



## **SR2 Component Content Management**

**Executive Summary For Marketing Professionals**

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## Executive Summary for Marketers

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Component Content Management (CCM) heralds a new way for Marketers to approach the management and dissemination of corporate information. Through the Component Content Management approach marketers are now able to leverage pre-existing content, ensure the proper message is being delivered enterprise-wide and in a reusable manner, while including measurement metrics directly within discrete components of content. This approach provides marketers with more complete control over the quality of the corporate message as well as how and when it is delivered, resulting in a richer and more meaningful experience for the user or content consumer.

CCM is a departure from the traditional page oriented management and manipulation of content, by acting on the content at a granular level, managing the 'content change' in virtually any part or section of a page from headers and footers to sentences, paragraphs, images, promotions, offers, etc.

For example, a Press Release document may be made up of several components, a company description, the obligatory compliance and legal notifications, etc. Each component may need to be managed by different constituents within the enterprise. Each unique group of course has varying focal points with specific messaging requirements. In most cases, each department who owns a specific piece of this Press Release document has its own unique workflow and sign off process as well, before the Press Release even makes it to the individual who has the technical expertise to publish the content. In a page-oriented content management world, corporations get bogged down in this type of process entanglement between all of the interrelated, in-house groups, while the entire document makes the rounds, passing through multiple edits and iterations.

CCM brings order, control, and ease of use to this complex dynamic by breaking apart the interdependencies among functional groups as well as the interdependencies among content creators, administrators, and web developers. This separation provides the members of each group the freedom and ability to be more autonomous and productive by focusing only on their section, with their messaging.

Similarly, the SR2's Component Content Management facilitates the decoupling of content from design. For the marketer, this translates to the freedom to quickly change and refresh their sight design as desired. Interdependencies between content and the look and feel of the site have been eliminated, and with them the interdependency among marketing and IT. This decoupling of design from content also makes it possible to have a single source of content that can be rendered in many ways but only needs to be maintained in one central repository.

In order to maximize the benefits of a CCM system, an Information Architecture (IA) map must be created. SR2 is unique in that it uses a methodology based on object-oriented programming to create this IA map. By employing an Object Oriented approach the content layer can be abstracted to create a methodology for easily reusing and repurposing content across multiple web entities. The result of this approach is dramatically improved maintainability of content.

CCM also provides the ability for enhanced search optimization through keyword and metadata tagging, content targeting based on user profiles and user journeys, and a granular level of measurement and reporting on content usage.

Refresh is keenly aware of issues encountered when changing a web presence. These issues can include:

Lost rankings

- Reduced Visitors
- Broken links

SR2 takes the pain out of the process by separating the delivery platform from the content. This allows content to be retrieved using more than one key identifier, such as name, essentially preserving old content links while enabling the creation of new content links. Protecting Search Engine Optimization rankings are paramount, and with our URL Rewriting techniques Refresh protects and enhances the pre-existing environment by:

- Associating new URLs with old URLs
- Preserving existing rankings because search engine spiders are blind to the changes
- Providing the freedom to change the implementation beneath the domain name, eliminating file extension (.jsp .asp .html) dependencies for greater flexibility in future projects
- Manipulating the search spiders to the benefit of the site
- Providing device independence

Simply put, a content creator can create a new piece of content and then designate how and where it will be consumed i.e. its use for personalization, promotion, or targeted message and rendered i.e. a web page, PDA, RSS, printer, or other outlet. This functionality in SR2 parlance is 'one asset and many destinations'.

Perhaps the benefit most crucial to the Marketing team however, is the ability for near real-time tuning of marketing campaigns and programs. Tuning programs in real-time ensures that the content is applied and used in a powerful manner, while targeting key demographics, and measuring critical data with more meaningful results on the fly.

SR2's Web 2.0 features can enable the marketing organization to easily create compelling dialog with your target prospects and customers, personalize their experience and feed critical and concise data into your analytic engines, all allowing for reporting that will produce meaningful metrics. This analysis of course feeds back into the marketing/customer loop, helping to create ongoing meaningful dialog between you and your customers.

## The Content Management Process

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In every organization the content management process is different. In most cases, there are content creators, content editors, and web developers - all working within a homegrown process. This process is aimed at getting the job done and the content distributed. Unfortunately, it is this inefficient process that is often filled with redundancy, road blocks and bottlenecks.



SR2 resolves these issues while improving on the process already in place. By separating the content creators and editors from the web developers, and eliminating interdependencies among groups, SR2 offers users the ability to focus on their areas of expertise. Writers and editors are now free to edit their own content and move it through an associated sign-off and work flow procedure, without the need to know anything about web development or HTML. By developing a suite of content input forms (e.g. Press Release, FAQ, Whitepaper), known as content asset types, SR2 makes it easy to create and edit new pieces of content for the web. Additionally, SR2 employs a role-based workflow module, complete with email notifications, that makes editing and sign off approvals just another part of the process, not a bottleneck or roadblock.



The SR2 solution strives to offer the flexibility and control to introduce and integrate state of the art marketing techniques into your web strategy. As tactics on how to better use the web to garner key metrics become more prevalent, Marketers are tasked with deriving more elaborate methods for identifying users and targeting content of interest. To this end, SR2 understands that taxonomy management is playing a larger role in marketing campaigns and programs.

Corporate taxonomies are increasingly used in information systems particularly in Content Management Systems, as a way to allow instant access to the desired information within exponentially growing volumes of unstructured content. Through the SR2 Taxonomy Manager, the simple creation and management of taxonomies can occur. The resulting taxonomies may prove to be a serious competitor to heavy data mining systems, contextual filtering applications, and the overly complex CRM personalization modules used for "pushing" web content to users, or delivering product advertising and promotions in a targeted way.

A company can buy or create a corporate taxonomy as well as have individuals inside a corporation create, associate and manage their own taxonomies. This is a powerful approach to harvest and map unstructured data. Taxonomies can help create efficient solutions for marketers who want to target and promote as an integral part of their web entities strategy. By defining the Information Architecture (IA) for your organization, aided by Refresh Software, the associative taxonomies can be identified and utilized.

Some or all of this core taxonomy data can then be imported into SR2 asset type forms and made available as the content is created. SR2 provides the capability for authors and/or reviewers to tag assets with metadata from a corporate or personal taxonomy, as well as enabling a review process prior to publishing. This process ensures that all of Marketing's content has accurate and appropriate metadata from inception. Content can then be retrieved via taxonomy terms integrated with corporate website search engines (e.g. Google, Autonomy, etc.) and targeting methodologies.

## Content Creation

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As stated previously, the creation of an information architecture map maximizes the benefits of a Component Content Management Solution. The Information Architecture map helps to define the prominent asset types that will be used to create the different types of content on the site(s). The result of laying down this critical foundation; is the ultimate form that the content creator will use to create content. As SR2 employs a form-based methodology for creating and managing content, the content asset type will be embellished with additional fields and tabs in order to maximize its usage. For example, the ability to include measurement content and metadata tags at creation, and thus allowing for fast thorough feed back through reporting on how the content is

being viewed, maximizes the benefit of a single piece of content. This bottom up approach creates infinite possibilities for the marketer.

A content asset form may have a title, author, teaser, release date, and sunset date, all typical elements in content management, however SR2 adds field attributes such as 'key words' for search, or tabs for 'personalization' and 'metadata' gathered from pull down boxes with specified taxonomies for the writer to click through that will aid in associating this content to specified categories, groups, partners or profiles.

This new approach, enables marketing groups to, at 'content creation time', predetermine how the content creators choose keywords, search terms, or metadata tags for describing content. Marketing can also enable content to be given weights/values, with which adds dramatic meaning to facilitate content history logs, reporting, search optimization, and improving the users' ability to find the desired content thru proper classification.

A marketing framework can also be developed encompassing all messaging, keywords, promos, and campaigns, while establishing a vehicle to disseminate the content being created across all entities. Ultimately, this framework can be utilized to affect the user journey in real-time.

The two most common methods for acquiring data mining and customer tracking information are typically resource intensive, top down approaches that target data mining web logs, customer history/transactions databases, and the like. These are then aggregated and analyzed to extract meaningful information which can be both time consuming and costly. Alternatively, an organization could employ simple tracking, e.g. label a page and track that page via history logs. The main detractor with this approach is the lack of compelling reporting, and as a result the lack of compelling follow-up actions. Many marketing groups are forced to become data mining experts out of necessity, an approach that takes its toll in both resources and costs.

Empowering a content creator to classify and target particular pieces of content, and therefore creating a measurable impact, by simply pointing and clicking their way through a streamlined process is very powerful. Refresh has embraced this bottom-up paradigm in an effort to change the way measurement and analytics are traditionally done, by providing marketers with the ability to globally extend all content with meta-data attributes for improved measurement and targeting.

SR2 provides the freedom for anyone in marketing to define and change labels on a chunk of content in real-time (with appropriate permissions). This granular approach also permits adding metadata to these content chunks, which gives marketing more data to work with. With SR2's built in versioning, marketing can even change their tracking labels, yet still maintain the previous label, in order to keep track of an asset's usage.

SR2's new interface has a distinctive Web 2.0 look and feel with an accompanying activity dashboard that provides a birds-eye-view of all work to be scheduled, in process, stalled, and recently published. The intuitive and powerful WYSIWYG Editor has been developed purposely with an MS Word look and feel to minimize the learning curve. This familiarity, coupled with the ability to easily adapt to any off the shelf or in-house developed editor by utilizing the SR2 open published editor API (Application Programming Interface), drives home the benefits of a componentized solution. The Refresh philosophy is always to remain open, flexible and configurable, no matter what components your organization may choose to employ.



## Content Management

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Workflows, permissions, security and approvals are key aspects to Component Content Management (CCM).

All of these issues are defined up front in the CCM process through the creation of the Information Architecture (IA) map. By defining the key assets types through the IA map, the workflow can then be created around the existing publishing process. This workflow will serve as a guide detailing improvements and things to avoid for organizations that have experienced bottlenecks and process idiosyncrasies.

Analyzing the workflow is essential as it embodies the approval path that each asset must take before reaching the last designator/approver in the process, and who would then have the capability to publish the content. It is within the workflow process that the true beauty of a decoupled architecture becomes apparent. The workflow for a particular asset may remain, simply, in a single department which has complete autonomy as to where and how that content will be consumed, however workflows can also become complex, multi-departmental tasks that may even require 'event handlers' linked to other workflows, even third-party workflows. The SR2 solution takes these possibilities into account and therefore has been built in an open, flexible and easy to configure manner that makes addressing and resolving these challenges a non-issue for users.

A large concern that many marketers and business users consider, is complexity of installing and integrating an enterprise-level CMS into your enterprise. To address this issue, SR2 has been designed with a very small footprint, and makes use of the existing in-house database (Oracle or SQL) as the point of integration. This approach often eliminates the issues that typically surface with enterprise level applications. Additionally this architectural approach, where the platform pushes updates and changes to the database, adds additional security to the content consuming application by shifting the application dependency for content to a best-of-breed database. The database serves as the central integration point within a SR2 CCM solution, and as a result the state of the art security and scalability modules that are built into your database become features of the Refresh solution as well. All of these steps have been taken in an effort to leverage your in-house expertise, and keeping your enterprise infrastructure safe, secure, and scalable.

## Content Repository

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The SR2 Content Repository is a software application that resides on a database. The Content Repository's primary function is one of centralized storage for enterprise content, while keeping track of any changes made to the content, and providing workflow process capability associated with the content. As stated above, the Content Repository is the central integration point between the created content and the web applications that utilize the content. The repository has been designed in a completely open approach, enabling web developers to tune the system for integration with other applications or additional reporting tools.

Refresh has once again taken an alternative approach to the Content Management process in that the SR2 Content Repository is viewed as a component within an enterprise infrastructure. With this open approach, the repository may be utilized by many other applications beyond the enterprise CMS.



## Content Publication

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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. Within the publication realm, this means that no matter what web scripting language or programming language is utilized in-house, the existing work can be leveraged within SR2. The solution supports all of the popular scripting languages in an effort to protect the investment that has already been made in both your web staff and the code that they have written in Web-based or other enterprise desktop or server-based applications. The process is simple; using the example of a website and 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, 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 accomplished.

## Component Content Management

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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, and its Web 2.0 approach, focuses on the change management aspect of content, which is a departure from the common philosophy held by most CMS vendors.

To fully leverage the componentized nature of the solution, SR2, at its core, leverages J2EE to create a true enterprise application. Additionally, SR2 ships with three standard API interfaces including content retrieval, workflow, and SOAP-based web services APIs. SR2's API's are open and configurable to mitigate costs and complexities of integrating with homegrown and third-party applications.

Moreover, as XML continues to become a standard within the enterprise landscape, as a technology to pass information between applications, SR2 has created functionality to fully leverage the power of XML. Many applications store and pass XML as binary files which restricts organizations from moving to a Web 2.0 model. Conversely, SR2 has the ability pull in and push out Native XML content, enabling SR2 to become a pivotal tool in migrating the enterprise to Web 2.0.

SR2 also leverages SOAP based web services API's to provide information architects and developers with the ability to create custom user interfaces on top of SR2's Content Repository.



## Conclusion

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The flexibility inherent in the architecture and theory of SR2 provides organizations a powerful tool with which to manage very specific organizational tasks. Refresh Software cannot predict the changing requirements within today's customer driven landscape - instead Refresh strives to provide an architecture and solution that can map to these changing requirements. The age of the Content Driven Enterprise is upon us, and SR2 has been created with your processes, infrastructure, and needs in mind. Refresh Software's Component Content Management solution can meet the initial needs of content management, and yet extend out, to simplify the transition to a true Content Driven Enterprise.