CDOT Plone 5 Site Manual

January 21, 2020
Version 1.4

COLORADO
Department of Transportation

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OVERVIEW

CDOT's Plone 5 CMS is the upgrade version of the existing website's Plone 4 CMS. Plone 5 offers many improvements including:

- A new powerful site Toolbar that replaces the Green Edit Bar
- Easier Theming and template development
- A 15%-20% faster template engine to render pages more quickly.
- Bulk Content Editing

In addition, A new drag-and-drop page layout engine called Mosaic has replaced the old site's Cover Pages. This new layout engine is more stable and produces cleaner code for easier page creation and maintenance. It is also easier to develop custom content 'tiles' and layouts that will give page authors more content options to drop into their pages.

This manual does not cover the basic Plone 5 operations like creating a Page, News Item, etc as those operations largely have not changed from the previous Plone version. However, this manual does document critical User Interface (U.I.) differences and custom functionality that has been developed above and beyond the core Plone 5 installation.

CDOT THEME

Minor Changes to the CDOT theme were made to optimize it for the Plone 5 theme rendering engine. In addition, CSS errors that were causing some content rendering issues were fixed. Some of the noticeable changes are:

- The base font size has been set to 16px making it easier for the average user to read content, especially on mobile devices. This is a more industry-standard accepted base font size.
- Portlet CSS has been cleaned up to have a very light border around portlet content when portlet borders are displayed.
- Header drop shadows have been removed to make reading them easier.
- Line spacing has been adjusted for easier legibility.
- fonticon.ico file has been changed to the new CDOT branding logo.

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PLONE 5 USER MANUAL

The Plone 5 User Manual is an online set of continually updated web pages. This manual goes through all of the basic operations of managing content within your Plone 5 site. This manual should be reviewed extensively by Site Managers, Site Administrators, and Content Authors.

https://docs.plone.org/working-with-content/index.html

USER ROLES

Plone has several user roles that should be used sparingly when assigned to users. Roles can be assigned to users via 'Users and Groups' control panel. When these roles are assigned, the assignment affects the whole website. For example, if a user is assigned the **Reviewer** role, they will be able to review and publish content for the whole website. These are the site-wide user roles that can be assigned to users:

- **Contributor** - a user with a contributor role can add content and submit it for review. Such a user can also view another user's content that is not in the published state but can not edit it.
- **Editor** - a user with an editor role can edit content by self or others. He can't add new content but can edit existing content. Such a user can manage content properties and submit content for publication.
- **Member** - this is the most common role for site users. Users with this role can see anything that is published on the site but can not add new content or edit it. This role is assigned to normal users who join the site but will not be doing any changes to the content.
- **Reader** - users with a reader role can read content by others, they can view content items that are in a private state, but cannot make any changes.
- **Reviewer** - a user with a content reviewer role has the power to edit/publish content that has been submitted for review but cannot create new content. There is a special portlet for Reviewers that gather content that needs to be reviewed.
- **Site Administrator** - a site administrator has superuser powers within the Plone site. Such a user has full access to manage content and configuration in a Plone site but does not have access to ZMI and other places, where system administration or Plone integrator/developer skills are required.
- **Manager** - a user with a manager role can do everything. Such a user has access to the control panel, where many site-wide settings can be changed and updated. Managers can also manage things via the Zope Management Interface.

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Best practices for role management is that all content managers should only be assigned the **Member** role of the site. The Member role allows users to log in but nothing else. The CDOT external website uses groups to assign special roles on certain site sections. The local **Sharing** option should be used to assign groups to different content areas.
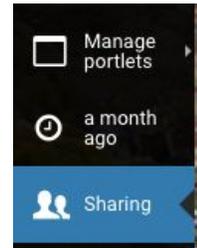
To control the roles of a certain content area of the website, navigate to that area of the website and click on the **Sharing** tab in the site toolbar navigation. In this case, we will use the /safety directory as our example.

Name	Can add	Can edit	Can review	Can view
APP_Safety_Add	☑	☐	☐	☐
APP_Safety_Edit	☐	☑	☐	☐
APP_Safety_Publish	☐	☐	☑	☐
Logged-in users	☐	☐	☐	☐

In the example above you can see the three standard groups that each main content area requires and the role that the group has been assigned. In order for users to acquire different content roles (add, edit, review), those users need to be added to the group that is assigned to that content area. Best practices for user management is to not directly assign users to content. The order would be, 1) assign the groups to the content area with their particular roles, 2) assign the user to the group. This makes it easier to manage users across the whole system.

NOTE: IF there are no groups for the particular content area to add users to, those groups need to be created by a user with the site Administrator role.

Why are these groups important? There are workflows within the site that trigger email notifications to different users as a piece of content goes from 'Private', 'Submitted for Publication', to 'Published'. Depending on the role the user is assigned to an area depends on the notification they will receive.

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Site Notifications

Users assigned to the '**_Add**' group will be emailed when their content (the content they own) is approved or rejected by a content Publisher (a user assigned to the '**_Publish**' group).

Users assigned to the '**_Publish**' group will be emailed when a content item is 'Submitted for publication' or 'Rejected' or 'Approved' in an area they have been assigned that particular group.

Users that have been assigned the **Reviewer** *site role* will be emailed concerning every piece of content that has been 'Submitted for publication', 'Rejected' or 'Approved' because the Site Reviewer role has publishing rights to the entire site and therefore has a publisher role for all content.

PLONE 4 VS. PLONE 5 DIFFERENCES

Plone 5 has many backend updates that speed up page rendering, optimize content delivery and speed template customization. Along with the backend, updates are some User Interface updates that will optimize how users manage content within their website. Some of these optimizations have led to User Interface changes and functional changes within the new Plone 5 website.

Site Toolbar

Perhaps the most significant change in Plone 5 is the new Site Toolbar. The Site Toolbar is a re-designed set of tools that were formerly in the Plone 4 Green Edit Bar.

Plone 5 Site toolbar

Plone 4 Green Edit Bar

Nothing has changed concerning the way Plone manages content however, how the content authors get to their tools is different. The new site toolbar pulls the management of content out of the page content itself and puts the tools in a Site Toolbar that resides along the top or the side of the page the user is working on. Within the Site Toolbar, content authors will find the same tools to add content, remove content and change the workflow state of content that they

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currently use in the Green Edit bar.

Folder Contents View Tools

The Folder Contents View has an updated Use Interface that includes several tools to bulk-manage content within a folder. All a user has to do is click on the checkbox(es) next to the content they want to manage and then click on the appropriate tool button in the Folder contents toolbar to do the following operations (listed in order referencing the icons from left to right.

- Cut
- Copy
- Paste/ Move
- Delete
- Rename
- Tag/Categorize
- Change Workflow State (Submit for Publication/Publish, etc)
- Modify Item Properties

This allows users to manage multiple content items in one place instead of managing their properties one by one.
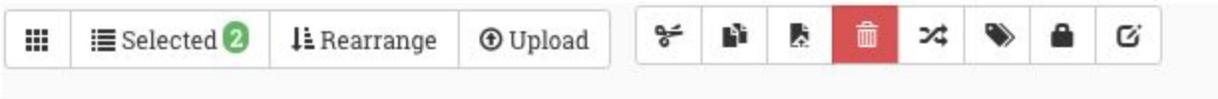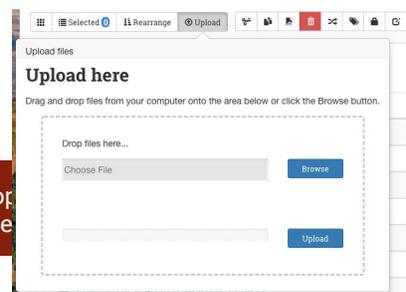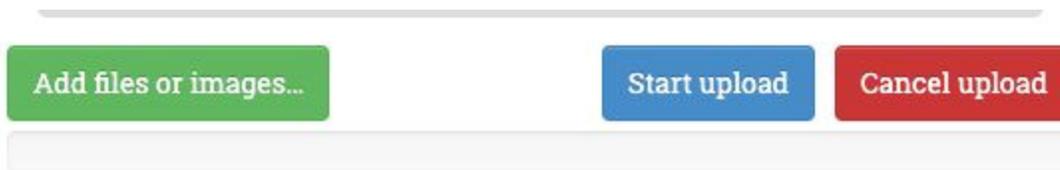
Bulk Uploading

Bulk Uploading files to the website is now more closely

integrated into Plone 5 by going into a folder's Contents View and clicking an Upload button which reveals a modal window the user can use to browse their machine for files to upload or drag-and-drop files onto that window:

Plone 4's Bulk Upload Interface is more complicated as it used a non-native add-on to the core Plone install to allow for bulk file uploading:
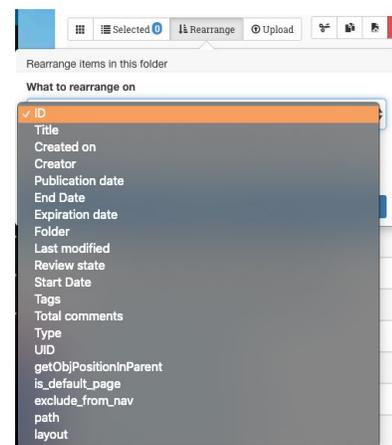

Plone 4 bulk upload display.

Column Display

Users can easily configure what columns are displayed in the Folder Contents listing by selecting which ones appear. Adding or removing the displayed columns changes the tabular file listing for all users within the Content View.
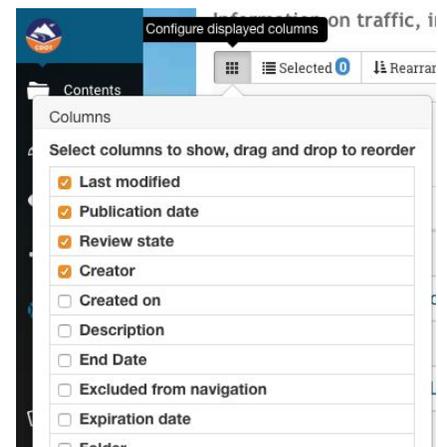
Column Sorting

Users can select what column they want to sort the content listing. And they can also choose to sort in reverse order. Sorting columns in the Contents view sorts columns for that user's logged-in session and does not permanently reorder items.

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NEW FUNCTIONALITY AND NOTABLE CHANGES

The Plone 5 website has several functionality and layout changes that content authors need to be aware of.

Using EasyForms for form management

The Plone 4 version of the codot.gov site used a forms management tool called PloneFormGen. The new version of that product is called EasyForms and although it works largely the same, there are differences in its UI that may need clarification.

Usage

Choose EasyForm from the **Site Toolbar -> 'Add new...'** menu. Add the form title, description and other settings and click **Save.** The default form adds E-Mail, Subject and Comment fields that can be modified or removed as needed by Editing the form.
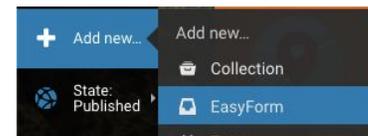
Next, you can Add fields or fieldsets to create a unique form that will meet your particular requirements. To add fields, click on the **Site Toolbar -> Actions -> Define form fields**. There are enough basic field types to satisfy most form demands:

- File Upload
- Text line (String)
- Integer
- Yes/No
- Date, Date/Time
- Floating-point number
- Choice
- Rich Text
- Image
- Multiple Choice
- Text
- Password

Continue to customize the form by setting the order of fields, defining required and hidden ones, choosing validator, if necessary, and other field type specific settings.

Here is a Youtube Tutorial on using EasyForms from the add-on authors:
https://www.youtube.com/watch?v=DMCYnYE9RKU

Actions

You can choose between the following actions after form submission. These actions can be added to the form by selecting the Site Toolbar:

- **Mailer** - The mailer stores an HTML template for sending the results of the form.
- **DataStorage** - This Action will enter the contents of the form locally in a CSV (comma-separated value) file which will be stored on the server. To view your saved data, click on the **Site Tools -> Actions -> Saved data**
- **CustomScript** - you can add a custom python script to add additional functionality to the form submittal

There are several EasyForms that currently exist on the website and are listed in the content report located: https://www.codot.gov/ia-reports/forms.

Creating Mosaic Layout Pages

There is documentation covering the basics of using Mosaic Layout Pages:

https://training.plone.org/5/ttw/mosaic.html#principle

Converting Plone 4 Cover Pages to Mosaic Layout Pages

In Plone 4, the drag-and-drop page layout engine called 'Cover Pages' were actual content types that allowed for drag and drop functionality. Mosaic Layouts differ in that, the user creates a standard page and then choose the 'Mosaic' type of View they want to see for that page. The Mosaic layout is not a content type in itself, but rather a separate way to view a web page created in Plone. This fundamental difference between Cover pages and Mosaic layouts prohibits the importing of Cover pages to Plone 5. Pages needed to be created on the Plone 5 site and the Plone 4 Cover Page Layouts will need to be copied to the new Mosaic layout.

Tutorial Video:
https://beta.codot.gov/web-content-training/covertomosaic.mp4 (must be logged in to view the video)

New H1 Title Tag

During the Plone 5 Theme development, it was discovered that the Plone 4 theme did not have the correct H1 tag set for each page on the CDOT website. This oversight has been corrected with the new theme and each page will now display its page title in an H1 tag to help Search Engine Optimization and help achieve ADA compliance. There is nothing the content author has to do as this change is a template-level change. H1 tags should not be used within the content

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area but H2, H3, H4, etc tags can be freely used to create content structure within a page.

Invalidate Cloudflare

The codot.gov website is behind a commercial Cloud Caching service that caches most of the website's content so that it can provide fast delivery of content and security from malicious attacks on the webserver. When content is updated, Plone automatically sends a message to Cloudflare to expire the cache for that object and Cloudflare will pull the new version and serve that to your end-users. Occasionally, while updating content on the website, content can become 'stuck' in the cache and Cloudflare needs to be 'reminded' to invalidate the cache for a particular page. Clicking on the **Site Tools -> Invalidate Cloudflare** button will do this for you.
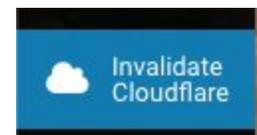
If for some reason the page does not update in your browser with the new content after a minute or so, please contact your system administrator. There may be some Cloudflare configurations that have changed that need to be reviewed.

Site Footer

The website footer used to be a part of the site templates and could only be updated by a Plone
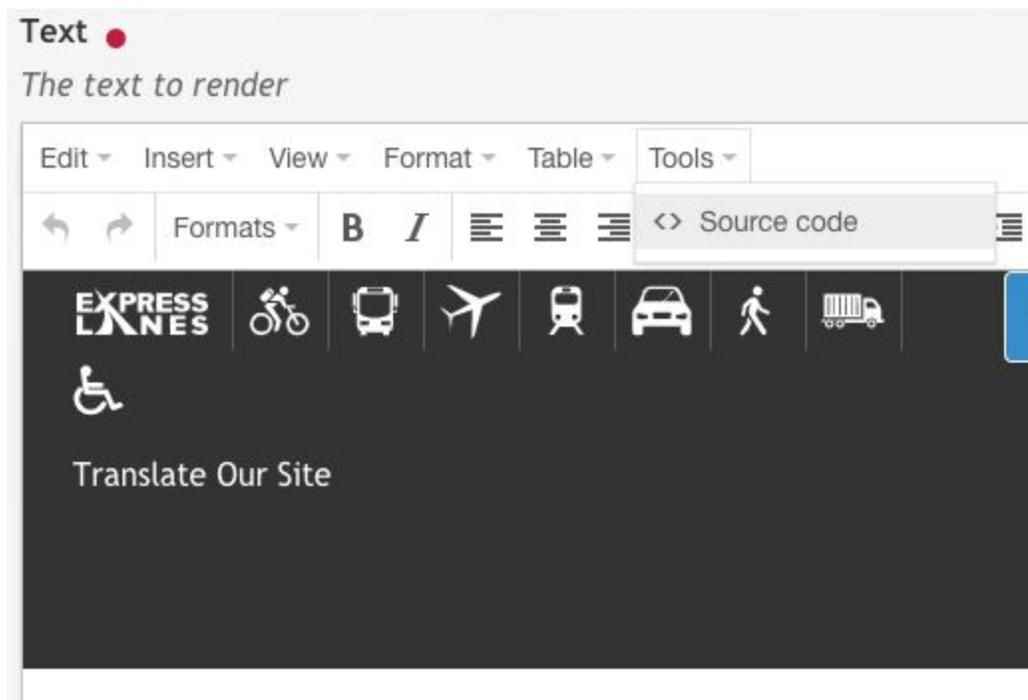
developer. With Plone 5, the footer content has been moved to the new Footer portlet area and can now be administered by a Site Manager.

Navigate to the **Site Toolbar -> Manage Portlets -> Footer** to bring up the Footer portlets manager. There you will find several portlets, most have been 'hidden' but there is one static portlet that has the Footer HTML.
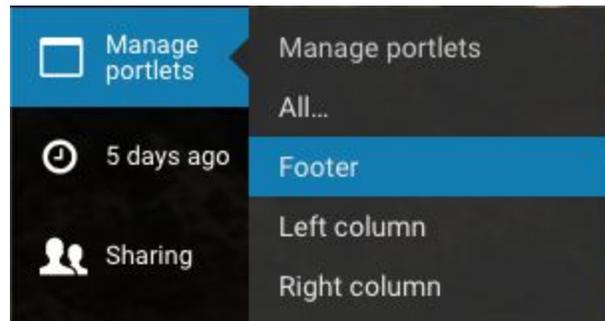
Click on that Static HTML portlet to edit the content.

NOTE: We recommend editing only the source code of the footer instead of using the WYSIWYG Editor as there will be unintended consequences to editing the Footer within that interface. Within the WYSIWYG toolbar, click on **Tools -> Source code.** Edit the source code and click save. Clicking save will save the Footer HTML for the whole website.

Site Alerts
(Site Administrators Only)

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Alert messages can be displayed on the website by using the Site Alert Message functionality. The site alerts can be accessed by using the **Site Toolbar -> Personal Tools -> Set alert message** dialog. **NOTE**: Only Site Administrators can manage Site Alerts.
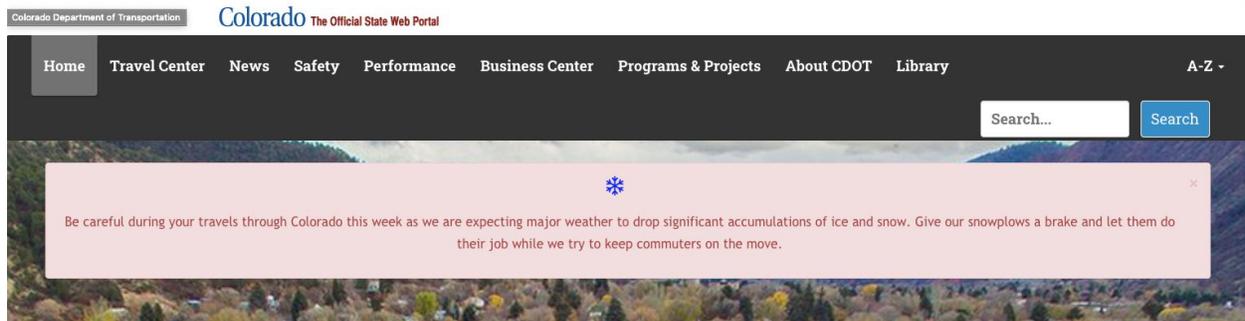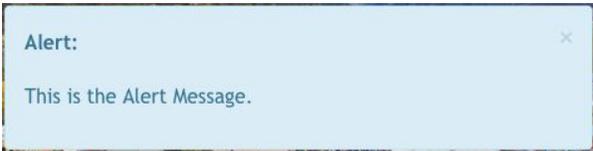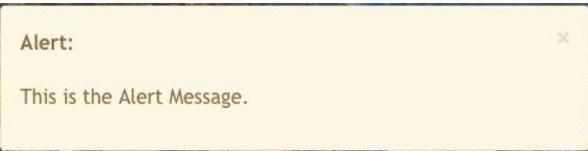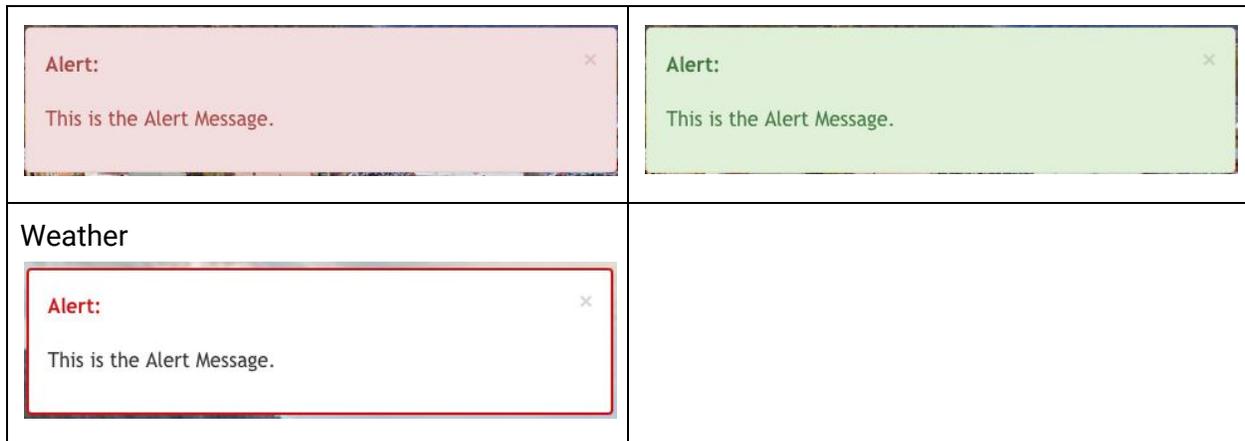

Site Alert Example

There are several options for displaying Site Alerts. Among them are how they are displayed and where.

Alerts can be dismissed by the user however when that message reappears for that user can be configured by the site administrator. For example, the site administrator can set a value of 1 hour so that if the user dismisses the alert, it will appear again after 60 minutes of the alert dismissal.

Alert Types

Four types of alerts are available to display on the site. Each selected type results in colored Styling. The default Alert type, **Disabled**, means that the Site Alert will not display. They alert types are named in relation to the CSS classes they are related to within the website Theme. The Site Administrator has the option of setting the Alert title and body copy. The body field is edited by a WYSIWYG editor so you may format the text, add images, etc.

Info	Warning
Danger	Success

Alert: This is the Alert Message. ✕	Alert: This is the Alert Message. ✕
Weather Alert: This is the Alert Message. ✕	

Alert Location

By default, the Site Alert places the message at the top of the page but there are two other options available.

- **Fixed on Top** - The default configuration for Site Alerts which will display the message at the top of the webpage just below the site main menu.
- **Slide from Left** - The message floats on top of the page content on the left side of the page. When dismissed, the message slides off-screen to the left.
- **Slide from Right** - The message floats on top of the page content on the right side of the page. When dismissed, the message slides off-screen to the right.

Other Configurations

- **Close expire -** The amount of time (in hours) it will take for an alert to appear again if the user dismisses it. You can specify fractions of an hour, for example, 0.5 will be half an hour. Use 0 so it will show up on every page refresh.
- **Auto retract -** The amount of time (in seconds) that should pass before the alert closes automatically. Set this value to 0 (default) to not automatically close the alert.
- **Display on every page -** By Default, this option is selected. If not checked, the alert will be displayed only in locations where they are specifically allowed. Each page on the website has an option, **Enable Alerts** to display site alerts on those specific pages.

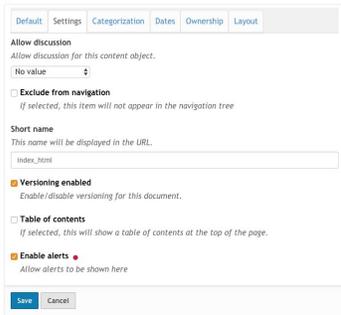**Displaying Site Alerts Only On the Homepage**

To get the alert to display only on the homepage, make sure the '**Display on every page'** is not selected within the Set Site Alerts settings. Then go to the root of the website and click **Edit ->**

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Settings (tab) and check the checkbox next to **Enable Alerts** and click **Save.** The Alert should be only displaying on the homepage.

Additional Alert Styles

Additional Alert Styles can be configured by adding them to the Site Settings -> Alert Settings Control Panel. Within that control panel is a field called Alert Types. Within that Alert type list, you can add an alert style by adding them using a class|Title format where the class would be the HTML class of the CSS that styles the alert and the Title is the formal title the user sees while choosing an alert type.

Font Awesome Icons

The CDOT website supports using the free Font Awesome library of 1,500+ icons. There are hundreds of icons to choose from and it is recommended that these icons be used instead of image graphic files wherever possible. Using these icons will promote a more uniform look of icon imagery throughout the site.

The searchable library of icons and directions for their use is found at https://fontawesome.com/icons?d=gallery&m=free

A simple example of using FontAwesome icons is when we would want to use a snowflake icon within the HTML of our content.

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Within the source code editor of the WYSIWYG editor we can add the following code:

```
<span class="far fa-snowflake fa-3x"></span>
```


Snowflake icon rendered from the above code.

The classes called in the code block above do the following:
- far - FontAwesome Regular font style, (vs 'fas' for FontAwesome solid font style)
- fa-snowflake - FontAwesome Snowflake icon
- fa-3x - Make the font size 3 times the size of the standard font website font size (16px)

This will display an icon of a snowflake at the location of this code within our page. Because FontAwesome icons are actually fonts, you can style and align them as you would any normal web font.

A-Z Catalog

The upper right header area of the website contains the A-Z Catalog that acts as a quick access menu to get to certain pages within the site. The list is automatically alphabetically grouped by the page's first letter. In order to appear in the Catalog, a content item must be tagged with the term 'Catalog' while editing that object. Once the item is tagged with 'Catalog' it will automatically appear in the A-Z Catalog.
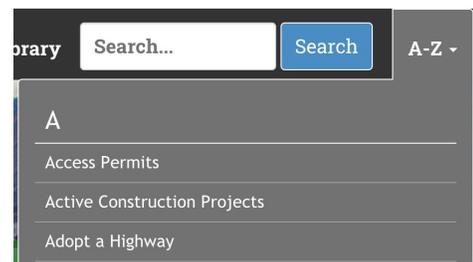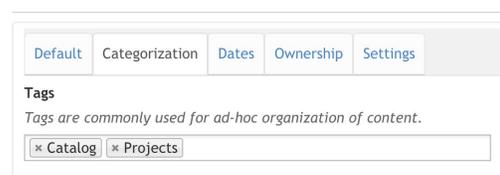
Data Feeds

There is a feature that has been developed for CDOT that will display the data from XML feeds from cotrip.org on different areas of the CDOT external website. There are several feeds that cotrip.org offers, and these feeds can now be displayed within CDOT's web content via portlets and Mosaic Tiles.

Cotrip.org has several live data feeds available to be used on the website, HOWEVER, at this time there are only two feeds that have been supported to be displayed on the website. Those two feeds are Road Conditions and Alerts. Other feeds can be supported by contacting Enfold Systems so that we can configure templates that will support displaying these different feeds in a way that is useful to the end-user.

Here is a list of all of the cotrip.org feeds.

- **Speed** - https://data.cotrip.org/xml/speed_segments.xml
- **Destinations** - https://data.cotrip.org/xml/speed_routes.xml
- **Road Conditions** - https://data.cotrip.org/xml/road_conditions.xml
- **Alerts** - https://data.cotrip.org/xml/alerts.xml
- **Cameras** - https://data.cotrip.org/xml/cameras.xml
- **Dms** - https://data.cotrip.org/xml/dms.xml
- **Weather Stations** - https://data.cotrip.org/xml/weatherstation.xml
- **Speed Route Polylines** - https://data.cotrip.org/xml/polyline_route.xml
- **Speed Segment Polylines** - https://data.cotrip.org/xml/polyline_segment.xml
- **Weather Route Polylines** - https://data.cotrip.org/xml/polyline_weatherroute.xml

An example of using these feeds would be implementing them within the Projects and Travel areas of the website. The feeds can be 'targeted' or filtered by areas such as 'I-25 corridor', or 'Interstate 70', as long as that info exists in the feed. These targeted feeds can display information for projects and travel areas of the site that are particular to project/travel areas. As a reminder: Road Conditions and Alerts feeds are the only feeds available to be used at this time.

There are limitations in requesting the XML feed from cotrip.org in that, these limitations do not allow for more than one feed hit per every 120 seconds (2 minutes). Therefore, feed caching is in place save the feed on the server so that every time the feed content displays, there is not a

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request made to cotrip.org.

Configuration

(Site Administrators Only)

The Datafeeds functionality can be configured using its control panel to add, edit and delete feeds. You can access it, from the Plone Site Setup -> Datafeeds Settings.

From here you can specify whether the feeds are updated on-demand, that is when a visitor requests to see a given feed, or if there is an external process updating all feeds asynchronously. On sites with very high traffic, it is recommended that you configure the feeds to be updated asynchronously.

Also, from this view, you can Add, Edit and Delete feeds.

Adding a Feed

(Site Administrators Only)

When clicking "Add new feed", a new form will be displayed. The different fields are described below:

- **Feed name**: Provide a name for the feed (i.e. Road Conditions). This value will be used to generate a unique ID for the feed.
- **Feed type**: Specify the feed type (Only XML is available at this time).
- **Cache time**: In order to avoid requesting the feed constantly, the feed is cached for a given time. You can choose how long the contents of the feed should be cached.
- **Feed URL**: The source feed URL
- **Username and Password**: Enter credentials here if the feed is protected by a user and password.
- **Feed template**: Specify here the template that should be used to render the feed (Refer to Rendering a feed)
- **Feed Filter**: You can specify filters to be used before the data is passed on to the template for rendering (Refer to Filtering)

Rendering a Feed (viewing the full-page representation of the feed)

When the feed is saved, a feed ID will be automatically generated based on the Feed name. There are 2 ways to know the generated ID:

Edit the feed, and check the URL in the location bar. It should finish with something like

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?edit-feed=1&feed_id=test_feed. In this example, *test_feed* is the feed ID. You can cancel the editing after verifying the ID. NOTE: when editing a feed, the password field is not auto-populated for security reasons, so the fields will be empty. For this reason, if you are editing a feed, **you need to fill the password** field when making changes. But only if that feed source requires it. If you save the feed you are editing without the proper password, the password will be reset to nothing.

Viewing the Feed

A template is provided to view the feed. It is called @@render-feed and you need to provide the feed ID (see above) in order to view the feed's contents. Assuming the feed that wants to be rendered has an ID of test_feed, the view should be called as https://www.codot.gov/@@render-feed?feed_id=test_feed. If no template is defined in the Feed template when creating the feed, then a base view will be used, which will render the feed with a default structure. The Feed's URL can be used as a link from different areas of the site.

Data Feed Portlets

The Data Feed product provides a portlet to render feeds within Plone. When you add a Data feeds portlet, you are presented with a form with the following fields

1. **Feed**: This drop-down should be populated with all the available feeds. You need to choose which one is going to be rendered in the portlet.
2. **Portlet title**: If the value is empty, then the portlet will have no title.
3. **Entries**: Specify how many entries from the feed should be shown.
4. **Portlet template**: Specify here the name for the view used for the portlet rendering. If this value is empty, then the value from the feed configuration will be used, appending -portlet at the end of the name. If such a view is not found, the portlet will not render.
5. **Filter field**: Specify here which field you want to use to filter the feed. The data coming from the feed will be filtered on the chosen value.
6. **Filter value**: Based on the value of the Filter field, choose the value to filter the feed.

Mosaic and Cover tile

There is a tile available to render the feed with a Mosaic Page layout. The configuration details are the same as with the Portlet (see above) with the difference being, that if no template is specified, then the default one from the feed configuration will be used.

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DOCUMENT CHANGELOG

Date	Release	Revision Summary
15 DEC 19	1.0	Initial Release
17 DEC 19	1.1	Added Data Feeds Functionality
19 DEC 19	1.2	Updates to Site Alerts Functionality
20 DEC 19	1.3	Added Document Changelog, formatting changes
21 JAN 20	1.4	Added User Roles Section, EasyForms section

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