash
#!/bin/bash
make composer-dev
```

DEBBUGGING

```
#!/bin/bash
make composer-dev
```

https://symfony.com/doc/current/components/var_dumper.html

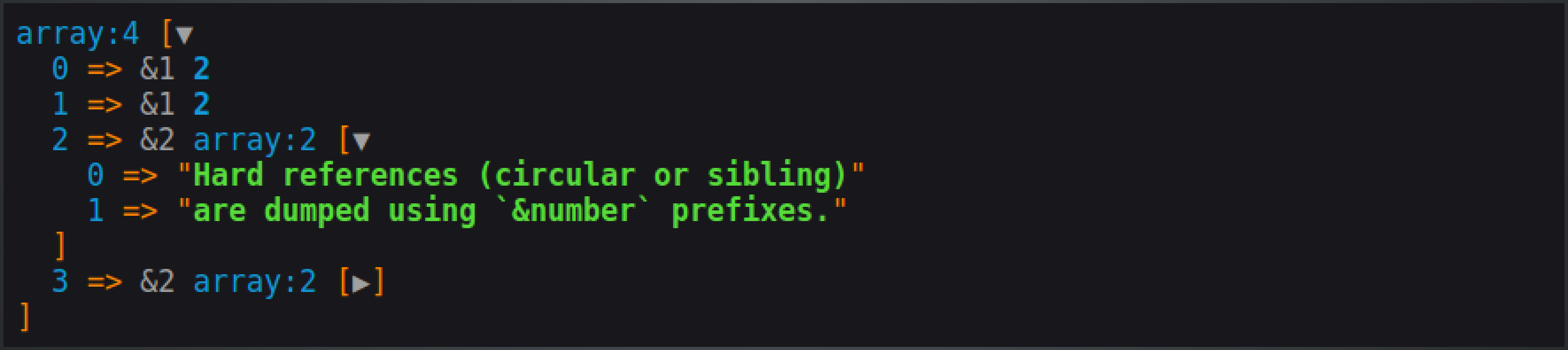
DEBBUGGING

```php
$var = [];
$var[0] = 1;
$var[1] =& $var[0];
$var[1] += 1;
$var[2] = ["Hard references (circular or sibling)"];
$var[3] =& $var[2];
$var[3][] = "are dumped using `&number` prefixes.";


dump($var);

dd($var);
```

DEBBUGGING



```
array:4 [▼
  0 => &1 2
  1 => &1 2
  2 => &2 array:2 [▼
    0 => "Hard references (circular or sibling)"
    1 => "are dumped using `&number` prefixes."
  ]
  3 => &2 array:2 [▶]
]
```

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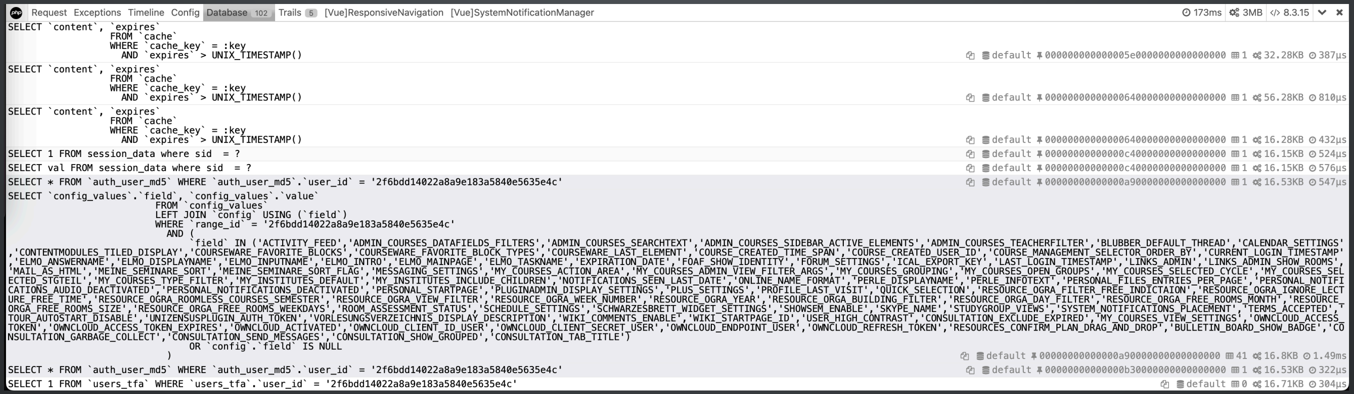
DEBUGBAR

Aktivierung in der .env (Alternative zu config_local.inc.php)

```
STUDIP_MAIL_TRANSPORT="debug"
DEBUG_BAR=1
```



```
SELECT `content`, `expires`
                 FROM `cache`
                 WHERE `cache_key` = :key
                   AND `expires` > UNIX_TIMESTAMP()
                                                   default 000000000000005e0000000000000000 1 32.28KB 387µs
SELECT `content`, `expires`
                 FROM `cache`
                 WHERE `cache_key` = :key
                   AND `expires` > UNIX_TIMESTAMP()
                                                   default 0000000000000064000000000000000 1 56.28KB 810µs
SELECT `content`, `expires`
                 FROM `cache`
                 WHERE `cache_key` = :key
                   AND `expires` > UNIX_TIMESTAMP()
                                                   default 0000000000000064000000000000000 1 16.28KB 432µs
SELECT 1 FROM session_data where sid  = ?          default 00000000000000c4000000000000000 1 16.15KB 524µs
SELECT val FROM session_data where sid  = ?        default 00000000000000c4000000000000000 1 16.15KB 576µs
SELECT * FROM `auth_user_md5` WHERE `auth_user_md5`.`user_id` = '2f6bdd14022a8a9e183a5840e5635e4c'
                                                   default 00000000000000a9000000000000000 1 16.53KB 547µs
SELECT `config_values`.`field`, `config_values`.`value`
                         FROM `config_values`
                         LEFT JOIN `config` USING (`field`)
                         WHERE `range_id` = '2f6bdd14022a8a9e183a5840e5635e4c'
                           AND (
                               `field` IN ('ACTIVITY_FEED','ADMIN_COURSES_DATAFIELDS_FILTERS','ADMIN_COURSES_SEARCHTEXT','ADMIN_COURSES_SIDEBAR_ACTIVE_ELEMENTS','ADMIN_COURSES_TEACHERFILTER','BLUBBER_DEFAULT_THREAD','CALENDAR_SETTINGS'
,'CONTENTMODULES_TILED_DISPLAY','COURSEWARE_FAVORITE_BLOCKS','COURSEWARE_FAVORITE_BLOCK_TYPES','COURSEWARE_LAST_ELEMENT','COURSE_CREATED_TIME_SPAN','COURSE_CREATED_USER_ID','COURSE_MANAGEMENT_SELECTOR_ORDER_BY','CURRENT_LOGIN_TIMESTAMP'
,'ELMO_ANSWERNAME','ELMO_DISPLAYNAME','ELMO_INPUTNAME','ELMO_INTRO','ELMO_MAINPAGE','ELMO_TASKNAME','EXPIRATION_DATE','FOAF_SHOW_IDENTITY','FORUM_SETTINGS','ICAL_EXPORT_KEY','LAST_LOGIN_TIMESTAMP','LINKS_ADMIN','LINKS_ADMIN_SHOW_ROOMS',
'MAIL_AS_HTML','MEINE_SEMINARE_SORT','MEINE_SEMINARE_SORT_FLAG','MESSAGING_SETTINGS','MY_COURSES_ACTION_AREA','MY_COURSES_ADMIN_VIEW_FILTER_ARGS','MY_COURSES_GROUPING','MY_COURSES_OPEN_GROUPS','MY_COURSES_SELECTED_CYCLE','MY_COURSES_SEL
ECTED_STGTEIL','MY_COURSES_TYPE_FILTER','MY_INSTITUTES_DEFAULT','MY_INSTITUTES_INCLUDE_CHILDREN','NOTIFICATIONS_SEEN_LAST_DATE','ONLINE_NAME_FORMAT','PERLE_DISPLAYNAME','PERLE_INFOTEXT','PERSONAL_FILES_ENTRIES_PER_PAGE','PERSONAL_NOTIFI
CATIONS_AUDIO_DEACTIVATED','PERSONAL_NOTIFICATIONS_DEACTIVATED','PERSONAL_STARTPAGE','PLUGINADMIN_DISPLAY_SETTINGS','PLUS_SETTINGS','PROFILE_LAST_VISIT','QUICK_SELECTION','RESOURCE_OGRA_FILTER_FREE_INDICTAION','RESOURCE_OGRA_IGNORE_LECT
URE_FREE_TIME','RESOURCE_OGRA_ROOMLESS_COURSES_SEMESTER','RESOURCE_OGRA_VIEW_FILTER','RESOURCE_OGRA_WEEK_NUMBER','RESOURCE_OGRA_YEAR','RESOURCE_ORGA_BUILDING_FILTER','RESOURCE_ORGA_DAY_FILTER','RESOURCE_ORGA_FREE_ROOMS_MONTH','RESOURCE_
ORGA_FREE_ROOMS_SIZE','RESOURCE_ORGA_FREE_ROOMS_WEEKDAYS','ROOM_ASSESSMENT_STATUS','SCHEDULE_SETTINGS','SCHWARZESBRETT_WIDGET_SETTINGS','SHOWSEM_ENABLE','SKYPE_NAME','STUDYGROUP_VIEWS','SYSTEM_NOTIFICATIONS_PLACEMENT','TERMS_ACCEPTED','
TOUR_AUTOSTART_DISABLE','UNIZENSUSPLUGIN_AUTH_TOKEN','VORLESUNGSVERZEICHNIS_DISPLAY_DESCRIPTION','WIKI_COMMENTS_ENABLE','WIKI_STARTPAGE_ID','USER_HIGH_CONTRAST','CONSULTATION_EXCLUDE_EXPIRED','MY_COURSES_VIEW_SETTINGS','OWNCLOUD_ACCESS_
TOKEN','OWNCLOUD_ACCESS_TOKEN_EXPIRES','OWNCLOUD_ACTIVATED','OWNCLOUD_CLIENT_ID_USER','OWNCLOUD_CLIENT_SECRET_USER','OWNCLOUD_ENDPOINT_USER','OWNCLOUD_REFRESH_TOKEN','RESOURCES_CONFIRM_PLAN_DRAG_AND_DROP','BULLETIN_BOARD_SHOW_BADGE','CO
NSULTATION_GARBAGE_COLLECT','CONSULTATION_SEND_MESSAGES','CONSULTATION_SHOW_GROUPED','CONSULTATION_TAB_TITLE')
                               OR `config`.`field` IS NULL
                           )
                                                   default 00000000000000a9000000000000000 41 16.8KB 1.49ms
SELECT * FROM `auth_user_md5` WHERE `auth_user_md5`.`user_id` = '2f6bdd14022a8a9e183a5840e5635e4c'
                                                   default 00000000000000b3000000000000000 1 16.53KB 322µs
SELECT 1 FROM `users_tfa` WHERE `users_tfa`.`user_id` = '2f6bdd14022a8a9e183a5840e5635e4c'
                                                   default 0 16.71KB 304µs
```

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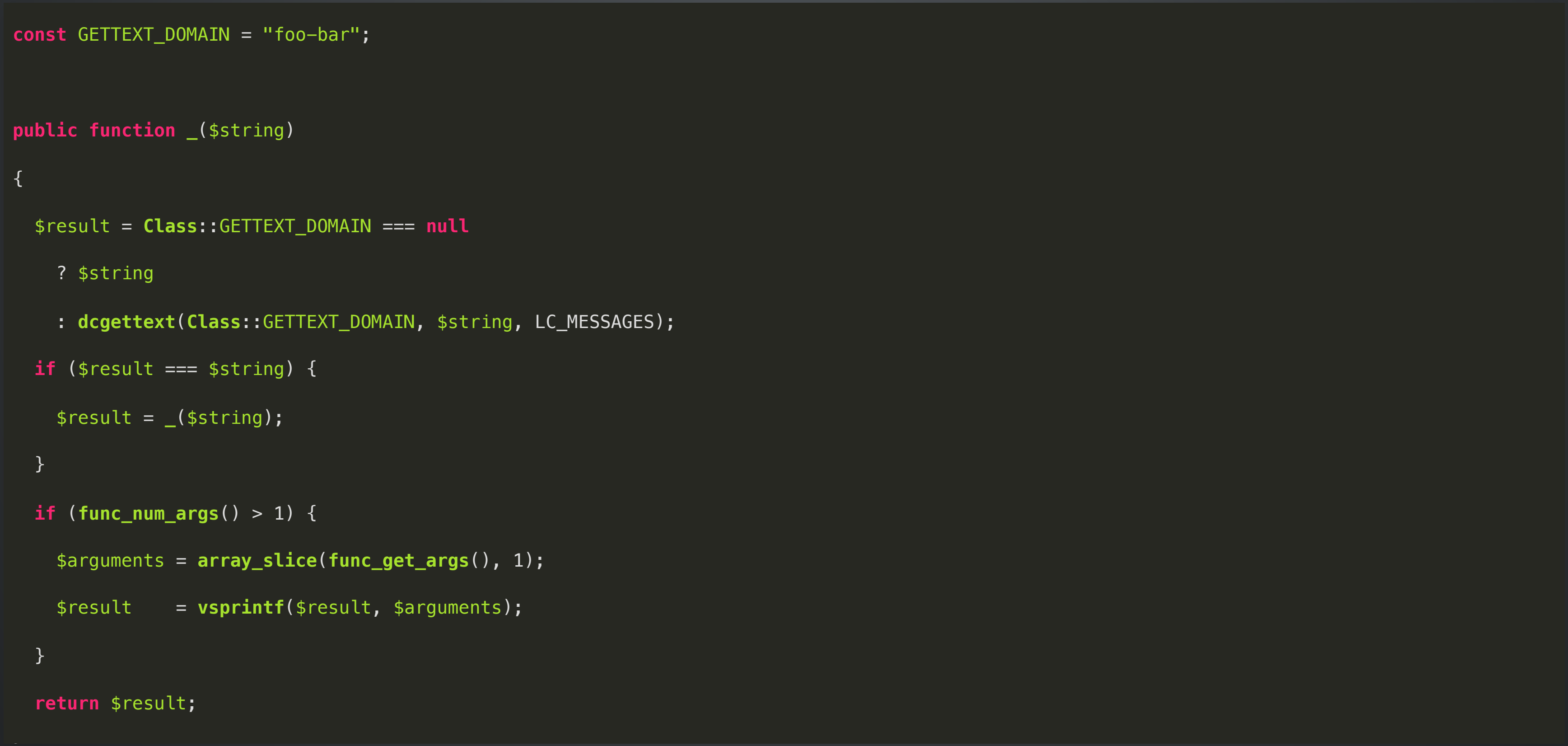
I18N IN PLUGINS



```php
const GETTEXT_DOMAIN = "foo-bar";

public function _($string)
{
  $result = Class::GETTEXT_DOMAIN === null
    ? $string
    : dcgettext(Class::GETTEXT_DOMAIN, $string, LC_MESSAGES);
  if ($result === $string) {
    $result = _($string);
  }
  if (func_num_args() > 1) {
    $arguments = array_slice(func_get_args(), 1);
    $result    = vsprintf($result, $arguments);
  }
  return $result;
```

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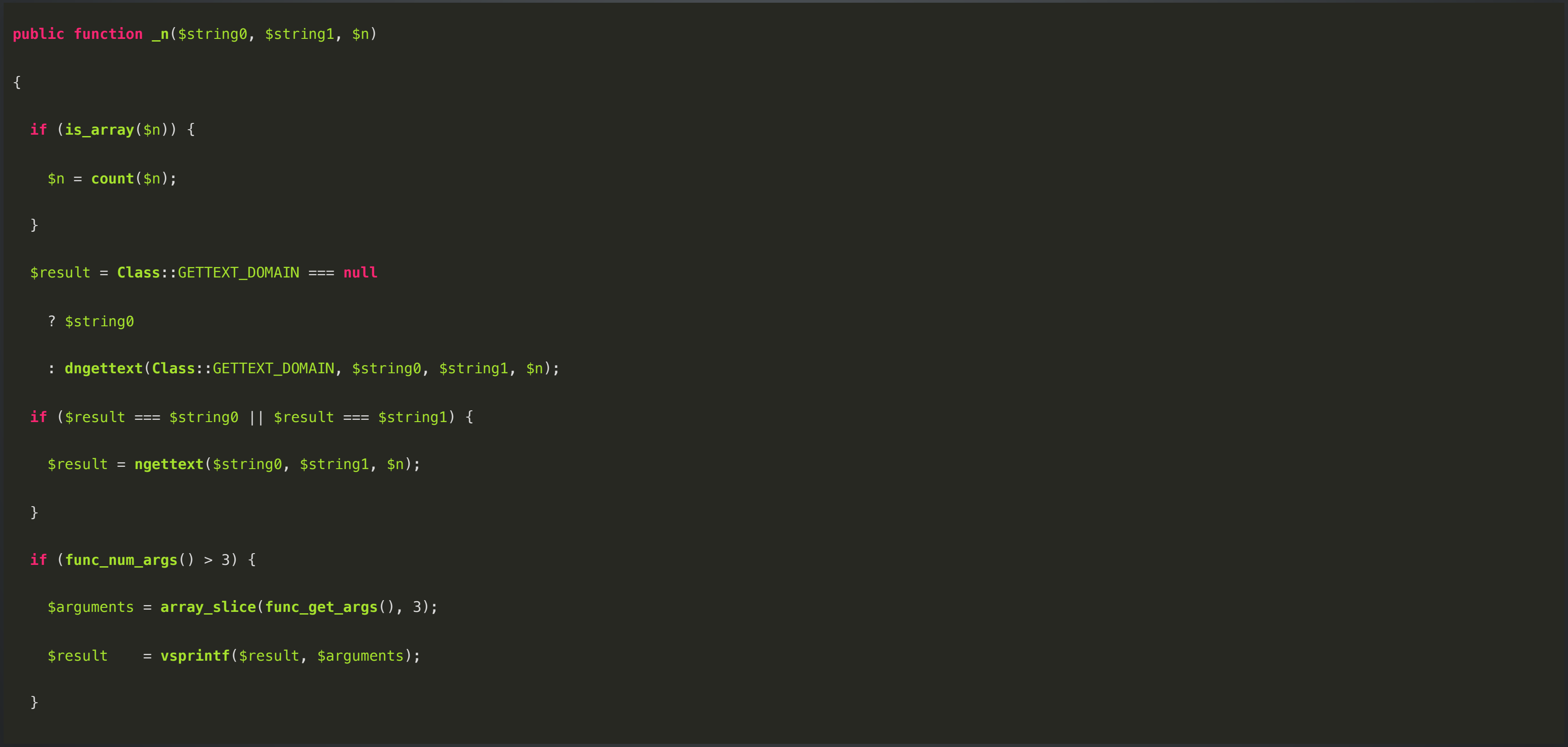
I18N IN PLUGINS



```php
public function _n($string0, $string1, $n)
{
  if (is_array($n)) {
    $n = count($n);
  }
  $result = Class::GETTEXT_DOMAIN === null
    ? $string0
    : dngettext(Class::GETTEXT_DOMAIN, $string0, $string1, $n);
  if ($result === $string0 || $result === $string1) {
    $result = ngettext($string0, $string1, $n);
  }
  if (func_num_args() > 3) {
    $arguments = array_slice(func_get_args(), 3);
    $result    = vsprintf($result, $arguments);
  }
```

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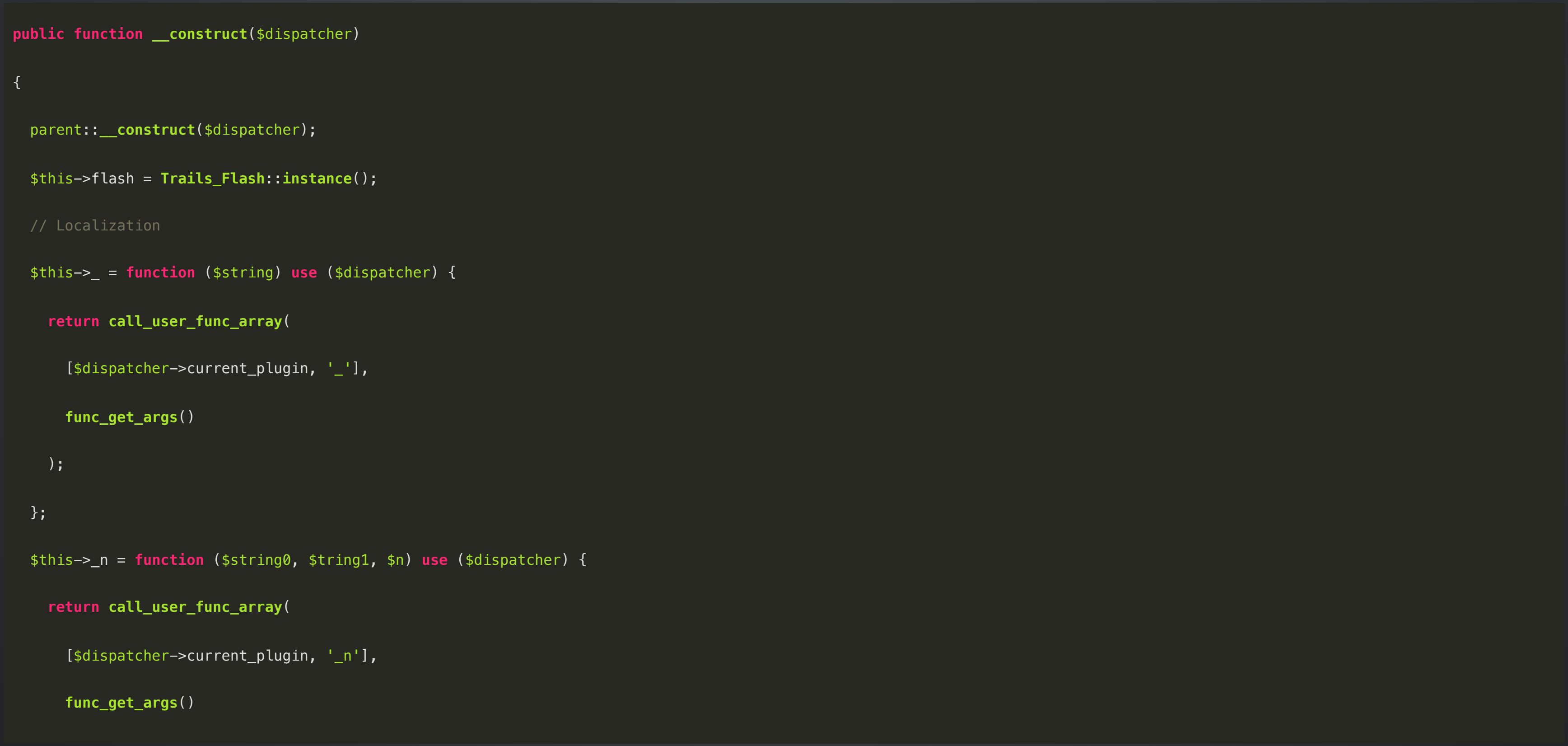
I18N IN PLUGINS



```php
public function __construct($dispatcher)
{
  parent::__construct($dispatcher);
  $this->flash = Trails_Flash::instance();
  // Localization
  $this->_ = function ($string) use ($dispatcher) {
    return call_user_func_array(
      [$dispatcher->current_plugin, '_'],
      func_get_args()
    );
  };
  $this->_n = function ($string0, $tring1, $n) use ($dispatcher) {
    return call_user_func_array(
      [$dispatcher->current_plugin, '_n'],
      func_get_args()
```

I18N IN PLUGINS

WIE NUTZE ICH DAS?

```
// in views
<?= $_("Das ist ein Text") ?>

// in controller
$this->_('Das ist ein Text');
```

TRAILS-MAGIE

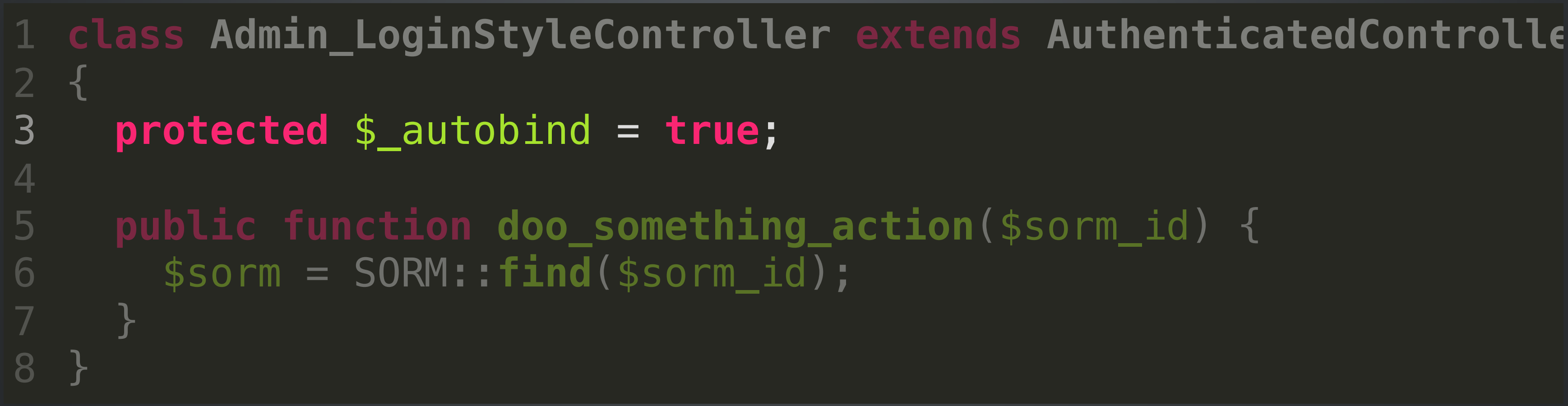
```php
class Admin_LoginStyleController extends AuthenticatedController
{
  public function activation_action($id, $view, $newStatus)
}
```

```php
$controller->url_for('admin/login_style/activation/' . $pic->id . '/mobile' . (int) !$pic->mobile);



$controller->link_for('admin/login_style/activation/' . $pic->id . '/mobile' . (int) !$pic->mobile);
```

TRAILS-MAGIE

```
$controller->activationURL($pic->id, 'mobile', (int) !$pic->mobile);


$controller->activation($pic->id, 'mobile', (int) !$pic->mobile);
```

TRAILS-MAGIE



```
class Admin_LoginStyleController extends AuthenticatedControlle
{
  protected $_autobind = true;

  public function doo_something_action($sorm_id) {
    $sorm = SORM::find($sorm_id);
  }
}
```

```
<form method="post" action="$controller->doo_something($sorm->id)
```

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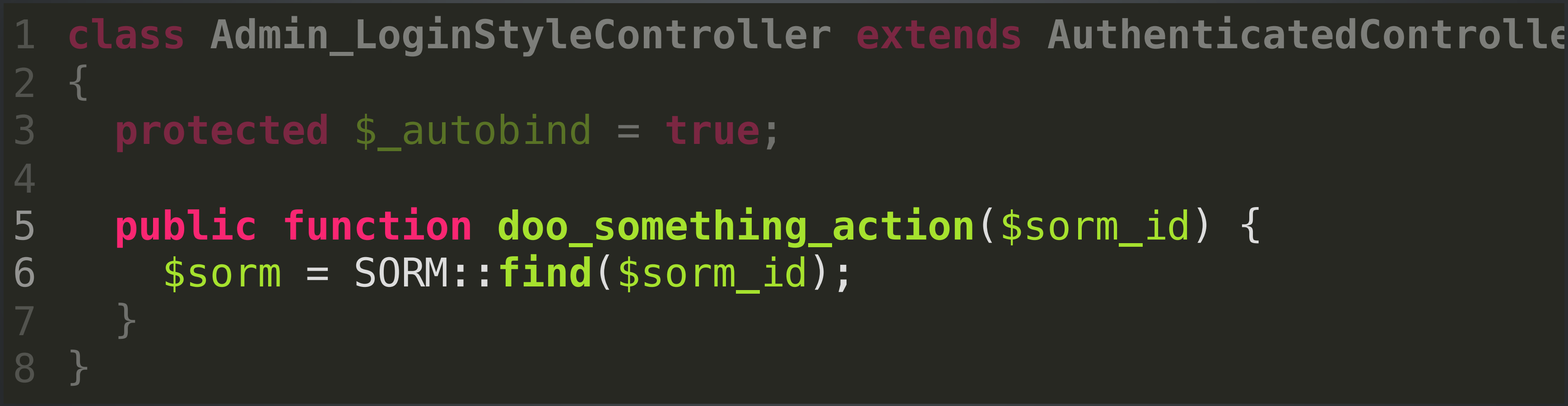
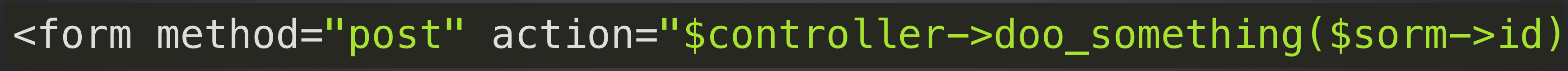
TRAILS-MAGIE



```php
class Admin_LoginStyleController extends AuthenticatedControlle
{
  protected $_autobind = true;

  public function doo_something_action($sorm_id) {
    $sorm = SORM::find($sorm_id);
  }
}
```



```html
<form method="post" action="$controller->doo_something($sorm->id)
```

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TRAILS-MAGIE

```
class Admin_LoginStyleController extends AuthenticatedController
{
  protected $_autobind = true;

  public function doo_something_action(SORM $sorm);
}
```

```
<form method="post" action="$controller->doo_something($sorm)" cl
```

TRAILS-MAGIE

```
$this->redirect(...);
```

```
$this->relocate(...);
```

TRAILS-MAGIE

```
$this->redirect(...);
```

Redirect leitet auf eine andere Seite um, bleibt aber ggf. im Dialog

```
$this->relocate(...);
```

TRAILS-MAGIE

```php
$this->redirect(...);
```

Redirect leitet auf eine andere Seite um, bleibt aber ggf. im Dialog

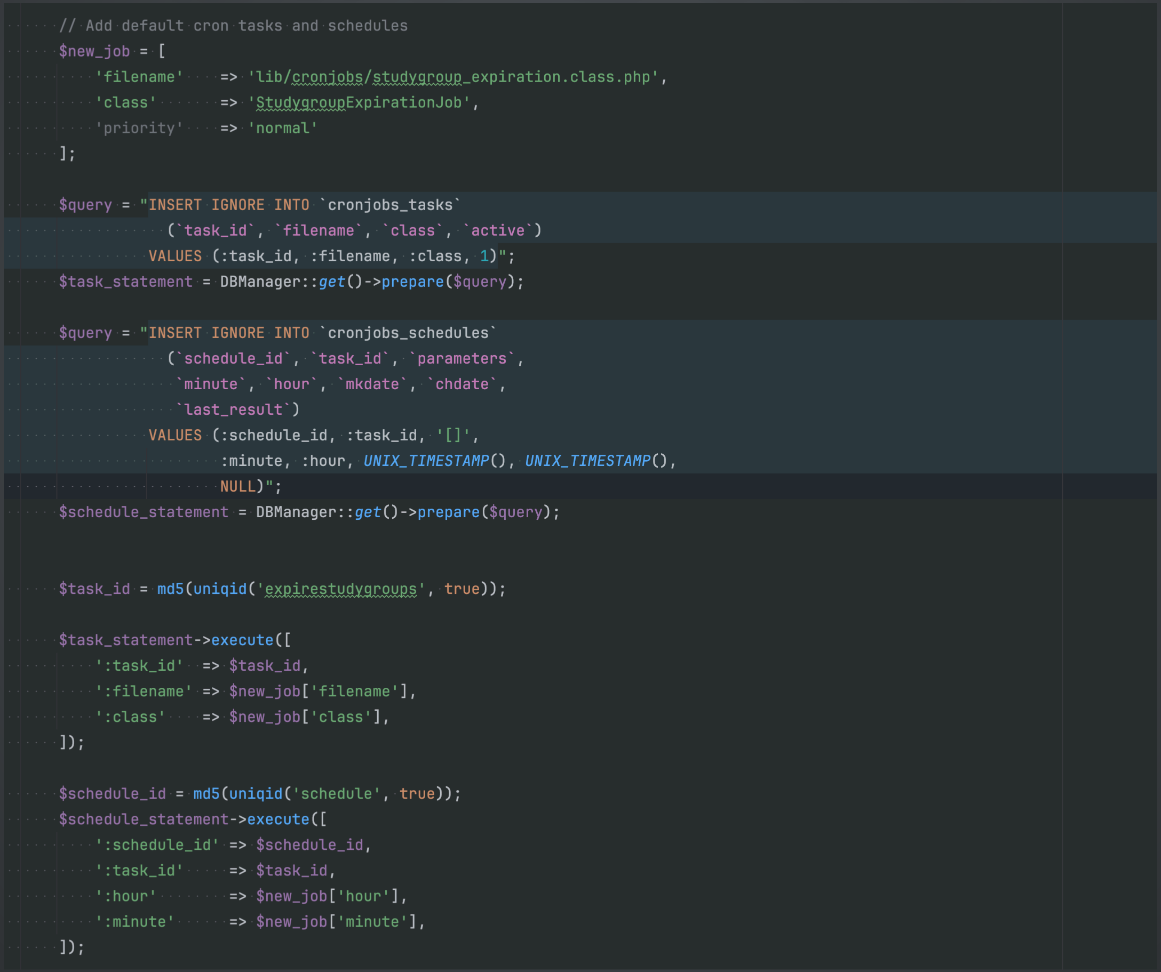
```php
$this->relocate(...);
```

Relocate macht das Gleiche, schließt jedoch den Dialog

CRONJOBS

REGISTIERUNG VON CRONJOBS

CRONJOBS



```
    // Add default cron tasks and schedules
    $new_job = [
        'filename'    => 'lib/cronjobs/studygroup_expiration.class.php',
        'class'       => 'StudygroupExpirationJob',
        'priority'    => 'normal'
    ];

    $query = "INSERT IGNORE INTO `cronjobs_tasks`
                (`task_id`, `filename`, `class`, `active`)
              VALUES (:task_id, :filename, :class, 1)";
    $task_statement = DBManager::get()->prepare($query);

    $query = "INSERT IGNORE INTO `cronjobs_schedules`
                (`schedule_id`, `task_id`, `parameters`,
                 `minute`, `hour`, `mkdate`, `chdate`,
                 `last_result`)
              VALUES (:schedule_id, :task_id, '[]',
                      :minute, :hour, UNIX_TIMESTAMP(), UNIX_TIMESTAMP(),
                      NULL)";
    $schedule_statement = DBManager::get()->prepare($query);


    $task_id = md5(uniqid('expirestudygroups', true));

    $task_statement->execute([
        ':task_id'  => $task_id,
        ':filename' => $new_job['filename'],
        ':class'    => $new_job['class'],
    ]);

    $schedule_id = md5(uniqid('schedule', true));
    $schedule_statement->execute([
        ':schedule_id' => $schedule_id,
        ':task_id'     => $task_id,
        ':hour'        => $new_job['hour'],
        ':minute'      => $new_job['minute'],
    ]);
```

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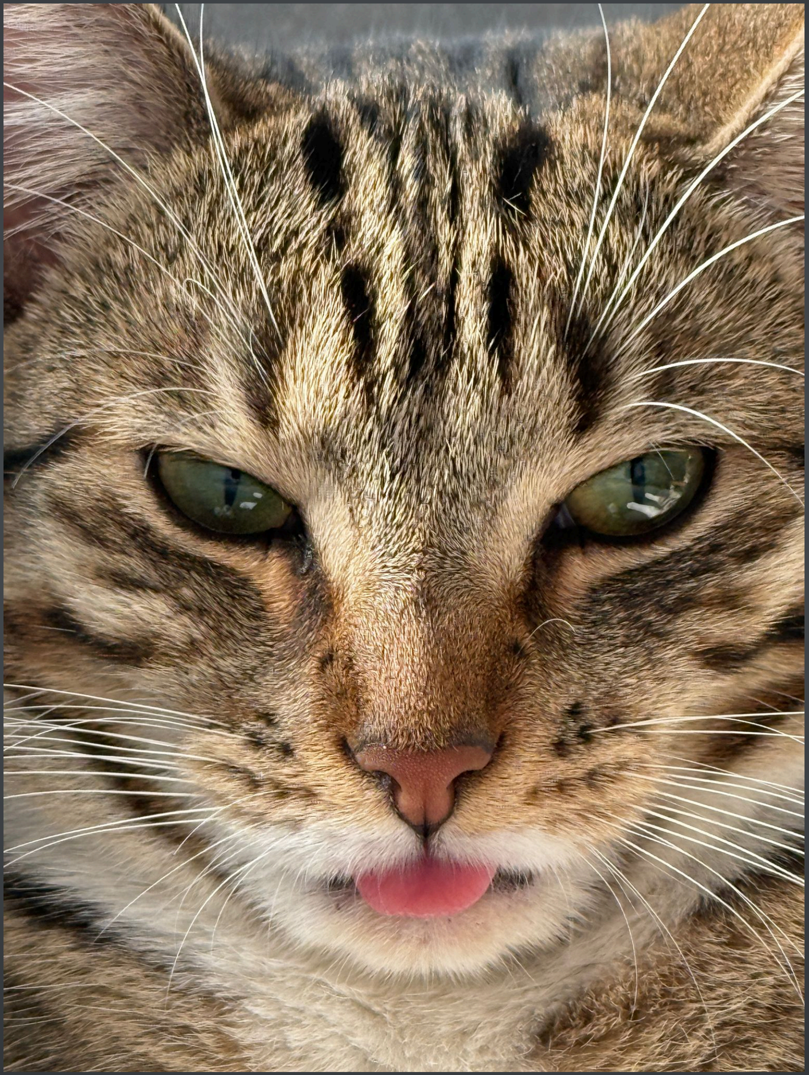
CRONJOBS

```php
<?php
return new class extends Migration
{
  public function __construct($verbose = false)
  {
    parent::__construct($verbose);

    require_once __DIR__ . '/../lib/ExampleCronjob.php';
  }
  public function description()
  {
    return 'Registers the cronjob';
  }


...
```

CRONJOBS

```
  ...

  public function up()
  {
    ExampleCronjob::register()->schedulePeriodic(
      null,
      -12
    );
  }
  protected function down()
  {
    ExampleCronjob::unregister();
  }
};
```

VIELEN DANK! FRAGEN????



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