



SR2 Component Content Management

Executive Summary For Business Users & Administrators

Proprietary and Confidential

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Executive Summary

Refresh software is changing the way that content creators and administrators create, edit, and manage content. Refresh started with a new philosophy regarding how web content should be able to be managed and used within an enterprise - a philosophy known as Component Content Management (CCM). The basic tenant of Component Content Management is that a CMS should be easy to implement, use, and manage - while allowing business users, marketers, and IT professionals to concentrate on their core competencies within the content management realm.

Too often, in order to create and publish a piece of content within an organization there are numerous approval processes and sign-offs that are required. More often than not, these processes reflect a solution that worked around the constraints of resource availability, technical understanding, or the process imposed by the CMS itself. The resulting processes are usually inefficient and often drag critical resources away from their core competencies, like having web developers responsible for doing simple edits to a piece of content.

Refresh's Component Content Management philosophy, embodied in its SR2 product, believes that it is critical to provide intuitive, easy to use tools for an administrator or a content creator to do their jobs more efficiently and with a higher degree of satisfaction. By empowering each user group with the freedom to focus on their areas of expertise, and allowing them to determine the best way to get the job done, Refresh breaks apart the proprietary paradigms that too often plague Content Management Systems. Although logical, most organizations find this concept very different from the processes in place today, as the process entanglements between content creators, administrators, engineering, IT, and web developers have galvanized in the wrong functional areas, not by design or logic, but by organic happenstance.

As part of the implementation process, Refresh analyzes the in-house processes and procedures that are already in place for content management, and evaluates them against the Component Content Management paradigm. Working with the key user groups, the processes are then overlaid against the Refresh model for managing content and streamlined where applicable. Additionally, the Refresh team works to identify the common pieces of content existing on your site(s) and begins the categorization process.

To make the transition to a new Content Management Solution easy for all concerned, it is necessary to identify and categorize all the discrete pieces and different types of content that actually exist among the various web entities throughout the organization. These content pieces can be product and service documents, press releases and FAQ's, job descriptions, executive bio's, and any other content types that may exist. Once identified, these 'content assets' are defined by what they are and how they are made up (the different parts and attributes of each content asset), and the best way to put them through a process for approval and publishing (define the appropriate workflow steps) is determined.



The result of identifying, analyzing and understanding the organizational steps that a content asset will go through, from creation to publishing approval, is called the Information Architecture (IA). Once the IA is understood, it will serve as a map for implementing the Component Content Management System. The benefit of this approach is realized in the ability to manage the granular pieces (components) that make up a page, rather than managing a whole page, like most other systems.

In achieving this level of granular control, the identified content assets and all the associated pieces can be manipulated into an input form. This input form serves as the interface into the CMS itself, allowing the content creator and the administrators the ability to not only create, edit and manage content, but also to add metadata, information about and descriptions of the content being entered, that can be very useful for repurposing and reusing this content across your web properties and the enterprise.

By architecting the system in this way, Refresh has tailored the SR2 solution for sophisticated organizations that require the essential Component Content Management functionality, coupled with the freedom to address content challenges with processes that work for the organization, not in spite of the organization. SR2 is the power to choose.

The Content Management Process

The Content Creator and the Business User

As a content creator or business user about to make the jump into a Content Management System, the question of how to create, edit and manage your content looms before you. Ironically, in some CMS systems the biggest challenge is the ability to have control over what you do best; creating content. Creating content for a professional within an enterprise today has often become cumbersome and unwieldy, due to interdepartmental dependencies, which often slow down the approval and publishing process. SR2 eliminates those issues by putting the duties of content creation, editing, and management squarely in the hands of the content creators.

Often, the in-house process for content creation and management looks something like this:

1. Content creator writes a draft.
2. The writer then passes the draft to a reviewer.
3. The reviewer reads the draft and makes suggestions and corrections, then gives it back to the writer.
4. The writer corrects the draft and gives it to an editor.
5. The editor reviews it for grammar, punctuation, consistency, adherence to the corporate style guide, etc. The editor gives it back to the writer to make the necessary adjustments.
6. The writer makes the changes and passes the document to someone (for example, a Director) to approve.



7. The Director reviews the document and gives the OK to publish.
8. The document is given to the publisher in-house who has responsibility to get it live and made available to its intended audience; in this example by updating a web page on a site.

What this process typically means is that your job rests firmly in the hands of the last person in the queue. The things you need to get done may have to wait for a convenient time, or an available IT resource or web developer. SR2 solves these basic content management conflicts and bottlenecks by empowering and providing autonomy to the content creators.

Content Creation

Content creators that have implemented SR2 will see first hand that the content that they have been responsible for creating and managing takes on a new form - literally. SR2, based on Web 2.0 standards, employs an easy-to-use form-based technology as a means of simplifying the content creation process. This process allows the content creators to create or edit a piece of content by signing in and calling up your content from our easy-to-use dashboard. The dashboard input mechanism appears as a form with different fields that can be simply navigated (point and click) in which to do your writing. Forms and form fields can be setup for varying types of content, e.g. press release forms could have title, body, and release date field; whereas Web site forms may have page title, body content, and parent page fields.

SR2 employs two primary tools for business users to manage their content creation process. The SR2 dashboard is an easy way for a business user to see the status of outstanding tasks, as well as monitoring the approval process and workflow of the content with which they are working. SR2 also offers a WYSIWYG Content Editor. Refresh has worked to ensure that the keystroke combinations, buttons, and functions of the Content Editor are consistent with many desktop office products; e.g., MS Word.

The Content Editor includes:

- Text formatting (fonts, numbering, bullets, color, indent, etc.)
- Application of company-defined styles
- Use of special and superscript characters
- Cut, Copy, and Paste
- Undo and Redo
- Search
- Spell Check
- Insert images



- Insert links from page text or images to internal or external pages and files
- Insert email addresses into page text
- Import content from MS Word and HTML documents
- Insert and manipulate tables
- Edit the HTML code for any page

In addition to the Content Editor, SR2 provides other features that facilitate the process of developing online content:

- Image and file upload tools allow authors to develop pages that are rich in graphics and deep in content.
- Page Preview enables authors to see how any page will appear when published, including site-specific look and feel.
- Page Compare displays any two versions of a page side-by-side.
- Implementation of role-based Workflows makes collaboration and teamwork an automatic part of the content-development process.

Metatagging

Metatagging is the process of assigning an informational description about the content you are creating. These additional metadata attributes can then be used in many new and compelling ways such as:

- Timed asset delivery
- Improved Search and retrieval
- Personalization
- Navigation
- Categorization
- Security
- Statistics
- Promotions
- Taxonomy
- RSS



SR2 also includes capabilities to enable the content creator to help the marketing and product departments effectively utilize the newly created content by embedding key words, which will aid the users in searching for your content. Additionally, users can create and manage personal taxonomies that can be used to relate the content to other categories and classifications with similar subjects. SR2 also provides the ability to assign weights and values to your content, to aid in helping profile the readers of your content. These metatagging components and capabilities dramatically increase the value of the content while allowing for improved personalization, search and usage measurements.

Role based access

Each SR2 user is assigned (by a System Administrator) to at least one role, depending on the actions that the user is expected to perform during the content management process. For example, a user might act as both a content author and an editor for other authors. Therefore, the user would be assigned both the Writer and Editor roles.

Content Asset Types

Content asset types are a means of classifying the content that exists on your website, and identifying those pieces of content that are frequently utilized, such as a Press Releases or a FAQs. Both forms of content are ubiquitous on most every website, and as a result, it is this type of content that makes for an excellent candidate to be turned into a content asset type. Each document is analyzed, and the structure is then broken into its different parts. Each part may be owned by varying groups or departments, for example the legal footer may be owned by legal, whereas the executive bio's may be owned by marketing. SR2 manages the content asset types to allow different pieces to be managed concurrently by different personnel. When content is called to be rendered to a page, SR2 then assembles the latest version of the approved content appropriately.

Accessing Content

Once the content asset types are identified and created, the content creator needs only to log into the system and find the content asset that they want to use, this can be done in several ways:

The SR2 Dashboard can be used for easily viewing any tasks you have in process, as well as to utilize the powerful search feature to find the content for which you are looking. Additionally, the SR2 Staging Server can be utilized to edit content, by accessing the staging server website and simply clicking on the EDIT button. The EDIT button immediately moves the user into SR2 edit mode. The user could also simply log into SR2 and utilize the file system to navigate to the content asset that requires editing. When the edits are complete, the content can be sent along the workflow path to the next person in the line.

To create a new piece of content, simply call up the form associated with that asset type and point and click your way through the fields creating the content. During the content creation process, descriptive information (metadata) and instructional directions may be added that can make your content inherently more usable throughout the enterprise.

Publishing



Publishing is the action of making content available to content consuming applications, such as a website. When the content has completed the workflow process, and been approved, the appropriate user can then publish it, using SR2's Publishing Wizard, to make the most recent version of the content available for display.

The Publishing Wizard enables users with the appropriate rights to easily make the latest version of one or more pages 'live' and available to content consumers or site visitors. In addition, users with publishing rights can see a list of all content ready to be published, where they can then review and publish the content as needed. Users can also preview a page before publishing their changes. Publishers can also schedule automatic publishing and removal of content.

Revision Control

SR2 maintains a variety of information about every content asset it stores, including the entire history of every change made to the page. Every time you save a content asset, SR2 updates its content and increments its version number. SR2 also provides you with the ability to:

- Compare two versions of a page
- Restore a previous version of content

When you select a content asset for editing, the request is validated and the corresponding piece of content is immediately and transparently checked out (if available). While a piece of content is checked out, no other user can request that content. Therefore, two users cannot update the same page at the same time. SR2 employs visual cues to let you know what state the content is in currently, and if it is available.

The SR2 CMS eliminates the bottlenecks that content creators face. Additionally, SR2 provides content creators the ability to do what they do best; create content - all inside a familiar Web 2.0 style user interface. However, the creation of the content is only the first step towards a content driven enterprise. To fully explore Component Content Management, the storage and access of content within a repository, as well as the actual content management process must be taken into account.

Content Management

The process of managing content is dependent on three main areas of focus; user roles, the workflows that are put in place, and the tasks that are associated with those workflows.

User Roles



A role is a name for a function that an individual serves within a specific workflow process. For example, the role of 'writer' would describe those users who create and maintain certain pieces of content. The role of 'writer' is assigned to those who "own" the content, with ownership including creating, editing, and maintaining a particular piece of content. The 'writers' are typically at the beginning and middle of a workflow, whereas the role of 'Reviewer' is typically found in the middle and end of a workflow, the last person in a workflow is the one who has publishing rights.

In addition to identifying the most likely candidates for Asset Types, Refresh works through the Information Architecture (IA) map to determine those individuals internal and external to the company that need to be involved in the creation, review, and signoff of content within the workflow approval cycle. Each SR2 user is then assigned (by a system administrator) to the appropriate role that she/he will adopt with a particular piece of content.

A single individual can have several different roles depending on their particular relationship to that content asset type. A good example of this is a content manager who might act as a content author on some content types, while acting as an editor for content types outside of his/her direct expertise. Therefore, the user would be assigned both the Writer and Editor roles depending on his/her relationship to a particular piece of content.

As the varying roles are incorporated into a workflow process, so too are the permission levels and privileges that have been assigned to each user. For example, Writers might be able to create new content assets, save them, import images, etc., but not be able to publish pages to the Web site or other content consuming application. Some writers may only have create and save privileges, yet are not allowed to import images into a content piece. On the other hand, an administrator might be able to create users and roles, but not create content pieces. In any enterprise the content management possibilities are limitless, and SR2 has been designed with the flexibility to address varying roles, privileges, and permissions on that limitless scale. The result; is the ability for an administrator to configure the SR2 CMS to fit the process that is in place, rather than having to fit the process to the CMS product.

Many products on the market today legislate what and how your company's internal processes should be and how they should work. SR2 has taken the opposite approach, allowing the users to easily configure the system around existing processes, how those processes are defined and even how they should be executed.

The utilization of a 'role based' functional process instead of basing the process on users names and titles provides a key element in helping to design and incorporate adroit and meaningful workflows. By identifying the content asset type and the appropriate functional areas that need to be associated with that piece of content, allows the user to create truly meaningful workflow processes that are logical while avoiding redundancies.

Workflows



A Workflow is the specification of the steps through which every content component must pass, and the role assigned to each step. Due to the SR2 component based approach, what is often viewed as a single piece of content, e.g. a press release, can in fact have many different parts that can be associated with different roles and different workflows. This means that the corporate legal disclaimers, regulatory statements, or compliance notes that must appear as footers in some content can be owned and managed by the legal department, without requiring them to own the entire document. Similarly, the product messaging and positioning component can be managed and owned by the marketers, and the product specific aspects can be owned and managed by the product group. In this example one piece of content can be broken down to its various components and those components can be handled by the appropriate in house or third party groups. Still, when the content is called to be rendered, SR2 will dynamically assemble and correlate all of the necessary pieces, delivering the latest and greatest content to the content consumer.

Every component on a page can be associated with a workflow. When a person assigned to a role completes the appropriate actions, she/he selects the next step in the workflow. SR2 will automatically notify the next person assigned to that Role of the workflow that the page is ready for them to act upon. This notification takes place in both an email alerting them that they have a workflow task, as well as the SR2 Web 2.0 style dashboard prompting them that they are now in queue and will see a daily reminder on their task list.

Because SR2 is browser-based, you can easily incorporate third-party contributors into workflow scenarios. For example, you could add a representative of your public relations firm into the loop of maintaining your online press releases. This person could access the content through SR2 and interact with the other roles electronically, making the whole process seamless and streamlined.

SR2 was designed to be flexible because every company uses different processes to approve and publish content. A workflow can be very complex or as simple as a single step, and while the initial setup of each organization's internal workflow processes requires some critical thinking (resulting in the Information Architecture map), once the foundation is in place, SR2 will automatically manage all of the CMS functions.

Implementation of workflows makes collaboration and teamwork an automatic part of the content development process, while ensuring that everyone involved follows the content development process for your company. It also ensures that only the appropriate people perform critical actions, such as publishing content. Below, is an example of a simple, roles-based workflow:

Example

Your site might define the following Workflow to help manage the development of Press Releases:

1. Writers
2. Editors
3. Publishers

Using this Workflow, the following may take place:



1. A writer creates a new press release. When the writer saves the page, (s)he can either keep the press release at the current step (1) or submit it to step 2.
2. An editor can then either reject the press release, sending it back to step 1, or accept the press release, perform edits, and then submit it to step 3.
3. A publisher can either reject the Press Release, sending it back to step 2 (or even step 1) or accept the press release and, when appropriate, publish it.

Note the following about this Workflow:

- Only a writer can initiate creating a new Press Release, or edit a currently published press release that is not already in an active workflow.
- Only a publisher can publish a press release.

Tasks

The administrator, along with the other people associated with the workflow, has to take the time initially to determine who really needs to create, edit, review and publish specific asset types. The workflow process basically folds into the life cycle of the content as well as any other pertinent tasks that should be included, such as checking and updating for content staleness. This also translates to adding key words and taxonomies for faster search and more targeted delivery.

Content Repository

All content within the SR2 system is stored in a central repository, an application that sits on top of any standard database, typically Oracle or SQL. When designing SR2, the decision was made to separate design from content, meaning that we store the content separately from the design templates into which the content will be rendered. This is a critical concept, as it is the means by which the latest content will always appear in the webpage template. Additionally, by separating content from design, SR2 allows users to add new templates that can be incorporated into your website or application easily, without having to worry reformatting content that is inextricably linked with its design. This flexibility allows you to also reuse and repurpose any piece of content that is sitting in the repository into any other web template, whether it is sitting on a web server or any other web devices like a cell phone or a PDA.

Reporting

SR2 includes reporting features that will deliver information about the content, how the content is being used, and how it is managed. SR2 also allows users to employ any of the popular off the shelf reporting and analytic software products, for customized reporting needs due to the SR2 open reporting API included with the solution.



Content Publication

Publication is the final step in the content management process. SR2 is unique in that it uses the existing in-house infrastructure and existing in-house expertise to create, store, and deliver content. In other words, no matter what web scripting language is utilized in-house for publication, it can work with SR2. All of the popular scripting languages are supported by the solution, and as a result, your investment in your web staff and the web code that they have written is leveraged and protected. The process is simple; in order to integrate your web templates with the Refresh content sitting in the repository, simply integrate a few lines of SR2 retrieval code into your existing web template code. Refresh Software has created content retrieval objects for all of the popular scripting languages such as .NET, JSP, ASP, PHP, CFM, etc.

Additionally, by applying the Component Content Management philosophy to issues plaguing websites and other content consuming applications, SR2 has eliminated some of the more challenging aspects of Content Publication. By creating control mechanisms within the solution, SR2 can easily solve problems of Internationalization. For example, the Embedded Children Control mechanism, relates a "parent" content object to one of many "children" content objects, and is a powerful way of establishing relationships between content items. Applying this mechanism to the aforementioned issue of Internationalization, the parent content object may be in English and the children could be in French, German and Spanish. Unicode multi-lingual capability is included in the functionality and SR2 supports the latest Microsoft SQL and Oracle Database revisions.

The Embedded Children Control allows SR2 to become aware that there is a 'relationship' between the parent content object and the child content object. In this example a user enters a site and clicks that he wants to see the webpages in German, which triggers all of the "German content children objects" to be rendered on the site, to be viewed by our German visitor.

Grouping assets and identifying the associated relationships is critical in the SR2 world. SR2 enables users to group and relate content assets for specific individuals, departments, or divisions, making the repurposing and reuse of content easily accomplishable.

Component Content Management

Component Content Management, as implemented by SR2, focuses on a form driven methodology for creation and management within the content management process. The primary function for SR2 is to manage the creation and editing of assets that are stored in the SR2 content repository. SR2 focuses on the change management aspect of content, which is a departure from the common philosophy held by most CMS vendors.

Conclusion

By separating content from design, SR2 frees the content authors and editors from the technical trappings of content management, by allowing them to focus on the content itself. SR2 empowers the users, via editing and managing assets through an easy to master WYSIWYG web interface, or solving challenging issues like internationalization that plague websites and other content consuming applications. SR2 provides the freedom and choice to implement content management in a componentized manner. SR2 offers Component Content Management for the Content Driven Enterprise.

