

Content Moderation In Core

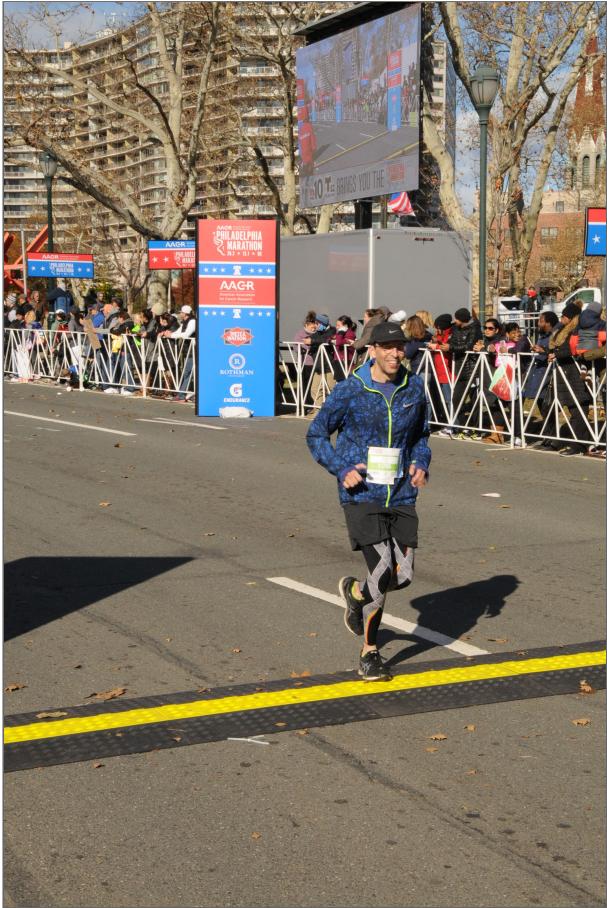
A Presentation By Eric Sod

esod on drupal.org

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Introduction



- Senior Drupal Developer at Memorial Sloan Kettering Cancer Center (MSKCC).
- Work on the team that produces MSKCC's public facing web site, www.mskcc.org
- Eight years experience as a web developer.

Memorial Sloan Kettering



- Memorial Sloan Kettering Cancer Center is the world's oldest and largest private cancer center.
- MSKCC has devoted more than 130 years to exceptional patient care, innovative research, and outstanding educational programs.

Overview

- The Content Moderation module allows you to expand on Drupal's "unpublished" and "published" states for content.
- It allows you to have a published version that is live, but have a separate working copy that is undergoing review before it is published.
- This is achieved by using **Workflows** to apply different states to entities as needed.

Workflow Initiative

Content Moderation Is A Part Of The Workflow Initiative

Background

- Bring new features for actually managing content, such as workflows, preview and staging.
- Include functionality in core based on what contrib modules have done for many years.

Workflow Initiative

<https://www.drupal.org/project/ideas/issues/2721129>

Workflow Initiative

Goals

- Bring major improvements to Drupal's content workflow, preview and staging capabilities.
- Much of the functionality that is being implemented takes heavy inspiration from modules such as Workbench Moderation.

Workflow Initiative

<https://www.drupal.org/project/ideas/issues/272129>

Workflow Initiative

Phase C: Content Moderation Module

- This phase has introduced a module for moderating the publishing state on individual content entities.

Plan issues:

- **#2755073: WI: Content Moderation module roadmap**
<https://www.drupal.org/project/drupal/issues/2755073>
- **#2843494: WI: Workflows module roadmap**
<https://www.drupal.org/project/drupal/issues/2843494>

Workflow Initiative

<https://www.drupal.org/project/ideas/issues/2721129>

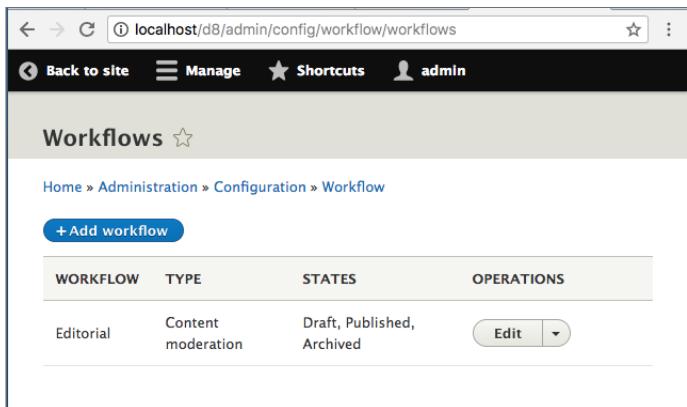
Workflows Overview

- The Drupal 8 Workflows module allows you to manage workflow with states and transitions.
- **Content Moderation** is a core module that harnesses the Workflows module to allow revisionable content entities to move between different moderation states.

Workflows Overview

<https://www.drupal.org/docs/8/core/modules/workflows/>

Workflows Configuration



The screenshot shows the 'Workflows' configuration page in the Drupal 8 admin interface. The URL is `localhost/d8/admin/config/workflow/workflows`. The page title is 'Workflows'. The breadcrumb navigation shows 'Home > Administration > Configuration > Workflow'. A blue button labeled '+ Add workflow' is visible. Below it is a table with four columns: WORKFLOW, TYPE, STATES, and OPERATIONS. One row is present, showing 'Editorial' under WORKFLOW, 'Content moderation' under TYPE, 'Draft, Published, Archived' under STATES, and an 'Edit' button under OPERATIONS.

WORKFLOW	TYPE	STATES	OPERATIONS
Editorial	Content moderation	Draft, Published, Archived	<button>Edit</button>

- Enabling the Content Moderation module creates a default Workflow called "Editorial" that can be used for custom block types or content types.

Configuring A Workflow

A workflow consists of "States" and "Transitions".

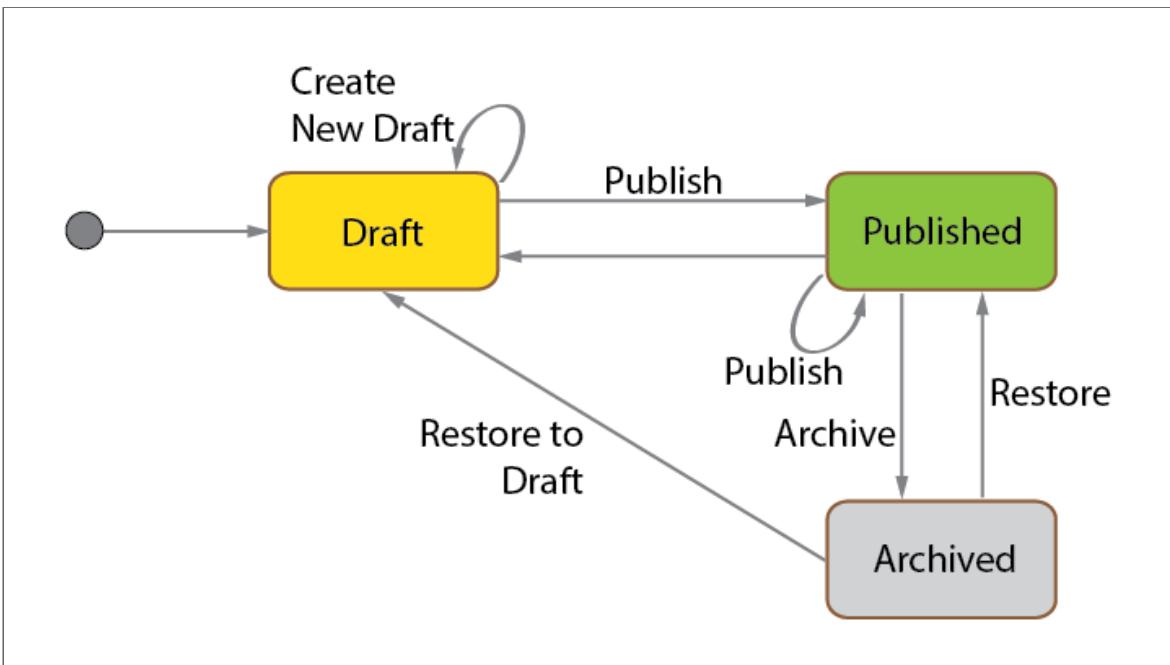
What is a workflow, really?



Workflow

Content Moderation Workflow

Content Moderation Module - Out Of The Box



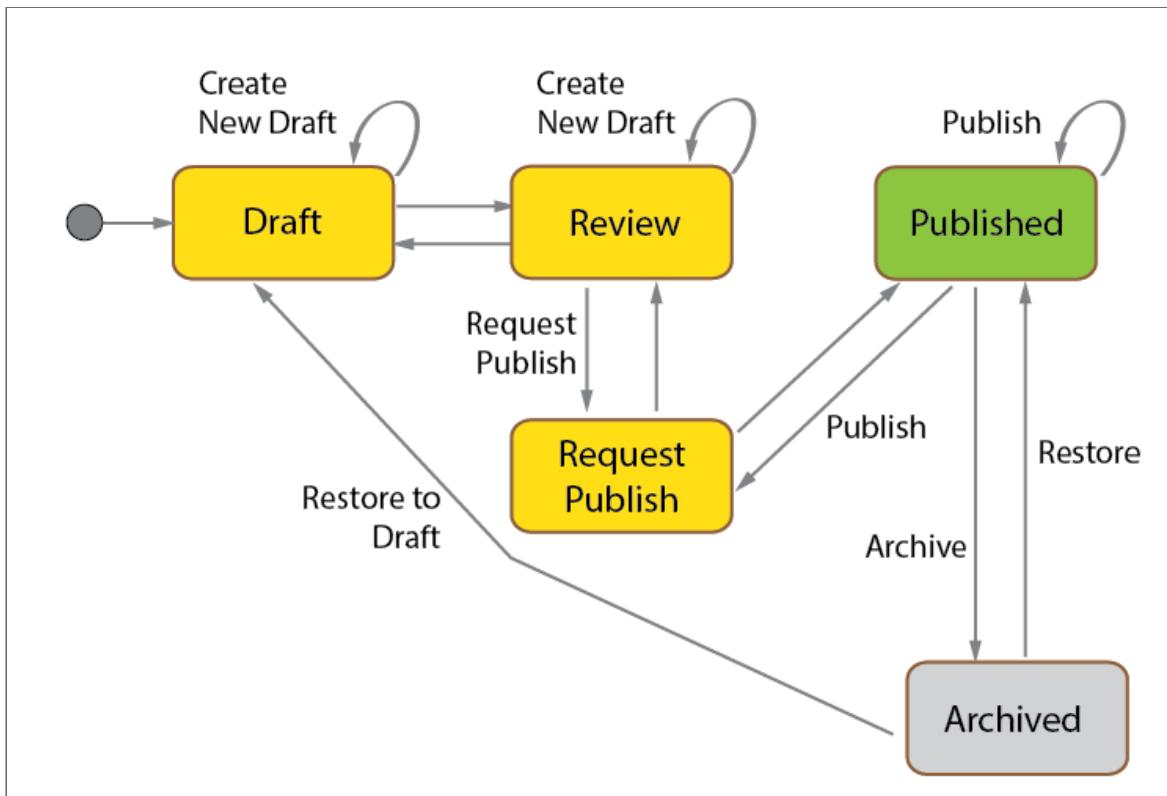
[Image credit](#)

[Kim Pepper, DrupalSouth 2017](#)

<https://www.previousnext.com.au/blog/workflows-new-tool-toolbox>

Content Moderation Workflow

Add A Reviewer



Content Moderation Configuration

https://github.com/esod/content_moderation_configuration

https://github.com/esod/content_moderation_configuration

States

States

States are the different statuses your content can have such as Draft, Published, etc.

States

Add two new states to customize our workflow:
"Review" and "Request publish"

The screenshot shows the 'Edit Editorial workflow' configuration page. At the top, there is a navigation bar with links for Home, Manage, Shortcuts, and admin. Below the navigation is a toolbar with icons for Content, Structure, Appearance, Extend, Configuration, People, and a search bar.

The main content area has a title 'Edit Editorial workflow' with a star icon. Below the title, a breadcrumb trail shows: Home » Administration » Configuration » Workflow » Workflows.

A 'Label*' field is filled with 'Editorial'. To its right, a note says 'Machine name: editorial'.

A section titled '▼ STATES' contains a table with two columns: 'STATE' and 'OPERATIONS'. The table lists five states:

STATE	OPERATIONS
Draft	<button>Edit</button>
Review	<button>Edit</button> ▾
Request publish	<button>Edit</button> ▾
Published	<button>Edit</button>
Archived	<button>Edit</button> ▾

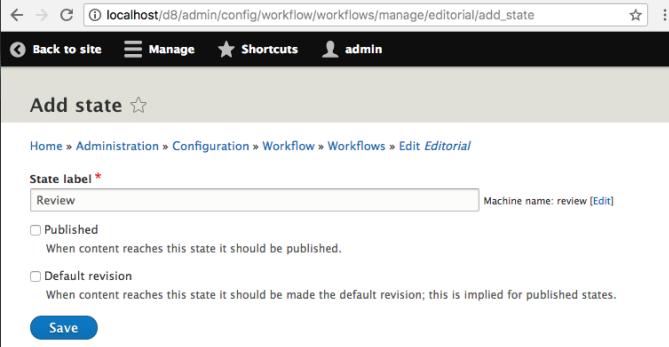
At the bottom of the table, there is a link 'Add a new state'.

States

The screenshot shows a web browser window with the URL `localhost/d8/admin/config/workflow/workflows/manage/editorial/add_state`. The page title is "Add state". The navigation bar includes "Back to site", "Manage", "Shortcuts", and "admin". Below the title, the breadcrumb trail is "Home > Administration > Configuration > Workflow > Workflows > Edit Editorial". The main content area has a "State label*" field containing "Review", with a note "Machine name: review [Edit]". There are two checkboxes: "Published" (unchecked) with the description "When content reaches this state it should be published." and "Default revision" (unchecked) with the description "When content reaches this state it should be made the default revision; this is implied for published states.". A blue "Save" button is at the bottom.

- States can be "Published" and/or a "Default revision".

States



The screenshot shows the 'Add state' form in the Drupal 8 admin interface. The URL is localhost/d8/admin/config/workflow/workflows/manage/editorial/add_state. The page title is 'Add state'. The path is Home > Administration > Configuration > Workflow > Workflows > Edit Editorial. The form has a 'State label' field containing 'Review' with a machine name of 'review'. There are two checkboxes: 'Published' (unchecked) which says 'When content reaches this state it should be published.' and 'Default revision' (unchecked) which says 'When content reaches this state it should be made the default revision; this is implied for published states.' A 'Save' button is at the bottom.

- A state marked "Published" updates the core publishing status to published. Otherwise it is updated to unpublished.
- A state marked "Default revision" updates the current revision to be the default revision when loading the entity.

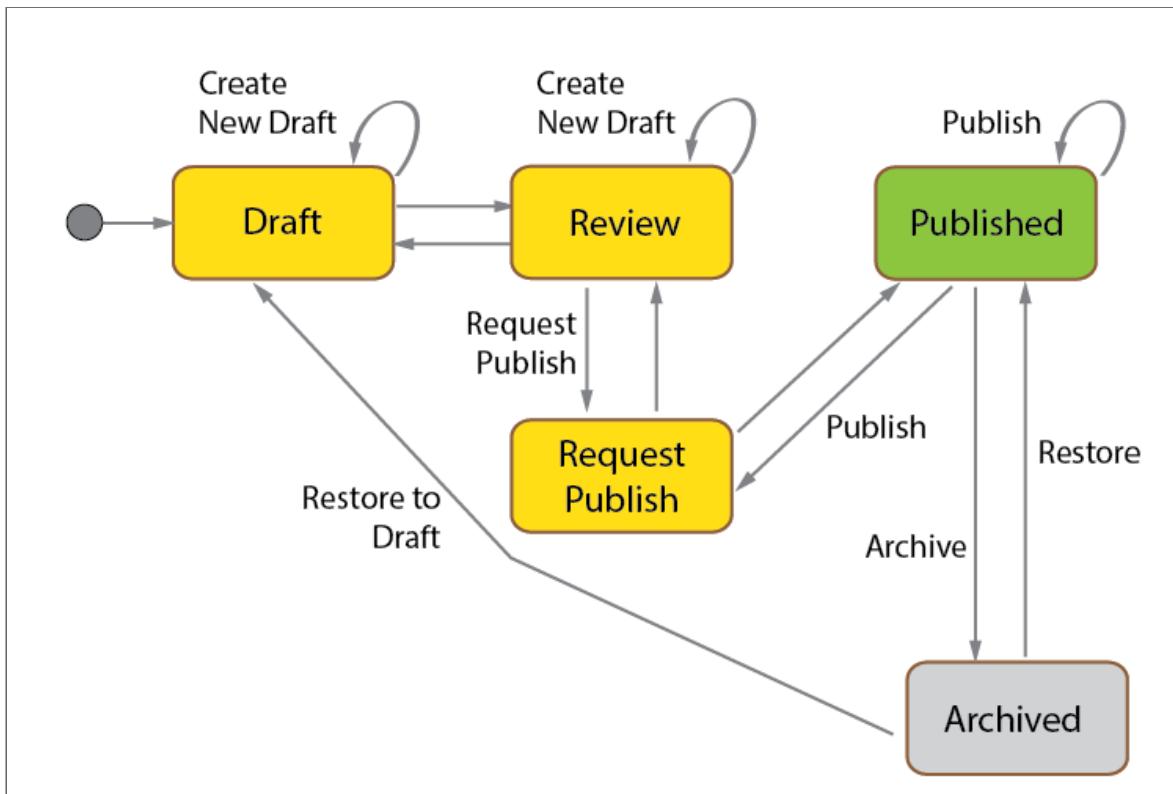
States

For our new states, "Published" and "Request publish" should be unchecked, since neither state is a published state.

The image displays two side-by-side screenshots of a web-based administration interface for managing workflow states. Both screenshots show a header with navigation links like 'Back to site', 'Manage', 'Shortcuts', and 'admin'. The left screenshot, titled 'Add state ☆', shows a form for creating a new state named 'Review' (Machine name: review). It includes two checkboxes: 'Published' (unchecked) and 'Default revision' (unchecked). The right screenshot, titled 'Edit state ☆', shows the same form for an existing state named 'Request publish' (Machine name: request_publish). It also includes the same two checkboxes, both of which are unchecked. A blue 'Save' button is visible at the bottom of both forms.

Content Moderation Workflow

States Have Been Added To Our Workflow

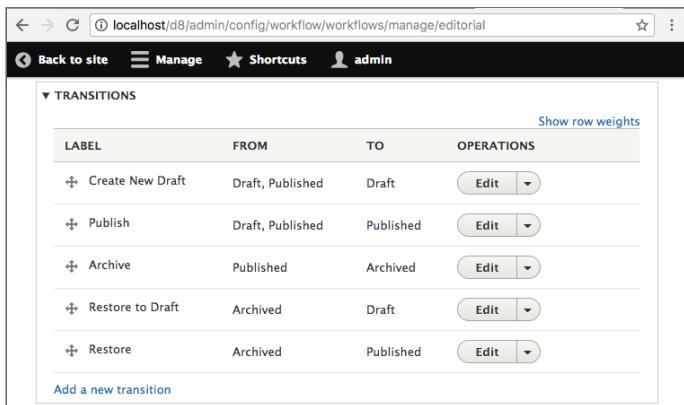


Transitions

Transitions

Transitions are the actual workflow that moves the content between states.

Transitions



The screenshot shows the 'TRANSITIONS' configuration page for the Editorial workflow in Drupal 8. The URL is localhost/d8/admin/config/workflow/workflows/manage/editorial. The page has a header with 'Back to site', 'Manage', 'Shortcuts', and 'admin'. Below the header is a table titled 'TRANSITIONS' with columns: LABEL, FROM, TO, and OPERATIONS. There are five rows in the table:

LABEL	FROM	TO	OPERATIONS
>Create New Draft	Draft, Published	Draft	<button>Edit</button>
Publish	Draft, Published	Published	<button>Edit</button>
Archive	Published	Archived	<button>Edit</button>
Restore to Draft	Archived	Draft	<button>Edit</button>
Restore	Archived	Published	<button>Edit</button>

At the bottom of the table, there is a link 'Add a new transition'.

- These are the default transitions that come configured with the Editorial workflow.

Transitions

The screenshot shows a web-based configuration interface for a workflow transition. The URL in the address bar is `localhost:8888/admin/config/workflow/workflows/manage/editorial/transition/ready_for_review`. The page title is "Edit transition". The main content area has a form with the following fields:

- Transition label ***: Ready for review
- From ***:
 - Draft
 - Review
 - Published
 - Archived
- To ***:
 - Draft
 - Review
 - Published
 - Archived

At the bottom of the form are two buttons: a blue "Save" button and a red "Delete" button.

- To make the new "Review" state useful, add two transitions: "Ready for review" and "Request publish".
- "Ready for review" will move content back and forth between the Draft and Review states.

Transitions

The screenshot shows a web-based administration interface for managing workflow transitions. The URL in the address bar is `localhost:8888/admin/config/workflow/workflows/manage/editorial/transition/request_publish`. The top navigation bar includes links for 'Back to site', 'Manage', 'Shortcuts', and 'admin'. Below the navigation are tabs for 'Content', 'Structure', 'Appearance', 'Extend', 'Configuration', 'People', and 'Reports'. The main content area is titled 'Edit transition' with a star icon. It displays the following configuration:

- Transition label ***: Request publish
- From ***:
 - Draft
 - Review
 - Request publish
 - Published
 - Archived
- To ***:
 - Draft
 - Review
 - Request publish
 - Published
 - Archived

At the bottom are two buttons: a blue 'Save' button and a red 'Delete' button.

- The "Request publish" transition will allow content under "Review" to be changed to the state 'Request publish'.

Transitions

The screenshot shows the 'Edit transition' page in the D8 admin interface. The URL is `localhost:8888/admin/config/workflow/workflows/manage/editorial/transition/create_new_draft`. The page title is 'Edit transition'. The breadcrumb navigation shows: Home > Administration > Configuration > Workflow > Workflows > Edit Editorial. The main form has a 'Transition label *' field containing 'Create New Draft'. Under 'From *', 'Draft' and 'Review' are selected. Under 'To *', 'Draft' is selected. At the bottom are 'Save' and 'Delete' buttons.

- We also need to add the "Review" state to the "Create New Draft" transition.

Transitions

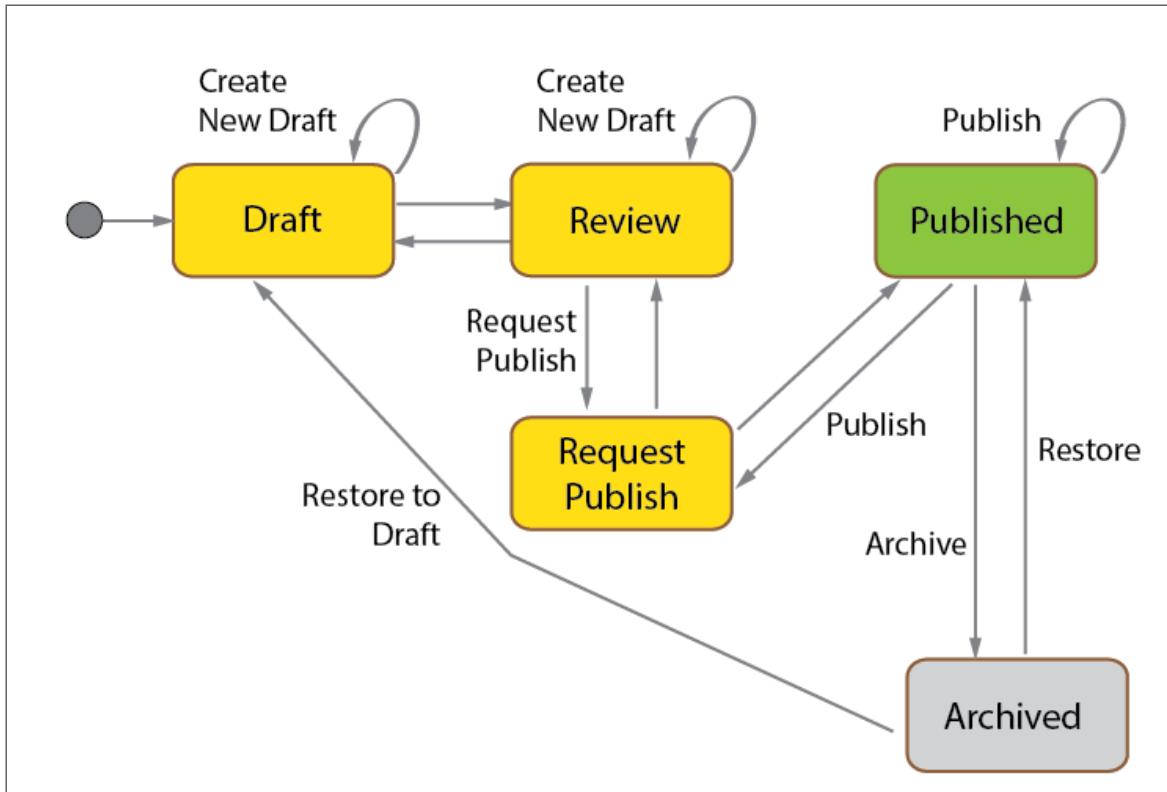
The screenshot shows the 'Edit transition' page in the D8 admin interface. The URL is `localhost:8888/admin/config/workflow/workflows/manage/editorial/transition/publish`. The page title is 'Edit transition'. The 'Transition label' field contains 'Publish'. Under 'From', the 'Request publish' option is selected. Under 'To', the 'Published' option is selected. At the bottom are 'Save' and 'Delete' buttons.

- To make the new "Request publish" state useful, add the "Request publish" state to the "Publish" transition to allow content under "Request publish" to be published.

Content Moderation Workflow

Transitions Have Been Added To Our Workflow

```
drush -y config-import --partial --
source=/PATH_TO_REPO/content_moderation_configuration
```



Applying The Workflow

Applying The Workflow

Arrange The Order Of States And Transitions To Your Liking.

The screenshot shows the 'Edit Editorial workflow' configuration page in the Drupal 8 admin interface. The page is titled 'Edit Editorial workflow' and includes a breadcrumb trail: Home > Administration > Configuration > Workflow > Workflows. The main content area is divided into two sections: 'STATES' and 'TRANSITIONS'.

STATES:

STATE	OPERATIONS
Draft	<button>Edit</button>
Review	<button>Edit</button>
Request publish	<button>Edit</button>
Published	<button>Edit</button>
Archived	<button>Edit</button>

[Add a new state](#)

TRANSITIONS:

LABEL	FROM	TO	OPERATIONS
Create New Draft	Draft, Review, Request publish, Published	Draft	<button>Edit</button>
Ready for review	Draft, Review, Request publish	Review	<button>Edit</button>
Request publish	Review, Request publish	Request publish	<button>Edit</button>
Publish	Draft, Request publish, Published	Published	<button>Edit</button>
Archive	Published	Archived	<button>Edit</button>
Restore to Draft	Archived	Draft	<button>Edit</button>
Restore	Archived	Published	<button>Edit</button>

[Add a new transition](#)

Applying The Workflow

A screenshot of a Drupal 8 administrative interface. The URL in the browser is `localhost/d8/node/add/page`. The page title is "Create Basic page". The top navigation bar includes "Manage", "Shortcuts", and "admin". Below the title, there's a "Title" field with a red asterisk indicating it's required. The main content area has a "Body" rich text editor with a toolbar. A red arrow points from the text "Where's my workflow?" to the "Published" checkbox. The "Published" checkbox is checked and highlighted with a red arrow. At the bottom are "Save" and "Preview" buttons.

- The Editorial workflow has not been applied to any content types yet.
- So, there is no change on the create/edit node form.

Applying The Workflow

- On the [Editorial workflow](#) admin page, follow these simple steps.
- Now, the create/edit node form looks like this ...

THIS WORKFLOW APPLIES TO:

ITEMS	OPERATIONS
Custom block types none	Select
Content types none	Select

Save Delete Add content types here.

Select the content types for the Editorial workflow

ITEMS
Custom none
Content none

ALL CONTENT TYPES
 Article
 Basic page

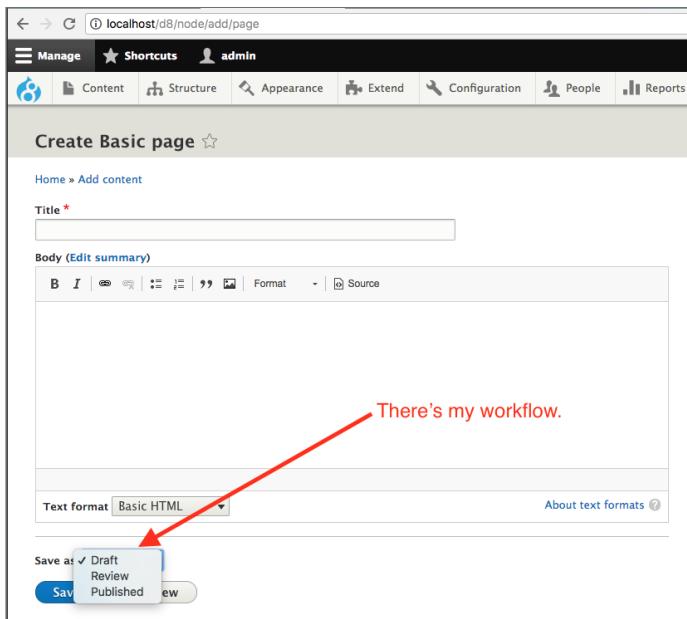
Save Click Save. Cancel

THIS WORKFLOW APPLIES TO:

ITEMS	OPERATIONS
Custom block types none	Select
Content types Basic page	Select

Save Delete The workflow is now applied to Basic page.

Applying The Workflow



- Let's compare the before and after.

Applying The Workflow

Before

After

localhost/db/node/add/page

Manage Shortcuts admin

Create Basic page ☆

Title *

Body (Edit summary)

Text format Basic HTML About text formats

Published

Save Preview

Where's my workflow?

localhost/db/node/add/page

Manage Shortcuts admin

Create Basic page ☆

Title *

Body (Edit summary)

Text format Basic HTML About text formats

Published

Save as ✓ Draft Review Published New

There's my workflow.

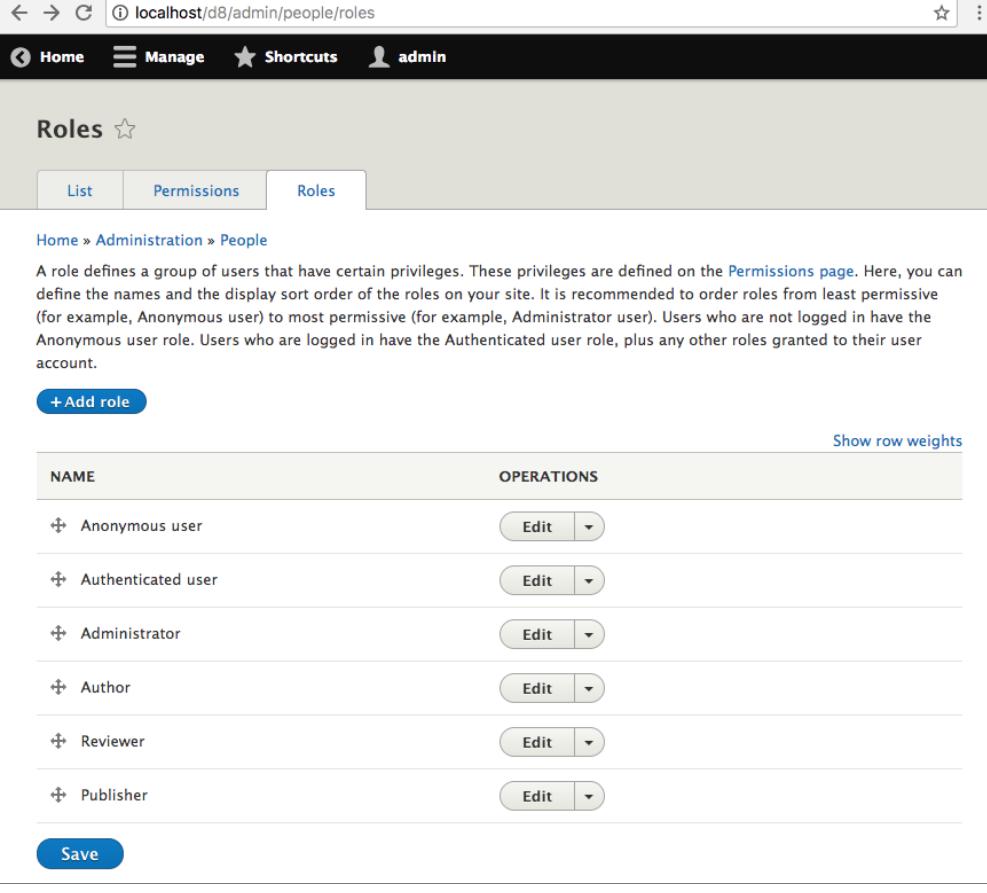
But Wait!

- Which roles get to create drafts, do reviews, publish content and archive (unpublish) content?

Roles And Permissions

Roles

Roles



The screenshot shows the 'Roles' management page in the Drupal 8 admin interface. The URL is `localhost/d8/admin/people/roles`. The top navigation bar includes 'Home', 'Manage', 'Shortcuts', and the user 'admin'. Below the navigation is a breadcrumb trail: 'Home > Administration > People > Roles'. A sub-breadcrumb 'Roles' with a star icon is also present. There are three tabs at the top: 'List', 'Permissions', and 'Roles', with 'Roles' being the active tab. A note below the tabs explains that roles define groups of users with privileges, mentioning the 'Permissions page'. It also notes that roles can be ordered from least permissive (Anonymous user) to most permissive (Administrator user). A 'Show row weights' link is located above the table. The table lists six roles: 'Anonymous user', 'Authenticated user', 'Administrator', 'Author', 'Reviewer', and 'Publisher', each with an 'Edit' button. At the bottom left is a 'Save' button.

NAME	OPERATIONS
Anonymous user	<button>Edit</button>
Authenticated user	<button>Edit</button>
Administrator	<button>Edit</button>
Author	<button>Edit</button>
Reviewer	<button>Edit</button>
Publisher	<button>Edit</button>

Show row weights

+ Add role

Save

Permissions

Permissions For Authors

A screenshot of the Drupal 8 permissions configuration page for the 'AUTHOR' role. The URL is `localhost/d8/admin/people/permissions/author`. The 'AUTHOR' role is highlighted with a red arrow. The page lists various permissions under the 'Content Moderation' section, with checkboxes indicating whether each permission is granted or denied. A note at the bottom states: 'Requires the "View any unpublished content" or "View own unpublished content" permission'.

Permission	Granted
Editorial workflow: Use Archive transition.	<input type="checkbox"/>
Editorial workflow: Use Create New Draft transition.	<input checked="" type="checkbox"/>
Editorial workflow: Use Publish transition.	<input type="checkbox"/>
Editorial workflow: Use Ready for review transition.	<input checked="" type="checkbox"/>
Editorial workflow: Use Request publish transition.	<input type="checkbox"/>
Editorial workflow: Use Restore transition.	<input type="checkbox"/>
Editorial workflow: Use Restore to Draft transition.	<input type="checkbox"/>
View any unpublished content	<input type="checkbox"/>
View the latest version	<input checked="" type="checkbox"/>

A screenshot of the Drupal 8 permissions configuration page for the 'AUTHOR' role. The URL is `localhost/d8/admin/people/permissions/author`. The 'AUTHOR' role is highlighted with a red arrow. The page shows a single permission listed: 'View own unpublished content', which is checked.

Permission	Granted
View own unpublished content	<input checked="" type="checkbox"/>

Permissions For Reviewers

A screenshot of a web browser showing the Drupal 8 permissions configuration page. The URL in the address bar is `localhost/d8/admin/people/permissions/reviewer`. The page title is "PERMISSION". At the top right, there is a red arrow pointing to the "REVIEWER" role name. The "REVIEWER" role has several permissions listed:

Permission	REVIEWER
Content Moderation	
Editorial workflow: Use Archive transition.	<input type="checkbox"/>
Editorial workflow: Use Create New Draft transition.	<input checked="" type="checkbox"/>
Editorial workflow: Use Publish transition.	<input type="checkbox"/>
Editorial workflow: Use Ready for review transition.	<input checked="" type="checkbox"/>
Editorial workflow: Use Request publish transition.	<input checked="" type="checkbox"/>
Editorial workflow: Use Restore transition.	<input type="checkbox"/>
Editorial workflow: Use Restore to Draft transition.	<input checked="" type="checkbox"/>
View any unpublished content	<input checked="" type="checkbox"/>
View the latest version	
Requires the "View any unpublished content" or "View own unpublished content" permission	<input checked="" type="checkbox"/>

Permissions For Publishers

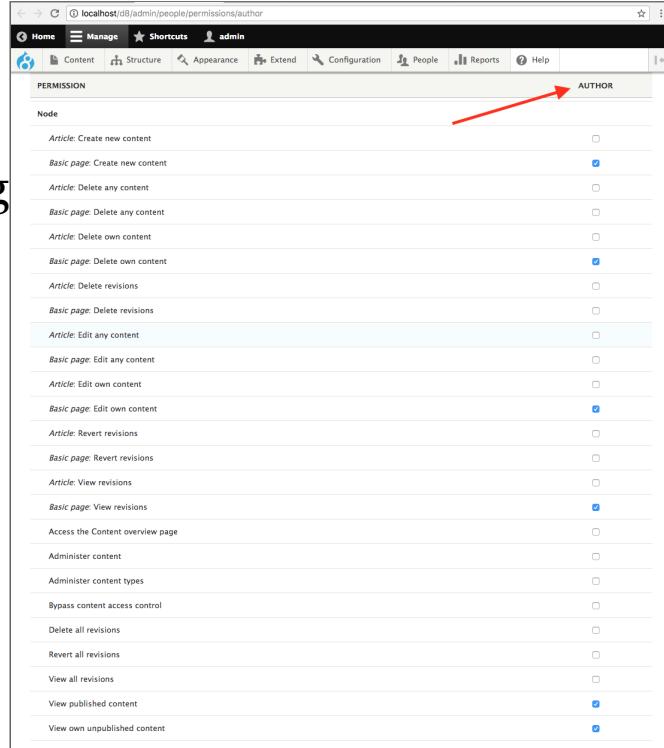
A screenshot of a web browser showing the Drupal 8 permissions management interface. The URL is `localhost/d8/admin/people/permissions/publisher`. The page title is "PERMISSION". At the top, there are links for "Home", "Manage", "Shortcuts", and the user "admin". On the right side, a red arrow points from the "Content Moderation" section towards the "PUBLISHER" role column. The "PUBLISHER" role has a checked checkbox in every row. The "Content Moderation" section contains the following items:

PERMISSION	PUBLISHER
<i>Editorial workflow: Use Archive transition.</i>	<input checked="" type="checkbox"/>
<i>Editorial workflow: Use Create New Draft transition.</i>	<input checked="" type="checkbox"/>
<i>Editorial workflow: Use Publish transition.</i>	<input checked="" type="checkbox"/>
<i>Editorial workflow: Use Ready for review transition.</i>	<input checked="" type="checkbox"/>
<i>Editorial workflow: Use Request publish transition.</i>	<input checked="" type="checkbox"/>
<i>Editorial workflow: Use Restore transition.</i>	<input checked="" type="checkbox"/>
<i>Editorial workflow: Use Restore to Draft transition.</i>	<input checked="" type="checkbox"/>
View any unpublished content	<input checked="" type="checkbox"/>
View the latest version	<input checked="" type="checkbox"/>
Requires the "View any unpublished content" or "View own unpublished content" permission	

Node Permissions

Node Permissions

- The Author role has permission to create and edit own Basic pages, as well as viewing and reverting revisions.
- The Editor role has additional permissions such as editing of any Basic page, as well as deleting.
- The Publisher role has additional permissions.



Users

Content Moderation

Users

The screenshot shows the Drupal 8 Admin interface for managing users. The top navigation bar includes links for Home, Manage, Shortcuts, and the current user (admin). Below the navigation is a toolbar with icons for Content, Structure, Appearance, Extend, Configuration, People, Reports, and Help.

The main content area is titled "People" with a star icon. It features three tabs: List (selected), Permissions, and Roles. A breadcrumb trail indicates the path: Home > Administration > People. A blue button labeled "+ Add user" is visible.

Search and filter options are present, including fields for "Name or email contains" and dropdown menus for "Status", "Role", and "Permission". A "Filter" button is located below these controls.

An "Action" dropdown menu is open, showing the option "Add the Administrator role to the selected user(s)".

A "Apply to selected items" button is located above the user list table.

The user list table has columns: USERNAME, STATUS, ROLES, MEMBER FOR, LAST ACCESS, and OPERATIONS. The data is as follows:

USERNAME	STATUS	ROLES	MEMBER FOR	LAST ACCESS	OPERATIONS
Publisher	Active	• Publisher	25 seconds	never	<button>Edit</button>
Reviewer	Active	• Reviewer	49 seconds	never	<button>Edit</button>
Author	Active	• Author	1 minute 23 seconds	never	<button>Edit</button>
admin	Active	• Administrator	6 days 20 hours	49 seconds ago	<button>Edit</button>

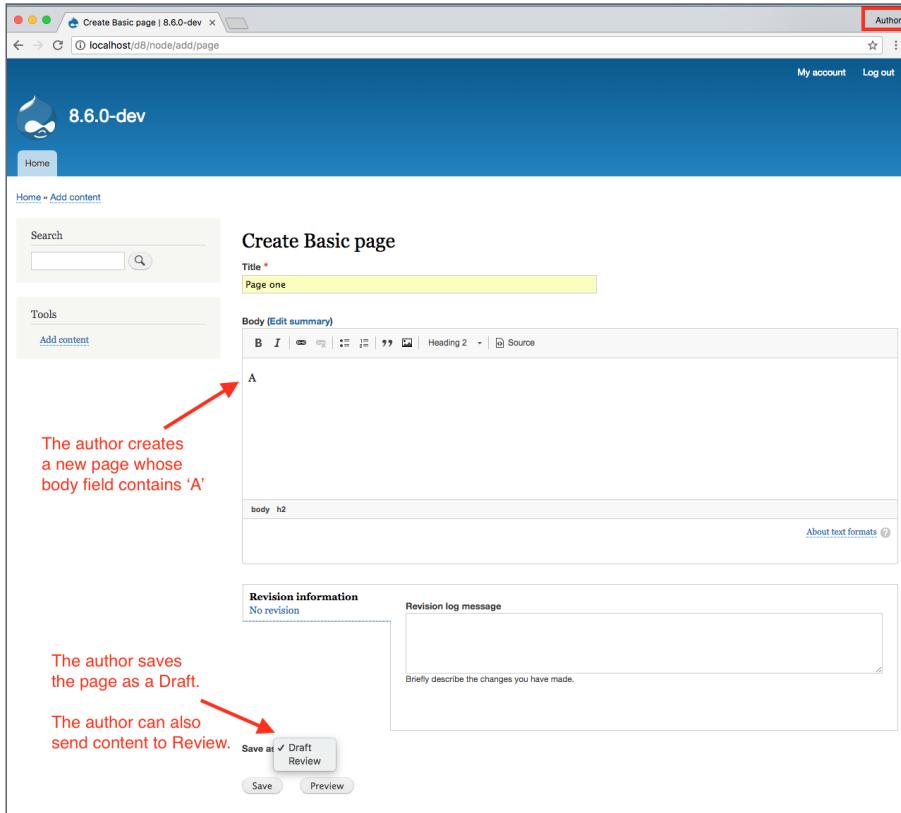
At the bottom of the table is another "Apply to selected items" button.

Now that Workflow, Content Moderation Permissions, Node Permissions and Users are configured, let's ...

Moderate Content!

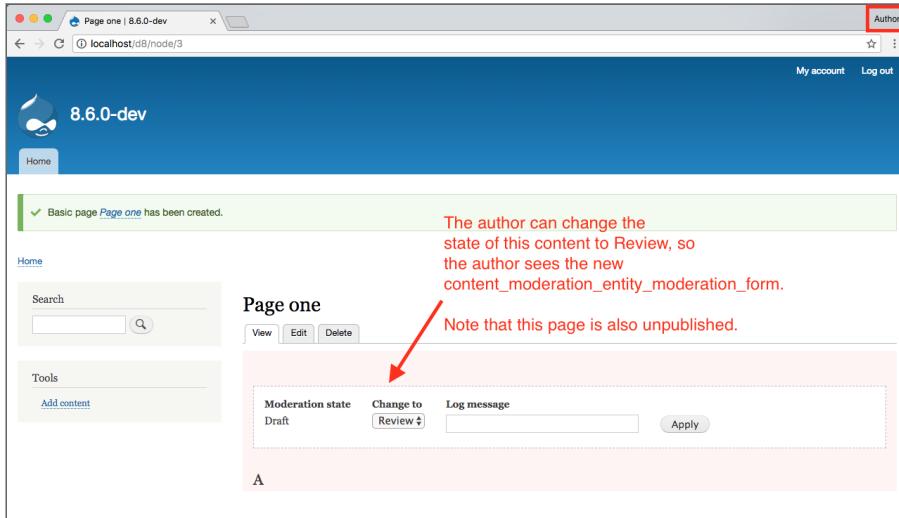
Moderate Content!

The author creates a page and saves it as a Draft.



Moderate Content!

The new Content Moderation entity moderation form



Moderate Content!

The Content Moderation entity moderation form can be altered with `hook_form_FORM_ID_alter()`

```
/**  
 * Implements hook_form_FORM_ID_alter().  
 */  
function MY_MODULE_form_content_moderation_entity_moderation_form_alter(&  
  $form, &$form_state, $form_id)  
&gt; {  
  $user = \Drupal::currentUser();  
  if (empty($user) || !$user->hasPermission('administer site configuration')) {  
    $form['#access'] = FALSE;  
  }  
}
```

Moderate Content!

The author makes an edit and changes the state to Review.

The author changes 'A' to 'B'

This is the same thing the author could do on the View page, except he or she couldn't save a new Draft on the View page, nor make any edits.

Current state: Draft

Change to ✓ Draft **Review**

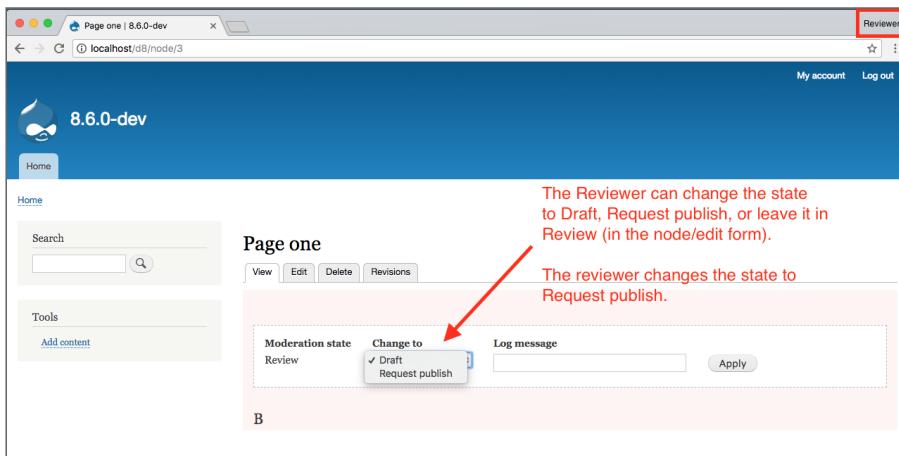
Moderate Content!

The moderation state is now "Review".

A screenshot of a web browser displaying a Drupal 8.6.0-dev page titled "Page one". The top navigation bar includes "Author" (highlighted with a red box), "My account", and "Log out". A green success message at the top states "Basic page [Page one](#) has been updated." Below the message, the page title "Page one" is displayed with "View", "Edit", "Delete", and "Revisions" buttons. A red arrow points from the text "The moderation state is now 'Review'." to the "Moderation state" dropdown menu, which shows "Review" selected. Other options in the dropdown include "Draft" (unchecked) and "Pending review" (unchecked). There is also a "Log message" input field and an "Apply" button.

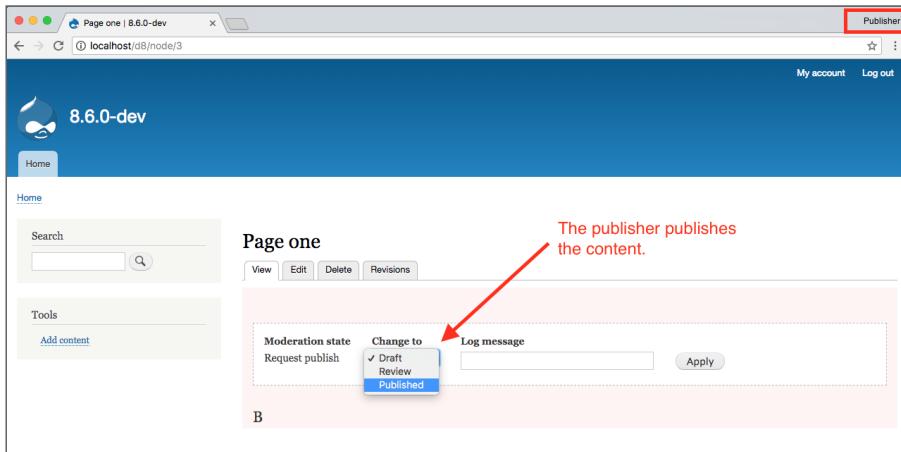
Moderate Content!

The Reviewer takes over.



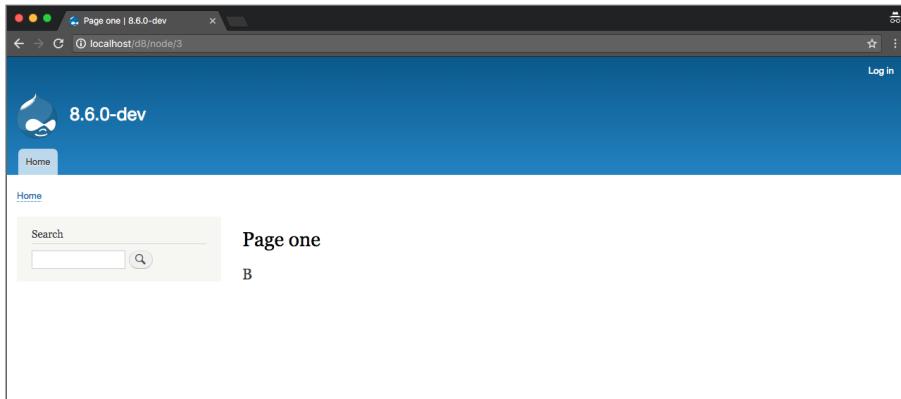
Moderate Content!

The Publisher takes over.



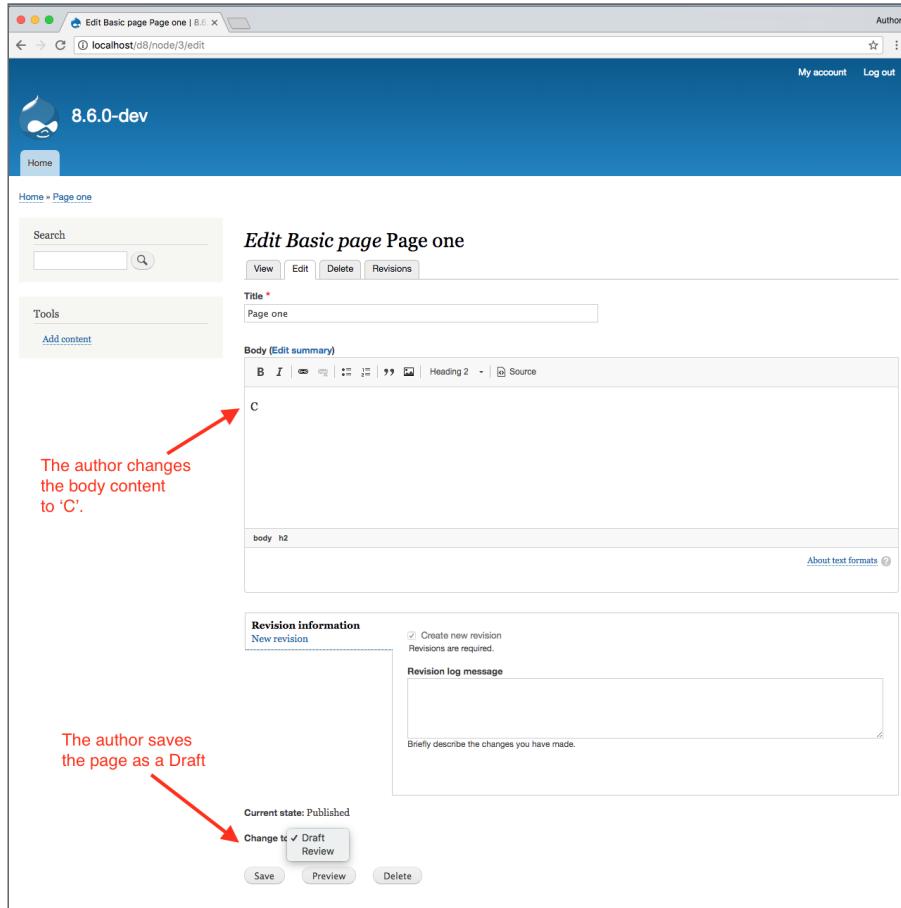
Moderate Content!

The content page is now published. Anyone with permission to view published content will be able to view the page.



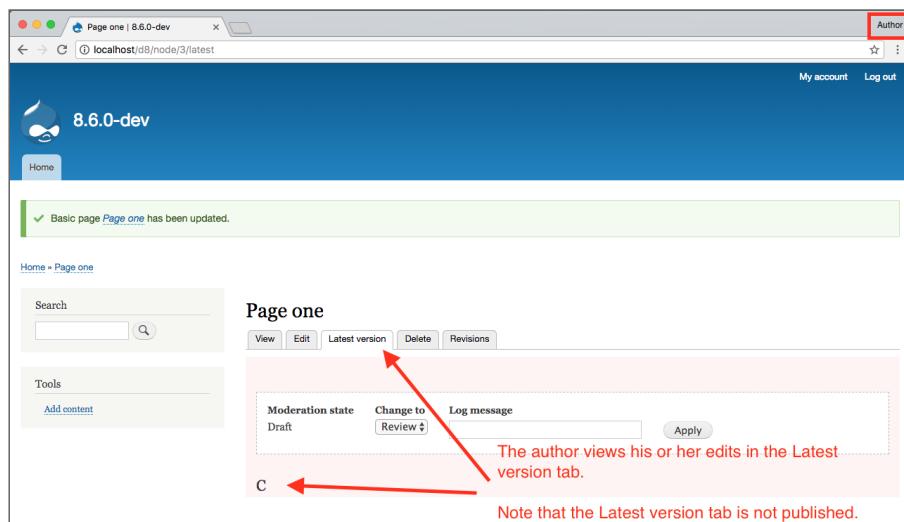
Moderate Content!

The author edits the page and saves the new edit as a Draft.



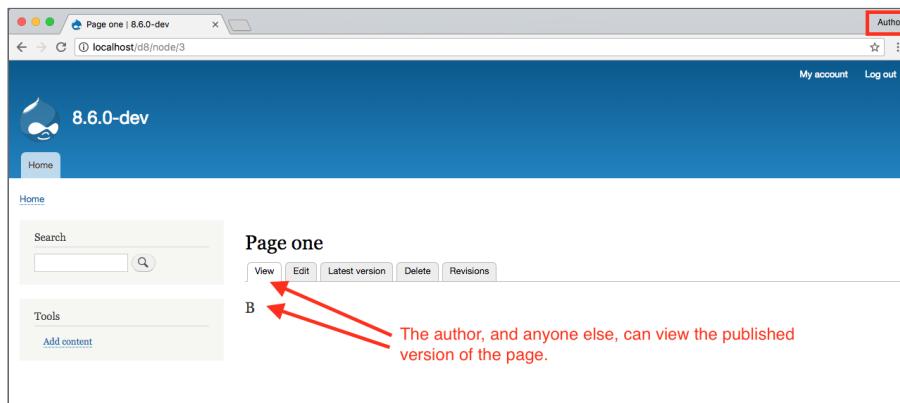
Moderate Content!

- The author can view the latest version of the content page in the new Latest version tab.
- The Latest version of the content page is a revision and is not publicly viewable.



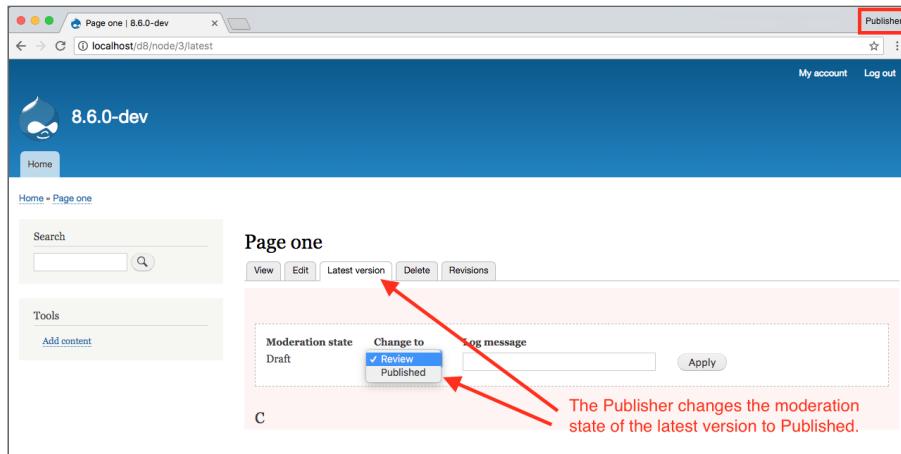
Moderate Content!

- At this time, the author, and anyone else with permission to view published content, can continue to view the published version of the content.



Moderate Content!

- The publisher can publish the draft from the form in the latest version tab.



Moderate Content!

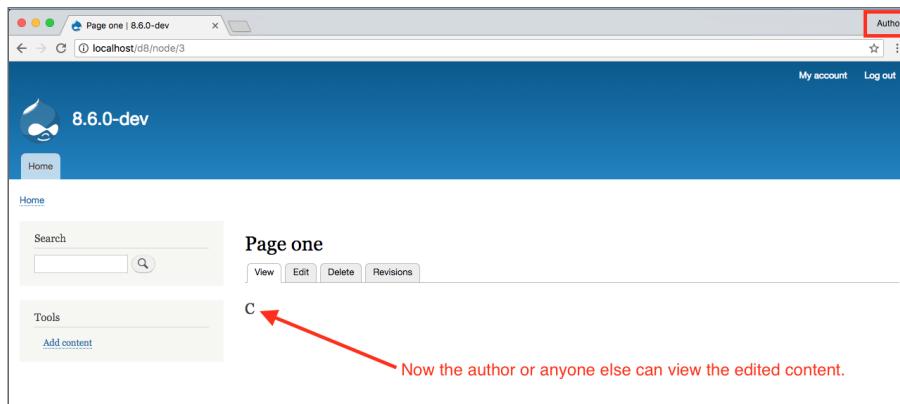
The publisher can also publish the draft in the node edit form.

The screenshot shows the 'Edit Basic page Page one' node edit form. At the top right, there is a red box around the word 'Publisher'. Below the title 'Edit Basic page Page one', there are tabs: View, Edit, Latest version, Delete, and Revisions. The 'Edit' tab is selected. The main area has a 'Title' field containing 'Page one'. Below it is a 'Body (Edit summary)' rich text editor with a toolbar. The body content area contains the letter 'C'. In the bottom right corner of the body editor, there is a link 'About text formats'. To the left of the body editor, there is a sidebar with 'Tools' and 'Add content' buttons. A red callout box with an arrow points to the 'Status' section. The status section includes 'Revision information' (New revision), 'Authoring information' (By Author (2) on 2018-04-22), and 'Promotion options' (Not promoted). The status is currently set to 'Draft'. Below the status section, there is a note 'Current state: Draft' and a dropdown menu labeled 'Change to' with three options: 'Draft' (unchecked), 'Review' (unchecked), and 'Published' (checked and highlighted with a blue background). There are also 'Save', 'Preview', and 'Delete' buttons at the bottom of the status section.

The Publisher can also change the moderation state in the node/edit form.

Moderate Content!

- Now the author and anyone else with permission to view published content, can view the edited content.
- Note the Latest version tab has, rightly, gone away.



Where Does All Of This Happen?

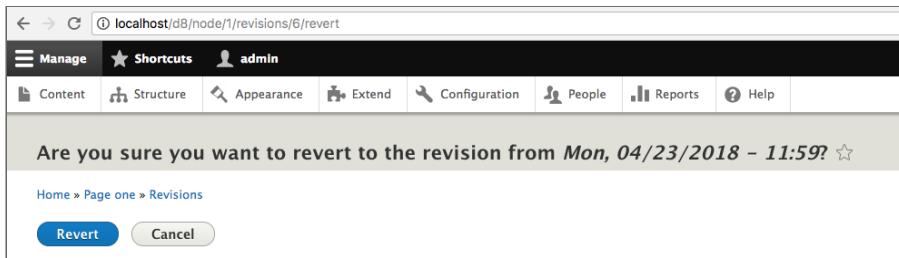
Revisions

The screenshot shows the 'Revisions' page for a node titled 'Page one'. The page has a header with 'Manage', 'Shortcuts', and 'admin'. Below the header are tabs for 'Content', 'Structure', 'Appearance', 'Extend', 'Configuration', 'People', 'Reports', and 'Help'. The main content area is titled 'Revisions for Page one'.

The page displays a table of revisions:

REVISION	OPERATIONS
04/24/2018 - 09:17 by admin	Current revision
04/24/2018 - 09:17 by admin	<button>Revert</button>
04/24/2018 - 09:17 by admin	<button>Revert</button>
04/24/2018 - 09:17 by admin	<button>Revert</button>
04/24/2018 - 09:13 by admin	<button>Revert</button>
Copy of the revision from Mon, 04/23/2018 - 11:57.	
04/23/2018 - 11:59 by Publisher	<button>Revert</button>
04/23/2018 - 11:59 by Reviewer	<button>Revert</button>
04/23/2018 - 11:58 by Author	<button>Revert</button>
04/23/2018 - 11:58 by Publisher	<button>Revert</button>
04/23/2018 - 11:57 by Reviewer	<button>Revert</button>
04/23/2018 - 11:57 by Author	<button>Revert</button>
04/23/2018 - 11:57 by Author	<button>Revert</button>

Roll Back To A Previous Revision



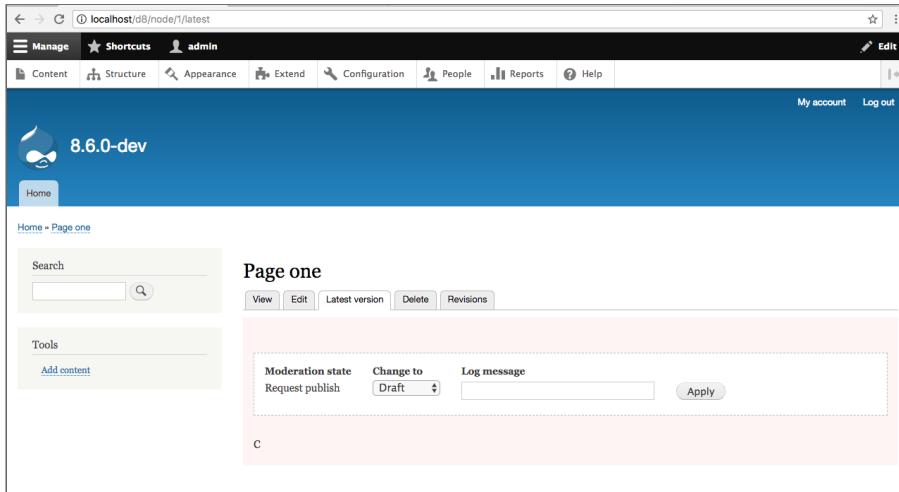
Revert A Revision

The screenshot shows the Joomla! 3.8.2 'Revisions for Page one' page. At the top, there is a success message: 'Basic page Page one has been reverted to the revision from Mon, 04/23/2018 - 11:59.' Below this, a note says 'Revisions allow you to track differences between multiple versions of your content, and revert to older versions.' The main area displays a table of revisions:

REVISION	OPERATIONS
04/25/2018 - 10:27 by admin Copy of the revision from Mon, 04/23/2018 - 11:59.	Set as current revision
04/24/2018 - 09:17 by admin <i>Current revision</i>	
04/24/2018 - 09:17 by admin	Revert

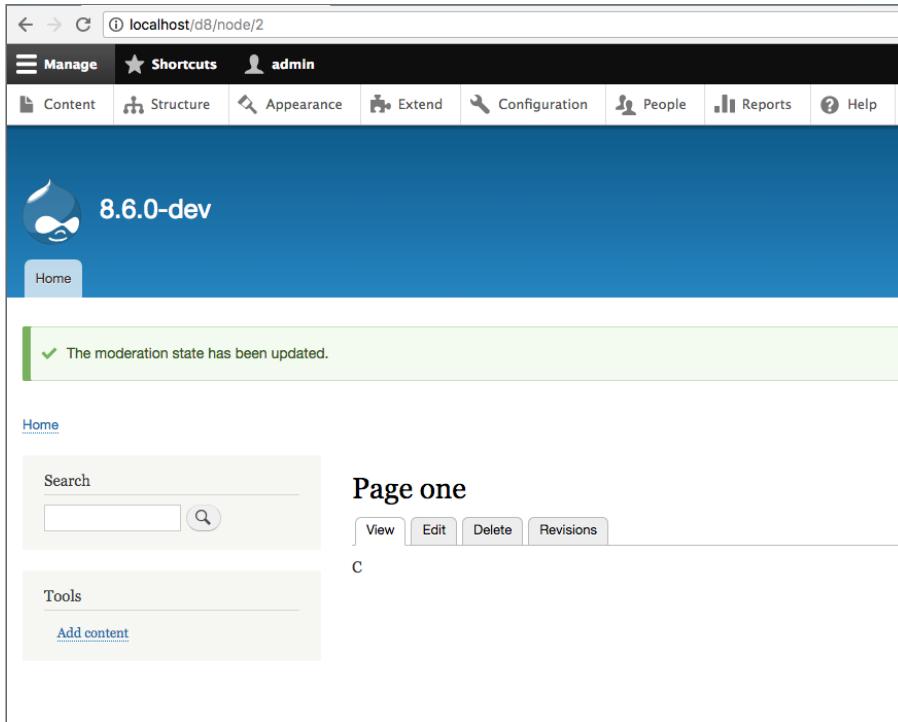
Two red arrows point to the 'Set as current revision' button and the 'Revert' button.

The Revision Is Now The Latest Version



Until it is published, reviewed, edited, and finally published.

The Revision Is Published.



A screenshot of the Drupal 8.6.0-dev administrative interface. The top navigation bar includes 'Manage', 'Shortcuts' (with a star icon), and 'admin'. Below the bar are links for 'Content', 'Structure', 'Appearance', 'Extend', 'Configuration', 'People', 'Reports', and 'Help'. A logo for '8.6.0-dev' is visible. The main content area shows a green success message: '✓ The moderation state has been updated.' Below this, the page title is 'Page one'. There are buttons for 'View', 'Edit', 'Delete', and 'Revisions'. On the left, there are two sidebar boxes: 'Search' (with a search input field and a magnifying glass icon) and 'Tools' (with a link to 'Add content').

The Present And The Future For The Workflow Initiative

Roadmap

Phase E: Trash Module

Phase E will leverage the new workflow module and implement Trash as a new status.

Plan issues:

- **WI: Phase E: Introduce Trash module**

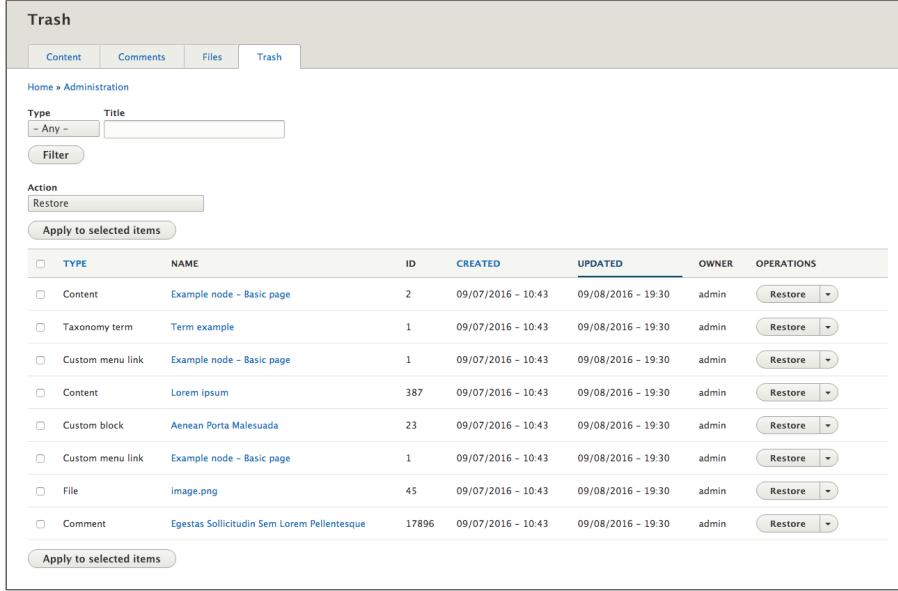
<https://www.drupal.org/project/ideas/issues/2786135>

Workflow Initiative

<https://www.drupal.org/project/ideas/issues/2721129>

Roadmap

Phase E: Trash Module



The screenshot shows the 'Trash' page in the Drupal administration interface. At the top, there are tabs for Content, Comments, Files, and Trash, with 'Trash' being the active tab. Below the tabs is a breadcrumb trail: Home > Administration > Trash. There are filter options for Type (set to 'Any') and Title, and a 'filter' button. An 'Action' dropdown is set to 'Restore'. A 'Content' checkbox is checked, and an 'Apply to selected items' button is visible. The main area is a table listing deleted items:

<input type="checkbox"/>	TYPE	NAME	ID	CREATED	UPDATED	OWNER	OPERATIONS
<input type="checkbox"/>	Content	Example node - Basic page	2	09/07/2016 - 10:43	09/08/2016 - 19:30	admin	<button>Restore</button>
<input type="checkbox"/>	Taxonomy term	Term example	1	09/07/2016 - 10:43	09/08/2016 - 19:30	admin	<button>Restore</button>
<input type="checkbox"/>	Custom menu link	Example node - Basic page	1	09/07/2016 - 10:43	09/08/2016 - 19:30	admin	<button>Restore</button>
<input type="checkbox"/>	Content	Lorem ipsum	387	09/07/2016 - 10:43	09/08/2016 - 19:30	admin	<button>Restore</button>
<input type="checkbox"/>	Custom block	Aenean Porta Malesuada	23	09/07/2016 - 10:43	09/08/2016 - 19:30	admin	<button>Restore</button>
<input type="checkbox"/>	Custom menu link	Example node - Basic page	1	09/07/2016 - 10:43	09/08/2016 - 19:30	admin	<button>Restore</button>
<input type="checkbox"/>	File	image.png	45	09/07/2016 - 10:43	09/08/2016 - 19:30	admin	<button>Restore</button>
<input type="checkbox"/>	Comment	Egestas Sollicitudin Sem Lorem Pellentesque	17896	09/07/2016 - 10:43	09/08/2016 - 19:30	admin	<button>Restore</button>

At the bottom left is another 'Apply to selected items' button.

WI: Phase E: Introduce Trash module
<https://www.drupal.org/project/drupal/issues/2725449>

Phase G: Workspace Module

An Experimental Module In Drupal 8.6.X

- A workspace is a copy of the live site, that exists in parallel to the live site. Use a workspace when you want to prepare multiple new content items, that you want to go live at the same time, in a controlled manner.
- A workspace keeps track of a set of pending revisions, and that group of pending revisions basically make up a workspace.

- Andrei Mateescu

Drupal Research Engineer at Pfizer, and primary contributor to Workspace in Core.

Workspace in Drupal Core

<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

Things Still To Come

- Is it possible to serve multiple workspaces to anonymous people to do some type of A/B testing? No.
- Is it possible for an entity to be used in multiple workspaces? No, for that to happen we need conflict resolution which is coming in Drupal 8.7.x.

- Andrei Mateescu

Drupal Research Engineer at Pfizer, and primary contributor to Workspace in Core.

Workspace in Drupal Core

<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

Work That's Already Been Done

- A big part of what the developers did as part of the workflow initiative was to enable all the other entity types to be revisionable as well. So they worked a lot on providing an upgrade path for converting a nonrevisionable entity to revisionable. That was a very big effort just like workspaces.

- Andrei Mateescu

Drupal Research Engineer at Pfizer, and primary contributor to Workspace in Core.

Workspace in Drupal Core

<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

What About This?

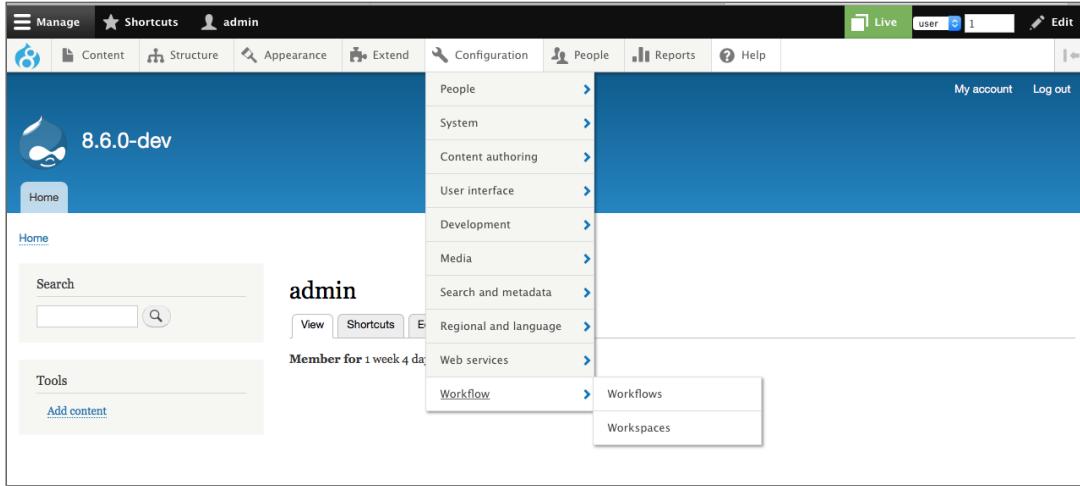
- Any content in the live workspace is automatically visible within the other workspaces.

Workspace in Drupal Core

<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

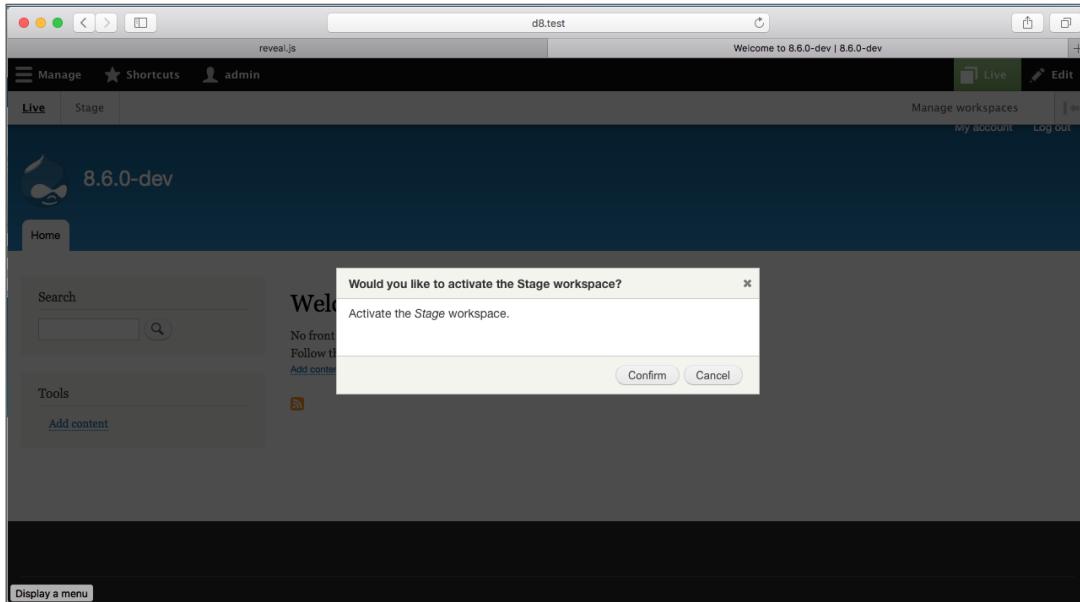
Enable The Workspace Module



Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

Click The Live Button To See The Workspaces Menu
Click Stage To See ...

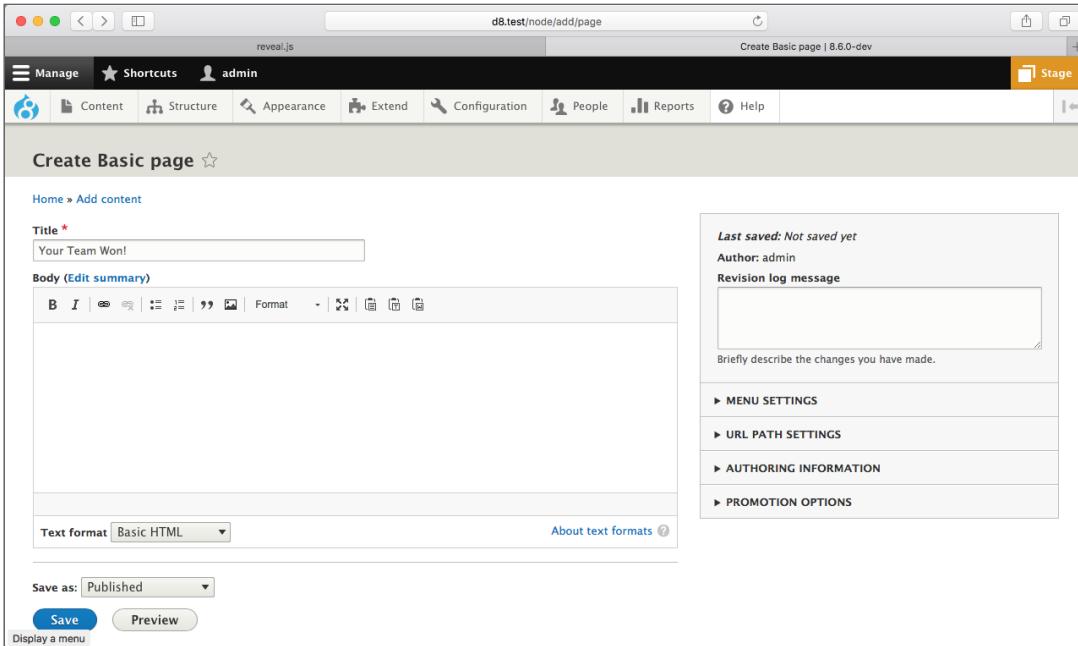


Workspace in Drupal Core

<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

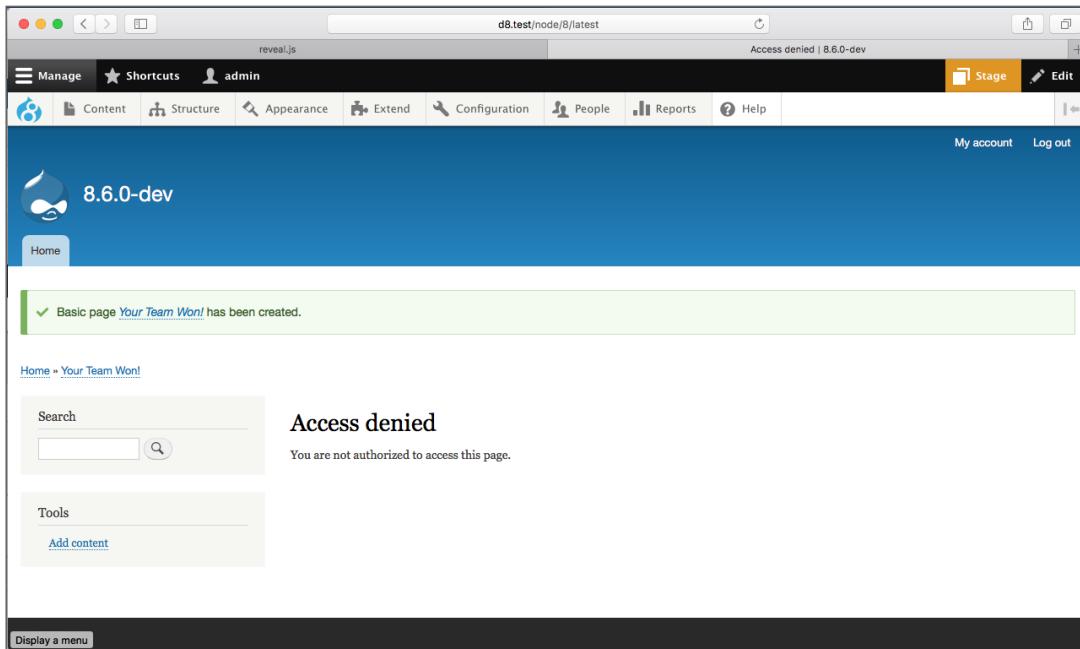
Add Content While In The Stage Workspace



Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Introduce Workspace Module

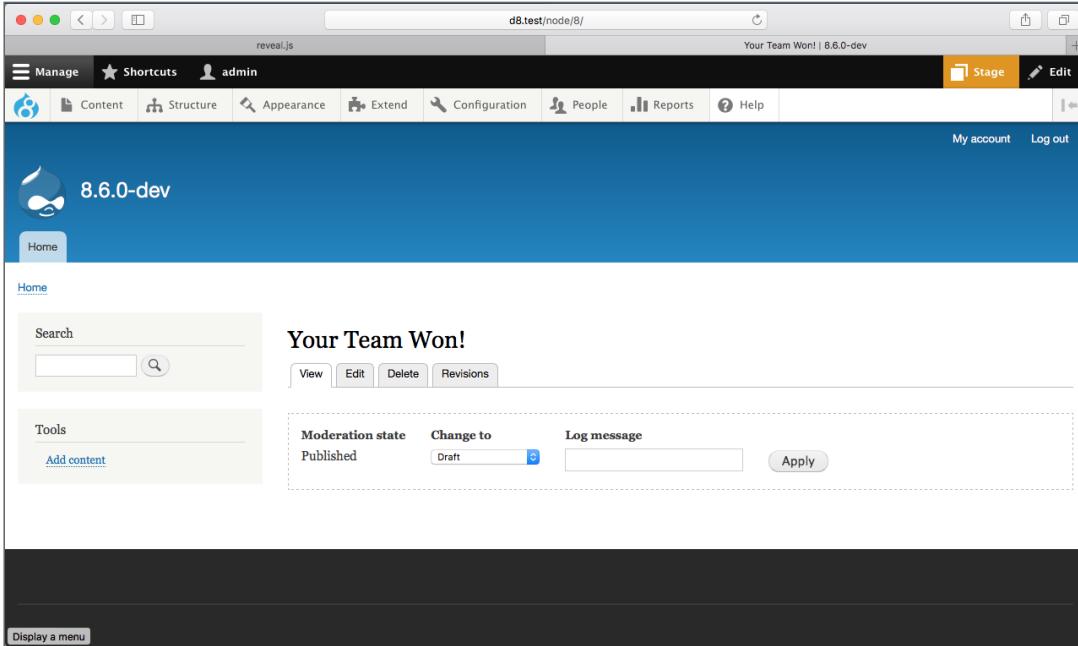
Publish The Content And I Get Access Denied Because I'm On The "Latest" Path



[Workspace in Drupal Core](#)
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

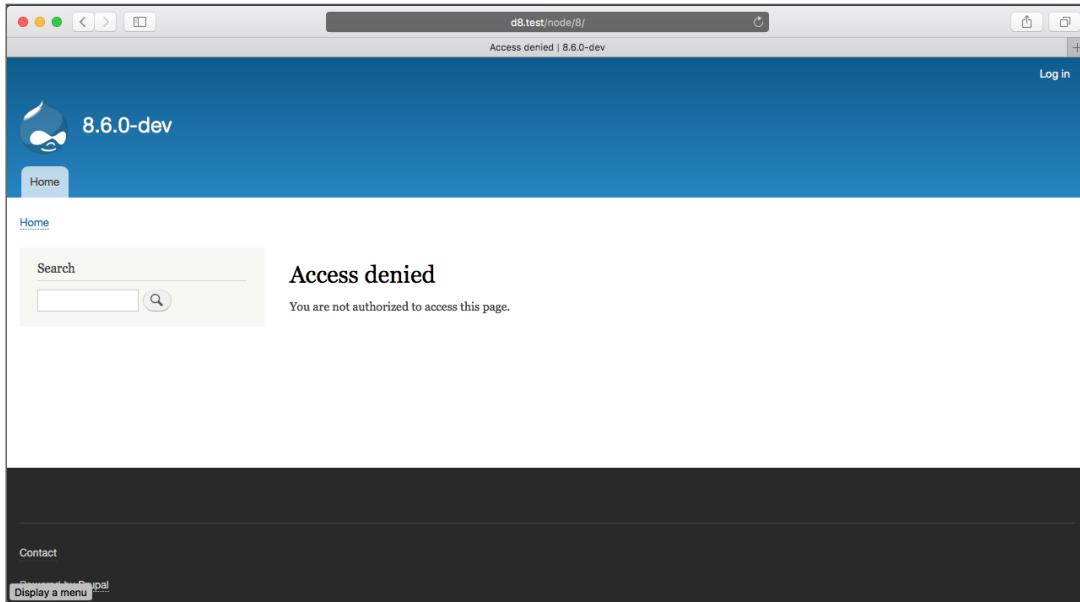
On The View Path I See My Content



Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

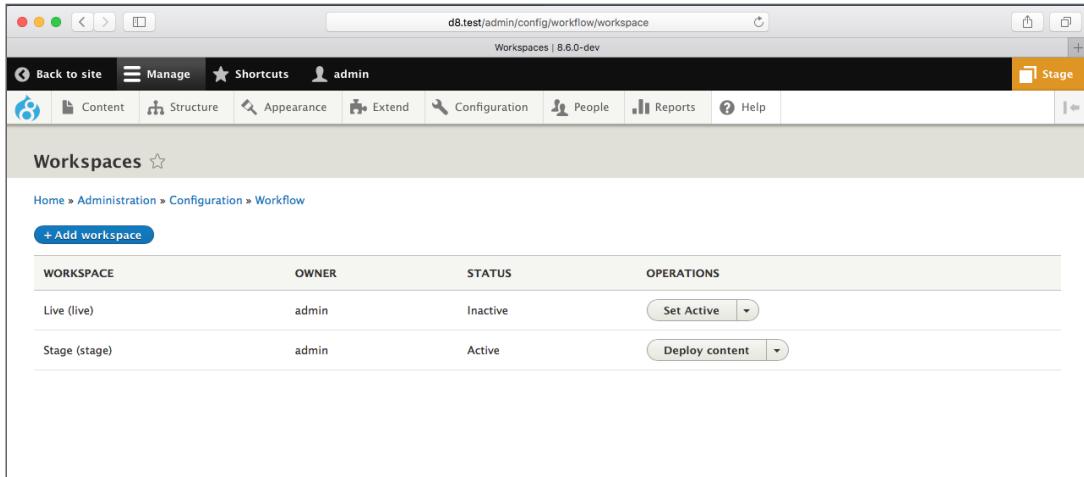
Anonymous Users Do Not See My Content.



Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

go to /admin/config/workflow/workspace



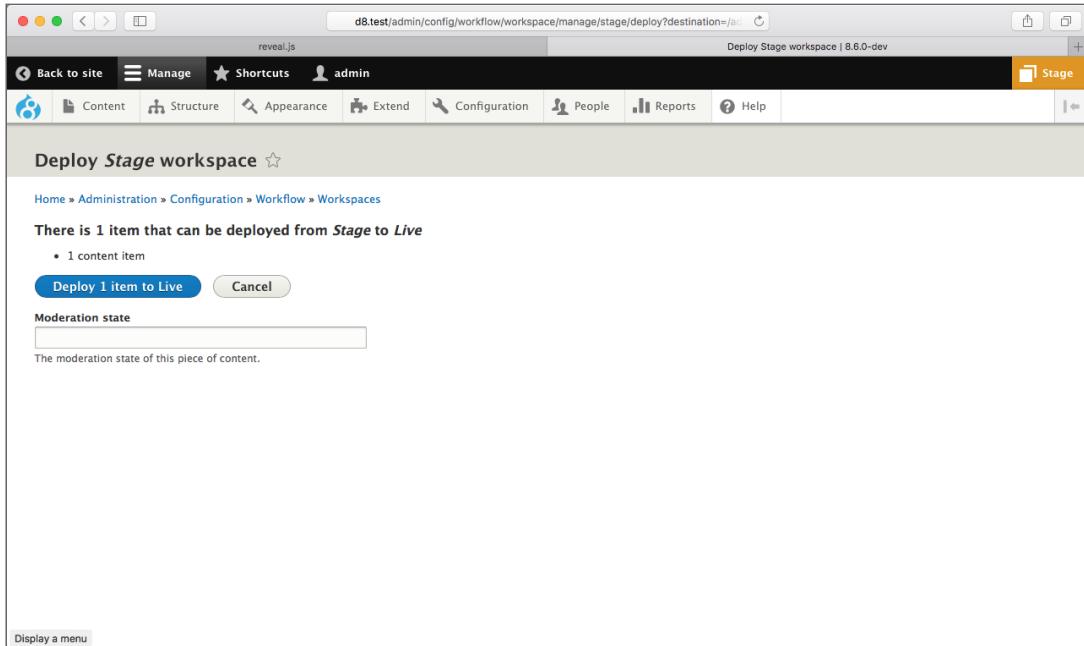
The screenshot shows the Drupal 8 administration interface with the path `d8.test/admin/config/workflow/workspace`. The page title is "Workspaces | 8.6.0-dev". The top navigation bar includes links for Back to site, Manage, Shortcuts, and admin. A "Stage" button is visible in the top right. Below the navigation is a toolbar with icons for Content, Structure, Appearance, Extend, Configuration, People, Reports, and Help. The main content area is titled "Workspaces" with a star icon. It shows a breadcrumb trail: Home > Administration > Configuration > Workflow. A blue button labeled "+ Add workspace" is at the top left. A table lists two workspaces:

WORKSPACE	OWNER	STATUS	OPERATIONS
Live (live)	admin	Inactive	<button>Set Active</button>
Stage (stage)	admin	Active	<button>Deploy content</button>

Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

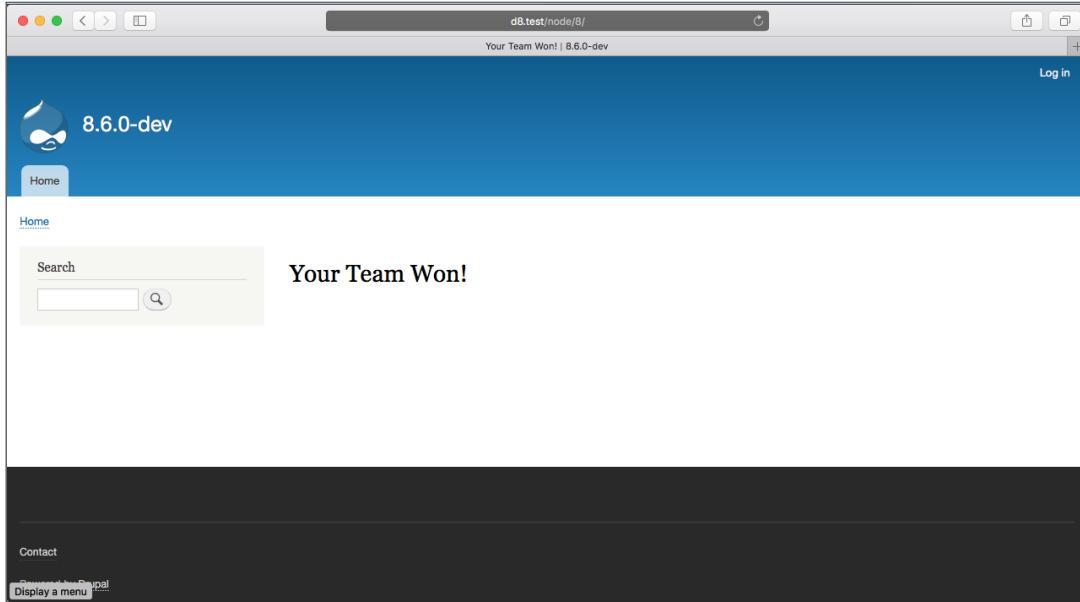
Click Deploy Content. Everything Makes Sense.



Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

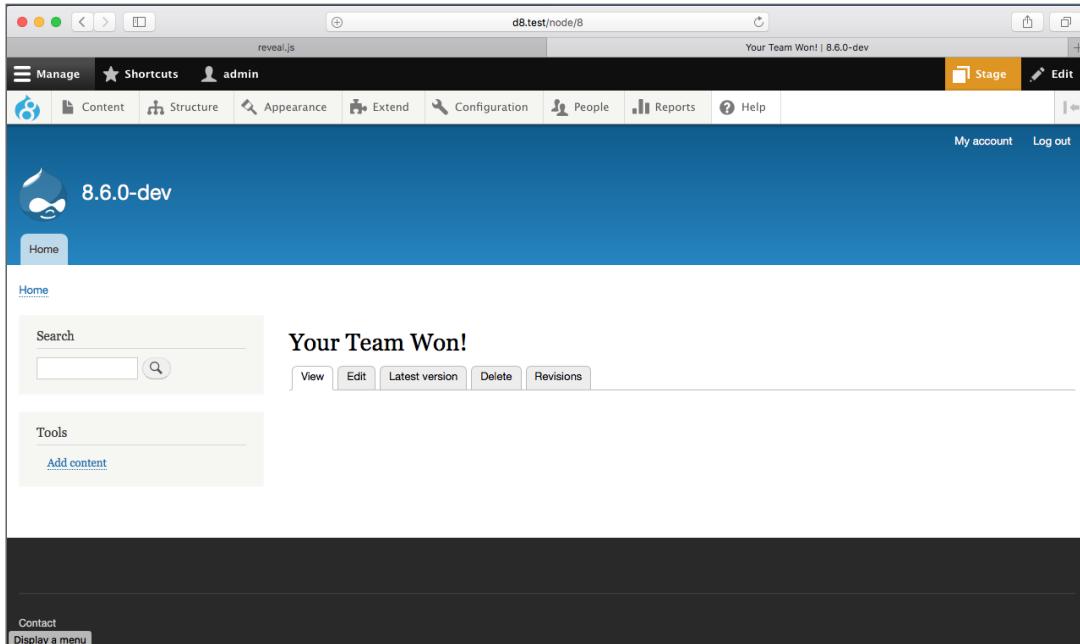
Anonymous Users Can Now See The Content.



[Workspace in Drupal Core](#)
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

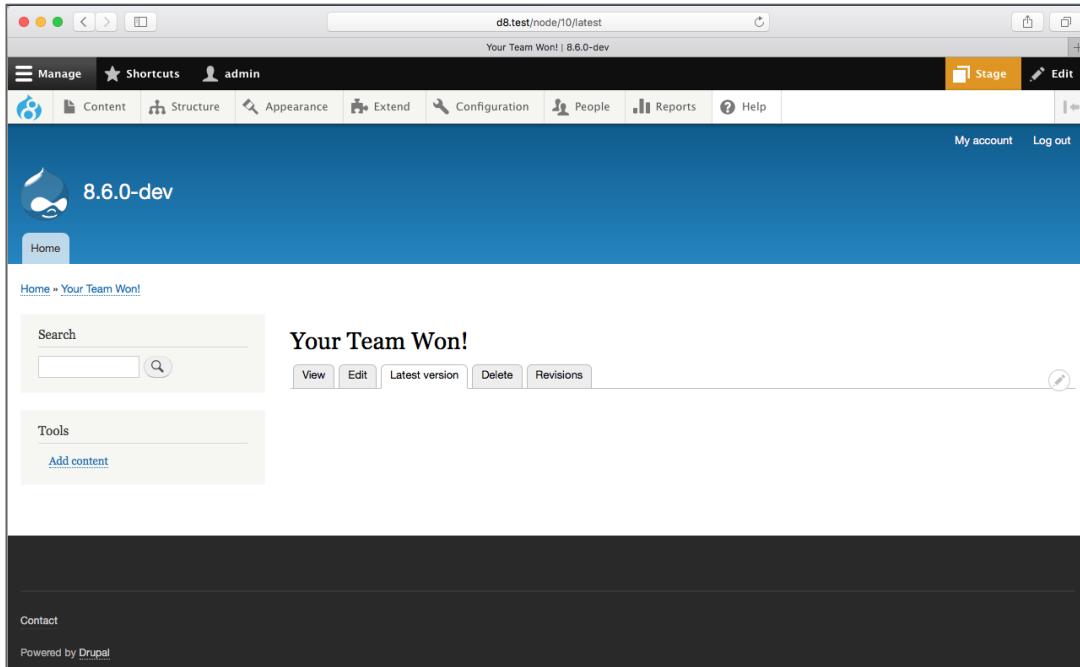
Phase G: Workspace Module

But The Content Is Still In The Stage Workspace.



Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module And I'm Missing The Form.



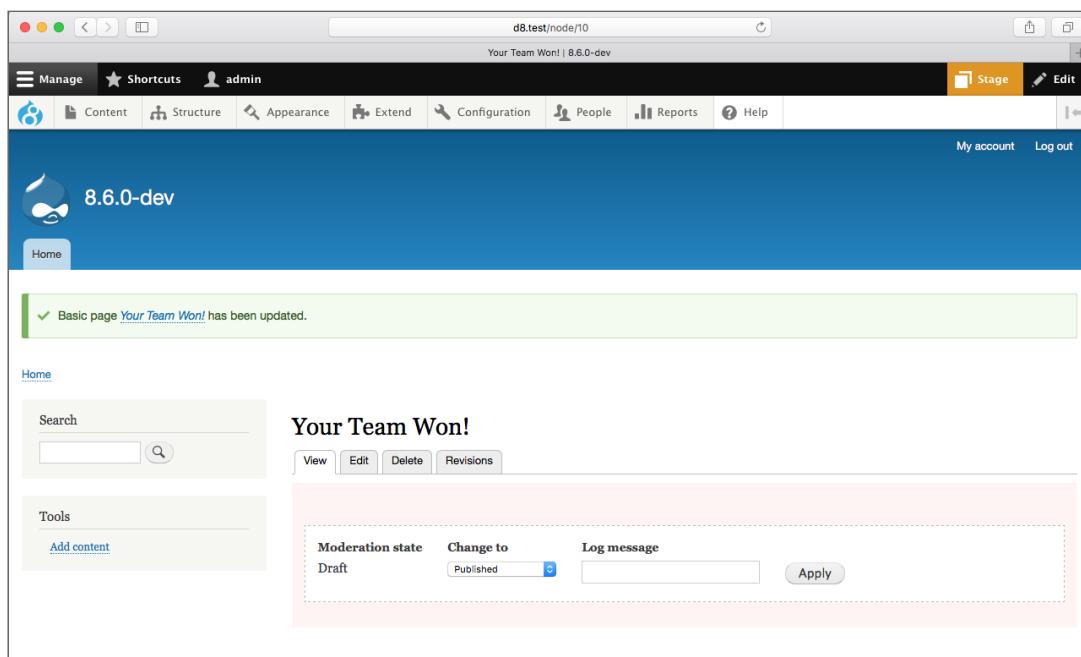
Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

The Form Comes Back When I Change The Moderation State Of The Content.

But Now It Looks Like The Content Is Unpublished (Pink)

And Why Am I Still In Stage? I Deployed This Item To Live.

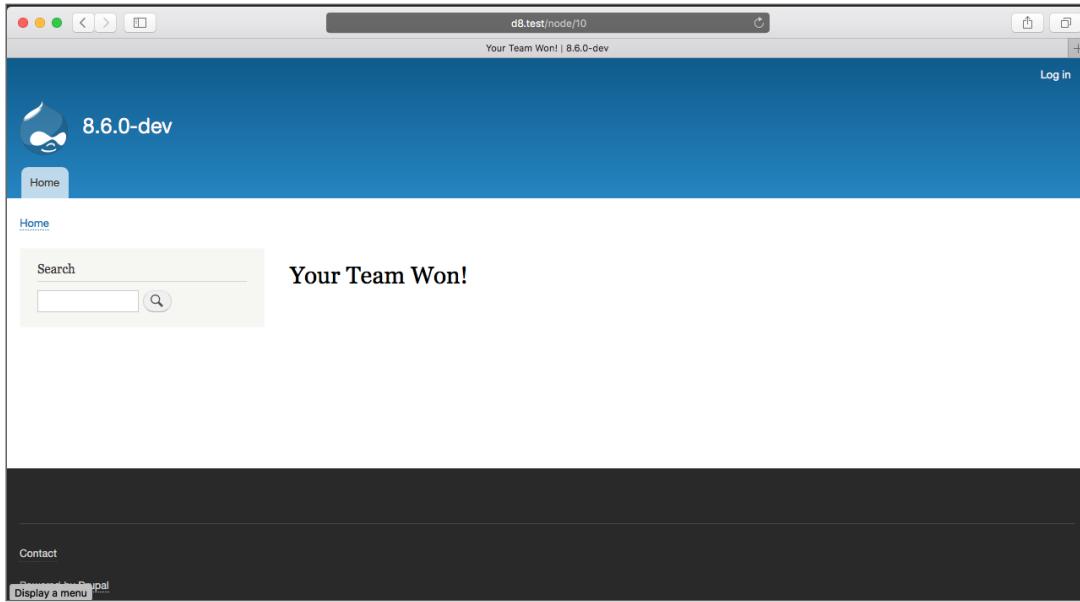


Workspace in Drupal Core

<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

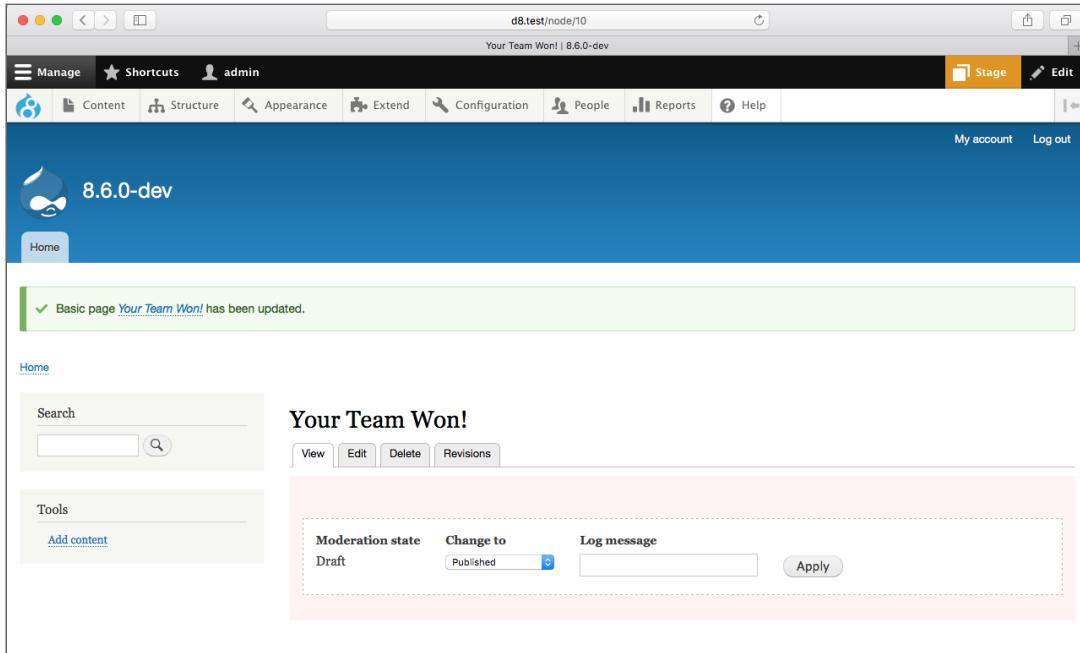
Anonymous Users Still See The Content.



Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

Some UX Problems With This Page.



The screenshot shows the Drupal 8.6.0-dev admin interface. The top navigation bar includes 'Manage', 'Shortcuts', 'admin', 'Stage' (highlighted in orange), and 'Edit'. Below the bar, there's a toolbar with icons for Content, Structure, Appearance, Extend, Configuration, People, Reports, and Help. The main content area displays a message: 'Basic page [Your Team Won!](#) has been updated.' A success message box is visible. The page title is 'Your Team Won!'. Below the title are 'View', 'Edit', 'Delete', and 'Revisions' buttons. On the left, there's a 'Search' field and a 'Tools' section with an 'Add content' link. At the bottom, there's a moderation form with fields for 'Moderation state' (set to 'Draft'), 'Change to' (set to 'Published'), 'Log message' (empty), and an 'Apply' button.

Workspace in Drupal Core
<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Phase G: Workspace Module

User Acceptance

- Without Conflict Management, how will I really know what I'm merging?
- The admin and deploy pages are very helpful, but still
- Remember that a workspace contains all the content along with the changes.
- A/B testing sounds nice, but using an entity in multiple workspaces is something that I think will happen.

Roadmap

Phase H: Workspace Conflict Management

- This phase will extend the Workspace module to provide conflict management for content changes in separate workspaces.

Plan issue:

- **WI: Phase H: Replication and conflict management**
<https://www.drupal.org/project/drupal/issues/2867707>

Workflow Initiative

<https://www.drupal.org/project/ideas/issues/2721129>

Roadmap

Phase X: Cross Site Content Staging

This phase would implement support for cross site content staging.

Workflow Initiative

<https://www.drupal.org/project/ideas/issues/2721129>

Roadmap

Phase XI: Autosave

Big phase. This will be a separate module.
Lots of details still to be figured out.

Workflow Initiative

<https://www.drupal.org/project/ideas/issues/2721129>

Add Ons

Contrib Modules

Add Ons

The diff module adds to the revision tab like standard Drupal but it also allows pretty viewing of all added/changed/deleted words between revisions.

Core

Diff

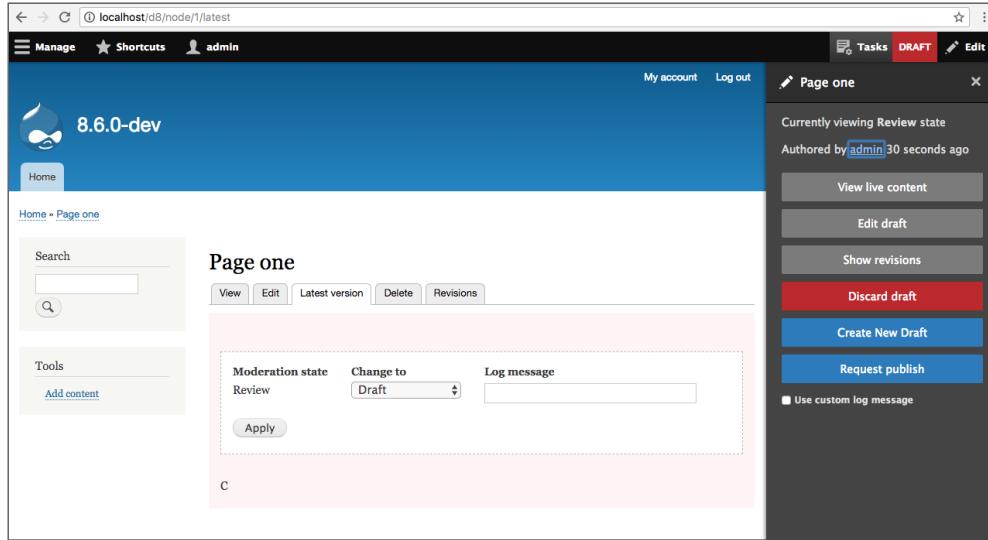
The image shows two side-by-side screenshots of the 'Revisions' tab for a node titled 'Page one'.

Left Screenshot (Core Drupal): This screenshot shows the standard Drupal 'Revisions' interface. It lists revisions in chronological order from top to bottom. Each revision row contains the revision date and time, the user who made the change, and a 'Revert' button. The first revision (04/24/2018 - 09:17 by admin) is highlighted in yellow and labeled 'Current revision'. A tooltip for this revision states: 'Copy of the revision from Mon, 04/23/2018 - 11:57.' Below the list, there is a note: 'Revisions allow you to track differences between multiple versions of your content, and revert to older versions.'

Right Screenshot (Diff module): This screenshot shows the 'Revisions' tab with the 'diff' module installed. The interface is very similar to the core version but includes color-coded highlighting to show changes. Red arrows point to specific revision rows where changes were made to the 'Body' field. The first revision (04/24/2018 - 09:17 by admin) is also highlighted in yellow and labeled 'Current revision'. The same note about tracking differences and reverting is present at the bottom.

Add Ons

The **Moderation Sidebar** The moderation Sidebar provides an off-canvas menu to moderate the current Entity.



Helpful Links

Content moderation overview

<https://www.drupal.org/docs/8/core/modules/content-moderation/overview>

Workflows overview

<https://www.drupal.org/docs/8/core/modules/workflows/overview>

Workflow Initiative

<https://www.drupal.org/project/ideas/issues/2721129>

Improving Drupal's content workflow

<https://dri.es/improving-drupal-content-workflow>

Workflows: A new tool in the toolbox

<https://www.previousnext.com.au/blog/workflows-new-tool-toolbox>

Unable to Publish/Unpublish from Content Admin Screen when content_moderation enabled

<https://www.drupal.org/project/drupal/issues/2825579>

Dynamically provide action plugins for every moderation state change

<https://www.drupal.org/project/drupal/issues/2797583>

Configuration from this presentation

https://github.com/esod/content_moderation_configuration/tree/develop

Workspace in Drupal Core

<https://www.lullabot.com/podcasts/drupalizeme-podcast/workspace-in-drupal-core>

Thank You
Questions?