Phase2

Looked cute, might delete later:
Revisions in a Drupalized format

Hello.

Tobby Hagler

Director of Engineering

Caroline Casals

Senior Developer

Agenda

01. **How revisions work**

   – Science and onion layers

02. **Paragraphs, languages, and content moderation**

   – How these things use revisions

03. **Common modules and what they do**

   – Some core, some contrib

How revisions work

Phase2

01

Revisions are confusing

Phase2

Revisions mental model

What your brain **wants** to think:

`git log`

What it **actually** is:

`page_final_latest-USEME.docx`

Anatomy of a revision

- Published or unpublished state
- ID and entity relationship (node)
- Latest or Current (not all have)
- Content moderation state (if enabled)

Revisions in the wild

(using content moderation and workflows)

Revisions for *Here's the thing about revisions*

| View | Edit | UAT | Latest version | Delete | History | Layout | **Revisions** | Entityqueue | Devel |

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

Revision	Operations
07/02/2020 - 20:11 by ccasals	Set as current revision ⌄
More working on things. We're making progress.	

Content moderation is ON

07/02/2020 - 18:27 by ccasals	Set as current revision ⌄
Some new edits here, still WIP.	
07/02/2020 - 18:26 by ccasals	*Current revision*
Felt cute, might delete later.	
07/02/2020 - 14:55 by ccasals	Revert ⌄
Now I'm making more edits. This was pretty good... but it could be BETTER. Saving this as a draft.	
07/02/2020 - 14:54 by ccasals	Revert ⌄
OK! It's looking snazzy, I am publishing this.	
07/02/2020 - 14:53 by ccasals	Revert ⌄
My very first revision! Let's stay in 'draft' for now.	

Revisions for *Here's the thing about revisions*

| View | Edit | UAT | Latest version | Delete | History | Layout | **Revisions** | Entityqueue | Devel |

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07/02/2020 - 18:27 by ccasals Some new edits here, still WIP.	Set as current revision ⌄
07/02/2020 - 18:26 by ccasals Felt cute, might delete later.	*Current revision*
07/02/2020 - 14:55 by ccasals Now I'm making more edits. This was pretty good... but it could be BETTER. Saving this as a draft.	Revert ⌄
07/02/2020 - 14:54 by ccasals OK! It's looking snazzy, I am publishing this.	Revert ⌄
07/02/2020 - 14:53 by ccasals My very first revision! Let's stay in 'draft' for now.	Revert ⌄

This is the "live" version for anonymous users.

Revisions for *Here's the thing about revisions*

View   Edit   UAT   Latest version   Delete   History   Layout   **Revisions**   Entityqueue   Devel

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

Revision	Operations
07/02/2020 - 20:11 by ccasals More working on things. We're making progress.	Set as current revision ▼
07/02/2020 - 18:27 by ccasals Some new edits here, still WIP.	Set as current revision ▼
07/02/2020 - 18:26 by ccasals Felt cute, might delete later.	*Current revision*
07/02/2020 - 14:55 by ccasals Now I'm making more edits. This was pretty good... but it could be BETTER. Saving this as a draft.	Revert ▼
07/02/2020 - 14:54 by ccasals OK! It's looking snazzy, I am publishing this.	Revert ▼
07/02/2020 - 14:53 by ccasals My very first revision! Let's stay in 'draft' for now.	Revert ▼

This is the "latest" version for editors.

Two special types of revisions

Current Revision

- The authoritative revision for the node* view route

- *Typically* latest published

- What field data will be returned by default in queries

- Is sometimes called the "default" revision

*or other revisionable entity

Latest Revision

- The most recent revision

- Can *also* be the Current revision

- Is the field data displayed on node/edit

- Often a "draft" in content moderation terms

Content Moderation makes the most of revisions

Without content moderation enabled, you just have published and unpublished and **the latest revision is always the current revision.**

Content moderation lets you define revision capability.

Example: "Draft"

The Draft content moderation state:

- Is always "unpublished"

- Can never be the current/default revision

Example: "Archive"

The Archive content moderation state:

- Is always "unpublished"

- Is the current/default revision when it is the latest eligible revision

Common revision operations

01. **Forward draft (latest vs default/current)**

02. **"Revert" revision**

03. **Archiving content**

04. **Workflow & revision "type"**

Let's do science.

Phase2

Revisions for *Here's the thing about revisions*

View   Edit   UAT   Latest version   Delete   History   Layout   **Revisions**   Entityqueue   Devel

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07/02/2020 - 20:11 by ccasals More working on things. We're making progress.	Set as current revision ⌄
07/02/2020 - 18:27 by ccasals Some new edits here, still WIP.	Set as current revision ⌄
07/02/2020 - 18:26 by ccasals Felt cute, might delete later.	*Current revision*
07/02/2020 - 14:55 by ccasals Now I'm making more edits. This was pretty good... but it could be BETTER. Saving this as a draft.	Revert ⌄
07/02/2020 - 14:54 by ccasals OK! It's looking snazzy, I am publishing this.	Revert ⌄
07/02/2020 - 14:53 by ccasals My very first revision! Let's stay in 'draft' for now.	Revert ⌄

What happens if we **publish** from a **draft***?

*Requires content moderation

Revisions for *Here's the thing about revisions*

View   Edit   UAT   Delete   History   Layout   **Revisions**   Entityqueue   Devel

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

Revision	Operations
07/13/2020 - 16:58 by ccasals Some final edits here. I think this is the last stuff that needs changing. Making the changes live.	*(new)* *Current revision*
07/02/2020 - 20:11 by ccasals More working on things. We're making progress.	Revert ˅
07/02/2020 - 18:27 by ccasals Some new edits here, still WIP.	Revert ˅
07/02/2020 - 18:26 by ccasals Felt cute, might delete later.	Revert ˅
07/02/2020 - 14:55 by ccasals Now I'm making more edits. This was pretty good... but it could be BETTER. Saving this as a draft.	Revert ˅
07/02/2020 - 14:54 by ccasals OK! It's looking snazzy, I am publishing this.	Revert ˅

Revisions for *Here's the thing about revisions*

| View | Edit | UAT | Delete | History | Layout | **Revisions** | Entityqueue | Devel |

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

Revision	Operations
07/13/2020 - 16:58 by ccasals Some final edits here. I think this is the last stuff that needs changing. Making the changes live.	*Current revision*
07/02/2020 - 20:11 by ccasals More working on things. We're making progress.	Revert ∨
07/02/2020 - 18:27 by ccasals Some new edits here, still WIP.	Revert ∨
07/02/2020 - 18:26 by ccasals Felt cute, might delete later.	Revert ∨
07/02/2020 - 14:55 by ccasals Now I'm making more edits. This was pretty good... but it could be BETTER. Saving this as a draft.	Revert ∨
07/02/2020 - 14:54 by ccasals OK! It's looking snazzy, I am publishing this.	Revert ∨

What happens if we **revert** an old published revision?

Revisions for *Here's the thing about revisions*

| View | Edit | UAT | Delete | History | Layout | **Revisions** | Entityqueue | Devel |

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

Revision	Operations
07/13/2020 - 17:01 by ccasals Copy of the revision from *Thu, 07/02/2020 - 18:26*.	*Current revision*
07/13/2020 - 16:58 by ccasals Some final edits here. I think this is the last stuff that needs changing. Making the changes live.	Revert ⌄
07/02/2020 - 20:11 by ccasals More working on things. We're making progress.	Revert ⌄
07/02/2020 - 18:27 by ccasals Some new edits here, still WIP.	Revert ⌄
07/02/2020 - 18:26 by ccasals Felt cute, might delete later.	Revert ⌄
07/02/2020 - 14:55 by ccasals Now I'm making more edits. This was pretty good... but it could be BETTER. Saving this as a draft.	Revert ⌄

(new)

Revisions for *Here's the thing about revisions*

View   Edit   UAT   Delete   History   Layout   **Revisions**   Entityqueue   Devel

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

Revision	Operations
07/13/2020 - 17:01 by ccasals Copy of the revision from *Thu, 07/02/2020 - 18:26*.	*Current revision*
07/13/2020 - 16:58 by ccasals Some final edits here. I think this is the last stuff that needs changing. Making the changes live.	Revert ⌄
07/02/2020 - 20:11 by ccasals More working on things. We're making progress.	Revert ⌄
07/02/2020 - 18:27 by ccasals Some new edits here, still WIP.	Revert ⌄
07/02/2020 - 18:26 by ccasals Felt cute, might delete later.	Revert ⌄
07/02/2020 - 14:55 by ccasals Now I'm making more edits. This was pretty good... but it could be BETTER. Saving this as a draft.	Revert ⌄

What happens if we make a new **draft**?

*Requires content moderation

Revisions for *Here's the thing about revisions*

View   Edit   UAT   Latest version   Delete   History   Layout   **Revisions**   Entityqueue   Devel

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

Revision	Operations
07/13/2020 - 17:18 by ccasals Some new changes are brewing in this draft...	(new) Set as current revision ⌄
07/13/2020 - 17:17 by ccasals Copy of the revision from *Thu, 07/02/2020 - 18:26*.	*Current revision*
07/13/2020 - 16:58 by ccasals Some final edits here. I think this is the last stuff that needs changing. Making the changes live.	Revert ⌄
07/02/2020 - 20:11 by ccasals More working on things. We're making progress.	Revert ⌄
07/02/2020 - 18:27 by ccasals Some new edits here, still WIP.	Revert ⌄
07/02/2020 - 18:26 by ccasals Felt cute, might delete later.	Revert ⌄

Revisions for *Here's the thing about revisions*

View   Edit   UAT   Delete   History   Layout   **Revisions**   Entityqueue   Devel

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

Revision	Operations
07/13/2020 - 17:01 by ccasals Copy of the revision from *Thu, 07/02/2020 - 18:26*.	*Current revision*
07/13/2020 - 16:58 by ccasals Some final edits here. I think this is the last stuff that needs changing. Making the changes live.	Revert ⌄
07/02/2020 - 20:11 by ccasals More working on things. We're making progress.	Revert ⌄
07/02/2020 - 18:27 by ccasals Some new edits here, still WIP.	Revert ⌄
07/02/2020 - 18:26 by ccasals Felt cute, might delete later.	Revert ⌄
07/02/2020 - 14:55 by ccasals Now I'm making more edits. This was pretty good... but it could be BETTER. Saving this as a draft.	Revert ⌄

What happens if instead we **Archive*** this page?

*Requires content moderation

Revisions for *Here's the thing about revisions*

| View | Edit | UAT | Delete | History | Layout | **Revisions** | Entityqueue | Devel |

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

Revision	Operations
[07/13/2020 - 17:05](#) by [ccasals](#) Goodbye lovely page. It's time for you to be archived now. (new) *Current revision*	
[07/13/2020 - 17:01](#) by [ccasals](#) Copy of the revision from *Thu, 07/02/2020 - 18:26.*	Revert ⌄
[07/13/2020 - 16:58](#) by [ccasals](#) Some final edits here. I think this is the last stuff that needs changing. Making the changes live.	Revert ⌄
[07/02/2020 - 20:11](#) by [ccasals](#) More working on things. We're making progress.	Revert ⌄
[07/02/2020 - 18:27](#) by [ccasals](#) Some new edits here, still WIP.	Revert ⌄
[07/02/2020 - 18:26](#) by [ccasals](#) Felt cute, might delete later.	Revert ⌄
[07/02/2020 - 14:55](#) by [ccasals](#)	

So what did we learn about revisions?

- They are **always** additive

- You can **never** truly go **backwards** (only clone old versions)

- Published / Unpublished + Current revision controls **visibility** and **access**

Phase2

Common workflows with languages, revisionable entities, and Content Moderation

02

Languages and Revisions

Phase2

Content Translation workflow

Reminder: Content translation happens at the field level

- *Enable translation* from Language Settings

Translate content

- Translate tab
- Pestaña Traducir

Each new language creates a **new subset of revisions**

- Each field revision contains `langcode`

Translations of *Test Page* ☆

Home » Test Page

LANGUAGE	TRANSLATION	STATUS	OPERATIONS
English (Original language)	**Test Page**	Not published	Edit
Spanish	**Página de prueba**	Not published	Edit ▼

English revisions for *Test Page* ☆

Home » Test Page

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

REVISION	OPERATIONS
07/15/2020 – 16:22 by admin No content changes, just published	*Current revision*
07/15/2020 – 16:22 by admin Minor changes to English content	**Revert** ▾
07/15/2020 – 16:08 by admin Initial revision, in English	**Revert** ▾

Spanish revisions for *Página de prueba* ☆

Home » Test Page

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

REVISION	OPERATIONS
07/15/2020 – 16:23 by admin Translation has been approved. No content changes, just published	*Current revision*
07/15/2020 – 16:23 by admin Minor translation edit	Revert ▾
07/15/2020 – 16:10 by admin Initial translation into Spanish	Revert ▾

Content Moderation and States

Phase2

Moderation States (recap)

Default states

- Published (1)
- Unpublished (0)

Content Moderation consists of:

- States
- Transitions
- Workflows

Moderation states

- Draft
- **Published**
- Archived
- Custom states

Edit *Editorial* workflow ☆

Label *

Editorial	Machine name: editorial

▼ STATES

Show row weights

STATE	OPERATIONS
⊹ Draft	Edit
⊹ Published	Edit
⊹ Archived	Edit ▾

Add a new state

▼ TRANSITIONS

Show row weights

LABEL	FROM	TO	OPERATIONS
⊹ Create New Draft	Draft, Published	Draft	Edit ▾
⊹ Publish	Draft, Published	Published	Edit ▾
⊹ Archive	Published	Archived	Edit ▾
⊹ Restore to Draft	Archived	Draft	Edit ▾
⊹ Restore	Archived	Published	Edit ▾

Add a new transition

▼ THIS WORKFLOW APPLIES TO:

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

▼ WORKFLOW SETTINGS

Default moderation state *

| Draft ▼ |

Select the state that new content will be assigned. This state will appear as the default in content forms and the available target states will be based on the transitions available from this state.

[Save]   Delete

Revisions for *Workflow Example* ☆

Home » Workflow Example

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

REVISION	OPERATIONS
07/15/2020 – 17:10 by admin Looks good! Published	*Current revision*
07/15/2020 – 17:09 by admin Incorporated feedback, ready for publication	Revert ▾
07/15/2020 – 17:09 by admin First draft is complete, ready for feedback.	Revert ▾
07/15/2020 – 17:08 by admin First draft, incomplete	Revert ▾

Editing published content as a draft

What if you make a change to published content?

Roles:

- Copywriters
- Publishers

Scenario:

- Copywriters can only save as draft
- Makes updated change from the published node
- Creates a new revision, in **draft** state
- Publisher can publish the updated draft

Revisions for *Workflow Example* ☆

| View | Edit | Latest version | Delete | **Revisions** | Translate |

Home » Workflow Example

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

REVISION	OPERATIONS
07/15/2020 – 17:12 by admin Found a typo, resubmitted for review as draft	Set as current revision ▾
07/15/2020 – 17:10 by admin Looks good! Published	*Current revision*
07/15/2020 – 17:09 by admin Incorporated feedback, ready for publication	Revert ▾
07/15/2020 – 17:09 by admin First draft is complete, ready for feedback.	Revert ▾
07/15/2020 – 17:08 by admin First draft, incomplete	Revert ▾

Workflow Example

| View | Edit | Latest version | Delete | Revisions | Translate |

This is a rough draft. Now my draft is complete. Thanks for the feedback, this is even better than the first draft!

Workflow Example

| View | Edit | Latest version | Delete | Revisions | Translate |

| Moderation state | Change to | Log message | |
| Draft | Published | Thanks for the fix! Published. | Apply |

This is a rough draft. Now my draft is complete. Thanks for the feedback, this is even better than the first draft! Typo fixed.

Revisions for *Workflow Example* ☆

Home » Workflow Example

Revisions allow you to track differences between multiple versions of your content, and revert to older versions.

REVISION	OPERATIONS
07/15/2020 – 17:27 by admin Administrative override, straight to published with a content change	*Current revision*
07/15/2020 – 17:24 by admin Thanks for the fix! Published.	Revert ▾
07/15/2020 – 17:12 by admin Found a typo, resubmitted for review as draft	Revert ▾
07/15/2020 – 17:10 by admin Looks good! Published	Revert ▾
07/15/2020 – 17:09 by admin Incorporated feedback, ready for publication	Revert ▾
07/15/2020 – 17:09 by admin First draft is complete, ready for feedback.	Revert ▾
07/15/2020 – 17:08 by admin First draft, incomplete	Revert ▾

Transitions and Revisions

Content Moderation uses Transitions to move from one state to another

Creates a new revision of the node

- Happens with state change

- Even if content hasn't changed

Content changes *with* a state change happen with a **single revision**

Revisionable Entities*

*Looking at you, Paragraphs!

Phase2

Node

- Paragraph field 1

- Paragraph field 2
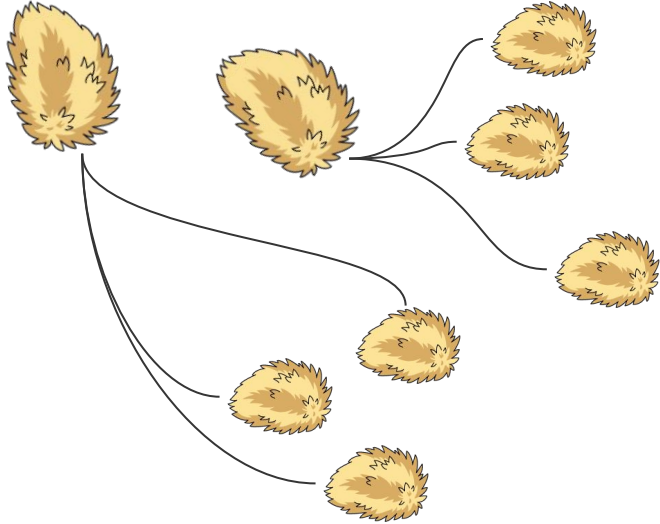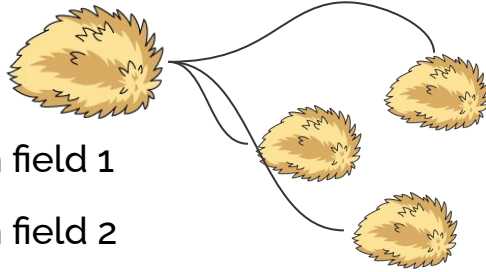
- Paragraph field 3

More science

What happens when one revision, references another revision, and then a *new* revision is made?

Both get a new revision!

Node

- Paragraph field 1
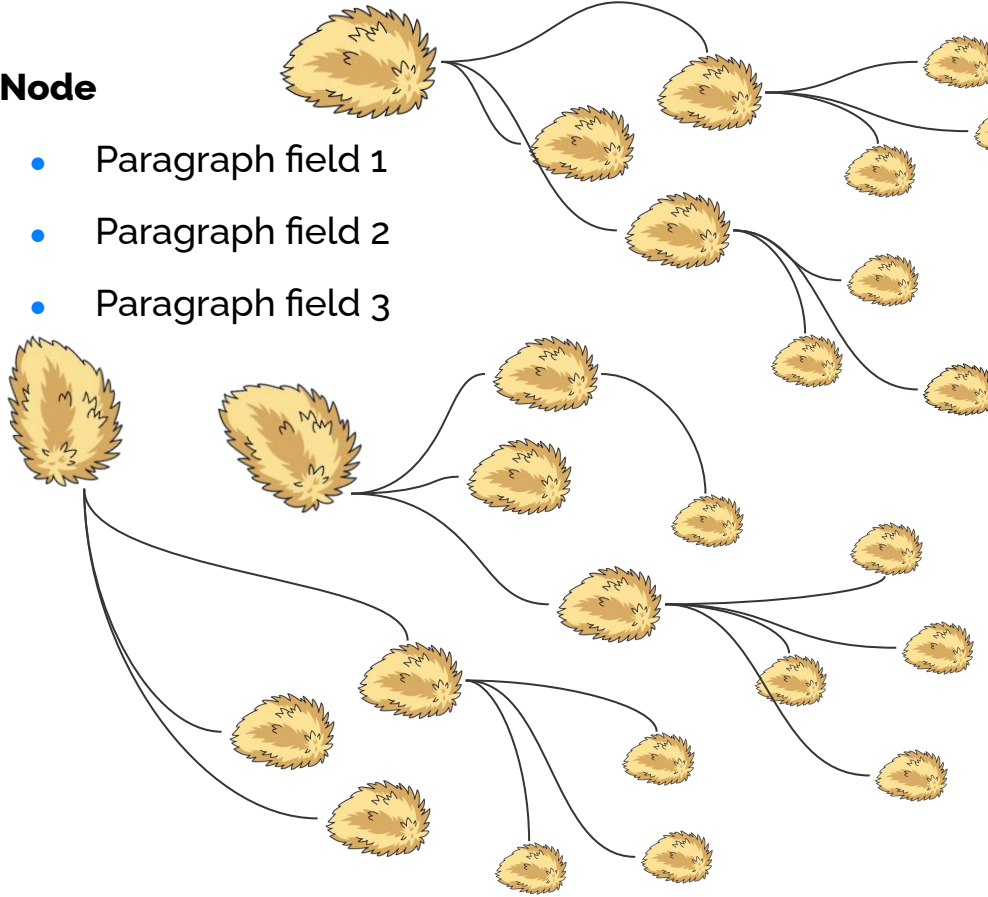
- Paragraph field 2

- Paragraph field 3

And then what happens if some of those paragraphs also reference other things... like nested paragraphs?

MORE revisions!

Node

- Paragraph field 1

- Paragraph field 2

- Paragraph field 3

But then what happens if I translate the original node?

Does that mean that...

> *Hatch rumbles ominously*

Node

- Paragraph field 1
- Paragraph field 2
- Paragraph field 3

NESTED FUZZY DOOM

By the numbers…

1 content type

1 title field

1 body field

3 revisions are created every time a node is saved

- Node_revision
- node_revision__title
- node_revision__body

By the numbers... Paragraphs

1 content type

1 title field

1 body field

1 Paragraph field (max 10 instances)

- Image field
- Caption field
- URL field

Up to 44 revisions are created every time a node is saved

- node_revision
- node_revision__title
- node_revision__body
- node_revision__field_gallery
  - paragraph_revision__field_image
  - paragraph_revision__field_caption
  - paragraph_revision__field_url
  - TIMES 10!
    - EACH!!

By the numbers...
Nested Paragraphs

1 content type

1 title field

1 body field

1 3-Column Paragraph container field

- **1 Paragraph field (max 10 instances)**
  - **3 fields**
- **1 Blockquote field (max 1 instance)**
  - **2 fields**
- **1 Teaser carousel field (max 3 instances)**
  - **1 Entity reference fields**

As many as

51

Revision fields **EACH** time the node is saved!

By the numbers...

5,000 nodes

10 fields each

5 Paragraphs each

- Up to 6 fields each Paragraph

230,000

Revision fields in the database

2.3 Million

REVISIONNNNNNNNS!
made on imgur

Common modules*

*and what they do

03

Phase2

Common Modules

Content
Moderation

(Core)

Workflow

(Core)

Workbench

(Contrib)

Diff

(Contrib)

Common Modules

Content Moderation

Custom states

Visibility rules

Workflow

(Core)

Workbench

(Contrib)

Diff

(Contrib)

Common Modules

Content Moderation

Custom states

Visibility rules

Workflow

Required pathways

Permissions

Workbench

(Contrib)

Diff

(Contrib)

Common Modules

Content Moderation

Custom states

Visibility rules

Workflow

Required pathways

Permissions

Workbench

Visibility and organization

Dashboard built with views

Diff

(Contrib)

Common Modules

Content Moderation

Custom states

Visibility rules

Workflow

Required pathways

Permissions

Workbench

Visibility and organization

Dashboard built with views

Diff

Compare between revisions

Revision screen improvements

Recap

We learned...

- Core state is simple; only Published or Unpublished

- Revisions make simple copies of the previous version

- Content Moderation adds power to the list of revisions

- Workflow adds additional states and transitions

- Multilingual revisions happen per-language

- Workbench adds visibility into content states

Thank you.

Phase2