SilverStripe CMS Workflow

Documentation

Last updated Monday, 2 November 2009 for CMSWorkflow version 0.9

This document is aimed at users of the SilverStripe CMS who use workflow for their websites.

Contents

Introduction

What is workflow?

SilverStripe CMS Workflow allows you to define and control the process of creating and managing content within your website.

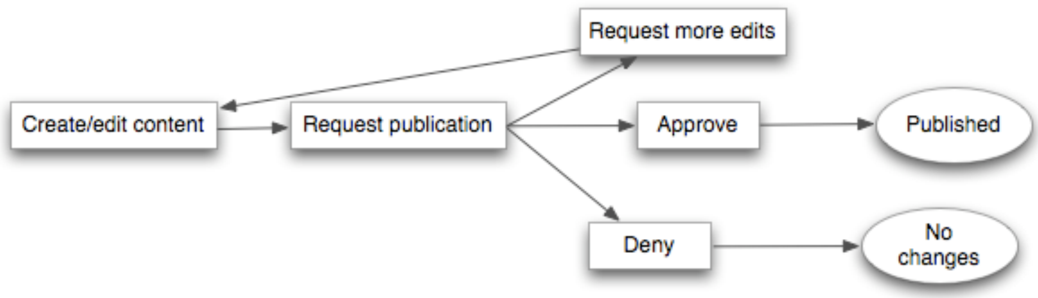
With workflow, you can

- Create different **roles**, and define what each role is allowed to do on your site.
- Create different **groups**, assign them roles, and define where on your site a group can manage content.
- Ensure your team follows a **process** for getting content created, edited, approved, published, or deleted.
- Schedule to have your content **automatically published** or unpublished at a date in the future.
- Define content **owners** and set up **review dates** for content.
- Run **reports** to see what content is in which stage of the workflow, e.g., see all pages waiting for approval, all pages due for review, etc.

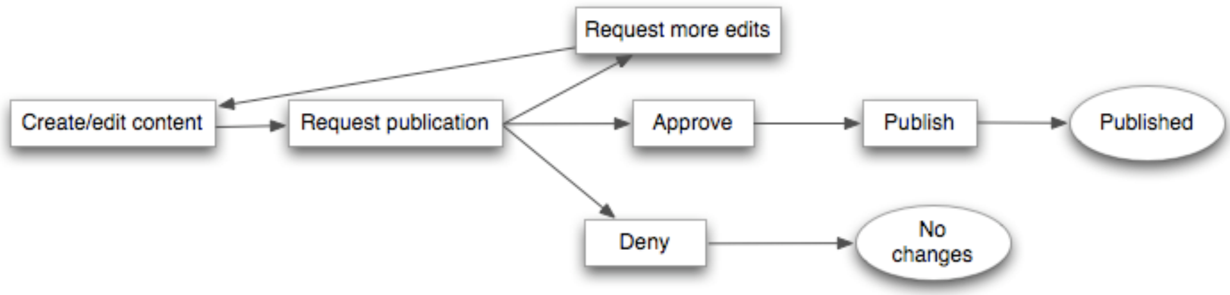
2-step versus 3-step workflow

SilverStripe CMS Workflow is available in two versions: 2-step, and 3-step.

2-step workflow has the following key stages:



3-step workflow has an additional step, where approval doesn't automatically publish a page, but requires a separate publishing action:



Unless stated otherwise, this document describes 2-step workflow. For specific information on 3-step workflow, see the chapter "What's different in 3-step workflow".

Getting your site ready

This section describes the steps you need to take before you can use workflow.

In order to perform these steps, you must be an admin for your site. We assume that the workflow module has already been installed.

Roles

The first thing you need to do is set up **roles** for your users.

What is a role?

A role defines what a user can do.

Or, to use a somewhat more technical term, each role has a number of "permissions" in the system.

This is explained in more detail below.

Basic roles

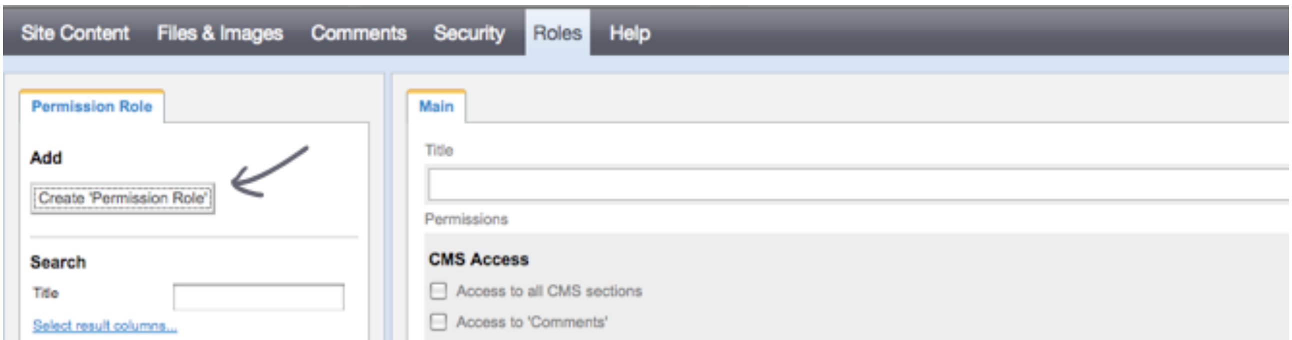
The most typical user roles for workflow are

- **Author** (someone who can create and edit content, but not publish)
- **Publisher** (someone who can also publish)
- **Admin** (someone who has full rights for the management of the site, including the ability to create users and roles)

We recommend you start with these roles, and they may be all you ever need. However, the CMS allows you to create as many different roles as are appropriate for your organisation.

Setting up roles

To set up roles, go the **Roles** section of the CMS.



Click **Create Permission Role** to set up a new role.

Give the role a **Title** (e.g., Author) and select the appropriate permissions from the **Permissions** checklist. Hover over a permission to see more information about it as a tooltip.

Add.

Repeat this for each role.

A role can have any number of permissions.

For example, an author typically has these permissions:

- Access to Site Content

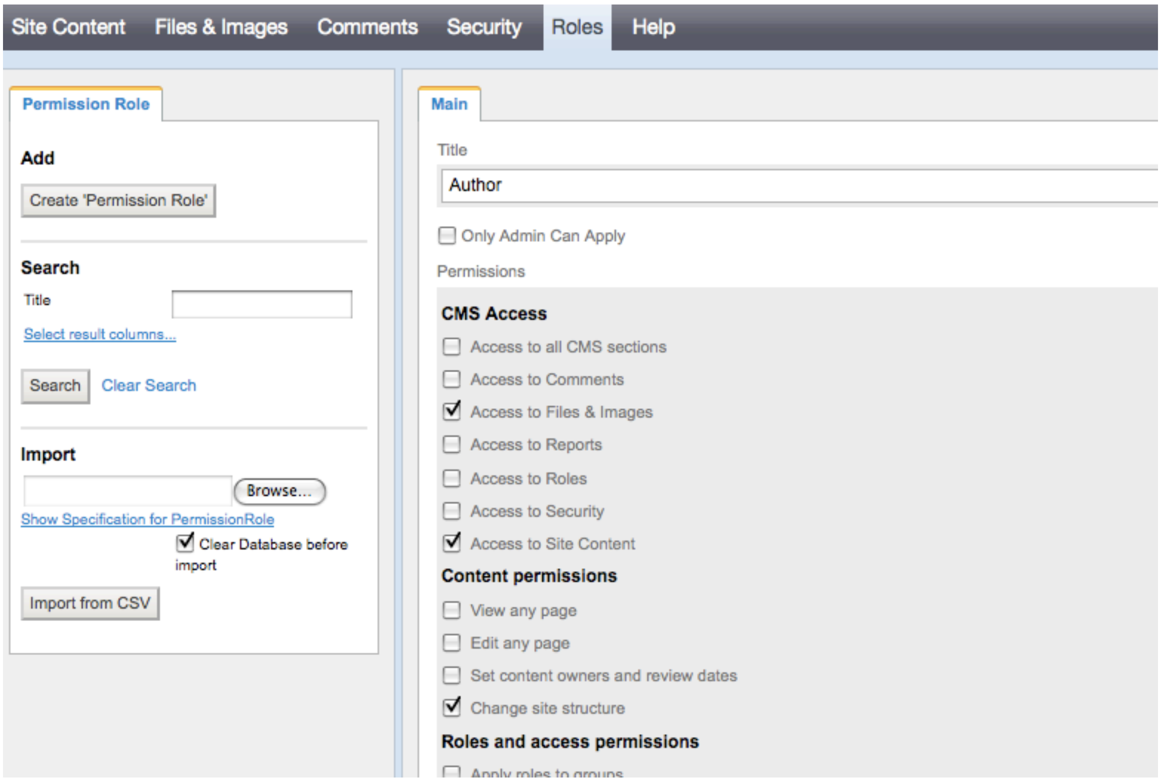
  This means, they can access the "Site Content" section in the CMS; the part where all content is managed.

- Access to Files & Images

  This means, they can browse the "Files and Images section in the CMS, organise assets in folders, upload new assets, etc.

- Change site structure

  This means, they can change the location for a page in the site tree and so manage the site structure and navigation.



See the Appendix for more examples of typical roles and their permissions, and a list of all available permissions.

To edit an existing role, click **Search** (leave the Title box empty). This will give you a list of all roles, and you can click on a role to see details or make changes.

Groups

Once you have set up your roles, it's time to create **groups**.

This chapter explains how to set up groups for a single site. See also "Using workflow with subsites" if you are setting up groups for multiple sites within the CMS.

What is a group?

A group is a collection of users who are responsible for a site, or a section of a site.

Each CMS user for your website belongs to one or more groups.

You can limit CMS access for each group.

For example, you may have a group who can only access the News section of your website, and another group who can only access the Events section of your website. The users in each group would be the people who manage the content for the respective section.

Typical groups

Unlike roles, there are no basic groups that typically apply to all sites. Instead, the groups you set up depend on your organisation, and who is involved in updating your website.

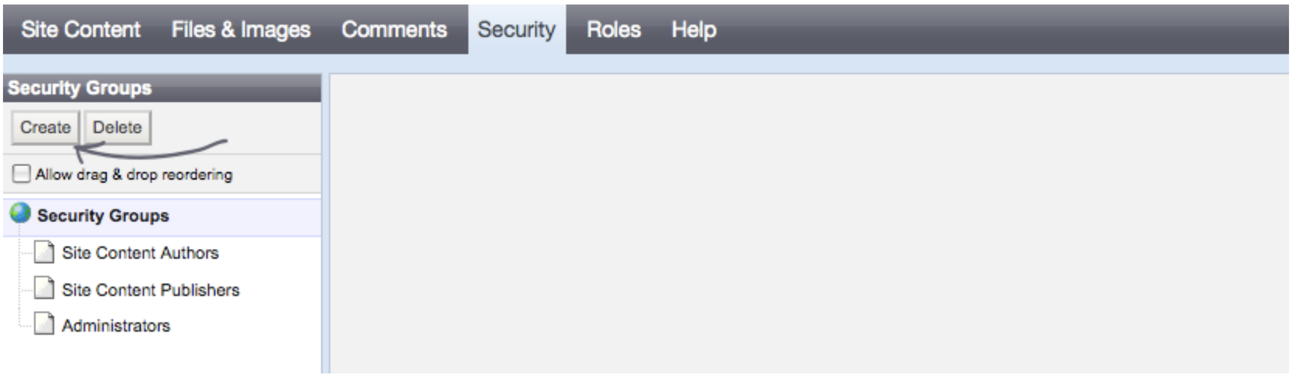
We recommend you think about who manages which areas or sections of your website, and then create groups based on those areas of responsibility.

You probably have a core team that manages the overall website, so you'll probably want to set up a group for them.

In addition, you may have certain business units that only manage a very specific section of the website. Set up groups for each of them, too.

Setting up groups

To set up groups, go the **Security** section of the CMS.



Select **Security Groups** in the site tree, then click **Create** to create a new group on the top level.

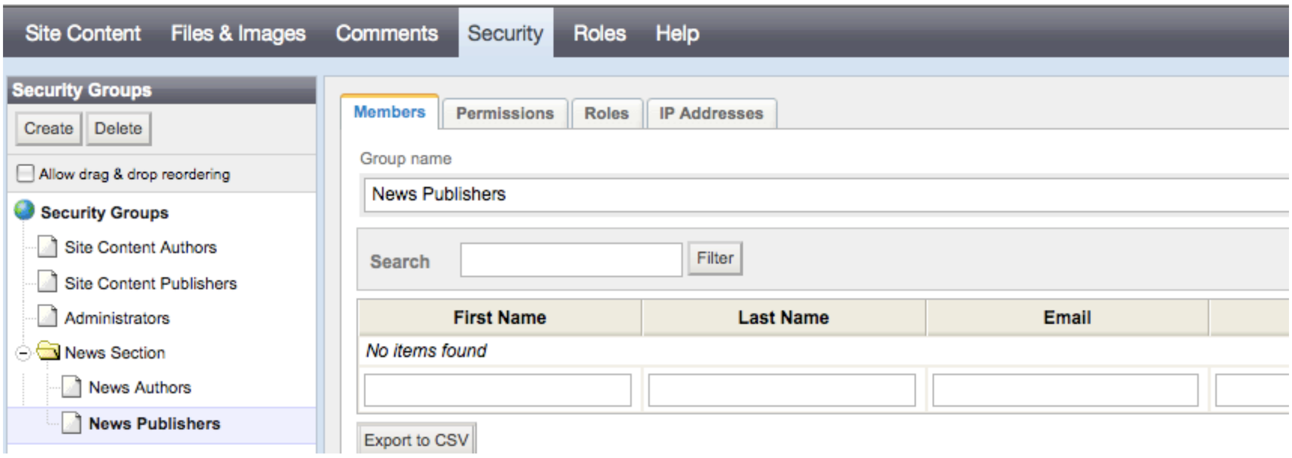
Enter an name under Group Name.

Save.

We recommend you set up a top-level group for your entire site, as well as for each section that is managed by specific people.

For example, you may have a specific group of people in your organisation who manages the News section of your website. Therefore, you want to set up a group named "News Section".

You can nest groups, so within the newly created News Section group, you could then create sub-groups which represent the different roles, e.g., News Authors and News Publishers. The parent group acts as a place to organise your different sub-groups, so you probably don't want to add any members directly to the parent group, only to its children.



Once you have created a group, you can then add members to the group.

You'll already be on the **Members** tab. Start typing a user name, and you will you get automated suggestions if there are matching users already in the system.

Pick one of the suggestions, or enter details for a new user.

Add.

Next, go to the **Roles** tab and select the appropriate Role for your group. In our example, you'd apply the Author role to the News Authors group, and the Publisher role to News Publishers group.

Save.

The **Permissions** tab allows you to apply additional permissions to a group. We recommend not using this tab, but managing all permissions through Roles, as described in the previous chapter.

The **IP Addresses** tab lets you restrict access for a group to people accessing the CMS from a certain IP address range. This is useful for example when you have highly sensitive content and want to make sure only people from within your corporate network can access this content through the CMS.

The **Subsites** tab defines to which subsites the group has access - refer to the chapter "Using workflow with subsites" for more details.

The **Permissions** tab allows you to apply additional permissions to a group. We recommend not using this tab, but managing all permissions through Roles, as described in the previous chapter.

Editing and deleting groups

To edit a group, click the group name in the site tree. This opens the group details. You can change the group name, and add, edit or delete members. Note that a single user can belong to more than one group.

To delete a group, click **Delete**. This gives you checkboxes next to each group. Select the group(s) you want to delete, then click **Delete the selected groups** (you will be asked for confirmation.)

Access

The final step in getting ready for workflow is giving groups **access** to content.

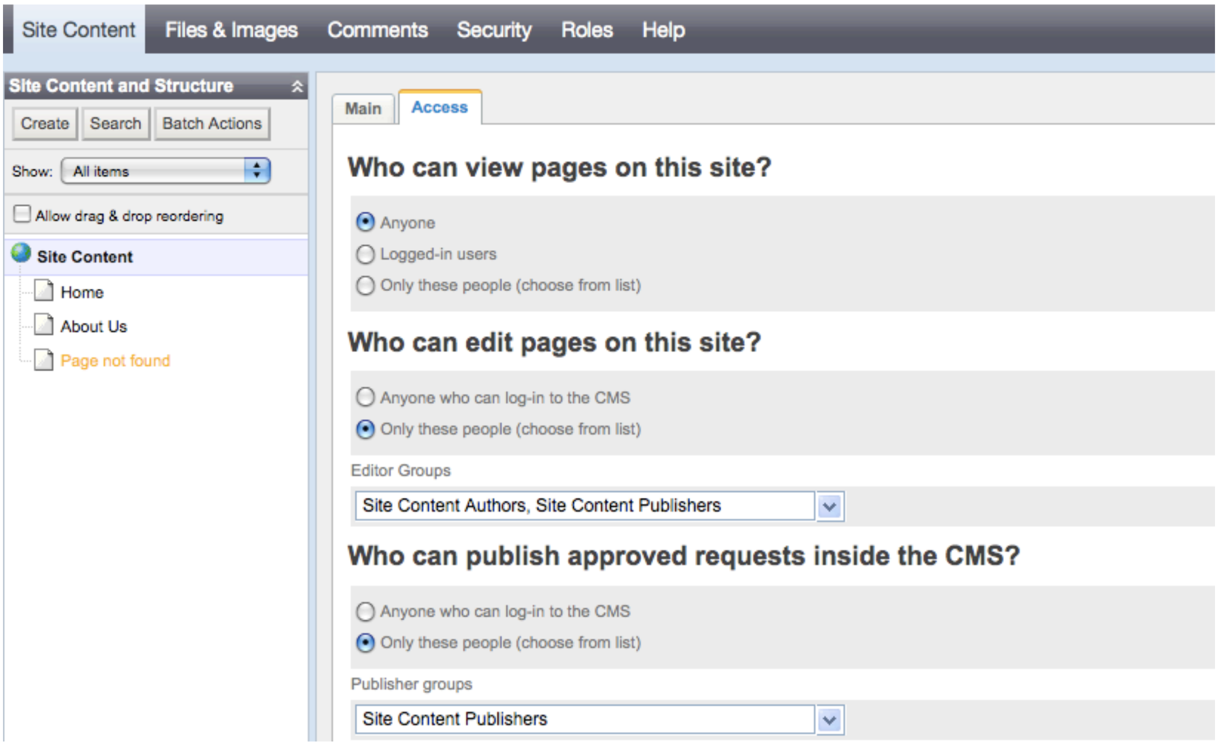
What is access?

Access defines who can view, edit, or publish a piece of content.

Access is applied to content. You can define who has which access rights for the entire site, for a section, or even for an individual page. This allows you to control down to a very granular level who can do what on your site.

Assigning access rights

Go to the **Site Content** section of the CMS and click on the top level of your site in the site tree on the left. Once the page is loaded, click the **Access** tab on the right.



We first selected the top level of the site tree so we can set access rights for the entire site. All child and further nested pages inherit those access rights from their parent. We recommend you start by setting generic access rights on the top level. As a next step, you can set more specific access rights for each section, or even each page.

In the **Access** tab, you can set

- Who can view - typically, anyone (for public content)
- Who can edit - typically, Authors, Publishers, Admins
- Who can publish - typically, Publishers and Admins

For each access level, you can select one or more groups from the dropdown.

Save.

By default, a page inherits its access settings from its parent page. However, you can change these settings on any level. Getting back to our example, you would add News Authors to "Who can edit" and News Publishers to "Who can publish" to the News section of your site, and all its child pages.

Using basic workflow

In its most basic sense, workflow means that new content or changes to existing content need to go through an approval process before they get published to the live site.

This chapter describes the basic workflow process from the perspective of authors and publishers.

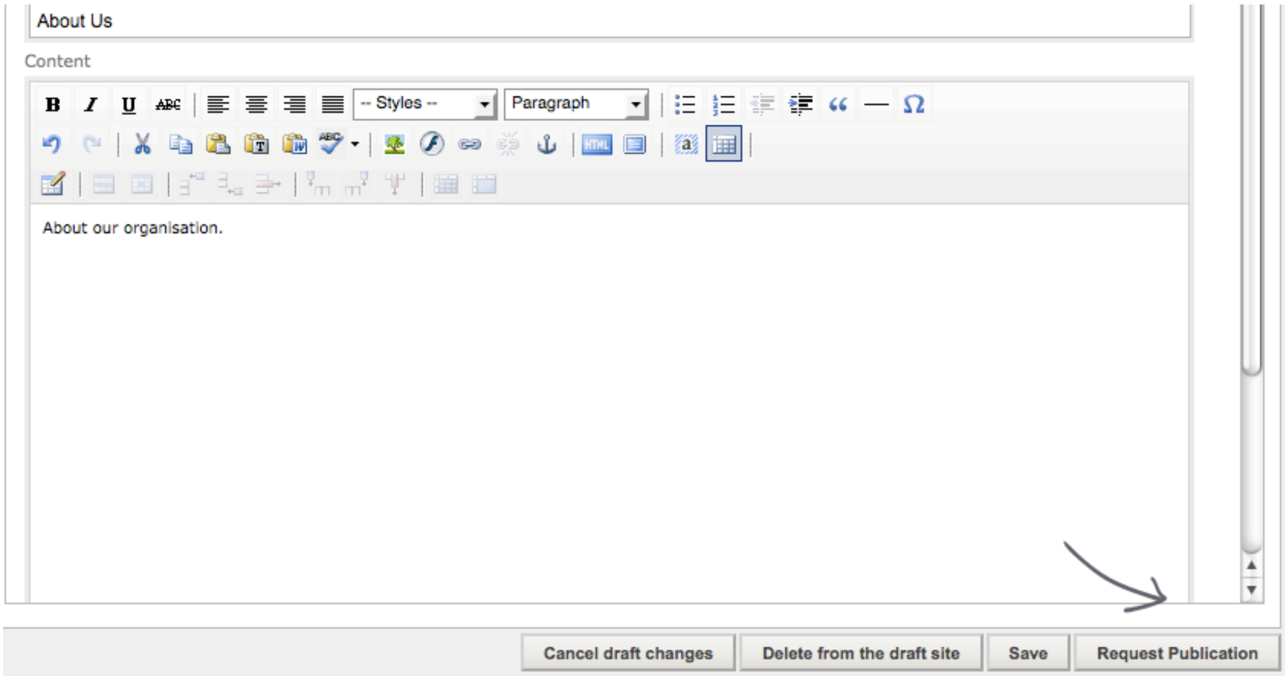
It assumes that you are familiar with the Silverstripe CMS overall, the concepts of Draft Site and Published Site, and Page Version History.

Please note:

- The exact buttons, tabs, and reports for workflow that you see in the CMS can vary from the screenshots, depending on the roles, groups and access rights you have set up, and who you are logged in as.
- The scenarios below assume that you have set up an author and a publisher, following the steps described in the previous chapter. They describe the process and user interface for those users.
- If you are logged in as an admin with full rights, you may follow the workflow process, but you also have the ability to bypass workflow and immediately Save and Publish your changes in a single step.
- If your site is configured to send workflow emails, any changes to workflow status for a content item (e.g., change awaiting approval, change awaiting edit, page published, etc.) will send an email to the appropriate users. If you don't use emails, your users have to run Workflow reports to find out what content needs their attention.

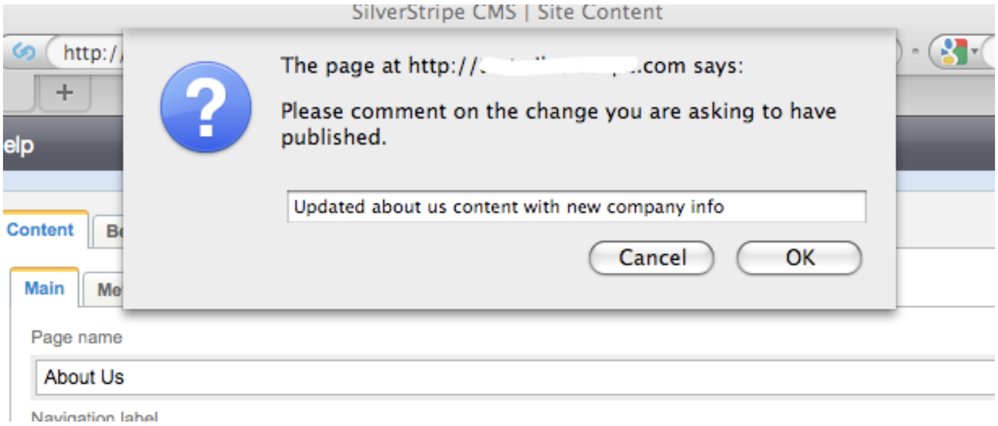
As an author: Creating content and requesting publication

Create a new page, or edit an existing page. Save. Once you've saved your content for the first time, you will get a **Request Publication** button.



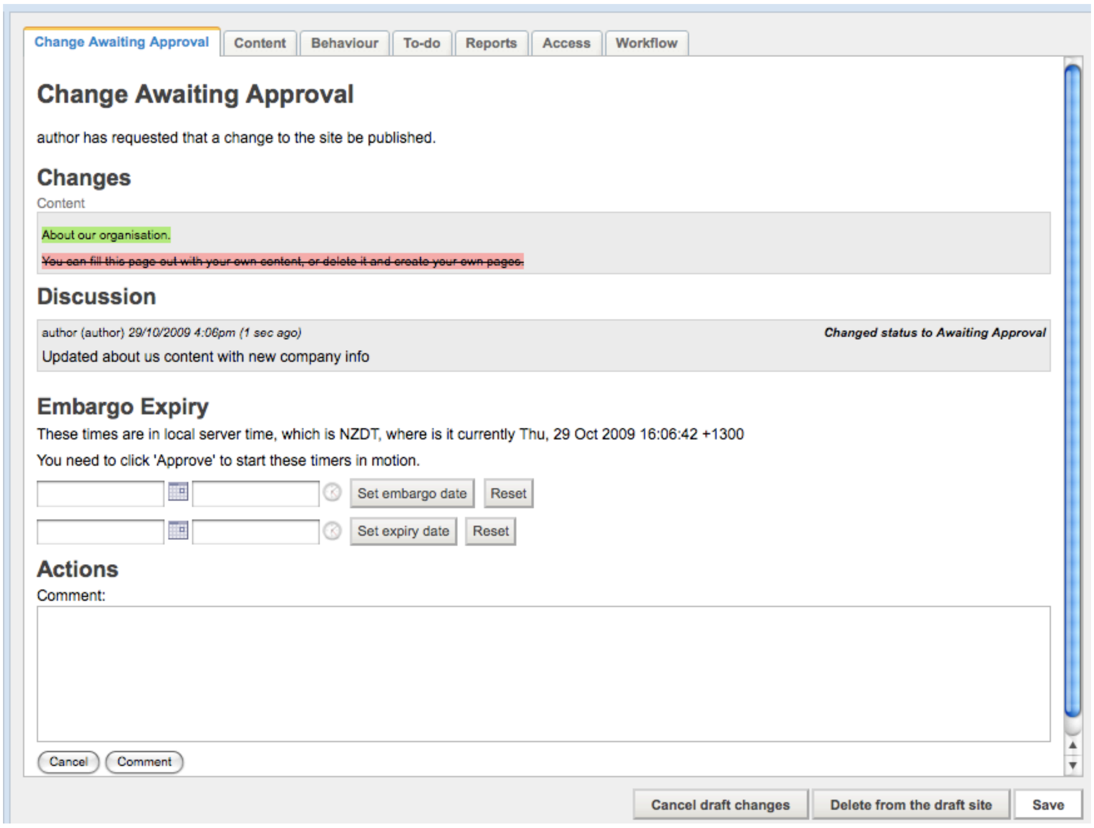
When you are done editing your content, click **Request Publication**.

You will be asked to add a comment about your edits. This comment will become part of the audit trail for your content, and we recommend you add this information. However, it is not enforced, and can proceed while leaving this field blank.



Once you have submitted your request, you now have a new tab called **Change Awaiting Approval**. This tab will remain active as long as the page is in an active workflow state, and disappears once the workflow is complete. Its name will change depending on the actual workflow state of the content.

The tab highlights the new (or changed) content and shows additional information about the page. It also shows all comments made to date in the workflow under **Discussions** and allows you to add more comments under **Actions**.



The publisher will now see your page as a pending approval request when they run Workflow reports.

Author FAQ

What happens next?

The publisher needs to review your request.

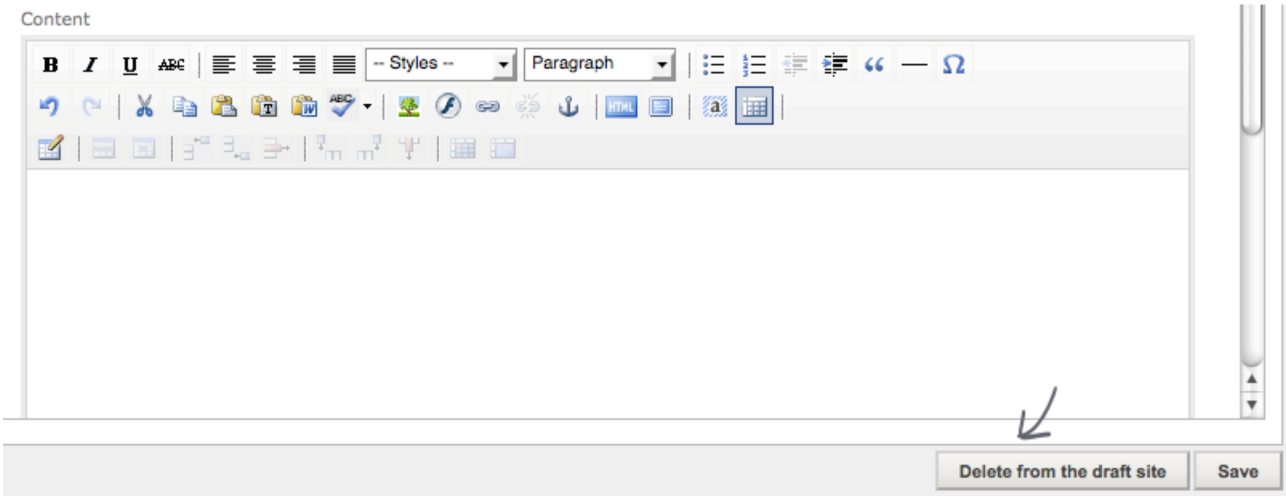
If they are happy with your content, they will approve and publish it. There's nothing further for you to do.

Once your content has gone live, you will notice that the extra tab has disappeared.

What if I want to delete a page?

As with any change, you first need to make your change on the Draft Site before it can be propagated to the Published site.

First, click **Delete from the Draft Site**. This will remove the page from the Draft Site.



You now have a **Request Removal** button. Click it.

You now see a **Removal Awaiting Approval** tab, and the publisher will approve or deny your request.

Can I see a list of all of my content that's waiting for approval?

Yes - see the chapter "Reports".

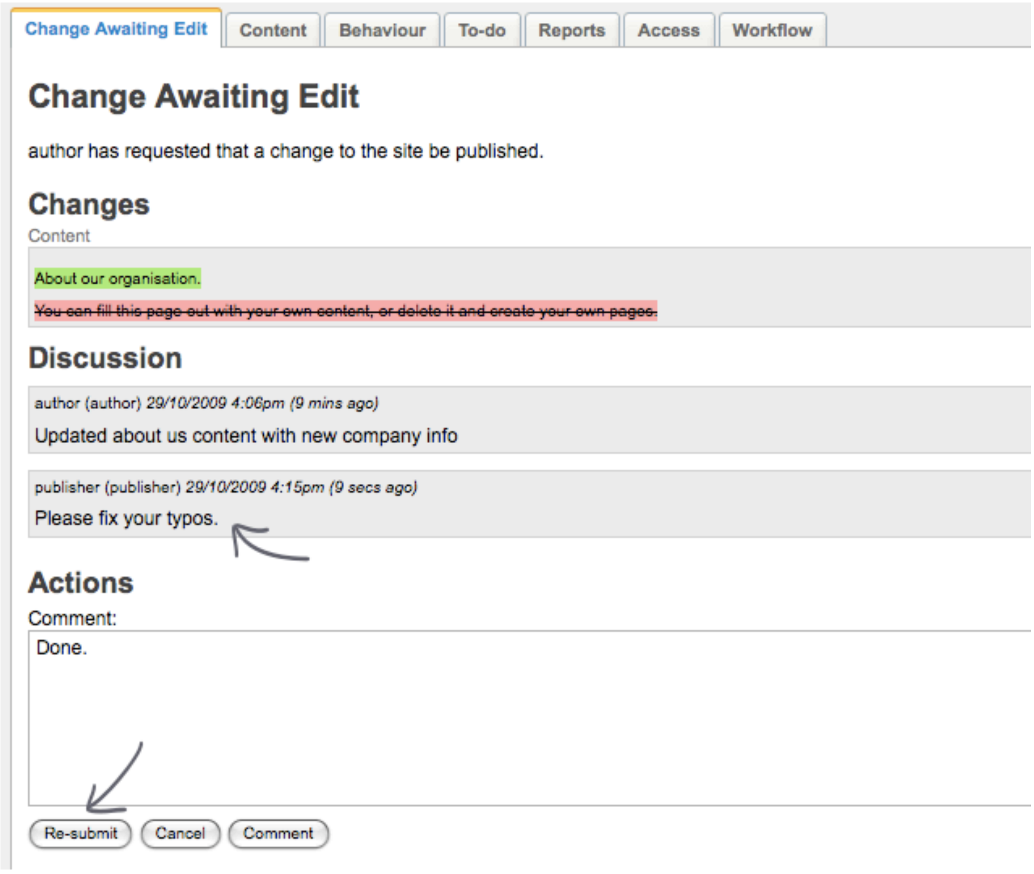
How do I know when my changes have been approved?

If your site is configured to send workflow emails, you will receive an email when your change has been approved (or denied, or if further edits are needed.) Otherwise, you will have to run Workflow reports to find out the status of your content.

What if the publisher doesn't like my edits?

The publisher has a number of options:

- Request further edits - the tab changes to **Change Awaiting Edi**t and it's up to you to make those edits. Once you have done so, click **Re-submit** in the **Change Awaiting Edit** tab. This will set the workflow status (and the tab name) back to **Changes Awaiting Approval**.



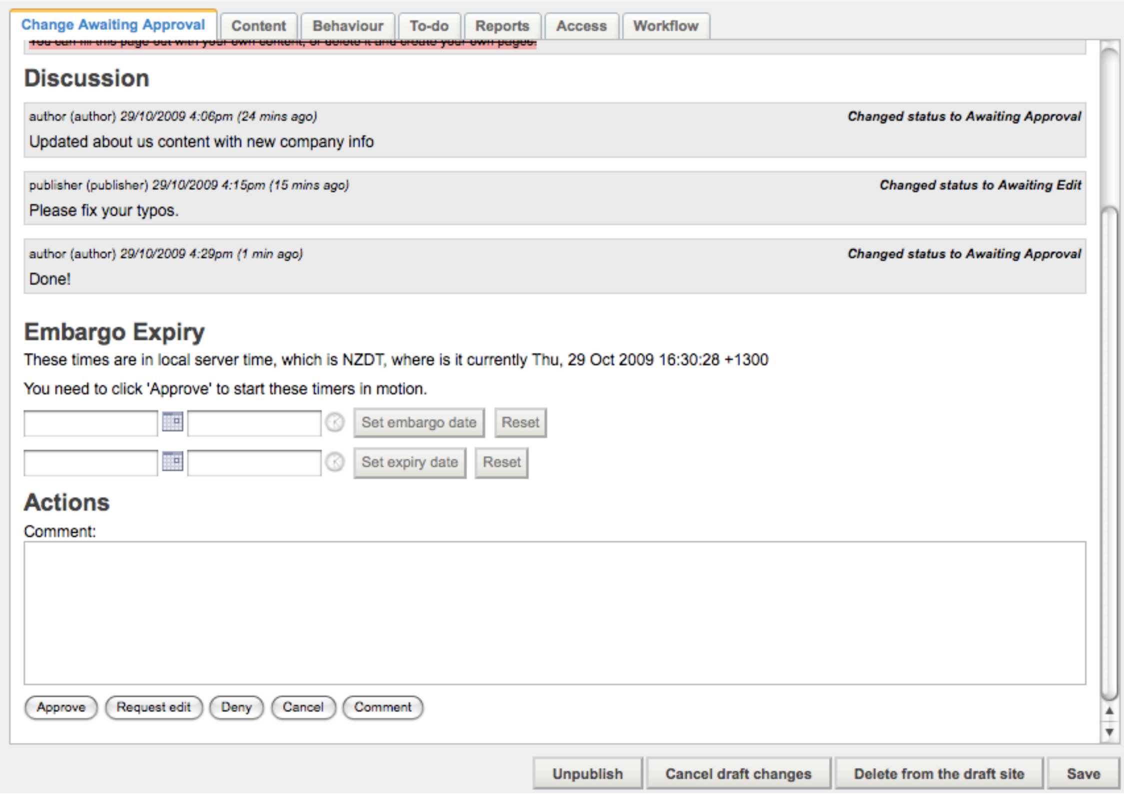
- Cancel your request - this ends the workflow and doesn't change the Published Site, but leaves your changes in place on the Draft Site.
- Deny your request - this undoes your changes and reverts the Draft Site back to the previous version.

As a publisher: Approving and publishing

Depending on how your site is configured, you may have received an email, notifying you of the author's publication request. You can also see a list of all requests that are waiting for your approval by going to Workflow reports and running the report named **Publication requests I need to publish**. This gives you a list of all pages that await your approval.

Click on a page name in the report to view its details.

You will see a tab called **Change Awaiting Approval**, highlighting the new (or changed) content and additional information about the page.



Scroll down the page to **Discussions** to see a list of all comments made to date in the workflow.

Scroll further down to **Actions**. Here you can decide what to do with the request. You have a number of choices:

- **Approve** - this approves the request and publishes it immediately (Note: In 3-step workflow, approval doesn't publish immediately.) The **Change Awaiting Approval** tab disappears.
- **Request edit** - this puts the responsibility for the next step back onto the author. The workflow status is changed to **Change Awaiting Edit**, and the tab is renamed accordingly. When you pick this option, you should also enter a comment so the author knows what they are supposed to do.
- **Deny** - this undoes all changes and reverts the Draft Site back to its previous version. The **Change Awaiting Approval** tab disappears. When you pick this option, you should also enter a comment explaining the reasons for denying the request.
- **Comment** - this allows you to add a comment to this page without changing the workflow (the next step is still your responsibility.)
- **Cancel** - this ends the workflow, but leaves the new content on the Draft Site unchanged. The **Change Awaiting Approval** tab disappears. When you pick this option, you should also enter a comment explaining the reasons for cancelling the request.

Publisher FAQ

How do I know what changes I need to approve?

If your site is configured to send workflow emails, you will receive an email whenever you get a new request. Otherwise, you will have to go into **Site Reports** to find out what actions you need to take.

Why does the Removal request say that a change to the site is to be published when really the page is to be deleted?

Whether you add new content or remove existing content, you still technically publish a new version of your website. In the **Removal Awaiting Approval** tab, click **Approve** to remove the page from site. (You also have the option to **Deny**, **Cancel** or **Comment** on the request as described above.)

What if I want to have a page be removed at a later date?

In the **Removal Awaiting Approval** tab, select **Schedule this page to expire at a later date**.

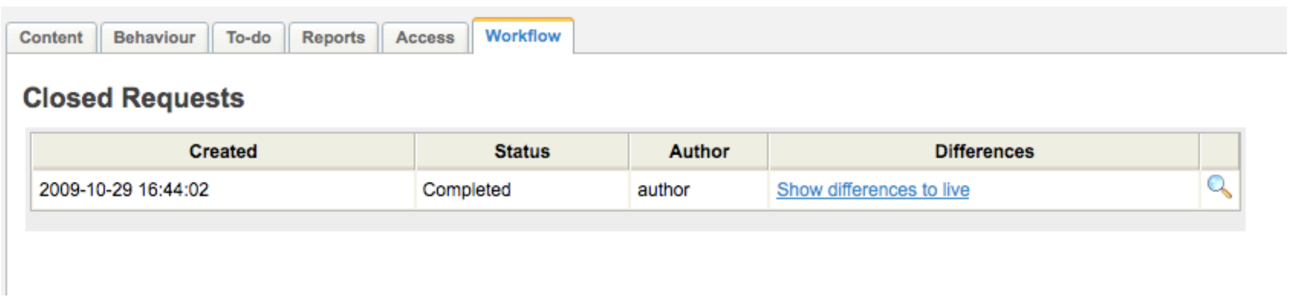
This gives you fields for date and time when the page should be removed. When you approve the request, the workflow ends, and you get a new **Expiry** tab which states when the page is scheduled to expire (i.e., disappear from the site.) For more details on content expiry, see the chapter "Scheduling publication (embargo and expiry)".

Audit trail

While workflow is active, the **...Awaiting...** tab holds all comments and status updates that have been made to the workflow to date.

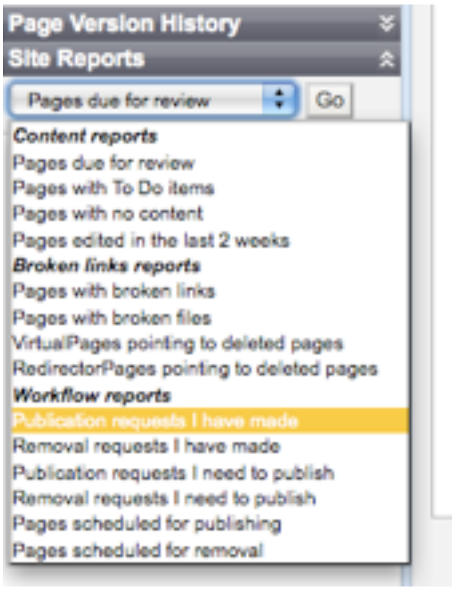
The **Page Version History** keeps track of all changes that have been made to a page since it was created, by whom and when. Note that this report only shows published versions. To compare two versions of a page, highlight them in the list and select **Compare Mode.** New content will be highlighted in green and deleted content in red.

The **Workflow** tab shows a history of all closed workflow requests. You can click to view details, and differences to the live site.



Workflow reports

CMS users can access workflow reports under **Site Reports** in the left pane of the CMS Site Content. The reports return a list of page names, and you can click on a page name to open the page in the main panel of the CMS.



The table below lists all workflow reports and explains what they do. For other reports available in the CMS, refer to "Other Reports."

Publication requests I have made	This report is mainly for authors and shows the current user a list of all their pending publication requests.
Removal requests I have made	This report is mainly for authors and shows the current user a list of all pending removal requests they have made.
Publication requests I need to publish	This report is mainly for publishers and shows the current user a list of all pages which they need to publish.
Removal requests I need to publish	This report is mainly for publishers and shows the current user a list of all pages which they need to remove (i.e., approve and publish the removal request.)
Pages scheduled for publishing	Shows all pages scheduled for publishing (see also "Embargo/Expiry"). Optionally, enter a start and/or end date to only see pages scheduled within a specific time period.
Pages scheduled for removal	Shows all pages scheduled for removal (see also "Embargo/Expiry"). Optionally, enter a start and/or end date to only see pages scheduled within a specific time period.

Keeping your site current

Scheduling publication (embargo and expiry)

Embargo and expiry let you schedule in advance when a page gets published or unpublished.

When you publish a page that has an embargo date, the page will not go live immediately. Instead, it will remain in draft mode until the embargo date has been reached. Once the embargo date has been reached, the page is automatically published.

If the page has an expiry date, it will be automatically unpublished once the expiry date has been reached. It will remain accessible in the CMS as a draft.

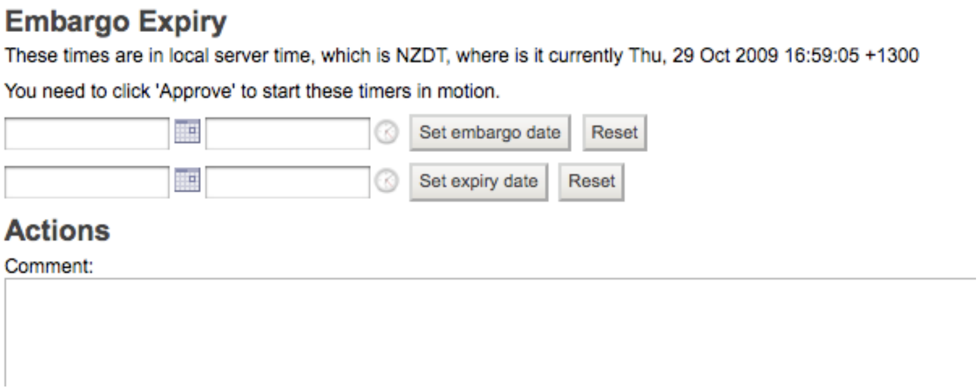
Setting embargo and expiry dates

When you are in an active workflow for a page, you can set an embargo and/or an expiry date for the page.

In the "...Awaiting..." tab, scroll down to **Embargo Expiry** and enter date and time for one or both fields.

Click **Set embargo date** / **Set expiry date**.

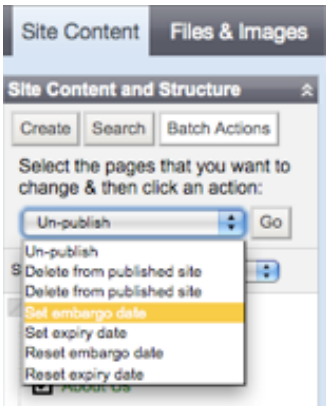
Save.



You can also set embargo or expiry through batch actions.

Select the pages for which you want to set embargo or expiry, then select **Set embargo date** or **Set expiry date** from the dropdown.

Go.



If a page has an expiry date, you will get an **Expiry** tab, showing you when the page is scheduled to expire.

As a publisher, you can cancel the scheduled expiry: Click **Cancel expiry**.

To see all pages with embargo or expiry date, run the **Pages scheduled for publishing** or **Pages scheduled for removal** reports (see the chapter Workflow reports.)

Assigning content owners and review dates

If you have the Content Review module installed for your site, you can assign a content owner to a page and schedule a date when the page is due for review.

In order to do this, the user must have the permission to "**Set content owners and review dates.**"

Go to the **Review** tab to set:

- **Page owner** - pick an existing user from the dropdown
- **Next review date** - a single date at which the page becomes due for review
- **Review frequency** - a recurring time period at which the page becomes to for review
- **Review notes** - for the reviewers, to provide an audit trail

To see all pages currently due for review, run the **Pages due for review** report (see Other reports below.)

Other reports

In addition to workflow reports, the CMS offers these reports to content editors:

Broken links reports

By default, these reports check the Draft Site. Select "Also check Published Site" to include results from the Published Site.

Pages with broken links	A list of all pages which contain broken links.
Pages with broken files	A list of all pages which link to non-existent files.
Virtual Pages with broken targets	A list of all Virtual Pages which point to non-existent pages.
Redirector Pages with broken targets	A list of all Redirector Pages which point to non-existent pages.

Content reports

Pages due for review	A list of all pages which are currently due for review. Enter a date to only view pages that are due on or before that date (recommended.) Enter a content owner to only view pages owned by that user.
Pages with To Do items	A list of pages that have content in their To Do tab.
Pages with no content	A list of empty pages.
Pages edited in the last 2 weeks	A list of all pages edited within the last 2 weeks.

Using workflow with subsites

If you are using subsites to manage more than one website through the CMS, you can use workflow to manage permissions and access rights for each individual subsite as well as across all sites.

The overall process described in this document also applies when working with subsites. However, having multiple sites in the CMS adds another layer of complexity.

This chapter describes what's different, and how to best set up workflow in conjunction with subsites.

Roles

Roles are not specific to a subsite, but once created, they can be applied to any of the sites.

If you use subsites, you can apply these additional permissions when setting up roles:

- Access to Subsite
- Manage subsites for groups
- Manage assets for subsites

(See the Appendix for a list of all permissions.)

Groups

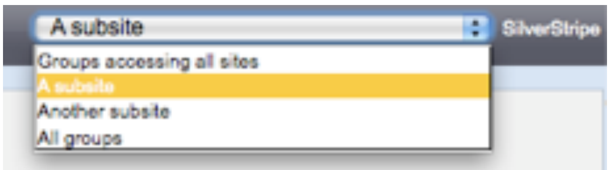
You can set up groups that have access to all sites, as well as specific groups which only have access to a specific site. If you are using subsites and have different staff in charge of each subsite, you probably want to create a separate group for each subsite.

This document assumes you are already familiar with working with subsites and know that dropdown in the upper right corner of the CMS indicates which subsite you are currently on.

While you are in the **Security** section of the CMS, the selection in the subsites dropdown defines what groups you see in the left-hand pane.

The choices are

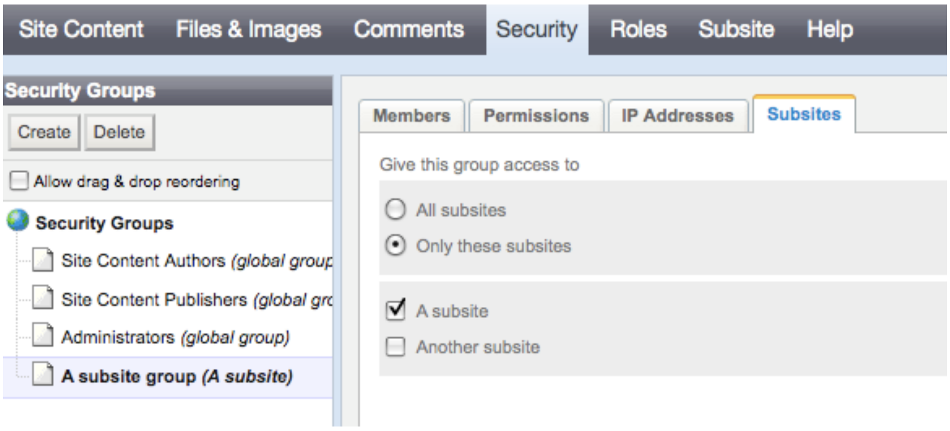
- Groups accessing all sites
- [your main site]
- [a subsite]
- [another subsite]
- All groups - i.e., all above combined



Once you make a selection from the dropdown, you see the appropriate groups under Security Groups.

To set up a new group, follow the steps described in the chapter "Getting your site ready for workflow".

Once your group is set up, go to the **Subsites** tab for the group and assign the subsites to which the new group has access. Click **Only these subsites** to reveal a checklist of all available sites.



Save.

Access

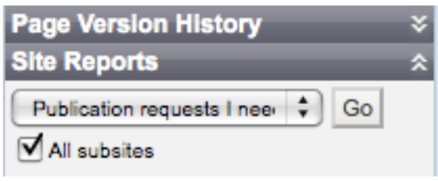
Follow the steps described in the chapter "Getting your site ready for workflow" for each subsite.

Reports

By default, workflow reports return results for the current site.

When you are using subsites, you get the additional option to "Include all subsites" for these reports:

- Publication requests I need to publish
- Removal requests I need to publish
- Pages scheduled for publishing
- Pages scheduled for removal



If you are using 3-step workflow, you also get the "Include all subsites" option for

- Publication requests I need to approve
- Removal requests I need to approve

What's different in 3-step workflow

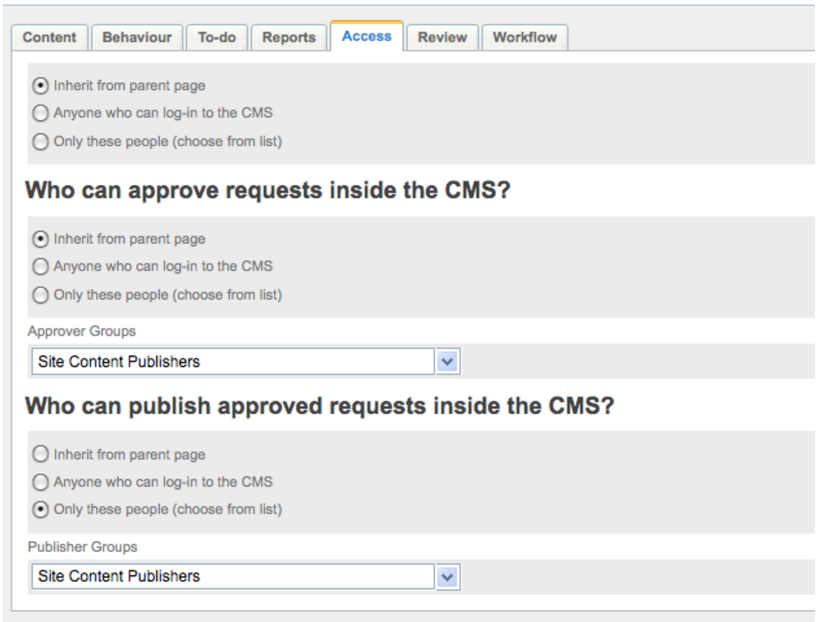
3-step workflow has an additional step, where approval doesn't automatically publish a page, but requires a separate publishing action

If your site uses 3-step workflow, you will see this additional step reflected in the user interface. This pages describes the key differences of 3-step workflow.

Access

When defining access for your content in the Access tab under **Site Content**, you don't just define who can view, edit, and publish, but you also get this additional option:

- Who can approve requests inside the CMS



Depending on the needs of your organisation, you may want to give this right to Publishers, or possibly to a separate Approver role.

Using workflow

As an author, follow the same process of creating content and requesting publication as described in the author section of the Using workflow chapter above. There is no difference for authors between 2-step and 3-step workflow.

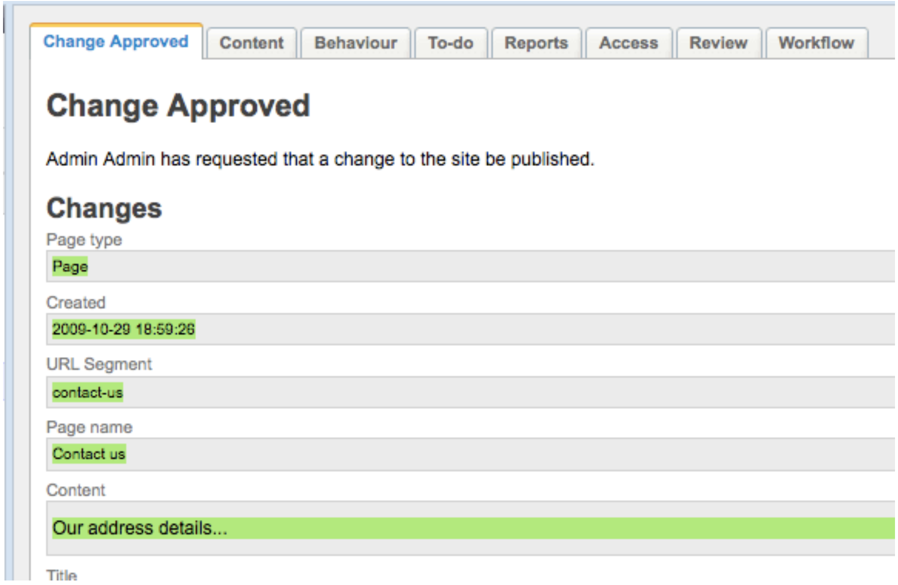
Depending on how you set up your roles, you may have a single role that can both approve and publish content, or you may have split these rights between two roles.

This document assumes that your publisher role can both approve and publish content.

When the publisher receives a request to approve a change, they see the same options as in the 2-step workflow - Approve, Request edit, etc.

When they click **Approve**, however, the page doesn't get published immediately.

Instead, the workflow stays open, and the "Change Awaiting Approval" tab changes to "**Change Approved**."

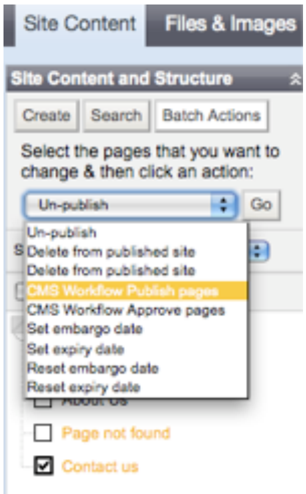


You can run the report **Publication requests I need to publish** to get a list of all approved, but not yet published pages.

To published approved pages, go to **Batch Actions**.

Make sure the page(s) you want to publish are selected, then select **CMS Workflow Publish Pages** from the dropdown.

Go.



This publishes all approved pages to the Published Site.

The CMS will tell you how many pages were published. Only pages that were previously approved will be published (in case you accidentally selected pages that hadn't yet been approved.)

Reports

3-step workflow has a number of additional workflow reports:

- Publication requests I need to approve
- Removal requests I need to approve

For the following reports, you have the option to only return requests that you approved (vs. all approved requests):

- Publication requests I need to publish
- Removal requests I need to publish

Appendix

Permissions

This table lists all available permissions in the Silverstripe CMS, and explains what they do.

CMS access	
Access to all CMS sections	Combines all "Access to..." permissions below.
Access to Site Content	Ability to access the CMS. If enabled, the CMS top bar includes **Site Content**. Required for anyone making changes to content.
Access to Files & Images	Ability to manage assets. If enabled, the CMS top bar includes **Files & Images**.
Access to Comments	Ability to manage comments on the site. If enabled, the CMS top bar includes **Comments**. This applies if any pages on your site have comments enabled.
Access to Security	Ability to manage security groups. If enabled, the CMS top bar includes **Security**.
Access to Roles	Ability to manage roles. If enabled, the CMS top bar includes **Roles**.
Access to Reports	Ability to run reports. If enabled, the CMS top bar includes **Reports**. Note that this applies to reports which appear in the Reports section, not the Site Reports, which are available to anyone who has "Access to Site Content".
Access to Subsite	Ability to manage subsites. If enabled, the CMS top bar includes **Subsites**. This is for creating, changing or viewing subsites, not for accessing their content.
Content permissions	
View any page	Ability to view any page on the site, regardless of the settings on the Access tab. Requires "Access to Site Content."
Edit any page	Ability to edit any page on the site, regardless of the settings on the Access tab. Requires "Access to Site Content."
Set content owners and review dates	Ability to select page owner and review dates for a page.
Change site structure	Ability to drag and drop pages in the site tree in the CMS (but not change their content.)
Roles and access permissions	
Apply roles to groups	Ability to edit the roles assigned to a group. Requires "Access to Security."

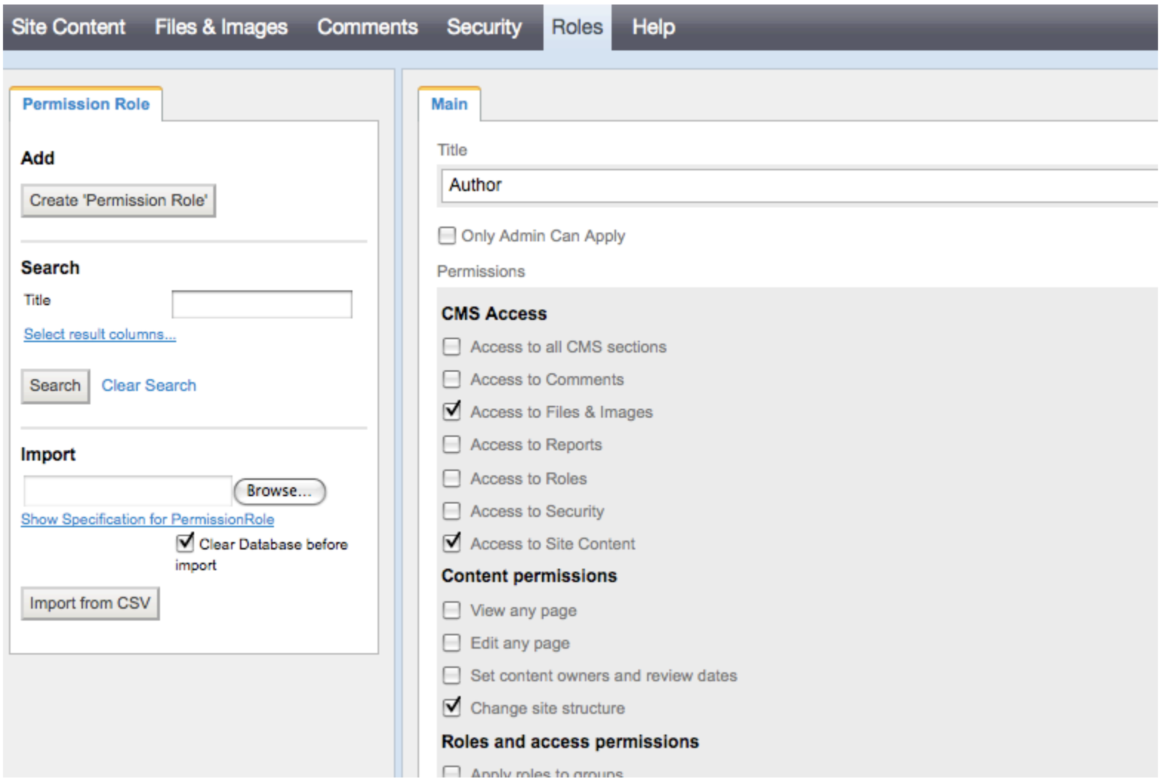
Manage permissions for groups	Ability to edit Permissions and IP Addresses for a group. Requires "Access to Security".
Manage access rights for content	Ability to edit groups in the Access tab for a page or section. Requires "Access to Site Content."
Manage subsites for groups	Ability to limit the permissions for a group to one or more subsites (only appears if your site has the Subsites module installed.)
Manage assets for subsites	Ability to select the subsite to which an asset folder belongs. Requires "Access to Files & Images." (Only appears if your site has the Subsites module installed.)
Manage site configuration	Ability to edit global access settings/top-level page permissions.
Perform any workflow task	Ability to do anything within workflow (approve, publish etc.), i.e., a global override of all workflow.
Full administrative rights	Full admin user with no restrictions.

Examples of roles

This screenshot shows an example of setting up the Author role within the Roles tab. In this example, the Author has

- Access to Site Content, i.e., can go to this tab in the CMS
- Access to Files & Images i.e., can go to this tab in the CMS
- Can change site structure, i.e., move pages around in the site tree

The "Only Admin Can Apply" checkbox is not selected. This means users who have permissions to the Security tab to create users and groups, but aren't admins themselves, can apply the Author role to other users.



This table gives some examples of typical roles that you might set up for your site.

	Author	Publisher	Admin
Access to Site Content	x	x	(implicit)
Access to Files & Images	x	x	(implicit)
Change site structure	x	x	(implicit)
Full administrative rights			x
"Only Admin Can Apply" checkbox			x

You will notice that Author and Publisher role both have the same permissions. This is because permission codes define on a high level which parts of the system a role can access - but they don't cover *all* security in SilverStripe. You define whether a role can publish content or not in the Site Content section of the CMS, on a per site, section, or page basis.

Workflow emails

Your site can be configured to send workflow emails. This means, it will automatically send an email to the appropriate users when the workflow status for a content item changes.

We can set up any or all of the following emails:

Email to the **author** when their publication request (or their removal request)

- was approved & published
- was denied
- was cancelled
- had a comment added by someone else

Email to the **publisher** when someone requested publication (or removal) and

- the publisher needs to approve the request
- the publisher has approved & published the request
- someone added a comment to the request

Each email option in the lists above can be turned on or off individually, depending on your needs.

"Author" means the user who submitted the request. "Publisher" means whoever has the rights to action the request, so if you have multiple publishers assigned to the same content, they all will receive the publisher emails.

If you are using 3-step workflow, approve and publish are separate events and therefore would send separate emails.