

# Controllers

## Overview

Unlike components, which potentially can have multiple controllers, modules do not have a controller class. As such, the module directory structure doesn't include a /controllers subdirectory or controller.php. Instead, the setting of parameters, inclusion of any necessary files, and the instantiation of the module's view are done within the mod\_{ModuleName}.php file.

## Directory Structure & Files

The controller is stored in the same directory as the module file itself and must be named the same (the file extension being the obvious difference).

```
/hubzero
  /modules
    /{ModuleName}
      /tmpl
        default.php
        helper.php
        mod_{ModuleName}.php
        mod_{ModuleName}.xml
```

## Implementation

Most modules will perform three tasks in the following order:

- Include the helper.php file which contains the class to be used to collect any necessary data
- Invoke the appropriate helper class method to retrieve any data that needs to be available to the view
- Include the template to display the output

Here are the contents of mod\_listnames.php:

```
<?php
// No direct access
defined('_JEXEC') or die('Restricted access');

// Include the helper file
require_once(__DIR__ . DS . 'helper.php');
```

## CONTROLLERS

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```
// Get the items to display from the helper
$mod = new modListNames($params, $module);
$mod->display();
```