



Drupal 8 Routes & Forms



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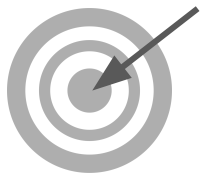
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Drupal 8 Routes & Forms

What we will cover



1. What Happened to Hook_Menu?
2. YAML
 - a. Routing
 - b. Menus
 - c. Links
 - d. Actions
3. Routing to Controllers (Endpoints)
4. Routing to Forms



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What Happened to Hook_Menu?

In previous versions of Drupal there was a specific Hook that did too much. `hook_menu()`

It determines:

- Page URIs
- Multiple types of links within the menu system and UI
- Callbacks for routes
- File loading for callback file inclusion
- Access control



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What Happened to Hook_Menu?

In Drupal 8 these various functions of a `hook_menu()` item have been broken up into their own YAML files. All routes are defined in `*.routing.yml`, while links are in separate files predominantly delineated along the lines of the previous “type” property of the menu item.

Drupal 7	Drupal 8 Replacement
<code>MENU_CALLBACK</code>	<code>*.routing.yml</code>
<code>MENU_NORMAL_ITEM</code>	<code>*.routing.yml</code> & <code>*.links.menu.yml</code> - Menu Items
<code>MENU_(DEFAULT)_LOCAL_TASK</code>	<code>*.routing.yml</code> & <code>*.links.task.yml</code> - Tabs.
<code>MENU_LOCAL_ACTION</code>	<code>*.routing.yml</code> & <code>*.links.action.yml</code> - Local action links.
?	<code>*.routing.yml</code> & <code>*.links.contextual.yml</code> - Admin actions



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Example YAML - *.routing.yml

Route to Form

core/modules/node/node.routing.yml

- Route Name
- Route URI
- Route Form
- Access Control

```
node.multiple_delete_confirm:  
  path: '/admin/content/node/delete'  
  defaults:  
    _form: '\Drupal\node\Form\DeleteMultiple'  
  requirements:  
    _permission: 'administer nodes'
```

Route to Controller

- Route Name
- Route URI
- Page Title
- Route Controller
- Access Control

```
node.add_page:  
  path: '/node/add'  
  defaults:  
    _title: 'Add content'  
    _controller: '\Drupal\node\Controller\NodeController::addPage'  
  options:  
    _node_operation_route: TRUE  
  requirements:  
    _node_add_access: 'node'
```



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Example YAML - *.links*.yml

Note:

In this example the link name and the route name are the same.

This is merely a coincidence.

```
core/modules/node/node.links.menu.yml
```

Link name → `node.add_page:`
Default link title → `title: 'Add content'`
Name of Route link points to → `route_name: node.add_page`

```
core/modules/node/node.routing.yml
```

Route name → `node.add_page:`

```
  path: '/node/add'
  defaults:
    _title: 'Add content'
    _controller: '\Drupal\node\Controller\NodeController::addPage'
  options:
    _node_operation_route: TRUE
  requirements:
    _node_add_access: 'node'
```



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Example - Routing to Controller

Controller is a fancy word that means, “class with methods that generate output for the user”. The ControllerBase is not required, but can be helpful.

example_routing/example_routing.routing.yml

```
# Route name can be anything reasonable.
my.module.some.route.name.to.page:
  # URI where this route will respond
  path: 'my-page'
  defaults:
    _controller: '\Drupal\example_routing\Controller\SomePage::myMethod'
    _title: 'My Page'
  requirements:
    _permission: 'access content'

# You can point multiple routes to the same controller.
another.route.this.one.with.parameters:
  path: 'my-parameters/{some_name}/{some_title}'
  defaults:
    _controller: '\Drupal\example_routing\Controller\SomePage::withParameters'
  requirements:
    _permission: 'access content'
```

example_routing/src/Controller/SomePage.php

```
<?php

namespace Drupal\example_routing\Controller;

use Drupal\Core\Controller\ControllerBase;

class SomePage extends ControllerBase {

  public function myMethod() {
    return [
      'my_element' => [
        '#markup' => '<p>HELLO!!!</p>',
      ]
    ];
  }

  public function withParameters($some_name, $some_title) {
    return [
      'someone_is_a_title' => [
        '#type' => 'html_tag',
        '#tag' => 'h2',
        '#value' => "{$some_name} is the {$some_title}",
      ]
    ];
  }
}
```




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Example - Routing to Form

When routing to forms, you point towards the fully namespaced form class. Forms must:

- Extend `FormBase`
- Have a `getFormId()` method
- Have a `buildForm()` method
- Have a `submitForm()` method

example_routing/example_routing.routing.yml

```
# Routing to a form is slightly different.
# Instead of _controller, use _form, and target
# the class instead of a method.
my.route.to.a.form:
  path: 'my-form'
  defaults:
    _form: '\Drupal\example_routing\Form\SomeForm'
    _title: 'This is my form'
  requirements:
    _permission: 'access content'
```

example_routing/example_routing.routing.yml

```
<?php
namespace Drupal\example_routing\Form;

use Drupal\Core\Form\FormBase;
use Drupal\Core\Form\FormStateInterface;

class SomeForm extends FormBase {

  public function getFormId() {
    return 'my_awesome_form_whydontcha';
  }

  public function buildForm(array $form, FormStateInterface $form_state) {
    $form['some_text'] = [
      '#type' => 'textfield',
      '#title' => $this->t('Type something'),
    ];
    $form['submit'] = [
      '#type' => 'submit',
      '#default_value' => $this->t('Submit'),
    ];
    return $form;
  }

  public function submitForm(array &$form, FormStateInterface $form_state) {
    $messenger = \Drupal::messenger();

    $messenger->addMessage($form_state->getValue('some_text'));
  }
}
```



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Example - *.links.menu.yml

example_routing/example_routing.routing.yml

```
# Route name can be anything reasonable.  
my.module.some.route.name.to.page:  
# URI where this route will respond  
path: 'my-page'  
defaults:  
  _controller: '\Drupal\example_routing\Controller\SomePage::myMethod'  
  _title: 'My Page'  
requirements:  
  _permission: 'access content'
```

example_routing/example_routing.links.menu.yml

```
# Top level is the link's name  
my.menu-link:  
title: 'A link to one of my pages'  
menu_name: main  
route_name: my.module.some.route.name.to.page
```

