Content Server Enterprise Edition

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User's Guide

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Section 1

Using Content Server Enteprise Edition

This section describes how you use the Content Server interface to work with Content Server Enterprise Edition (CSEE), including:

- Content Server Direct
- Content Server Direct Advantage
- Content Server Engage

This section contains the following chapters:

Chapter 1

Overview

As editorial users, you create, manage, and deliver web site content. Your expertise is rooted in the content, not in the software used to manage it. The *CSEE User's Guide* is intended to help you use the Content Server Enterprise Edition content applications efficiently and effortlessly in the performance of your content management tasks, without requiring technical proficiency.

The content that you manage with the Content Server interface depends on the nature of your organization. A news site might produce articles, photos, and video clips. A human resources department might manage job postings and personnel policies. An online sales company might offer product descriptions, special offers, and coupons.

The items that you manage using the Content Server interface are called **assets**. Articles, clips, coupons, product descriptions, photos, and so forth are assets. An asset moves from its creation to its publication in steps. The process by which assets move from person to person through those steps is called **workflow**. You can also use revision tracking to audit the changes in an asset as it moves through its workflow.

The end goal for your assets is to move them to your delivery site so that your visitors can read and examine them. The process of moving assets to the delivery site is called **publishing**.

This chapter contains the following sections:

Introduction to Content Server Enterprise Edition

The Content Server Enterprise Edition (CSEE) product family is a high-performance, large-scale content management and delivery system. You, as content providers, use CSEE to manage and deliver content on web sites and other online sites (WAP, for example), including those that run online businesses.

CSEE includes the following products:

- **Content Server -** the core application that all the content applications are built upon. It is the operating system that powers the entire CSEE product family, stores the content that you are managing, and serves the content to your site.
- **Content Server Direct -** the base content application that provides an interface to take advantage of all of Content Server's features. CS-Direct creates a structure for your content in which that content is stored as objects called **assets** in the Content Server database. CS-Direct supports the **basic asset model**, which, in simple terms, means an asset has a fixed set of properties, or attributes.
- **Content Server Direct Advantage -** the content application that extends the basic asset model. CS-Direct Advantage introduces the **flex asset model**, in which child assets inherit attribute values from their parents. This means an asset can have different sets of attributes, depending on its parents. This flexibility gives the asset model its name. CS-Direct Advantage also provides commerce features such as the shopping cart.

  Your site's designers decide which asset model, basic or flex, works best for the content you are serving, and for how your site visitors are expected to make use of that content.
- **Commerce Connector -** a plug-in that enables CS-Direct Advantage to communicate with a back-office system such as Transact to support e-commerce.
- **Content Server Engage -** an application that enables your marketing team to divide your market into segments of customers, for the purpose of targeting those segments with personalized promotional or marketing messages.
  CS-Engage also uses the flex asset model.
- **Analysis Connector -** an application that captures web site events like visitor activity and clickstream data, for the purpose of refining CS-Engage segments.

When you are using CSEE as your content management system, you and the other teams at your site work with up to four different systems:

- **Development** system **-** where the developers and designers plan and create the online site.
- **Management** system - where you, the content providers, develop the content that is delivered from the online site. Using workflow and revision tracking, you track and monitor assets (content) until they are approved and published to the delivery system.
- **Delivery** system **-** where the content you are making available or products that you are selling are served to your visitors or customers.
- **Testing** system **-** where the Quality Assurance group tests the performance of both the management system and the delivery system.

About Assets

The items that you manage in Content Server are called assets. Assets are based on one of two models: basic or flex. All assets can be divided into two general categories:

- **Content assets** are items that visitors read and examine, and perhaps purchase on your site.
- **Design assets** are items that organize and format the content assets.

The assets available to a site depend on the content applications and sample sites that are installed. As a general rule, the applications deliver design assets, and the sample sites deliver content assets.

About Sample Sites

There are three sample sites that are packaged as part of a complete CSEE content applications installation:

- **HelloAssetWorld** is a simple site that demonstrates the basics of content delivery. It is more a prototype learning tool for designers and administrators than a practice field for content providers.
- **Burlington Financial** is a much more sophisticated site that replicates a dynamic and highly interactive content delivery site. An installation that includes CS-Engage augments this sample site with the Burlington Financial Extensions (BFE), which demonstrate the merchandizing capabilities available to marketers.
- **GE Lighting** is a sample site specifically targeted at online catalog developers. It emphasizes attribute inheritance and product searches.

Each site introduces its own complement of asset types, with the option of installing sample data for these asset types.

Core Asset Types

A subset of design assets are considered **core** asset types. There are several core asset types delivered with CS-Direct that are also used by the other content applications (CS-Direct Advantage and CS-Engage):

- **Query** stores database queries that typically retrieve a list of assets based on selected parameters or criteria. You use query assets in page assets and collections.
- **Collection** stores an ordered list of assets of one type. You “build” collections by running one or more queries, selecting items from their result sets, and then ranking and ordering the items that you selected. This ranked, ordered list is the collection. For example, you could rank a collection of articles about politics so that the article about last night's election results is number one.
- **Page** stores references to other assets, organizing them according to the design that your site designers implement. You associate collections, queries, articles, and so on with page assets.
- **Template** stores a coded element that formats assets of a specific type. You, as a content provider, assign template assets to format other assets, such as pages and articles. Typically, the design team provides instruction on how templates are to be assigned.

- **Link** stores a URL to an external web site. You use this asset to embed an external link within another asset.

Site designers create instances of these assets that you use as you update the site and manage site content. It is unlikely that you would do anything with templates and queries other than to select them for other assets. How you use links, collections, and pages is described in Chapter 3, “Working with Assets.”

Other core asset types include **CSElement** and **SiteEntry**, which developers use as part of the design effort to improve publishing efficiency. If you want to know more about site design asset types and how they are used, see the *CSEE Developer’s Guide*.

Basic Asset Model

CS-Direct delivers the basic asset model. In this model, all assets of the same type have the exact same attributes (properties). In general, the core assets follow the basic model. The Burlington Financial assets (see “Sample Site Assets”) as they pertain to CS-Direct also follow the basic model.

CS-Direct includes a utility (AssetMaker) that designers and administrators can use to introduce additional custom assets that follow the basic model.

Flex Asset Model

CS-Direct Advantage delivers the flex asset model. This model supports attribute inheritance from parents, which means assets of the same type can have different attributes, depending on their heritage. This flexibility gives the model its name. This also means that a flex asset has a supporting family of assets that give it structure. The flex asset itself is the unit of content that you make available to visitors to your site, but the rest of the flex asset family defines its makeup.

The flex asset and the flex parent are generally visible in the Content Server interface; the rest of the flex family assets are considered design assets; they are reserved for designers and administrators. The GE Lighting assets and CS-Engage assets (see “Sample Site Assets”) also follow the flex model.

With CS-Engage, there are additional asset types that marketers can use to merchandise product offerings:

- **Segment** divides visitors into groups based on common characteristics. Segments are then used to make recommendations and offer promotions. To learn more about segments, see Chapter 8, “Grouping Visitors into Segments.”
- **Recommendation** collects, assesses, and sorts content assets for the purpose of recommending them to the current visitor, based on qualifying information. To learn more about recommendations, see Chapter 9, “Creating and Configuring Recommendations.”
- **Promotion** is a merchandising asset that offers some type of value or discount to your site visitors, based on qualifying information. To learn more about promotions, see Chapter 10, “Creating Promotions.”

These flex assets also have additional underlying asset types that round out the flex family.

CS-Direct Advantage and CS-Engage include a utility (Flex Family Maker) that designers and administrators can use to introduce additional custom assets that follow the flex model.

Sample Site Assets

The HelloAssetWorld sample site delivers these basic-model assets:

- **HelloArticle** is a simplified version of the article asset described below.
- **HelloImage** is a simplified version of the ImageFile asset described below.

The Burlington Financial sample site delivers these basic-model assets:

- **Article** is a content asset. It stores the text of an article and information about it, such as headline, byline, credit line, body text, and so on.
- **ImageFile** is a content asset. It stores an uploaded image file that can be associated with other assets like a page or an article.
- **StyleSheet** is another form of site design asset used by the sample site. It stores style sheet files of any format (CSS, XSL, and so on). You do not assign template assets to stylesheet assets because they are, effectively, templates in themselves.

Note

Two other basic-model asset types, image and linkset, also appear in asset lists. They are supported for backward compatibility.

The GE Lighting sample site delivers two flex asset families: one for products and one for content. The assets used for products are **product** and **product parent**; those for content are **article (flex)**, **image (flex)**, and **content parent**; the rest of the product and content flex family are design assets reserved for designers and administrators.

When you install the Burlington Financial Extensions with CS-Engage, new asset types include **PDF** and **DrillHierarchy**, special-case assets for developers. BFE also introduces flex asset support to the sample site. Installing the sample data for BFE provides asset instances of product offerings in the form of funds and sample instances of segments, recommendations, and promotions.

What Can You Do with Assets?

This list summarizes what you as a content provider can do with assets in the Content Server interface:

- Create new instances of asset types by filling in online forms.
- Convert Word documents and other popular file types into new instances of asset types.
- Search for assets using simple or complex criteria that you provide.
- Make changes to asset content, within, and external to, the Content Server interface.
- Copy and share assets across sites.
- Associate assets with other assets.
- Organize assets for display by selecting and ranking them.
- Approve assets for publishing, with protections in place to ensure that assets that are not ready or that are in a state of flux cannot inadvertently be published.

- Preview the way assets will appear when you publish them.
- Publish approved assets on the delivery system.
- Track the progression of assets as they move through your organization.
- Track revisions to assets, with the capability to roll back to earlier versions.
- Delete assets that are obsolete or no longer have relevance.

What you can do individually is determined by the role or roles granted to your user login name. If you don’t have the right permissions, the function is either unavailable to you (appears shaded in gray or not at all), or denied when you attempt to perform the function.

Appearance of the Interface

As you use Content Server Enterprise Edition, it’s important to know that several factors influence the “look and feel” of the Content Server interface:

- Is the tree enabled for your site? (Is there a hierarchical representation of the site in the left frame of the Content Server interface?)
- Which asset types are you allowed to create? (Does a list appear in the right frame of the Content Server interface when you click **New** on the button bar?)
- Which asset types are you allowed to search for (Does a list appear in the right frame of the Content Server interface when you click **Search** on the button bar?)
- What other customizations has your administrator implemented?
- Do you have CS-Direct Advantage installed?
- Do you have CS-Engage installed?
- Do you have the Burlington Financial sample site installed? Was the asset data installed as well?
- Do you have the GE Lighting sample site installed? Was the asset data installed as well?

Chapter 2, “Getting Started,” gives context to this list. Also remember that permissions can have a visual impact on the interface.

Approving and Publishing Assets

The ultimate goal of using Content Server is to publish content on your delivery system. Before assets can be published, however, they must be approved.

Approving Assets

The purpose of approving assets for publishing is to ensure that their dependencies are also approved before the asset is published. This safeguards against broken links on your delivery site.

An asset dependency exists when there is an association of some kind between assets. For example, a page asset has an association with a collection asset. The collection asset has an association with three article assets. Two of these articles have associations with imagefile assets. This tree hierarchy forms a set of parent/child dependencies among all these assets. All must be approved before they can be published.

While certain asset dependencies are intrinsic, designers and administrators are responsible for establishing explicit dependencies. As a content provider with approval permissions, your role is to resolve any dependency conflicts that arise as part of the approval process so that you can publish successfully. CSEE enforces the dependencies put in place by the design team and identifies conflicts so that you can resolve them.

For more information about approving assets, see Chapter 4, “Publishing.”

Selecting Page Content

The design team organizes and positions content by creating page assets and placing them into the appropriate location on the site plan.

Page assets store references to other assets, including image files, text files, results of queries, and collections (lists of assets). When the page assets are rendered into online pages, CSEE uses the templates assigned to each asset associated with the page asset to control the look and feel of the rendered, online pages—which content goes where, how it is formatted, which buttons appear and what they do.

As a content provider, you might have responsibility for selecting the content for a page. For example, a site’s home page asset has a query and a collection. The home page template takes the top-ranked stories from the collection and displays on the generated page the headline and an abstract of each. It takes the articles that the query returns and displays their headlines in a list on the left side of the home page.

You would build the collection assigned to the home page asset, that is, you would choose the content and order it. When you build a collection, you run one or more queries and select items from the results. You examine the assets that are already included and ranked and determine which items should remain and which should be replaced with new ones.

You can reorder the assets by changing their rank. You can add new assets by adding a rank to an unranked article. When you change the rankings, the order in which the articles are displayed on the rendered page changes when the page asset is published. For more information on building collections, see the section “Collection Assets” in Chapter 3.

Use the **Preview** function to see what an asset looks like if it were published, including both its format and its content. You can preview any asset that has a template assigned. For more information on previewing pages, see the section “Work Area” in Chapter 2.

Publishing Assets

Assets that are approved for publishing are marked as such in the database until a publish event occurs. That event can be triggered at any time from the **Publish Console**, or it can be an event scheduled to occur at a specific calendar date and time. In either case, publishing happens in background; that is, the Content Server interface remains available during a publish event.

When a publish event occurs, all assets approved and ready for publishing are published to a specific target destination. This can include assets from any site. Assets already approved but with dependencies not yet approved are held back from being published. While a publishing event is underway, no assets being published can be opened or saved.

When you publish, Content Server either creates static HTML files on a local or networked disk, or mirrors the assets by sending them to another server that is also running Content Server. A third form of publishing converts content to XML files intended for delivery to a web site that is not running Content Server. The way you publish assets depends on your organization and the publishing methods it uses.

For more information on publishing and the Publish Console, see Chapter 4, “Publishing.”

Users, Roles, and Workflow Assignments

In most organizations, people have different roles or responsibilities, and sites are published by many people working together. Sometimes there are many people who perform the same role. Sometimes one person has more than one role. In CSEE, responsibilities are called **roles**, people are called **users**, and everyone has a user name that they use to log in and identify themselves with.

Work moves from one person to another. An author writes or assembles some text for an article and passes it to an editor. The editor makes suggestions and sends it back to the author, or makes changes and sends it off for final review and approval. This process—the movement of documents from one person to another in a predictable way—is called workflow.

If your organization is using the workflow feature, tasks and permissions are for the most part assigned to roles rather than user names. Although you log in using your user name, it is your assigned role that determines what you can do. The Content Server interface displays your role or roles just below the icon bar.

When you log in to the Content Server interface, you see all the assets assigned to you. You also see how long you have to complete the assignment. If you know you will be unavailable, on vacation perhaps, you can delegate your assignment to someone else in the same role as you. If you are unable to complete your assignment, you can remove yourself as a participant (called **Abstain from Voting**).

When you are done working with an asset, you indicate that you have finished with the asset. The workflow process then changes the asset's state and determines who gets the assignment next.

You can assign a workflow process to an asset you create, but more typically, the administrator has already assigned workflow and set participants for the assets you are allowed to create, as part of personalizing your environment.

For more information about workflow, see Chapter 5, “Workflow.”

Workflow Groups

Workflow groups enable you to manage a defined set of assets in a coordinated manner that allows those assets to reach the end of the workflow process together, prior to publishing. When you create a workflow group, you decide who can assign assets to the group and who can administer the group itself. You also assign a workflow process to the group. You create and manage workflow groups in the Content Server interface (see the section “Workflow” in Chapter 2).

Workflow Reports

Workflow reports allow you to track the progression of assets and user assignments in workflow. They are a convenient mechanism for determining current workflow status. For example, you could run a report designed to show all authors who have assignments due in the next 24 hours. You create and manage workflow reports in the Content Server interface (see the section “Workflow” in Chapter 2).

Tracking Revisions

Content Server Enterprise Edition can track and control changes made to assets. If your organization has enabled revision tracking, then CSEE can do the following:

- Lock an asset so that only one person at a time can edit or delete an asset.
- Keep track of all the changes made to an asset.
- Restore an asset to a previous version (rollback).

To work with an asset, you check it out from the database. Only one user at a time can check out an asset. When you have checked out an asset, only you can edit it, delete it, or assign a workflow to it. If you begin editing an asset that you did not deliberately check out, CSEE checks it out to you automatically.

After you have edited an asset, you check it back in. Checking it in saves a new version of it (it does not overwrite the earlier versions) and releases it for other users. Another option is to check it in so you have an archived version saved but to keep it checked out to continue your work on it. If you are working on an asset that was checked out to you automatically, CSEE checks it back in automatically when you click Save.

If you check out an asset and then later decide that you don’t want to save the version you just created (or you checked it out by mistake), you can cancel, or undo, the checkout. You can retrieve, or roll back to, a previous version of an asset. When you have an asset checked out, you can roll it back to any previous version. If you try to roll back an asset that has not been checked out, CSEE checks it out to you automatically.

You or any user can examine the revision history of an asset.

For more information about revision tracking, see Chapter 6, “Revision Tracking.”

Chapter 2

Getting Started

This chapter describes how to log in to and use the Content Server interface, which is your gateway to all of the Content Server applications. It includes the following sections:

- Logging In
- Using the Content Server Interface

Logging In

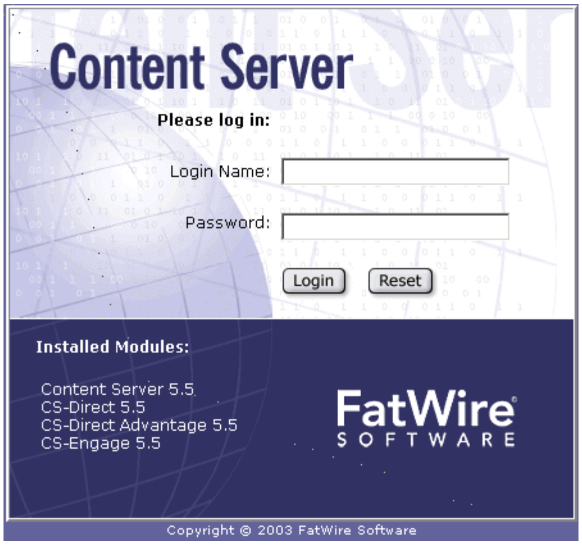
To use Content Server applications, you must log in to the Content Server interface:

1. Open your browser and enter this address:

   `http://your_server/Xcelerate/LoginPage.html`

   (where `your_server` is the name of the server you are using at your workplace)

The login form appears:



2. Notice that the form lists which members of the CSEE product family are installed. Enter your login name and password and then click **Login**. For help with your login name or password, contact your administrator.

You have logged in as user_author
Select a site that you want to work on:

Site Name	Description	Assigned Role
BurlingtonFinancial	Burlington Financial	Author
GE Lighting	GE Lighting	Author

[Log in again]

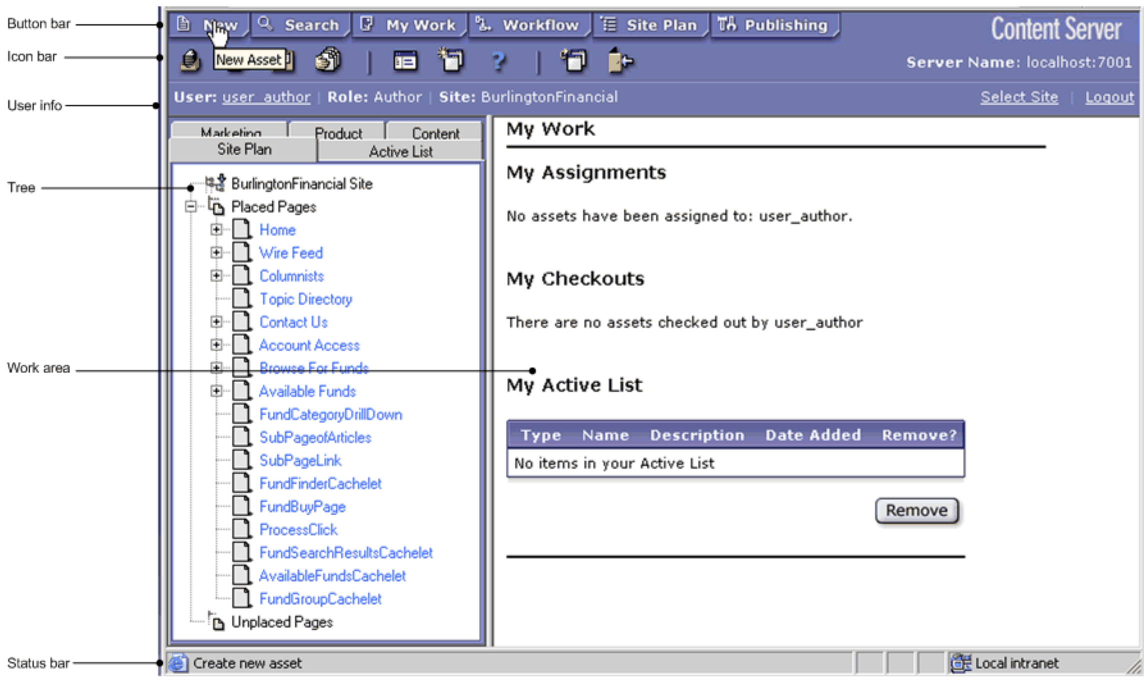
3. If more than one site is set up, select the site you want to work with by clicking on the site name. For a single site, the Content Server interface opens immediately. You can work with only one site at a time, but once logged in, you can switch between sites, if other sites to which you have access rights are available.

Using the Content Server Interface

The appearance of the Content Server interface is determined by a number of factors, including:

- Which products are installed
- Which sample sites are installed
- Your role as a user
- Administrative configuration decisions

Here is a typical user view with the Burlington Financial sample site installed.



- Button bar - gives you single-click access to common tasks.
- Icon bar - provides similar single-click access to other tasks and features. The name of the server you are connected to appears at the far right.
- User info - shows at a glance the roles associated with your user name, and therefore the permissions granted to you on the site where you are logged in. The **More...** hyperlink shows all roles, if there are more roles than can fit on this line. CSEE includes a set of generically linked user names to roles (user_author as author, for example) to help you get started. For more information on these supplied user names and roles, see your administrator.
- Tree - presents information about the site's organization and assets, categorized by tabs that are configurable, customizable, and dynamic.
- Work area - where you take follow-up action on your initial request, such as, to create an asset, perform a search, review assignments, and so forth. Most often, you work in a form or with a list in this space.
- Status bar - displays a description when you move the mouse pointer over a screen component. It also reports processing activity.

Button Bar

The button bar gives you access to the most commonly performed tasks in the Content Server interface. The button bar consists of the following buttons:

- **New** – create new instances of the asset types you have permission to create.
- **Search** – find assets in the site based on criteria you provide.
- **My Work** – refresh the workload you see when you first log in.
- **Workflow** – manage workflow reports and workflow groups.
- **Site Plan** – drill down through the site's page assets and their related assets.

- **Publishing** – access the Publishing Console to review publishing activity.

New

When you click the **New** button on the button bar, the list of asset types you can create appears in the work area; for example:

New

Please select the asset type that you want to create:

Type	Description
Article	New Article
Article (Flex)	New Article (Flex)
Collection	New Collection
Content Parent	New Content Parent
Image (Flex)	New Image (Flex)
ImageFile	New ImageFile
Link	New Link
Product Parent	New Product Parent
Products	New Products
StyleSheet	New StyleSheet

This list has been personalized for you by your administrator; that is, based on the role assigned to you and the sites that you are permitted to log in to, the administrator has established which asset types you can create.

For each asset type in the list, the administrator can assign a workflow process and set the workflow participants. The administrator can predefine certain values for an asset type as fixed; you cannot change these values. Defaults can also be set; these can be edited.

The assets are listed by type, but you click the asset description to display its **New** form in the work area.

Search

When you click the **Search button** on the button bar, the list of asset types that you can search for appears in the work area; for example:

Search

Type		Description
Article	(advanced search)	Find Article
AArticles	(advanced search)	Find Article (Flex)
Collection	(advanced search)	Find Collection
ContentGroups	(advanced search)	Find Content Parent
AImages	(advanced search)	Find Image (Flex)
ImageFile	(advanced search)	Find ImageFile
Link	(advanced search)	Find Link
ProductGroups	(advanced search)	Find Product Parent
Products	(advanced search)	Find Products
StyleSheet	(advanced search)	Find StyleSheet

Saved Searches

Please select the Saved Search that you want to execute

	Name	Asset Type	Shared
	Headline Funds	Article	shared

Like the asset types that you create, the asset types that you can search for are determined by the administrator based on your role and site permissions. This list might include asset types that do not appear in the **New** asset list. In other words, you can search for and inspect these other asset types, but you cannot create new instances of them.

A list of saved searches, if any, will also appear below the list of searchable assets. A saved search refers to the criteria on which a previous search was based, not the results of a search. Saving search criteria is an efficient way of handling searches that you run repeatedly. Saved searches can be shared, so the list can appear even if you haven't specifically saved any searches.

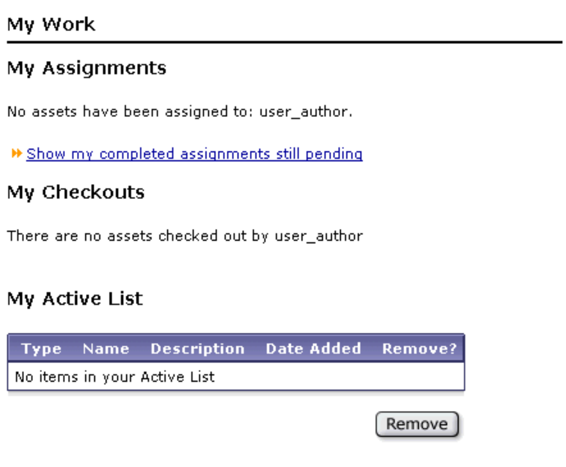
- Click the asset type in the list to open the simple Search form in the work area.
- Click advanced search to open the advanced Search form for the asset type.
- Execute a saved search by clicking the search name (or the eyeball icon).

My Work

When you first log in, the work area displays your workload, that is, the assets that you either have chosen or were chosen for you to work on. These include:

- Your assignments as established through workflow.
- Assets under revision tracking that you have (specifically or automatically) checked out.
- Assets on your active list; that is, assets that you have designated to keep from session to session, until you decide to remove them from this list.

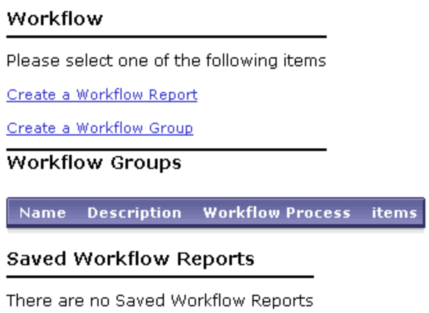
Initially, this view (My Work) may show only the following:



As you manage your workload during a session, the lists will change to reflect what you are doing. Click the **My Work** button on the button bar to refresh the view.

Workflow

When you click the **Workflow** button on the button bar, the work area becomes a management console for creating and managing workflow groups and workflow reports, shown here as follows:



Workflow Groups

Workflow groups enable you to manage a defined set of assets in a coordinated manner that allows those assets to reach the end of the workflow process together, prior to publishing. When you create a workflow group, you decide who can assign assets to the group and who can administer the group itself. You also assign a workflow process to the group. Assets that are already in workflow cannot be assigned to a workflow group. For details on creating and managing workflow groups, see Chapter 5, "Workflow."

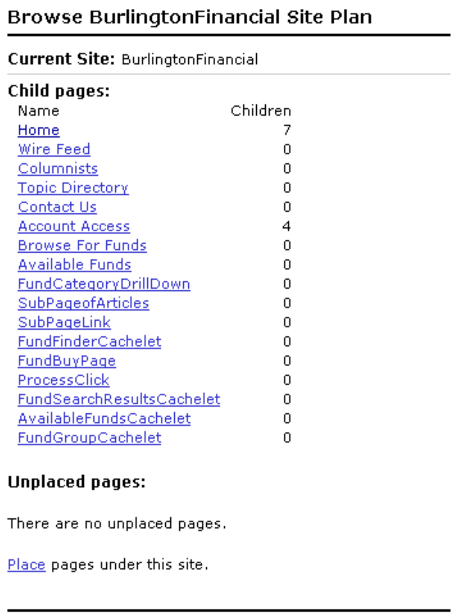
Workflow Reports

Workflow reports allow you to track the progression of assets and user assignments in workflow. They are a convenient mechanism for determining current workflow status. For example, you could run a report designed to show all authors who have assignments due in the next 24 hours. As you can with searches, you can save your report criteria so that you can run them repeatedly, by clicking the report name in the list of saved workflow reports. For details on creating and managing workflow reports, see Chapter 5, "Workflow."

Site Plan

The site plan that you can browse from the button bar is also visible in the tree, or left frame of the Content Server interface, as a hierarchical structure (see "Tree" later in this chapter). The button bar version gives you a different view, with more detailed information that you can view a node at a time as you drill down the site by clicking links. Browsing the site plan from the button bar is also an alternative when the tree is toggled off or otherwise unavailable to your user role.

When you click the **Site Plan** button on the button bar, the site root node appears in the work area. The site root node consists of all top-level page assets for the site, shown for the Burlington Financial sample site, as follows:



The number following each hyperlinked page indicates how many child page assets are directly below that top-level page. This view also denotes any unplaced pages and provides a link to the place page function.

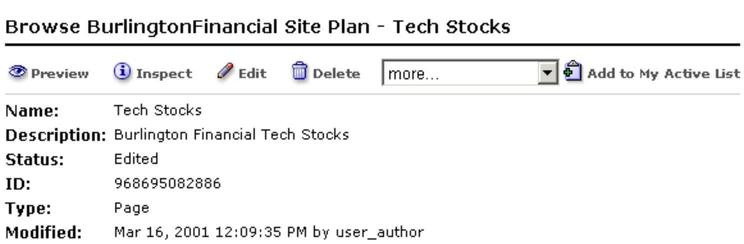
Note

Placing and unplacing pages relates to how the site plan is built; that is, where in the site hierarchy pages are to appear in relation to each other. Site designers typically perform these functions. For more information, see the *CSEE Developer's Guide*.

As you drill down, you can view additional information about a site's assets, as described in the following subsections.

Asset Details

This display is typical of the Inspect form view of an asset, with the action bar of standard command icons Preview, Inspect, Edit, Delete, and a drop-down list of functions you can perform on this asset type. Details also include identifying information such as name, description, asset type, and status. Here are the asset details of the Tech Stocks page:



Path

This display provides the trail of assets you followed from the site root node to the current asset. You can work your way back up the chain by clicking a link to return to that level within the site plan. Note that a page asset has only one path back to the site root node, while other asset types can have multiple paths. Here’s the path that takes you from the Burlington Financial site root node to the Tech Stocks page:

Path: BurlingtonFinancial
- Home
  - Stocks
    - Tech Stocks

Child Pages

If the asset you are viewing is a page asset, you see all of its child pages and the number of child pages directly below each (page assets can only be children of the site plan root or of other page assets). There is also a place page link in this portion. Here are the child pages for the Burlington Financial Home page:

Child pages:

Name	Children
News	1
Companies	0
Funds	1
Portfolio	0
Markets	2
Stocks	2
About	0

Place pages under this page.

Related Assets

You also see the child assets of the current asset and their number of directly referenced assets. These assets are related either through named associations or unnamed relationships. Here are the child assets of the Burlington Financial Home page:

Related Assets:

Collection:

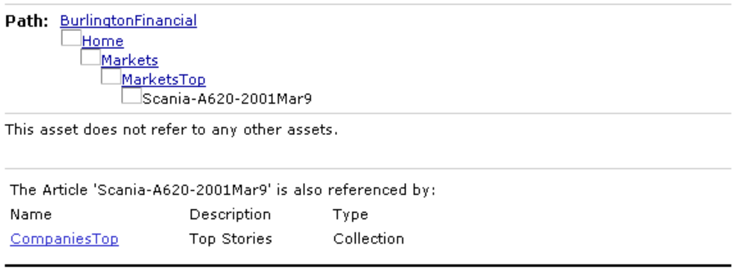
	Name	Description	Related
TopStories	HomePage Stories	HomePage Top Story List	15
SidebarTop	HomePage Columns	collection of columns for the home page	4
SidebarMiddle	Editor's Pick	Editor's Pick	8
SidebarBottom	Analyst Home Stories	From our Analysts	6

Query:

	Name	Description	Related
WireFeed	Home Wire Feed	Home Wire Feed Query	0

Multiple Paths

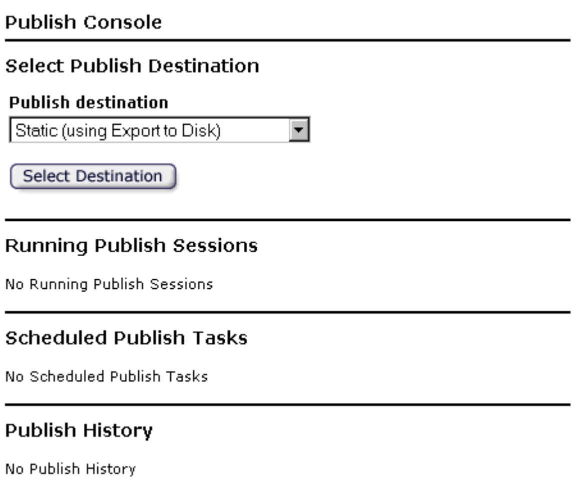
You might also see other assets that reference the current (nonpage) asset. For example, the same article may be ranked in several collections. Here is an article asset displayed via one path, that is also referenced by another asset:



When there are multiple paths to the same asset, only the path followed to get to the asset is displayed. Any other possible path is available as another asset that references the current asset. So, in the example above, the article asset was displayed from the MarketsTop collection, and is referenced by the CompaniesTop collection. If you go to the CompaniesTop collection, you will see the same article ranked there. If you follow that link, the roles are reversed: CompaniesTop is in the path, and MarketsTop is the other reference.

Publishing

When you click the **Publishing** button on the button bar, the Publish Console opens in the work area, as follows:



The Publish Console provides a brief summary status of the publishing activities at your site:

- What is being published (**Running Publish Sessions**)
- What will be published (**Scheduled Publish Tasks**)
- What has been published (**Publish History**)

By clicking **Select Destination**, you can see how many assets have been approved for publishing, and how many are being held pending approval of related assets, for the selected destination. These numbered totals are hyperlinks to lists of the respective approved and held assets. The list of held assets is particularly useful in troubleshooting publishing delays. If you have the right permissions, you can trigger a publishing event for assets that are ready to be published. For more information on the Publish Console, see Chapter 4, “Publishing.”

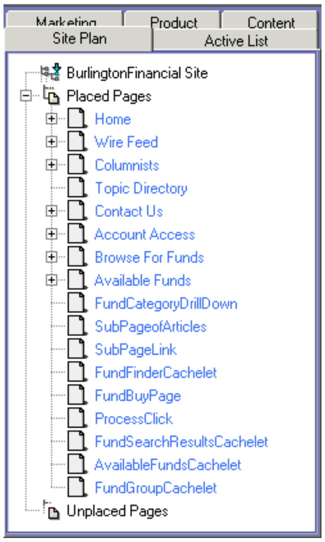
Icon Bar

The icon bar provides additional single-click access to many common functions. When you move the mouse pointer over an icon, a tooltip appears. The table that follows further explains these tooltips:

Clicking This Icon	Performs This Function
	Displays in the work area a list of all your assignments. This is a way of quickly isolating the assignments portion of the **My Work** view.
	Displays in the work area a list of all assets checked out by you. This is a way of quickly isolating the checkouts portion of the **My Work** view
	Displays in the work area a list of all assets currently on your active list. This is a way of quickly isolating the active list portion of the **My Work** view
	Displays in the work area a list of all assets you have opened for inspection or editing during the current session. This is the same list that appears on the **History** tab in the tree.
	Toggles the tree frame on or off. When you toggle the tree off, the work area extends across the full width of the window with a refreshed display of the **My Work** view, regardless of what was displayed in the work area with the tree toggled on. Note that tree display and tree toggle are under administrative control and may not be supported by your site.
	Opens the same site in a new browser window. This allows you to, for example, search for something in the new window, without closing the form you are working on in the original window. The asset counter for the **History** tab is reset in the new window.
	Opens an index page in a new browser window with links to online product documentation, based on the Content Server applications installed.
	Returns you to the site selection view that you see when you log in (assuming you have access to more than one site), for the purpose of switching to another site under the same login information. If you click the icon and there are no other sites, the window refreshes to the current **My Work** view. There is also a site selection hyperlink at the far right of the user/role display.
	Logs you out from the site, ending the current session. There is also a logout hyperlink at the far right of the user/role display.

Tree

The tree refers to the tabbed hierarchy that appears in the left frame of the Content Server interface. If your administrator has enabled the tree, your view of the site and its assets is reflected in this hierarchy whenever you toggle on the tree. The site plan for the Burlington Financial sample site appears in the tree, as follows:



Notice that it presents the same site node root (top-level page) view as shown in the button bar version of the site plan (see"Site Plan"). The site plan helps you visualize the configuration of pages and their contents. It also helps you understand the relationships and dependencies that exist for any given page. The tree is both a visual aid and an action launch pad.

The tree is dynamic; its composition changes as you navigate the site, making selections and taking other actions. What you see is based on a combination of installed products and sample sites, roles, activities during the current session, and configuration. The tree may not even appear in your view (it may have been disabled by the administrator). If it is enabled, you may be able to toggle the tree on and off (if the tree toggle capability is enabled for your site).

Tree Tabs

The tabs that are displayed in the tree are influenced by many factors, including:

- User roles
- Installed products
- Installed sample sites, and the current site you are logged in to
- Administrative decisions
- User activity during a session
- Customization

The following table describes the default behavior on how and when tabs appear in the tree:

Tab Name	How and When It Appears in the Tree
Site Plan	A default tab included with the software.
Active List	A default tab whose contents are initially blank. It becomes populated as you specifically add items to it from asset forms and asset lists (see “Working with the Active List”). This list is persistent, that is, it lives from session to session, and grows and shrinks as you add assets to and remove them from the list. A session is defined as the duration of a single logon to one site or more sites.
History	Appears automatically when you first open an asset, to inspect, edit, copy, or delete it. The contents of the **History** tab exist only for the current browser window during the current session. If you open a new window during the session, the **History** tab is reset for that window.
Content	Appears if you have CS-Direct Advantage installed. Sample assets appear if the sample sites and their data are installed.
Product	Appears if you have CS-Direct Advantage installed. Sample assets appear if the sample sites and their data are installed.
Marketing	Appears if you have CS-Engage installed. Sample assets appear if the sample sites and their data are installed.
Design, Query	Appear only if you have appropriate permissions (see the *CSEE Administrator’s Guide*).
Admin, Site Admin, Workflow	Appear only if you have the respective admin privileges (see the *CSEE Administrator’s Guide*).
user-defined	Appear only if the administrator has configured custom tabs (see the *CSEE Administrator’s Guide*).

Using the Tree

Working in the tree, you click on tabs to display their contents. A tab in the back row of tabs moves to the front when you click it. You expand and collapse the hierarchical view by clicking the plus and minus signs. You can resize the tree by dragging the right border right or left to display more or less of the tree contents.

The tree is automatically refreshed when you make a change locally; that is, if you add a new asset, it appears immediately in the tree. To see someone else’s changes who might be working on the same site, you have to use the Refresh command (see the table below).

You perform most functions within the tree by using right-click, or pop-up, menus. The menus change, depending on which tab you are viewing and where the mouse is pointing. Right-click choices are summarized in the table that follows.

Command	Action
Delete	Mark the selected asset for deletion. You must have the right permissions.

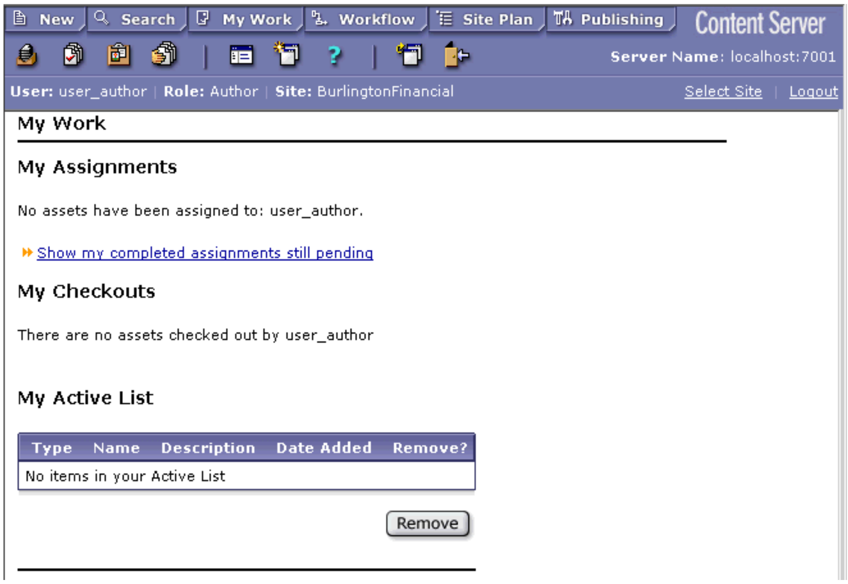
Command	Action
Remove	Remove the asset from your active list.
Edit	Open a form in the work area for editing the selected asset.
Inspect	Open a form in the work area for inspecting details of the selected asset.
Refresh	Refresh all children below the selected node to ensure that you are looking at the latest version of the tree.
New *asset type*	Open a form in the work area for creating a new instance of the selected asset type. Restricted to the asset types your role has permission to create. For flex assets, you can create a flex parent (**like this one**), or a child of the flex parent (**child**).
Status	Open a form in the work area for viewing the status of the selected asset.
Preview	Display the selected asset in a new browser window, as it would appear on the delivery site.
Place Page	Open a dialog box in the work area so that you can place and unplace pages in the tree, and also rerank pages. A page must be placed before it can be published. This is a design activity that requires the right permissions. Available only from the **Site Plan** tab.
Refresh All	Refresh the tab contents with a single click.
Clear All	Remove all contents from the **History** tab.

Tip

Double-click an asset instance on any tab to display the asset in its Inspect form in the work area.

When There Is No Tree

When you toggle off the tree (or if the administrator disabled the tree), the Content Server interface effectively becomes all work area (see “Work Area”):



Tip
You can achieve this same effect by resizing the tree flush left.

Although you no longer have access to the various tabs, you still have access to the information they hold.

- You can display the site plan in the work area by clicking **Site Plan** on the button bar (see "Site Plan").
- You can display the active list by clicking the **Show My Active List** icon (see "Icon Bar").
- You can view the asset audit trail for the current window and session by clicking the **Show History** icon (see "Icon Bar").
- You can view the contents of other asset-specific tabs by performing asset type searches (see "Finding Assets").

Toggling off the tree also has an impact on creating and editing assets. Many New and Edit *Asset Name* forms support data selection from the tree; that is, in filling in the form, you can select values (assets) from the tree and click a button to add your selections to the asset definition. On a New Page asset, for example, you can add asset associations:

You select collection assets in the tree and click **Add Selected Items** to include them as page asset associations.

When the tree is toggled off, the **Add Selected Items** button is replaced by an arrow button:

When you click the arrow button, a pop-up window appears, displaying **Active List** and **History** tab contents of related asset types (collections in this case):

The implication is that you populated one or both of these lists by first searching for suitable assets, then adding them to the active list, or accessing them to make them part of the historical record. Click the collection assets that you want to include as page asset associations.

If you click the arrow button and nothing (apparently) happens, there are two possibilities:

- Neither list contains assets of the appropriate type.
- The pop-up window is hidden by another application.

The following asset creation/update tasks support this dual selection capability:

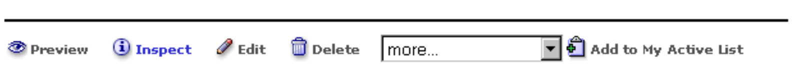
- Making asset associations for basic assets
- Selecting parents for flex assets
- Selecting attribute values for attributes of type asset that use the **PickAsset** attribute editor
- Adding segment filtering criteria
- Setting up asset relationships for recommendations
- Selecting flex assets and flex parents for promotions

Work Area

The work area is the portion of the Content Server interface that displays forms and lists, based on some action you have taken. Its contents change to reflect your latest request.

When you first log in, the work area displays your current workload.

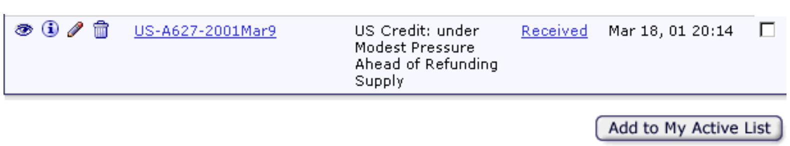
When you view an asset in its Inspect form, or variations such as the Status form, the action bar appears at the top of the form, shown as follows:



This offers a selection of actions you can take on the current asset, as described in the following table:

Action	Results
Preview	Displays an asset as it would appear on your site, using the template assigned as the default format. Note, however, that you can also see how the asset looks using another template by making a selection from the drop-down list in the preview window. Additionally, you can click the **Preview in Full Window** hyperlink to the right of the drop-down field to view the asset in a full browser window that includes the URL, selection buttons, status bar, and so forth.
Inspect	Displays a summary of the asset's details such as name, description, ID, and so forth.
Edit	Opens the asset in an edit form, where you can make changes to that asset. You can either save or cancel those changes from the Edit form.
Delete	Marks the asset for removal in the database. The next time your database administrator purges the database, that asset is deleted.
drop-down list	Depends on asset type and permissions: • Approve the asset for publish • Make a copy of the asset (if you are allowed to create a new instance of this asset type) • Create a new instance of the same asset type (if you are allowed to create a new instance of this asset type) • Search for an asset of the same type • Display asset status • Share the asset across sites (if you have access to other sites where the asset type is also enabled; cannot share page assets) • Browse in Site Plan (page assets only) • Build a collection (collection assets only)
Add to...	Adds the asset to your active list. If the asset has already been added, the text string reads: **Item is in your Active List**.

Similarly, when you are viewing a list of assets, each asset in the list has its own set of icons and selections from which to take some action on the selected asset, shown as follows for a line item in a search results list:



Here, you have the same icons as on the asset forms, a link to the asset's status (**Received**), but no other drop-down functions, and a check box to single out assets to add to your active list when you click the **Add to My Active List** button.

Working with the Active List

The active list is your personal asset ledger that you maintain over time. The list is empty until you explicitly add assets to it. Assets that you have added to the list remain there until you explicitly remove them from the list (or until they are deleted).

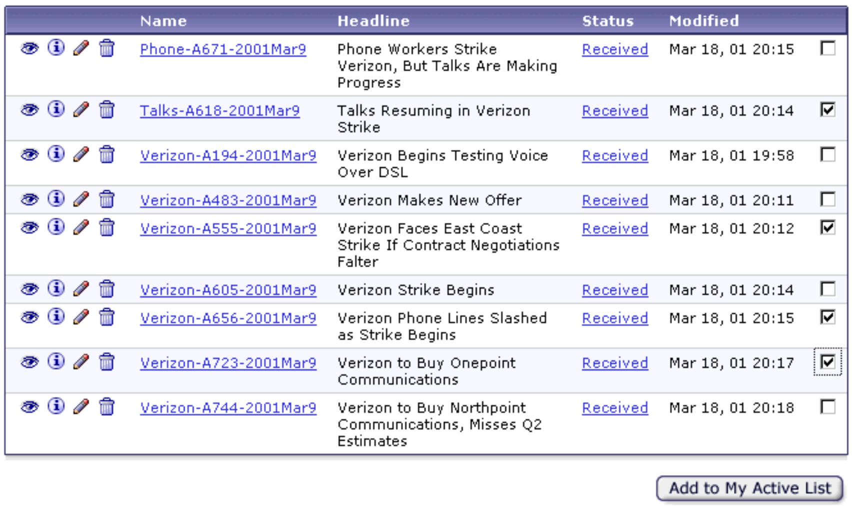
Adding Assets to the Active List

You can add assets to the active list from search results lists, or from an asset's Inspect form.

To add assets to the active list from the search results list:

1. Perform an asset search as described in the section "Finding Assets" in Chapter 3.

   The search results list appears in the work area:



	Name	Headline	Status	Modified	
	Phone-A671-2001Mar9	Phone Workers Strike Verizon, But Talks Are Making Progress	Received	Mar 18, 01 20:15	☐
	Talks-A618-2001Mar9	Talks Resuming in Verizon Strike	Received	Mar 18, 01 20:14	☑
	Verizon-A194-2001Mar9	Verizon Begins Testing Voice Over DSL	Received	Mar 18, 01 19:58	☐
	Verizon-A483-2001Mar9	Verizon Makes New Offer	Received	Mar 18, 01 20:11	☐
	Verizon-A555-2001Mar9	Verizon Faces East Coast Strike If Contract Negotiations Falter	Received	Mar 18, 01 20:12	☑
	Verizon-A605-2001Mar9	Verizon Strike Begins	Received	Mar 18, 01 20:14	☐
	Verizon-A656-2001Mar9	Verizon Phone Lines Slashed as Strike Begins	Received	Mar 18, 01 20:15	☑
	Verizon-A723-2001Mar9	Verizon to Buy Onepoint Communications	Received	Mar 18, 01 20:17	☑
	Verizon-A744-2001Mar9	Verizon to Buy Northpoint Communications, Misses Q2 Estimates	Received	Mar 18, 01 20:18	☐

2. Select the assets you want to add and click **Add to My Active List**.

   A message confirms that the assets were successfully added, and the list is updated. The button label changes to **Remove**.

To add an asset from the Inspect form:

1. Find the asset that you want to add to your active list.
2. Open the asset in its Inspect form.
3. Click the **Add to My Active List** text to the right of the drop-down field in the action bar.

   A message confirms that the asset was successfully added, and the list is updated. The button label changes to **Remove**.

Note that the **Add to My Active List** button does nothing until you select an item to add.

Viewing the Active List

You can view the active list in the following ways:

- Click **My Work** on the button bar. You may have to scroll down, because the active list is the third of three lists appearing in this view. My Work is also the view you see when you first log in.

- Click the **Show My Active List** icon on the icon bar. This view displays only the active list. Each line item has a check box that you can select to remove that asset from the list by clicking the **Remove** button at the bottom of list.
- Select the **Active List** tab in the tree. The tab shows all assets currently on your active list.

Note that the active list view is site-specific. If you add assets from one site, then switch sites and view your active list, you will not see the assets that you added at the first site, unless those assets happen to be shared with the second site.

Using the Active List

As a running list of the assets you have selected, the active list has a number of uses, including:

- Provides a search results save mechanism, allowing you to examine individual assets one by one.
- Populates the Candidates list for establishing unnamed associations, when the tree is toggled off.
- Becomes a source (together with the asset history list) of assets from which to choose to link to an asset you are creating or editing, when the tree is toggled off.

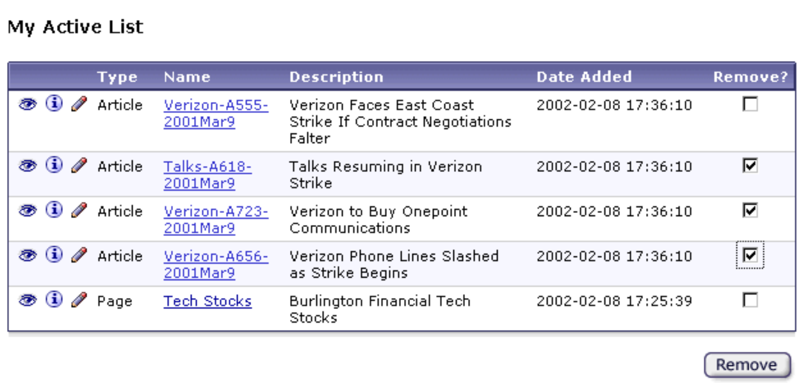
Note that the active list shows only those assets that are available to the site you are viewing.

Removing Assets from the Active List

To remove assets from the list:

1. Click the **Show My Active List** icon on the icon bar.

   Your active list appears in the work area:



My Active List

Type	Name	Description	Date Added	Remove?
Article	Verizon-A555-2001Mar9	Verizon Faces East Coast Strike If Contract Negotiations Falter	2002-02-08 17:36:10	☐
Article	Talks-A618-2001Mar9	Talks Resuming in Verizon Strike	2002-02-08 17:36:10	☑
Article	Verizon-A723-2001Mar9	Verizon to Buy Onepoint Communications	2002-02-08 17:36:10	☑
Article	Verizon-A656-2001Mar9	Verizon Phone Lines Slashed as Strike Begins	2002-02-08 17:36:10	☑
Page	Tech Stocks	Burlington Financial Tech Stocks	2002-02-08 17:25:39	☐

Remove

2. Select the assets that you want to remove by clicking **Remove**.

   The list immediately refreshes, showing the results of the removal.

   You can also remove an asset by right-clicking the asset in the **Active List** tab and selecting **Remove** from the pop-up menu. Assets on the active list that are deleted (by you or anyone else) also disappear from the list.

Note that the **Remove** button is does nothing until you select an item to remove.

Chapter 3

Working with Assets

Assets are the building blocks of Content Server Enterprise Edition. Assets are objects that can be created, edited, inspected, deleted, duplicated, assigned to workflow, tracked through revision tracking, searched for, previewed, and approved for publishing.

As mentioned in Chapter 1, "Overview," CSEE provides you with several content and site design assets. For definitions of these asset types, see the section "About Assets" in Chapter 1. Because your system is customized for your organization, you most likely have additional or different asset types to work with from the ones defined in that section.

Although there can be many different types of assets, you work with all of them in similar ways, using the same procedures. This chapter describes the basic procedures for working with assets, illustrated with examples from the Burlington Financial sample site.

This chapter contains the following sections:

About Permissions

If workflow is in use at your site, at times you might not be allowed to work with certain assets, depending on their workflow state and your role. Your right to edit an asset depends on permissions set up by the administrator of your system. If you do not have permissions to complete a task, the Content Server interface displays a notice that you do not have access rights when you try.

Permissions apply only to assets that have been assigned to a workflow. For information about workflow, see Chapter 5, "Workflow."

Creating New Assets

You can create brand new assets (from "scratch") or, if the new asset that you want to create is similar to an existing one, you can copy the existing asset and make changes to the copy. Copying an asset saves you a few steps. Both methods are described later in this section.

You can also create new assets in an alternate interface, of which there are currently two:

- **Content Server Desktop**, which enables you to create assets out of Microsoft Word documents.
- **Content Server DocLink**, which enables you to create assets out of a variety of Windows file types, including Microsoft Word documents.

The difference between the two is in how the asset is stored in the Content Server database: the assets you create with CS-Desktop are converted to the fields that you see in the New Asset form in the Content Server interface; the assets that you create with CS-DocLink are stored in their native format as a single object called a **blob**, or **b**inary **l**arge **ob**ject.

Which Assets Can You Create?

The assets you can create (and copy), are determined by how the administrator has personalized the **New** button on the button bar for your role. In the administrative interface, this is called the **Start Menu**. The whole purpose of personalizing the contents of the **New** button is to make your job easier.

- You shouldn't have to see assets you are not interested in.
- You shouldn't have to provide information that is already known, or that you have no way of knowing without researching.
- If set values are required, you shouldn't be able to alter these values.
- Reasonable defaults should be preselected for you.
- A flex asset that is based on an asset definition should have that definition preselected.
- An asset that must be in workflow should be preassigned to the appropriate workflow process.

These are all ways in which the administrator can take advantage of the personalization feature of the **New** button (Start Menu) to make things easier for you in creating new asset instances.

Creating a Brand New Asset

To create a brand new asset (from "scratch"):

1. If the Content Server interface is not already open, log in.
2. Click **New** on the button bar to display in the work area the list of asset types you can create.
3. Click the name of the asset type that you want to create.

   The New form for this asset type appears in the work area. A number of fields should already have values filled in or selected.
4. Click in the **Name** field and enter a descriptive name that conforms to the following:
   - The name must be unique to the asset type.
   - The name must contain 1 (minimum) to 64 (maximum) alphanumeric characters.
   - The name cannot contain the punctuation characters single quote ('), double quote ("), semicolon (;), colon (:), or question mark (?).
   - The name can contain spaces (except for flex attributes), but cannot start with a space.
5. Enter information in the rest of the fields for this asset. If a field has an asterisk (*) next to it, it is a required field. If the form for this asset has fields that are unfamiliar to you, consult your design team or administrator.
6. Click **Save**.

   The Content Server interface displays a summary of the asset. If you entered a duplicate name or duplicated any other information that must be unique, the Content Server interface displays an error message. Click the **Back** button on your browser to return to the form and edit the appropriate field.
7. (Optional) If the asset is not preassigned to workflow and you want to use the workflow feature, you can assign it as described in the section "Setting Workflow Options for Assets," in Chapter 5.
8. (Optional) If you want to see how the asset would look if it were published, click the **Preview** icon. Note that in order to preview an asset, there must be a template assigned to it in the **Template** field.

Creating a New Asset from an Existing One

To create a new asset by copying an existing one:

1. If the Content Server interface is not already open, log in.
2. Search for the asset that you want to copy and open it in the Inspect form.
3. In the action bar, select **Copy** from the drop-down list. (Remember that **Copy** will not appear in the list if you do not have permission to create this type of asset.)

   The asset appears in the Edit form with the original information except **Name**, which is blank.
4. Enter a new name and change other information as needed, then click **Save**. (Remember to change file and path names if you are using them.)

   The new asset appears in the Inspect form.

5. (Optional) If you want to see how the asset would look if it were published, click the **Preview** icon. Note that in order to preview an asset, there must be a template assigned to it in the **Template** field.

Creating a New Asset in CS-Desktop

You can create new assets in CS-Desktop, if your system setup supports this capability. The assets that you create originate as Word documents. These documents are entered into the Content Server database as assets, by mapping document contents to asset fields within Microsoft Word. To do this mapping, you must have the CS-Desktop client installed on your local hard drive. When you install the client, you also install an online Help file that describes how to use CS-Desktop. After the client is installed, the Help file is accessible from within Word. To install the client (and the Help file), you double-click the provided self-extracting executable file.

Creating a New Asset in CS-DocLink

You can create new assets in CS-DocLink, if your system setup supports this capability. The assets that you create originate as common binary file types such as text files, formatted documents, spreadsheets, image files, and so forth. These files are entered into the Content Server database as assets, by dragging a file over a hierarchical view of the Content Server database in Windows Explorer. To execute this drag-and-drop operation, you must have the CS-DocLink client installed on your local hard drive. When you install the client, you also install an online Help file that describes how to use CS-DocLink. After the client is installed, the Help file is accessible from within Windows Explorer. To install the client (and the Help file), you double-click the provided self-extracting executable file.

Finding Assets

You can use the Content Server interface’s search utility to find assets, and you can also select assets from various lists associated with the **My Work** view.

Search Basics

Here are some general search characteristics:

- There are two kinds of searches: simple and advanced.
- A simple search form has a link to the advanced form; the advanced form has a link back to the simple form.
- For both kinds of searches (simple and advanced), results are based on all criteria being satisfied.
- Both the simple and advanced forms provide a total count of the number of instances of the specified asset type in the site.
- If you click the **Search** button without specifying any criteria, all of the instances of the selected asset type (up to a maximum of 1000) are retrieved and displayed 20 to a page, which is the default for the **Show up to *nn* items per page** drop-down field. If your search results exceed 1000, refine your search criteria.
- A text string search means that all instances of the asset that contain the specified search string in the selected field will be returned in the search results list.

- You can use the percent sign (%) in your search criteria as a wildcard character.
- Searches can be case-sensitive, depending on which search engine is used and the configuration options.
- Refer also to the section "Search Tips," that appears later in this chapter.

> **Note**
>
> Searches described in this section are based on assets: the results are specific to an asset type. You can perform searches across asset types by running workflow reports. For more information, see the section "Workflow Reports" in Chapter 5.

Running Searches

To run an asset search:

1. If the Content Server interface is not already open, log in.
2. Click **Search** on the button bar to display the list of searchable assets in the work area portion of the Content Server interface.
3. Click the **hyperlinked asset name** to open the Simple Search form; click **Advanced Search** next to the asset name to open the Advanced Search form.

   The advanced form presents additional criteria upon which to base the search. Search forms are asset-type-dependent. If you have any questions about specific asset type search forms, ask your administrator.

   The Simple Search form for an article asset type appears as follows:

4. Enter search criteria as follows:

   a. Click in the **Search** field and select a search parameter from the drop-down list.

   b. Enter the text you want to search for (you can also leave this field blank).

   c. Select the number of matching assets to display per page (the incremental range is 10-300).

   d. Select a value on which to sort the results.

   If you enter no criteria, the search retrieves all instances of the asset (up to 1000) and displays them 20 to a page in the default sort order.

5. Click **Search**.

   The search results appear beneath the search form in the work area.

Text at the left above the results tells you the range currently displayed of the total number of assets that match the search criteria. You can display more results by clicking the **Previous** and **Next** hyperlinks at the right, above the results.

Notice the line of numbers at the bottom left of each search results page:

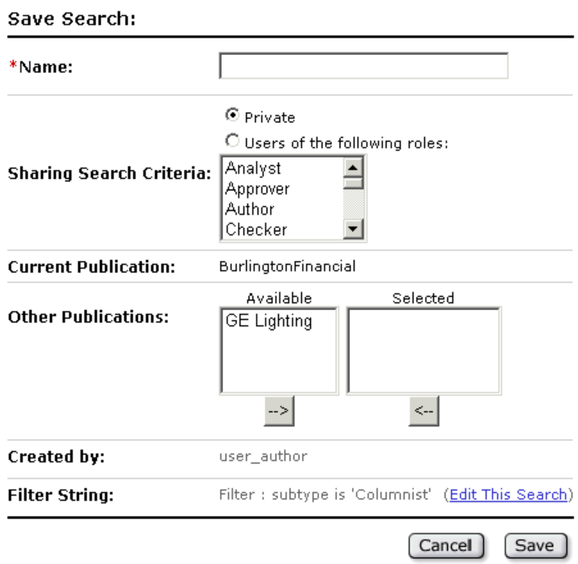
Click any number to re-execute the search to display the selected number of assets per page.

Saving Search Criteria

When you click **Search** after entering criteria to run a search, you also have the option of saving the search criteria and making it available to other users. Saving searches means you can execute them at will with a single click, without having to re-enter the criteria each time.

To preserve search criteria:

1. After running a search, click the **Save This Search** hyperlink to open the Save Search form:



2. Fill in the form as follows:
   a. Enter a name for the search (this is a required field, as denoted by the red asterisk). The name that you specify here will appear as a hyperlink in the search line item under Saved Searches on the Search Assets form.
   b. Indicate whether you want to share this search with others; click the radio button and select the roles that you want to share with. You can choose multiple roles by using the Shift-click or Ctrl-click keyboard-mouse combination. The search is not shared (**private**) by default.
   c. Indicate whether you want this search to appear on other sites that you use; click the right arrow to move sites from the **Available** list box to the **Selected** list box.
   d. If you want to review or edit the criteria, click the **Edit This Search** hyperlink. Note that you must then execute the search again and click **Save This Search** to return to the Save Search form.
3. Click **Save**.

Preserving Search Results

When you run a successful search, you can preserve some or all of the results for future use so you do not have to execute the search again or page back in the browser.

To preserve search results:

1. After running a search, scroll down to the search results on the form:


Items 1 to 10 of 55 sorted by "Headline" (Save This Search) Next10
Filter : Headline contains 'stock' (Edit This Search)

Name	Headline	Status	Modified	
Argentine-A418-2001Mar9	Argentine Stocks Up	Received	Mar 18, 2001	☐
Arkansas-A677-2001Mar9	Arkansas Woman Builds Fortune on Stock Market, Land Ventures	Edited	Mar 26, 2001	☐
Australian-A598-2001Mar9	Australian Stocks Review: News Corp., Rio Gains Back Market Boost	Received	Mar 18, 2001	☐
Australian-A225-2001Mar9	Australian Stocks Review: News, Nab Back Rise; Muted Rate Reaction	Received	Mar 18, 2001	☐
Bank-A550-2001Mar9	Don't Bank 401(K) on Employer's Stock If Company Hits Bad Spot, Retirement Plan Can Tank	Received	Mar 18, 2001	☐
France-A720-2001Mar9	France Stocks Review: Cac Ends Up 0.58%, Trims Early Tech-Led Gain	Received	Mar 18, 2001	☑
France-A324-2001Mar9	France Stocks Review: Cac Falls 2.68% As Nasdaq Resumes Slide	Received	Mar 18, 2001	☑
France-A494-2001Mar9	France Stocks Review: Cac Up 1.67% As Tech Shares Bounce Back	Received	Mar 18, 2001	☑
France-A742-2001Mar9	France Stocks Review: Market Nudges Higher; Techs Mixed	Received	Mar 18, 2001	☑
France-A645-2001Mar9	France Stocks Review: Up 0.89% Despite Mixed Day for Tech Shares	Received	Mar 18, 2001	☑

Add to My Active List

2. On the first page of the results, Choose the matching items that you want to preserve, by selecting the check box to the right. Click **Add to My Active List**.

   Your active list appears with the items you added.
3. Click your browser's **Back** button to return to the search results page from which you selected the items.
4. Click **Next** to continue to the next page of the search results.

5. Repeat the procedure for each page from which you add items to your active list; that is:
   a. Select the items.
   b. Click **Add to My Active List**.
   c. Click your browser's **Back** button.
   d. Continue to the next page of search results.

   Note that if you click the browser's **Forward** button after returning to the search results, you go back to your active list.

Running Saved Searches

To run a saved search:

1. If the Content Server interface is not already open, log in.
2. Click **Search** on the button bar to display the searchable assets in the work area portion of the Content Server interface.
3. Scroll down to **Saved Searches** and locate the search you want to run in the list of saved searches:

   Click the search name or the eyeball icon to execute the search.

Editing Saved Searches

To edit a saved search:

1. If the Content Server interface is not already open, log in.
2. Click **Search** on the button bar to display the searchable assets in the work area portion of the Content Server interface.
3. Scroll down to **Saved Searches** and locate the search you want to edit in the list of saved searches:

   Click the pencil icon to open the saved search for editing.

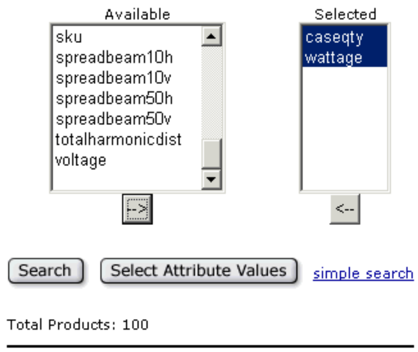
Searching for Specific Attributes

If you are using CS-Direct Advantage (and you have the right permissions), advanced searches on qualifying flex assets allow you to search for specific attributes and their values. For example, with the GE Lighting sample site installed, you can search products for specific attributes and their values.

To search for specific attributes and their values:

1. If the Content Server interface is not already open, log in.
2. Click **Search** on the button bar to display the searchable assets in the work area portion of the Content Server interface.

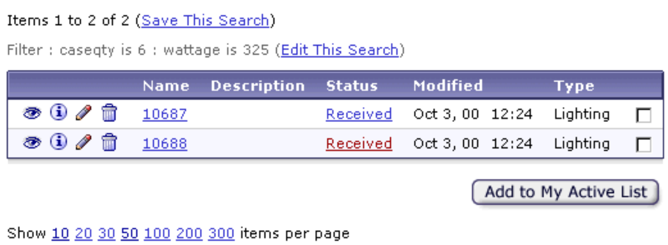
3. Click **Advanced Search** for the products asset type.
4. On the Advanced Search for Products form, click **Select Attributes** to open the Select Attributes form:



5. Select assets in the **Available** list box and click the arrow button to move them to the **Selected** list box. You can choose multiple assets by using the Shift-click or Ctrl-click keyboard mouse combination.

   Click **Search** to perform an attribute-based search. Click **Select Attribute Values** to perform a search based on specific values for the selected attributes:

6. For a value-based search, enter specific attribute values on which to search and click **Search**:



   Search results reflect products that have attributes containing the specified values.

Search Tips

By default, the system uses its own database SQL search mechanisms. Your site, however, might be set up to use a search engine. Check with your system administrator to determine whether an search engine is enabled.

Tips for Using the Default Search Mechanism (Searching with SQL)

Consider the following when using the SQL default search mechanism:

- Do not use phrases in the search string. Phrases are treated as a series of independent words delimited by space characters, and all records which match any of the words are retrieved.
- Do not use quotation marks in the search string. Quotation marks are treated as a character. For example, a search on "John Doe" finds only John Doe in quotation marks.
- Commas are not interpreted as characters (basic assets only). For example, a search on logo, banner finds occurrences of the word logo and occurrences of the word banner.

Tips for Using the AltaVista Search Engine

The AltaVista search engine, which supports both basic and flex asset searches, requires different syntax rules from those for SQL. Consider the following when using the AltaVista search engine:

- Use quotation marks to find text strings. For example, a search for "time is of the essence" finds assets in which the string time is of the essence appears.
- Use spaces or the word OR to separate individual words. The search engine will then search for assets that contain one or more of the words. For example, a search for `red` OR `blue` finds assets than contain `red` or contain `blue` or contain both.
- Use AND to specify words that must both exist in an asset. For example, a search for `red` AND `blue` finds assets that contain both `red` and `blue`.
- Use NEAR to specify words or phrases that must be within 10 words of each other. For example, a search for `blue` NEAR `velvet` finds all assets with the words `blue` and `velvet` within 10 words of each other.
- If you want to exclude a word, put AND NOT before it. For example, a search for `blue` AND NOT `velvet` finds all assets with `blue` but not `blue velvet`.
- Use an asterisk as a wildcard character. You must specify a minimum of three characters. The asterisk will find matches on up to five additional characters. Use a double asterisk to return matches on any number of additional characters. Thus, for example, `tri*` finds matches for the word triangle but not for the word triangle*s*; `tri**` finds matches for both words, triangle and triangles.

The AltaVista search engine allows you to specify which field of the asset you want to search. For example, when searching for Burlington Financial articles, if you enter `abstract:blue` in the search field, the system retrieves only those articles in which `blue` appears in the article abstract.

Tips for Using the Verity Search Engine

The Verity search engine, which supports both basic and flex asset searches, requires different syntax rules from those for SQL. For more information, consult your Verity documentation.

Editing Assets

Assets can be edited in a variety of ways, depending on the asset type and your system configuration. You can edit an asset by using any of the following interfaces:

- The Content Server interface
- Content Server Desktop
- Content Server DocLink
- An Internet Explorer browser window, using InSite Editor

You must have the right permissions to edit assets.

Editing in the Content Server Interface

To edit an asset in the Content Server interface:

1. If the Content Server interface is not already open, log in.
2. Search for the asset you want to edit.
3. In the search results list, there is a list of icons next to each asset. Click the **Edit** icon in the row of the asset that you want to work with.

   The Content Server interface displays the asset in an Edit form.
4. Make your changes, and then click **Save Changes**.

   The system refreshes the asset's Inspect form, confirming the changes. If you click **Cancel** instead, the asset appears unchanged in the Inspect form.
5. (Optional) If you want to see how the asset would look if it were published, click the **Preview** icon.

Editing in CS-Desktop

To edit an asset that was created in Microsoft Word, you use the CS-Desktop **Open** command. You use the CS-Desktop **Save** command to save the asset to the Content Server database. These commands are available from the CS-Destkop toolbar, which is added to the Word interface when you install the CS-Desktop client.

If you use the Content Server interface to edit an asset that was created in CS-Desktop, a message tells you that the operation is not permitted, and provides a link to download the CS-Desktop client software.

For complete information about using CS-Desktop, see the online Help that is included with the installed client software.

Editing in CS-DocLink

To edit an asset that was created from a Windows file type, you open the asset in its native application, using the CS-DocLink **Open** command. To save the asset to the Content Server database, you first save the file on the desktop, and then drag it back into the Content Server hierarchy in Windows Explorer. These capabilities become available to you when you add the Content Server extensions to Windows Explorer during the CS-DocLink client installation.

For complete information on how to use CS-DocLink, see the online Help that gets installed with the client software.

Editing in InSite Editor

Business users who do not ordinarily work in the Content Server interface, but who occasionally need to make minor edits to text or approve content, can do so directly on a site content page, using a special tool called InSite Editor.

To use InSite Editor:

- You must be using Internet Explorer 5.5 or higher for Windows (no other browser is currently supported).
- The template used to display the page you are editing must be coded accordingly.

When you view an editable page in your browser window, a pencil icon appears next to fields that can be edited directly on that page. When you click the pencil, it changes to an eyeball icon, and the field is enclosed in a dotted line, indicating that you can make your edits to the text within the box. If the field is protected by revision tracking, a lock icon replaces the pencil icon to indicate that the field cannot currently be edited.

There is also a separate InSite Editor window, where you can click the **Save** button to commit your edits to the Content Server database. The InSite Editor window also enables you to check asset status, complete workflow assignments, and perform asset searches. You can learn more about using InSite Editor by accessing its online Help.

Working with eWebEditPro

CSEE supports eWebEditPro, a popular third-party WYSIWYG HTML editor available from Ektron, Inc. If your system is set up to use this product, the editor will appear as part of the New or Edit form for an associated text field.

This editor allows you to apply style characteristics such as bold, italics, and underlining. You can change font size and color; make bulleted lists; and insert hyperlinked text. Whatever you do to the contents of the text field is instantly visible in the editor window.

You can also use eWebEditPro to edit fields in InSite Editor.

Caution

If the eWebEditPro toolbar includes an upload image option, consult your administrator before using this option. An image uploaded in this manner is not an asset, and will not be mirror published when the asset that uploaded it is published to the delivery system.

Embedding Links Within Assets

When creating and updating assets, you often need to include references to other sources. CSEE enables you to insert, or embed, those assets in the following ways:

- Embed a hyperlink to another asset within the current site
- Embed a hyperlink to an external URL
- Embed the contents of another asset from the current site

The eWebEditPro HTML editor supports the first two, but not the third type of embedded link.

The extent to which these capabilities are available to you depends on how your site designers have implemented them as part of the custom asset design. The basic article asset that ships with CSEE supports insertion of the three types of embedded links in the article body text box. The following subsections describe how you use embedded links within the context of a basic article asset.

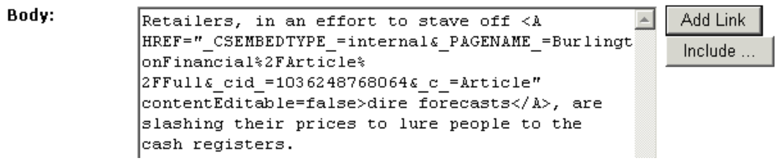
Embedding an Internal Link

An internal link is one that launches another asset from the current asset within the same site. To insert an internal link in the article body text box of an article asset:

1. Open the Edit form of the article asset in which you want to insert an internal link. You can also embed an internal link in a new article asset.
2. Find and select the asset in the tree that you want to link to. By definition, the selected asset must be previewable; that is, it must have an associated template.
3. In the article body text box, select the article text that you want to be hyperlinked. Alternatively, you can type new text anywhere in the article body and select it.
4. Click the **Add Link** button to the right of the text box. The following window pops up:

5. (Optional) From the **Select Template** drop-down list, choose which template to use to display the linked asset. The linked asset’s default template is preselected.
6. (Optional) Edit the text that you chose in the article body to be hyperlinked.
7. Click **Save Changes** to save the embedded link..

The pop-up window closes, and the link appears in coded format in the article body as follows:



The information between the <A and </A> tags denotes the link as internal and identifies the following for the system: the linked asset, the template to use, and the hyperlinked text.

Note

You can edit the link text only. Do not edit any other part of the string unless you are an experienced programmer or designer.

8. Click **Save Changes** to save the article asset. If you cancel instead, the link information no longer appears in the article body.

After you save the article asset, use the Preview feature to view and test the embedded link. The article should appear with a hyperlink to the asset that you embedded. Clicking the link displays the asset in the selected template.

Embedding an External Link

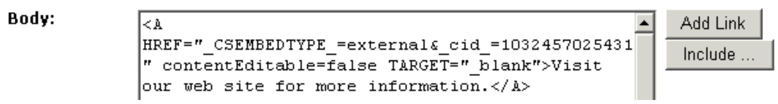
An external link is one that launches another web site page. You can insert an external link only if an instance of a link asset type that points to the external web site exists in the current CSEE site.

To insert an external link in the article body text box of an article asset:

1. Open the Edit form of the article asset in which you want to insert an external link. You can also embed an external link in a new article asset.
2. Find and select the link asset that points to the site that you want to launch. Typically, you would perform a search on the link asset type, place the one that you want on your active list, and then select that link asset reference from the Active List tab.
3. In the article body text box, select the article text that you want to be hyperlinked. Alternatively, you can type new text anywhere in the article body and select it.
4. Click the **Add Link** button to the right of the text box. The following window pops up:

5. (Optional) Edit text to be hyperlinked.
6. Click **Save Changes**.

   The pop-up window closes, and the link appears in coded format in the article body as follows:



   The information between the <A and </A> tags denotes the link as external, and identifies the following for the system: the asset containing the URL and the hyperlinked text.

> **Note**
>
> You can edit the link text only. Do not edit any other part of the string unless you are an experienced programmer or designer.

7. Click **Save Changes** to save the article asset. If you cancel instead, the link information no longer appears in the article body.

After you save the article asset, use the Preview feature to view and test the embedded link. The article should appear with a hyperlink to the URL you embedded. Clicking the link opens the web site in a separate browser window. If you remove TARGET=”blank” from the embedded string, the web site opens in the current browser window.

Embedding the Content of an Asset

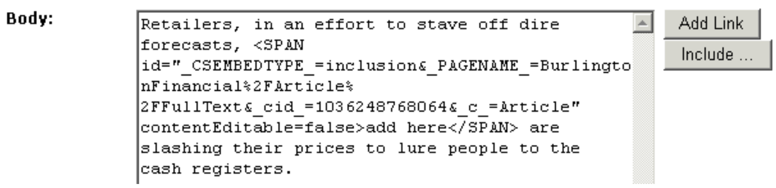
You can insert, or embed, the content of another asset (from the current site) into an article asset. That asset content is displayed by a particular template, typically a pagelet. To insert asset content in the article body text box of an article asset:

1. Open the Edit form of the article asset in which you want to insert the content of another asset. You can also embed asset content in a new article asset.
2. Find and select the asset in the tree whose content you want to insert.
3. In the article body text box, at a point where you want to insert the asset contents, type some text and select it. Anything will do; what you type and select is replaced the by the contents.

4. Click the **Include** button to the right of the text box. The following window pops up:

5. (Optional) From the **Select Template** drop-down list, choose which template to use to display the asset contents. The selected asset’s default template is preselected.
6. Click **Save Changes**.

   The pop-up window closes, and the link appears in coded format in the article body as follows:



   The information between the <SPAN and </SPAN> tags denotes the link as an inclusion and identifies the following for the system: the included asset, the template to use, and the hyperlinked text.

   Note

   You can edit the link text only. Do not edit any other part of the string unless you are an experienced programmer or designer.

7. Click **Save Changes** to save the article asset. If you cancel instead, the link information no longer appears in the article body.

After you save the article asset, use the Preview feature to view and test the embedded link. The article should appear with the included asset at the point of insertion, replacing the dummy text you entered as link text. The included contents should be displayed in the selected template.

Embedded Links and Flex Assets

The same three embedded link capabilities exist for flex assets at the attribute level. When you create or update a flex asset, the flex attributes that support embedded links appear on the form with the **Add Link** and **Include** buttons. You use these buttons to embed the three link types, as described for the article body field on an article asset.

Sharing Assets with Other Sites

If you are working with an asset that you want to use in more than one site, you can share it so that you do not have to create and maintain the same asset more than once. You must have the right permissions to share an asset.

Before you share an asset, consider the following tips:

- You can share an asset only to sites that you have access to. If you have access to only one site, the Share Assets function is not available to you.
- You cannot share page assets.
- Share an asset only if it is identical. That is, do not share an asset if you need to make any modifications for one of the sites it is shared to. In that case, you should create a new asset for the site that needs the modifications.
- If the asset has a workflow assigned to it, you and others can change its workflow status only when you are working in the asset's original site.
- It is good practice to share the asset only when you are ready to publish it; that is, not share the asset until it has been approved.
- When you share an asset, you are not making copies at the shared sites. If a shared asset is deleted, it is no longer available to the other sites with which you shared the asset.

To share an asset:

1. If the Content Server interface is not open, log in.
2. Find the asset that you want to share.
3. In the Inspect form of the asset, select **Share *asset type*** from the drop-down list in the action bar.
4. In the **Share *asset type*** form, select the names of the sites that you want to share this asset with.
5. Click **Save Changes**.

   The system refreshes the asset's Inspect form, with a confirmation message at the top listing the sites from which the asset is accessible.

Collection Assets

The content for a page asset comes from various sources (including image and text files, and queries). For many pages, important content comes from **collections**. Collections define groups of assets.

Typically site designers or administrators create collections. Your role when working with collection assets is to build a collection by selecting items from the results of one or more queries. All of the queries used in a collection must return assets of the same type.

Before You Build

When you build a collection, you rank its list of assets using an order that is meaningful to the template element that renders the page it is associated with. For example, in the Burlington Financial sample site, collections are lists of articles that have been ranked by order of importance. These collections contain a list of articles that you rank by the order in which they should appear on the rendered (online) page.

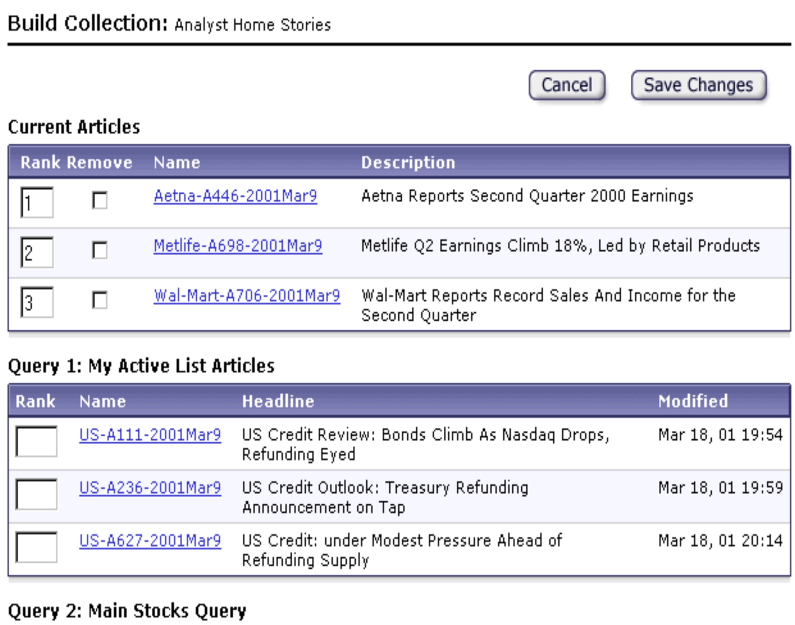
Before you build a collection, determine how you should order the assets and how many of them you should include. For example, if you select 10 assets for a collection but the collection’s template is coded to display only five of them, the rendered page that displays those assets displays only the first five.

Building a Collection

To build a collection:

1. If the Content Server interface is not open, log in.
2. Search for the collection you want to build.
3. Open the applicable collection in the Inspect form.
4. In the action bar, select **Build** from the drop-down list. You can also click the **Build** hyperlink in the lower right corner.

   CSEE runs the query or queries in the collection and displays the results in two or more lists of assets.



5. Rank the assets by entering the appropriate number in the **Rank** field. You can enter up to three numeric characters. If you want to remove an asset that is already included in the top list, select the **Remove** option next to its **Rank** field. You cannot remove an included asset by deleting its rank number in the query list.
6. Click **Save Changes**.

   CSEE builds the collection and then displays it in the Inspect form.

Assets and Relationships

Assets can have parent-child relationships that are implemented through named associations and unnamed relationships.

Named Associations

Named associations are defined relationships that are specific to particular asset types. Named associations are represented as fields in the asset forms. These fields are created as a result of asset associations that are designated by the administrator.

The administrator can further restrict named associations by setting the association to a combination of asset type and subtype. If the subtype exists, the fields on the form will show only the named associations that are applicable to the asset type and subtype. If the subtype does not exist, then all named associations for that asset type are displayed. Because a subtype can be specific to a site, this is a mechanism for making asset associations specific to the site as well.

Examples of named associations from the Burlington Financial sample site include the Spot ImageFile, Main ImageFile, and Teaser ImageFile associations between article assets and imagefile assets. When you select an imagefile asset in the Main ImageFile field of the Article forms, for example, the selected imagefile asset becomes a child of the article asset. (Note that this same imagefile asset can also be a child of other articles.)

Unnamed Relationships

A collection is an example of an unnamed relationship between assets. The items in a collection are child assets of the collection although there is no name for that relationship. In another example, sometimes in addition to using named associations for your page assets, you select page content from other sources. You can select other assets as content from the tree, or, if the tree is toggled off, from the **Candidates** list on the Page form. The list is populated by the contents of your asset history and active list.

Examples of unnamed relationships in the Burlington Financial sample site include the About Burlington Financial article placed on the About page, and the Contact Us article placed on the Contact Us page.

Remember that merely selecting other items does not ensure that they will appear on the displayed page. The template elements for your assets must be coded to recognize and format the related or associated assets—or they are not displayed on your delivery site.

Making Asset Associations

To make asset associations using Burlington Financial as an example:

1. If the Content Server interface is not already open, log in.
2. Perform an asset search on ImageFile assets.
3. In the search results list, select the check box to the right of each asset you want to consider, then click **Add To My Active List**.
4. Open the New Article form and scroll to the **Related** area.
5. Click the **Active List** tab in the tree.

6. Select an image on the tab that is appropriate to the associated ImageFile type on the form.
7. Click **Add Selected Items**.
8. Repeat steps 6 and 7 for other ImageFile types, as necessary.
9. Fill in other fields on the form to complete the asset definition, then click **Save**.

   The system refreshes the new asset's Inspect form to display the asset details.

If the tree is toggled off, click the arrow to the right of the ImageFile type field to open a separate window that lists the **Active List** and **History** tab contents. Click a selection to add it to the form field.

Page Assets

Typically site designers or administrators create pages. Your role when working with page assets is to update or revise the content in your page assets and then approve them for publishing.

You complete the following kinds of tasks to get your page assets ready for publishing approval:

- Examine the collections included in the page assets, and then rank and organize the assets in them (that is, you build the collections).
- Edit the assets that are included in the page (for example, change a headline or an abstract).
- Remove out-dated assets and select updated ones to replace them.
- Preview the page assets to be sure they display correctly.

You use the same procedure for editing a page that you use for editing any other asset. You select assets you want to include from the tree, or if the tree is toggled off, from the Candidates list populated by the contents of the **Active List** and **History** tabs.

- For information about creating and placing page assets, see the *CSEE Developer's Guide*.
- For information about editing assets, see "Editing Assets."
- For information about collections, see "Collection Assets."
- For information about publishing approval, see Chapter 4, "Publishing."

Deleting Assets

When you use the **Delete** function, the asset is not actually removed from the database. Instead, its status is changed to void. The asset is also automatically approved for publishing to any destination it had ever been published to, if there are no dependencies.

Restrictions

The following restrictions are enforced when you delete assets:

- You can delete an asset only if you have the right permissions to do so.

- Even if you have the ability to delete assets, you cannot delete an asset that is assigned to someone other than you if you are using the workflow feature.
- You cannot delete a page that is placed. You must unplace a page before you can delete it.
- You cannot delete an asset if it is in an association with other assets. For example, you cannot delete an article if it is included in a collection. You must remove the article from the collection before you can delete the article. (The Content Server interface displays an informational message about an asset's associations when this situation is true.)
- You cannot delete a CSElement asset that is referenced by a SiteEntry asset.
- You cannot delete flex definitions or flex parent definitions that are used by other flex family assets. You should also consider carefully any existing dependencies before deleting flex parents, flex attributes, and flex attribute editors. You receive a warning that any existing data stored in a flex attribute will be lost if you delete that flex attribute.

Deleting an Asset

To delete an asset:

1. If the Content Server interface is not already open, log in.
2. Search for the asset that you want to delete.
3. Click the **Delete** icon in the asset's row or in the action bar of the asset's Inspect form.
4. The Content Server interface displays a confirmation message. If the asset is associated to other assets, a collection referenced by a page, for example, the Content Server interface displays a list with links to those assets so you can remove those associations and then try again.
5. Click **Delete**.
6. The asset's status is changed to "void" in the database. Standard searches will not retrieve assets that are marked as void.

Chapter 4

Publishing

The goal when using Content Server Enterprise Edition is to publish content on a web site where visitors to your online site can read and interact with that content. When you publish, you move assets from your management system to your delivery system.

This chapter describes the publishing process and the procedures used to approve assets for publishing. It includes the following sections:

- Publishing Methods
- Publishing Approval
- The Publish Console
- Publishing Tasks

Publishing Methods

CSEE lets you serve either dynamic content, static content, or a combination of the two, on your delivery system. There is a default publishing method (or delivery type) for each. You can also convert content to files that can be served on a system other than Content Server. There is also a default publishing method for converted content.

- **Mirror to Server**. This publishing method copies your assets from the Content Server database tables on your management system to the Content Server database tables on your delivery system. Your web server can then generate pages dynamically when visitors request them. This is known as a dynamic destination.
- **Export to Disk**. This publishing method renders all of your assets into static HTML files according to the templates provided by the design team. Those files can then be uploaded to the web server of your delivery system. This is known as a static destination.
- **Export Assets to XML**. This publishing method converts your assets into individual XML files and stores them in a directory. These asset files can then be published to an external content delivery system that is designed to handle them. This is known as an external destination.

The administrator configures publishing delivery types and destinations, and declares which sites have access to a given destination. For information about setting up target destinations, how HTML files are named during an export, and so on, see the *CSEE Administrator's Guide*.

Publishing Approval

Before assets can be published, they must be **approved** for publishing. Assets have dependencies: basic assets have named associations and unnamed relationships; flex assets have definitions and parent definitions. Requiring approval is a safeguard against publishing an asset whose dependent assets (parents or children) aren't ready to be published. This prevents broken links on the delivery system.

Asset Dependencies

The approval status of an asset is determined by its dependency relationships, which include the approval status of all asset items associated with a particular asset item, as well as the dependency relationships of those associated items.

An asset dependency exists when there is an association of some kind between assets. For example, a page asset has an association with a collection asset. The collection asset has an association with three article assets. Two of these articles have associations with imagefile assets. This tree hierarchy forms a set of parent/child dependencies among all these assets. All must be approved before they can be published.

Types of Dependencies

CSEE recognizes and enforces two types of publishing dependency relationships:

- **Exists -** requires that an asset's dependent assets merely exist on the target destination, regardless of version. For example, a parent and its child asset have been approved and published. The child asset is edited, but not approved. The parent is then edited. When the parent is approved, it can be published even though the child has been edited and not yet approved again, because the child asset already exists on the target destination. An appropriate analogy for an **exists** dependency is the relationship between an HTML page and an HREF link to another page: the existence of the linked page is all that is necessary.
- **Exact -** requires that parent and child assets have the same version stamp on the target destination. For example, a parent and its child asset have been approved and published. The child asset is edited, but not approved. The parent is then edited. When the parent is approved, it is **held** for publishing because the child has been edited but not yet approved. When the child asset is approved, the parent is ready to be published because the versions now match. An appropriate analogy for an **exact** dependency is the relationship between a set of instructions and a supporting diagram: if one changes, the other must change to ensure they match.

Dependencies: Dynamic Publishing

When you approve an asset for publishing to a mirror server, CSEE determines the asset's dependencies and the type of dependency associated with each dependent asset. In order to be published, all of an asset's dependents must either be approved or previously published. If not, the asset is held, pending resolution, which typically involves approval of the dependent assets.

Approval dependencies are recorded at the time the asset is approved. If the asset is subsequently changed, the asset is no longer considered to be approved, and it must be approved again before it can be published.

For basic assets, the default dependent type for Mirror to Server is **exists** for all relationships unless the administrator overrides the dependency type for specific named associations. For flex assets, there are clearly delineated exact and exists dependencies among members of a flex family; your development team considers those dependencies when designing your management system. For detailed information on basic and flex asset dependencies, see the *CSEE Developer's Guide*.

Dependencies: External Publishing

Assets approved for publishing as XML files follow the same approval logic as Mirror to Server. The asset's dependents must either have been approved or previously published. Otherwise, the asset is held pending approval of dependents. When the asset is approved and ready for publishing, it is written to an XML file. Approved dependent assets are also written to separate XML files. Dependent assets that were previously published are not written to XML files again, unless those assets have changed.

Dependencies: Static Publishing

For static publishing, CSEE uses the template asset to determine asset dependencies. All the assets that are displayed and linked to by the rendering template are considered dependencies. Assets referred to by the assets that they are linked to, however, are not considered dependent. By default, the displayed assets have an **exact** dependency; the assets that they are linked to have an **exists** dependency.

Ultimately, the template designer determines the dependency type for Export to Disk.

Default Approval Template

It is often desirable when publishing an asset to use different templates, depending on the context. When you approve an asset, however, the template used to calculate dependencies should be the most inclusive; that is, the one that contains the most representative set of dependencies for all of the templates. This template might not be the one that actually renders the asset on the delivery system. That is why there is the concept of a **default approval template**.

The administrator can configure a **default approval template** for each asset type for each publishing destination. An asset **subtype** can be used to further categorize an asset type. This way, the administrator can assign more than one default approval template for assets of a specific type, based on some other organizing construct. The list of subtypes (if any) that is available for a given asset type appears on a drop-down list in the New and Edit forms for the asset (basic assets only).

If no default is configured, the **display template** defined on the New or Edit form for the asset is used to determine dependencies.

Export Starting Point

An export starting point must be defined for a static destination, before approved assets can be published. If you try to publish without a starting point, you receive the following message after selecting a static destination:

A starting point says in effect, "publish this"—the asset designated as the starting point, and everything it links to, using the template assigned. You can have one starting point or several starting points. Minimally, you would want each root node (top-level page) to be an export starting point, but you can also use it as a vehicle for exporting a subset of assets that you want to push to the delivery system. For more information, see the section "Assigning an Export Starting Point" later in this chapter.

Publishing Protection Mechanisms

The following is a list of ways in which the system attempts to ensure the integrity of the approval and publishing process:

- Approval and publishing tasks require the right permissions.
- All approval and publish activities are by destination.
- In the Content Server interface, you approve assets individually from the Inspect or Status form, or by selecting check boxes on a list of assets. Asset approval can also be automated through workflow. The administrator can, however, perform a bulk approval on all or specific assets.
- An asset that is approved for a destination where publishing is in progress cannot be edited until the publishing activity completes.
- An asset opened for editing that is already approved for a destination where publishing is in progress cannot be saved until the publishing activity completes.
- Publishing is incremental, that is, no item is published to a destination if the same version of that item has already been published to that destination. The administrator can, however, override this constraint to force all assets to be published to a given destination, regardless of previous publishing history.
- You cannot selectively publish to a destination; that is, all assets approved and ready to publish that were not previously published to a destination, are published when a publish operation is initiated. If you do not want an asset to be published at the next publishing event, do not approve it.

The Publish Console

The Publish Console enables you to view and manage publishing activity at the publishing destinations set up for the sites to which you have access. From the Publish Console, you can do the following:

- Initiate publishing to a destination that has assets approved and ready to be published
- Locate and resolve held assets for a destination
- Review publishing events currently in session
- View when publishing events are scheduled
- View an audit trail of publishing events that have taken place

Click **Publishing** on the button bar to open the Publish Console in the work area portion of the Content Server interface. The next section of this chapter describes how you use the Publish Console to complete various publishing tasks.

Publishing Tasks

The following subsections describe how to approve and publish assets within the Content Server interface, based on the Hello Asset World sample assets.

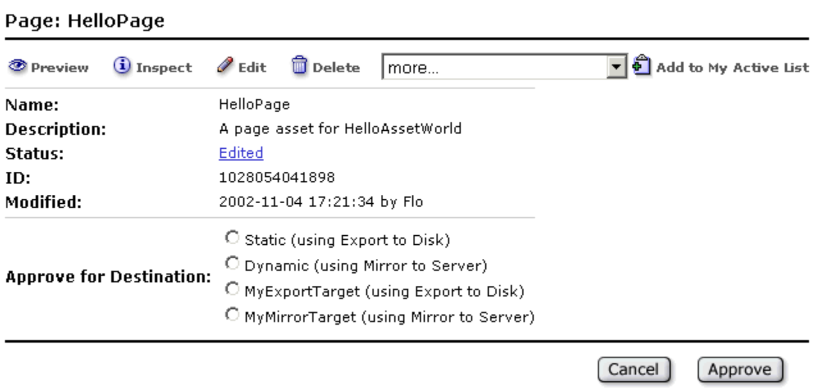
Approving Assets for Publishing

You must have the right permissions to approve assets for publishing. Asset approval can also be automated. For example, the sample workflow process, Normal Article Process, that is included with the Burlington Financial sample site, has a final step action that automatically approves the workflowed asset to the supplied Static and Dynamic target destinations. For more information, see the section "Sample Workflow" in Chapter 5.

Before approving an asset that can be displayed, you should preview it first.

To approve an asset for publishing:

1. If the Content Server interface is not already open, log in.
2. Find and select the asset that you want to approve for publishing.
3. Open the asset in the Inspect form and choose **Approve for Publish** from the drop-down list. The publish approval form appears:



4. Select the destination that you are approving the asset for; Static and Dynamic are supplied generic target destinations for the Export to Disk and Mirror to Server publishing methods. Other configured destinations for the current site also appear on the form. You must approve the asset for each destination individually.
   Click **Approve**.

   Typical results are shown in a list of assets that are preventing the approved asset from being published, as follows:

This asset cannot be published until dependent assets have been approved.

You must approve the following assets for destination MyExportTarget before HelloPage can be published:

	Asset Type	Name	Description	Status	Modified	Approve
	Collection	HelloCollectionHello	A collection of articles in the HelloAssetWorld site	Edited	Nov 4, 2002	
	HelloImage	Space Junk	Space Junk	Edited	Nov 4, 2002	

Select All

Cancel Approve

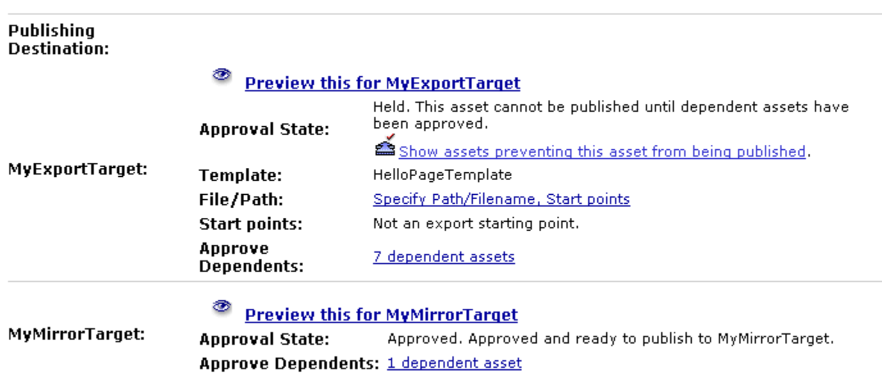
5. The asset is approved but cannot be published because dependent assets need approval. Click **Select All** to select all check boxes next to the assets that need to be approved and click **Approve**. CSEE calculates the dependencies of these other assets and shows similar results. Continue to approve related assets until all dependencies are resolved.

You can also approve assets from the Status form; see the section "Checking Approval Status."

Checking Approval Status

To check on an asset's approval status:

1. If the Content Server interface is not already open, log in.
2. Find and select the asset that you want to check.
3. View the asset's status by opening the asset in the Status form. Scroll down to the **Publishing Destination** area, which is similar to the following display:



Publishing Destination:

MyExportTarget:

Preview this for MyExportTarget

Approval State: Held. This asset cannot be published until dependent assets have been approved.
Show assets preventing this asset from being published.

Template: HelloPageTemplate

File/Path: Specify Path/Filename, Start points

Start points: Not an export starting point.

Approve Dependents: 7 dependent assets

MyMirrorTarget:

Preview this for MyMirrorTarget

Approval State: Approved. Approved and ready to publish to MyMirrorTarget.

Approve Dependents: 1 dependent asset

The form displays the approval status of the asset for each destination that is defined by the administrator for the current site:

Preview this for *destination* – a hyperlink that you click to display the asset in the preview window.

- For static publishing destinations, the default approval template (identified by **Template**) checks the asset's dependencies. For more information, see "Default Approval Template."
- For dynamic publishing and export to XML destinations, the asset is merely displayed.

Approval State – describes the current state of the asset in the approval cycle. A hyperlink is provided if some action is required; for example, **Approve this asset**. For more information, see "Approval States."

File/Path: Start points – (static destinations only) a link to a form where you define an export starting point; that is, a top-level page (for example, Home) from which to calculate dependencies. Optionally, you can override file and path names that were specified at the time the asset was created. For more information, see "Assigning an Export Starting Point."

Approve Dependents – a link to a list of assets that are dependent on the current asset. These dependent assets may already be approved, may need to be approved, or may be held, pending approval of other dependent assets, as shown in the following sample list snapshot:

7 dependent assets

	Asset Type	Name	Description	Status	Approval Status	Dependency Type
	Template	HelloCollectionTemplate	This template displays the HelloCollectionHello collection.	Edited	Needs Approval	Exact
	HelloArticle	spacejunk	story about space debris	Edited	Approved	Exact
	Collection	HelloCollectionHello	A collection of articles in the HelloAssetWorld site	Edited	Held	Exact

When you click the **Needs Approval** link for an asset in the list, CSEE approves the asset and calculates its dependencies. This asset's approval status will now be either **Approved** or **Held**.

When you click the **Held** link for an asset in the list, CSEE shows a list of assets that need to be approved before the held asset can be published. Click **Select All** to select all check boxes next to the assets that need to be approved and click **Approve**.

These two events parallel the actions that you take in steps 4 and 5 of the procedure described in the section "Approving Assets for Publishing."

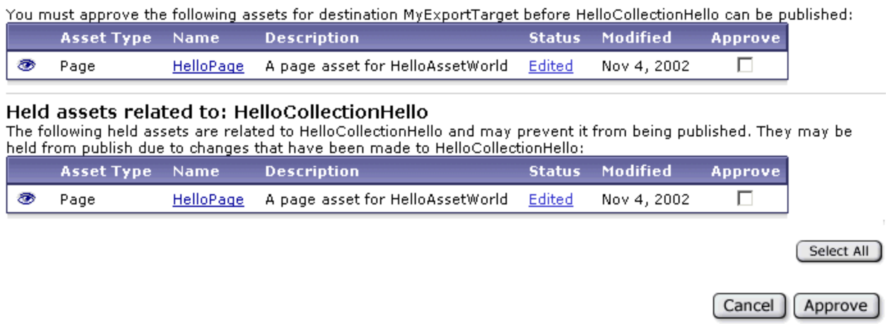
Approval States

The following table lists the approval states that can appear in the Status form for each publishing destination, what the states mean, and appropriate action, where indicated:

State	Meaning
Approved. Approved and ready to publish to *destination*	(Informational) This asset will be published at the next publishing event to this destination, unless the asset is changed, or an exact dependency changes.

State	Meaning
Approved and published. Asset version is the same as that on *destination*	(Informational) An asset with an exact dependency has been published to this destination.
Currently checked out. Will not be published to *destination*	(Action may be required) The asset is checked out under revision tracking. Although approved, it cannot be published until revision tracking relinquishes control: • Checkin - the asset must be reapproved. • Undo Checkout - the asset remains approved and can be published. • Rollback - the asset must be reapproved.
Approved for inclusion as a link in pages exported to *destination*.	(Informational) This asset is approved for static publishing, if it is linked to from the page that is being exported.
Asset has been modified since approved for publish to *destination*.	(Action required) The asset must be reapproved. Click the **Approve this asset** link to initiate the approval process.
Approved, but approval for publish to *destination* was based on versions of the dependent assets that no longer exist.	(Action required) The asset must be reapproved so that its version matches that of its dependents. Click the **Approve this asset** link to initiate the approval process.
Held. Approved, but dependent assets have not been approved for publish to *destination*.	(Action required) The asset will be held until the dependents are approved. Click the **Show assets preventing this asset from being published** link to view and approve the dependents.
Needs Approval. Not yet approved for publish to *destination*.	(Action required) The asset must be approved. Click the **Approve this asset** link to initiate the approval process.
This asset cannot be published until assets referring to this asset have been approved.	(Action required) A referring asset has to be approved before this asset can be published. Related assets that are held are also listed and may require approval. Click the **Show assets preventing this asset from being published** link to view and approve referring and related assets.

Clicking the **Show assets preventing this asset from being published** link displays a form similar to the following:



You must approve the following assets for destination MyExportTarget before HelloCollectionHello can be published:

	Asset Type	Name	Description	Status	Modified	Approve
	Page	HelloPage	A page asset for HelloAssetWorld	Edited	Nov 4, 2002	☐

Held assets related to: HelloCollectionHello

The following held assets are related to HelloCollectionHello and may prevent it from being published. They may be held from publish due to changes that have been made to HelloCollectionHello:

	Asset Type	Name	Description	Status	Modified	Approve
	Page	HelloPage	A page asset for HelloAssetWorld	Edited	Nov 4, 2002	☐

Select All

Cancel Approve

Note that Hello Asset World is a simple site; in a more complex site, there would typically be longer lists of assets. What's significant is that the form not only shows assets that must be approved before the asset can be published, but also shows any held assets that are related to that asset. You can click **Select All** to select the assets in both lists and click **Approve** to resolve all actual and potential conflicts.

Resolving Approval Conflicts

Approval conflicts arise when an asset is approved but is held from publishing because dependent or referring assets have not been approved. The sections "Approving Assets for Publishing" and "Checking Approval Status" describe how to resolve approval conflicts for individual assets.

To resolve approval conflicts globally for multiple assets, use the Publish Console to examine the publishing status for a specific destination, as described in the following procedure.

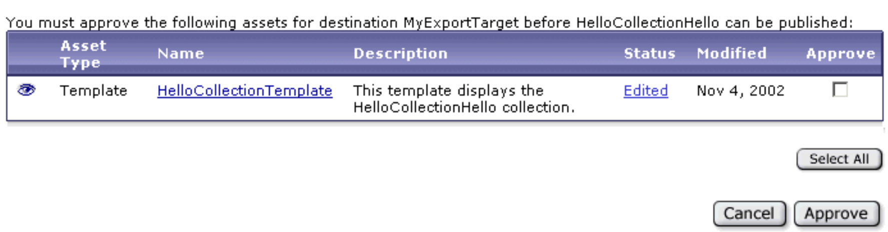
To resolve conflicts for a destination:

1. If the Content Server interface is not already open, log in.
2. Click **Publishing** on the button bar to open the Publish Console.
3. Choose a destination from the drop-down list and click **Select Destination**.
4. Click the hyperlink to held assets, if any, for the selected destination. The list of held assets appears:

2 assets are being held from publishing

	Asset Type	Name	Description	Status	Modified	Approve
	Collection	HelloCollectionHello	A collection of articles in the HelloAssetWorld site	Edited	Nov 4, 2002	Held
	Page	HelloPage	A page asset for HelloAssetWorld	Edited	Nov 4, 2002	Held

5. Click the **Held** hyperlink in the **Approve** column to open the approval form:



You must approve the following assets for destination MyExportTarget before HelloCollectionHello can be published:

	Asset Type	Name	Description	Status	Modified	Approve
	Template	HelloCollectionTemplate	This template displays the HelloCollectionHello collection.	Edited	Nov 4, 2002	☐

Select All

Cancel Approve

6. Click **Select All** to select all check boxes next to the assets that need to be approved and click **Approve**.

7. Return to the list of held assets for the destination and repeat steps 5 and 6 until you have resolved all approval conflicts. The batch of approved assets can then be published to that target destination.

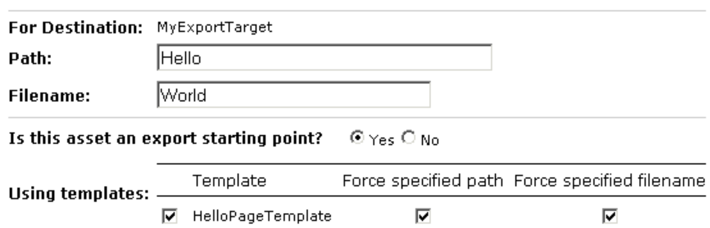
Assigning an Export Starting Point

When you export to disk, you must define a publish starting point so the system knows where to start publishing from; that is, you specify a top-level asset, to publish that asset and all the assets it links to.

When you assign an asset as a starting point, you also have to specify the template to use for the asset. You can specify multiple templates for different publishing contexts.

To assign an asset as an export starting point:

1. If the Content Server interface is not already open, log in.
2. Find and select the asset to be an export starting point.
3. View the asset's status by opening the asset in the Status form.
4. In the **Publishing Destination** portion, locate the static destination and click the **Specify Path/Filename, Start Points** link. The asset form presents specific fields, as shown in the following example from the Hello Asset World sample site:



5. Fill in the form as follows:

   a. **Path** (optional) Specify a directory path to override the path specified on the asset form, if any. Be sure to follow the naming conventions implemented by the administrator. Note that you can specify this value independent of declaring the asset a starting point.

      The path is appended to the `installation-dir/export` directory. For this example, then, the path becomes `installation-dir/export/Hello`.

   b. **Filename** (optional) Specify a file name to override the file name specified on the asset form, if any. Be sure to follow the naming conventions implemented by the administrator. Note that you can specify this value independent of declaring the asset a starting point.

      The default file name is `site-assettype-template_assetid.html`. The specified file name replaces the asset ID in this string. For this example, then, the file name becomes `site-assettype-template_World.html`. CSEE uses a naming convention that guarantees uniqueness. If you override this default naming convention, the file name that you specify must be unique.

      To summarize, the path and file name specified here is specific to the destination. If these fields are left blank and the asset itself has a path and file name specified, those values are used. Otherwise, CSEE uses the default naming convention to determine the path and file name. For more information, see the *CSEE Administrator's Guide*.

c. Click the template to use for the starting point. Clicking a template automatically selects the **Yes** radio button. You can select multiple templates to define multiple starting points. For example, you might want a text-only starting point and a graphics-rich starting point, in which case, you might select the respective templates.

d. Indicate whether to force the specified path. Looking at the example, if you force on path, but not on file name, the path and file name become `Hello/`*`site-assettype-template`*`_World.html`

e. Indicate whether to force the specified file name. Forcing the file name drops the `site-assettype-template` portion, so that the name becomes simply the file name. Looking at the example, the path and file name then become `Hello/World.html`.

   If you are defining multiple starting points, you can force the file name for only one of them.

6. Click **Save**. The Status form is updated with the specified information.

Publishing Approved Assets

As you approve assets, they are aggregated by destination for publishing. When assets are published, they are mirrored on the server or exported to disk, as appropriate to the publishing delivery type.

Publishing can occur immediately from the Publish Console, and as a scheduled event that the administrator sets. In both cases, publishing occurs as a background process, so you can continue to work in the Content Server interface. Who can publish is a matter of site policies and procedures.

To publish approved assets:

1. If the Content Server interface is not already open, log in.

2. Click **Publishing** on the button bar to open the Publish Console.

3. Choose a destination from the drop-down list and click **Select Destination**. The Publish form appears in a format based on the delivery type:

   For Export to Disk:

Publish destination: MyExportTarget

Destination: MyExportTarget using Export to Disk
Arguments:

1 reference with its associated references is ready for publish.

References calculated using these starting points.

Cancel Publish

   The Export to Disk delivery type is reference-based; that is, the HTML files being published contain references to the approved assets. If there are no asset references ready to be published to the selected destination, the **Publish** button does not appear on the form. There is also a link to starting points. Remember that publishing to a static destination requires a starting point (see "Export Starting Point").

For Mirror to Server:


Publish destination: MyMirrorTarget

Destination: MyMirrorTarget using Mirror to Server
Arguments:

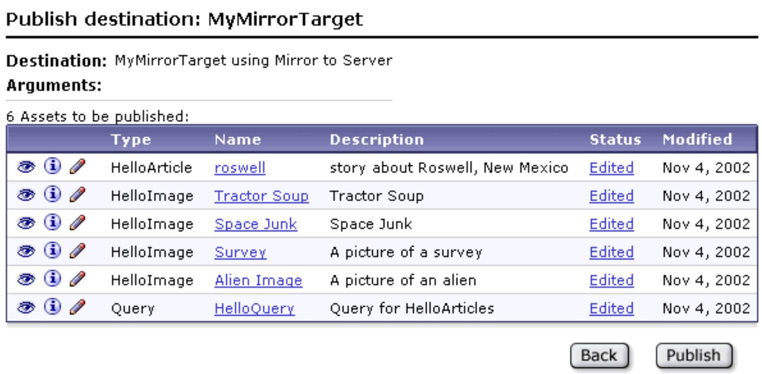
1 asset is held for publish.

6 assets are ready for publish.

Cancel Publish

If there are no assets ready to be published to the selected destination, the **Publish** button does not appear on the form.

4. To view the list of approved assets, click the hyperlink:


Publish destination: MyMirrorTarget

Destination: MyMirrorTarget using Mirror to Server
Arguments:

6 Assets to be published:

	Type	Name	Description	Status	Modified
	HelloArticle	roswell	story about Roswell, New Mexico	Edited	Nov 4, 2002
	HelloImage	Tractor Soup	Tractor Soup	Edited	Nov 4, 2002
	HelloImage	Space Junk	Space Junk	Edited	Nov 4, 2002
	HelloImage	Survey	A picture of a survey	Edited	Nov 4, 2002
	HelloImage	Alien Image	A picture of an alien	Edited	Nov 4, 2002
	Query	HelloQuery	Query for HelloArticles	Edited	Nov 4, 2002

Back Publish

Clicking **Back** takes you to the previous view.

5. To publish the approved assets to the selected destination, click **Publish**. At the confirmation message, click **OK** to continue.

   A message either confirms that the publishing task started, or denotes that the task could not be started because publishing is in progress to the destination. Click the hyperlink to return to the Publish Console.

> **Note**
>
> You cannot selectively publish assets to a destination; that is, you can only publish all approved assets.

Viewing Current Publish Activity

To examine current publish activity:

1. If the Content Server interface is not already open, log in.
2. Click **Publishing** on the button bar to open the Publish Console.
3. Scroll down to **Running Publish Sessions**, shown as follows:

Running Publish Sessions

	Destination	Publish Begin Time	Status	Published by
	MyMirrorTarget	Nov 5, 2002 12:49:47 PM	Running	Bobo

Note the following about running sessions:

- This list displays currently running publishing sessions (by destination) that were triggered either from the Publish Console or as a timed event. The sessions are listed with the most recent one first.
- Status can be either **Running** or **Error**, which is a hyperlink to an explanation of the problem and possible causes.
- There is an inspect icon that allows you to review the activity in progress. If a session has a status of **Error,** a trashcan icon appears so that you can delete the session after troubleshooting the cause of the error. These icons appear only for destinations that are configured for the current site. For other destinations, you can view whether a publishing session is in progress or in error, but you cannot inspect the session contents or delete a session that is in error.

Viewing Scheduled Publish Activity

To check scheduled publish activity:

1. If the Content Server interface is not already open, log in.
2. Click **Publishing** on the button bar to open the Publish Console.
3. Scroll down to **Scheduled Publish Tasks**, shown as follows:

Scheduled Publish Tasks

Destination	Publish Time/Date	Scheduled By
MyMirrorTarget	8,12,16:0:0 1,3,5/*/*	Bobo
MyExportTarget	0:0:0 */*/*	Bobo

Note the following about scheduled publishing:

- The administrator configures publishing as a timed event by destination.
- Time format is `hh:mm:ss W/DD/MM`, where:

```
hh (hours)=0-23
mm (minutes)=0,15,30 or 45
ss (seconds)=0
W (days of the week)=0 (Sunday)-6(Saturday)
DD (days of a month)=1-31
MM (months)=1-12
```

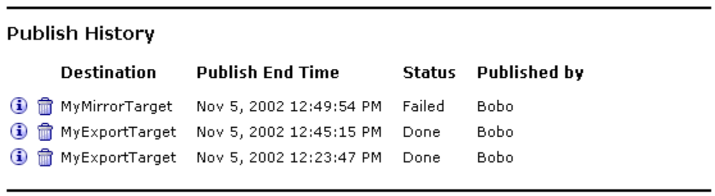
In the example shown, publishing is scheduled to **MyExportTarget** every day of the year at midnight. For **MyMirrorTarget**, publishing is scheduled for every Monday, Wednesday, and Friday at 8:00 a.m., noon, and 4:00 p.m.

Schedule information is available for all destinations across all sites.

Viewing Publish History

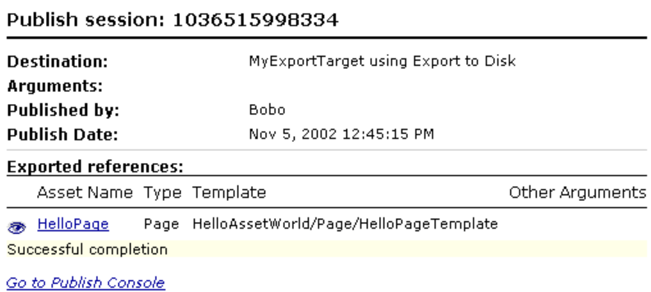
To review publish history:

1. If the Content Server interface is not already open, log in.
2. Click **Publishing** on the button bar to open the Publish Console.
3. Scroll down to **Publish History**, shown as follows:



Note the following about publishing history:

- This list displays up to 20 completed publishing sessions. The sessions are listed with the most recent one first.
- Status can be either **Done** (success) or **Failed (**trapped as an error when the session was running**)**.
- There is an inspect icon that allows you to review the results of a completed session, as shown below. A trashcan icon is available to delete a session record. You can archive session records before deleting them. These icons appear only for destinations that are configured for the current site. For other destinations, you can view whether sessions have completed, but you cannot inspect the session results or delete the session record.



The eyeball icon lets you preview the published asset; the asset name link opens the published asset in the Inspect form.

Chapter 5

Workflow

Most web sites are produced by a team of people. Different individuals assemble content, edit and review that content, choose which pieces appear where, and decide when to update the pages. Work moves from one person to another. This process—the movement of content from one person to another in a predictable way—is called **workflow**.

This chapter presents a brief overview of workflow concepts followed by procedures on how to perform specific tasks related to workflow. It includes the following sections:

Overview

The following sections describe basic workflow concepts and terminology.

Workflow and Assets

Assets can (but do not have to) be assigned a workflow. Workflow processes can be asset-specific. There can also be a workflow that can be applied to any asset. There can be workflow processes for some asset types and not for others. A workflow process can be assigned to some instances of an asset but not to others. Assets can also be grouped to flow through the same workflow in unison.

Depending on how your site is configured, assets might be assigned to workflow automatically when they are created. You can also assign workflow manually in the Content Server interface. The workflow system lets Content Server Enterprise Edition direct and track the assignment of assets to users and specifies what users can do with those assets through permissions. The workflow administrator can define as many workflow processes per asset type as needed.

Steps and States

A workflow process defines a series of steps. At each step, the asset goes from a start state to an end state. The workflow administrator, in creating a workflow process, defines each step and assigns appropriate start and end states. Steps have names. For example, Send for Review is a step. An asset can move from one state to another via more than one step. For example, an article ready for approval can be rejected because of factual errors (Reject for Error) or for stylistic problems (Reject for Style).

Assets are assigned to users by role. As an asset flows through the process, each step assigns it to the users in one or more roles. For each step, there is at least one authorized role that can release, or finish, an asset and continue moving it through workflow. A user in a role can choose between steps. For example, an approver can reject an article sent for approval or approve the article. When you log in to the Content Server interface, you see all the assets that are assigned to you. When you are done working with an asset, you indicate that you have finished with the asset. The workflow process then changes the state and determines the next assignment.

A step can be conditional; that is, certain users or all users can be prevented from taking a step until some condition is met.

Roles, Users, and Participants

The workflow process grants permissions to perform functions to roles, not to individual users. Permissions are enforced only when an asset has been assigned a workflow. Permissions depend not only on the role of the user but also on the state of the asset and whether or not the asset has been assigned to the user.

Unless specified otherwise, assets are assigned to all users in a role. The asset appears on the assignment list for every user with that role. You can, however, limit which users can work with a particular asset by choosing participants. Participants are set when an asset is assigned a workflow. Participants can also be added after an asset is in process.

When setting the participants, you choose at least one user for each role. In this case, only the chosen participants will see the assets in their assignment lists, and only they have to complete the assignment before the workflow process changes the state of the asset. If no participants are set, then by default all users for all roles participate.

Workflow Assignments

A typical workflow design generates an e-mail notification when you have a workflow assignment. You see your assignments in the **My Work** display when you log in to the Content Server interface. You can see an updated list at any time during an online session by clicking **Show My Assignments** in the icon bar.

Assignment Duration

Each workflow state has an associated estimated time to completion for an assignment. Individuals completing assignments can optionally override the default estimate for the next assignment, unless the workflow administrator has disabled this feature for the process. The estimated time to completion is noted in the **Due** column of the assignment list. There can also be associated assignment actions in the form of e-mail notifications triggered as timed events relative to the estimated time to completion. For example:

- You receive a reminder a day before your assignment is due.
- You and the workflow initiator receive a warning the day the assignment is due.
- The initiator receives notification the day after the due date that the assignment has not been completed.

Voting Your Assignments

If you participate in workflow, you have a vote. You record your vote by finishing your assignment. How you vote depends on the role that you have been assigned in the workflow process. For example, if you are an approver, you vote to approve or to reject an asset to complete your workflow assignment.

If, for some reason, you are unable to complete your assignment, you can **abstain from voting**. You still have the assignment, but the asset can continue through workflow. You cannot abstain from voting, if yours is the last (or only) vote for this role and step. Because you still have the assignment, you can reverse your abstention and vote; that is, you can finish your assignment if the asset has not already moved to the next state.

Delegating Your Assignments

Another way of handling an assignment is to delegate your assignment to another user in the same role. The only restriction is that the person to whom you delegate cannot already have the asset assigned in the same role as you.

Workflow permissions control whether the you can delegate. An administrator can always delegate.

Delegating an assignment can have associated delegate actions in the form of triggered e-mail notifications, for example:

- The recipient of the new assignment is notified.
- The workflow administrator is notified of the assignment delegation.

Agreement and Deadlocks

An asset moves from one state to another based on participant voting, that is, finishing assignments. The workflow administrator, when defining a workflow process, decides whether all participants in a given role for a given step must vote. If not (the default), then the first one to finish the assignment dictates the flow of the asset. The assignments for all other participants in that role are canceled.

If all participants must vote, the finished assignment of each participant is queued until all participants have voted, at which time the asset moves to the next state.

If there is a choice of steps and all participants must vote in each case, the potential for a deadlock exists. A deadlock occurs when all participants must vote, and the voting is not unanimous on which step to take. A workflow process typically includes a deadlock action to generate e-mail notifications to all participants, showing the vote tally and advising all participants to vote again in favor of the majority.

For workflow groups, the administrator can choose when to force assets to move together on a step-by-step basis, by turning the **Step is group synchronized** setting on or off. When the setting is on, all assets move to the next state in unison; that is, each asset in the group, as it is voted, is queued until all assets have been voted.

An individual asset can be deadlocked in a workflow group just as it can in normal workflow: different steps leading to different states, where all must vote, and there is disagreement. If these different steps are also synchronized, you have the potential for group deadlock. The administrator should plan carefully to avoid such situations.

Sample Workflow

The Burlington Financial sample site includes a sample workflow process, **Normal Article Process**, which guides an article asset from creation to approval for publishing.

In that sample workflow process, a user in any of the four roles can create a new article asset and assign it to the Normal Article Process workflow. By assigning the asset, workflow is initiated. The article then moves from author to editor to checker and approver. Checkers and approvers can either approve or reject the article. If either one rejects the article, it goes back to the editor. Both checkers and approvers must be in agreement to approve the article for publishing.

The sample workflow is simple, transitioning through six steps in three states, but it serves to illustrate how a workflow process works. Each role has only a single user participating, whose user name is based on that role (for example, user_author participates in the author role). Your organization will most likely have more complex processes, with several users participating in each role.

Sample Workflow Steps and States

The steps and states of the Normal Article Process are shown in the following table:

Step	State	Description
StartStep	Start: (none) End: Workflow Initiated	A user in any of the four roles—author, editor, checker, approver—has assigned an article to the Normal Article Process workflow.
Send for Review	Start: Workflow Initiated End: Ready for Review	A user in the role of author receives e-mail notification of the assignment. The author writes and revises the article before finishing the assignment.
Send for Approval	Start: Ready for Review End: Ready for Approval	A user in the role of editor receives e-mail notification of the assignment. The editor makes some revisions to the article before finishing the assignment.
Reject for Error	Start: Ready for Approval End: Ready for Review	A user in the role of approver receives an e-mail notification of the assignment. The approver finishes the assignment by rejecting the article because of factual errors. The rejection triggers a notice to the editor, who must make some corrections and resubmit the article for approval.
Reject for Style	Start: Ready for Approval End: Ready for Review	A user in the role of checker receives an e-mail notification of the assignment. The checker finishes the assignment by rejecting the article over stylistic objections. The rejection triggers a notice to the editor, who must make some corrections and resubmit the article for approval.
Approve	Start: Ready for Approval End: (none)	Both the approver and the checker finish their respective assignments by approving the article. The article's status is updated to approved for publishing to selected destinations. The article is removed from workflow.

Sample Workflow Scenario

This section describes the flow of a typical article through the sample workflow Normal Article Process. The process starts when one of the eligible users creates the article asset and assigns it to the workflow.

The author writes the article and sends it for review

Ada the author receives e-mail notification of the assignment. The state of the article is Workflow Initiated (the first state in the workflow). Ada writes the article, saves the article asset, and uses the Finish My Assignment function to send it on for review.

The workflow process changes the state of the article to Ready for Review, assigns it to Edie the editor, and sends the editor an e-mail notice about the new assignment.

The editor edits the article and sends it for approval

Edie the editor logs in, sees her assignment list, and selects the article. Edie reads the article and fixes some punctuation. When done, Edie saves her changes and uses the Finish My Assignment function to send it on for approval.

The workflow process changes the state of the article to Ready for Approval, assigns it to Alan the approver and to Charlie the checker, and sends them e-mail notices about their new assignment.

The approver approves the article

Alan the approver is already logged in, so when he receives his e-mail, he uses the Show My Assignments feature to display his assignment list. Alan selects the newly assigned article and examines it. It looks fine, so he uses the Finish My Assignment function. Because Alan can either approve or reject the article, the workflow process presents both options to him.

However, when Alan approves the article, its state does not change until Charlie the checker also approves it.

The checker approves the article

Charlie the checker examines and approves the article.

If either Charlie or Alan had rejected the article, it would have returned to Edie the editor. Because Charlie and Alan have approved it, the workflow process changes the state of the article to Ready for Approval. The article is automatically approved for publishing and removed from workflow.

Note

In the Normal Article Process workflow, a rejection by either the approver or the checker cancels the assignment of the other person and returns the article to the editor. Your organization might set up a workflow in which a disagreement like this causes a deadlock that has to be resolved before the asset is returned to the previous state or moved to the next one.

Workflow Tasks

The following subsections describe typical workflow-related tasks that you perform in the Content Server interface.

Viewing the Status of an Asset

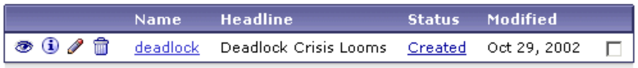
Many of the procedures that appear in the remainder of this chapter instruct you to view an asset’s status, that is, to open the asset in the Status form. The variety of ways to do this are described here so they don’t have to be repeated in each procedure.

- You can view an asset’s status from your assignments list by clicking the Workflow State column hyperlink in the assignment line item, as follows:

My Assignments

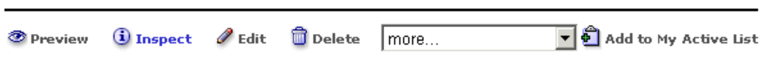
Type	Name	Description	Workflow State	Due	Process Deadline
Article	deadlock	Deadlock Crisis Looms	BF:Workflow Initiated	Oct 29 2003	-

- You can view an asset's status from an asset list by clicking the **Status** column hyperlink in the asset line item, as follows:



	Name	Headline	Status	Modified	
	deadlock	Deadlock Crisis Looms	Created	Oct 29, 2002	

- You can view an asset's status from the Inspect form by selecting **Status** in the drop-down list on the action bar, as follows:



- You can view an asset's status from the Inspect or Edit form by clicking the **Status** hyperlink in the body of the form, as follows:

- You can also view an asset's status by selecting the asset in the tree, right-clicking, and choosing **Status** from the pop-up menu.

Setting Workflow Options for Assets

You can assign a workflow to an asset you create, or to an existing asset, if you have the right permissions, and if there is a workflow process defined for the asset type. To assign a workflow to an asset:

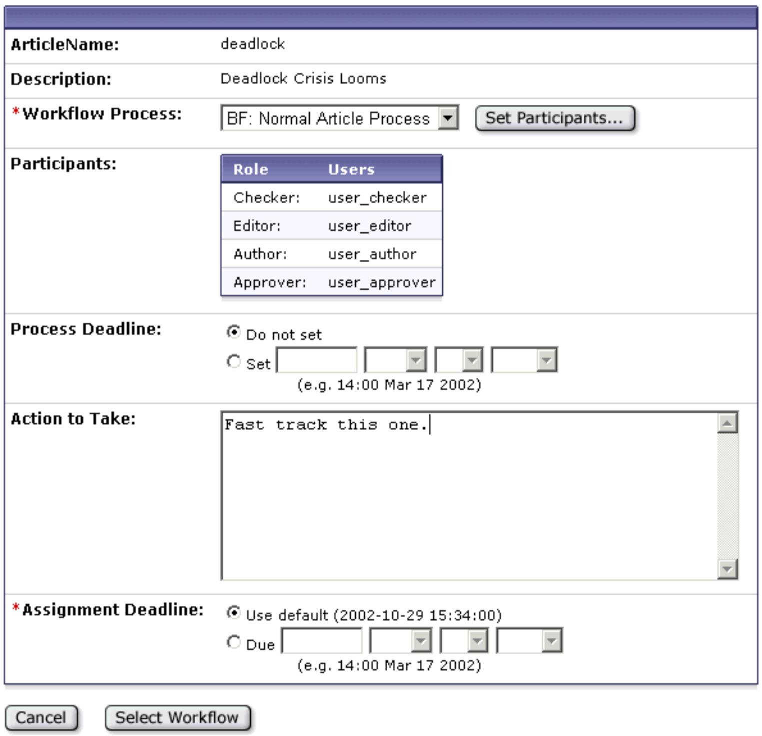
1. Find or create the asset in the Content Server interface.
2. View the asset's status by opening the asset in the Status form.
3. Click in the **Workflow commands** field and then choose **Select Workflow** from the drop-down list. The Select Workflow form opens.
4. In the Select Workflow form, choose a workflow from the **Workflow Process** drop-down list.
5. (Optional) Click the **Set Participants** button to open the Set Participants form and select at least one user from each role. If you do not set participants, all users in each role will receive the assignment as the asset moves through the workflow process.
6. (Optional) Set a **Process Deadline** date by which the assigned asset is to complete the workflow process, using the prescribed format.

   This feature appears only if enabled by the workflow administrator, and is available only if you have the assigned administrator role for the workflow process, or if you otherwise have the right privileges. For more information, see "Setting Process Deadlines."
7. (Optional) Type instructions in the **Action to Take** text box. These instructions are for the person receiving the assignment.

8. (Optional) Set an **Assignment Deadline** date by which to complete the next assignment, using the prescribed format. If you do not enter a specific date, the assignment is due within the time set by the next state, which will be the default display when you click the **Due** radio button.

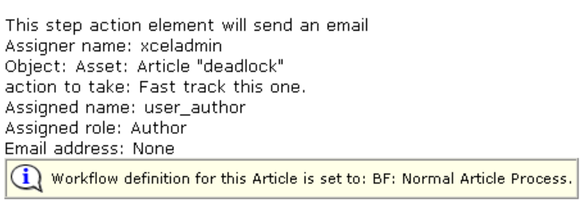
   This feature appears only if enabled by the workflow administrator, and is available only if your user role is assigned as an administration role for the workflow process, or you otherwise have the right privileges. For more information, see “Setting Assignment Deadlines.”

   The Select Workflow form will be similar to the following:



9. When you are finished filling in the form, click the **Select Workflow** button.

   At this point, workflow is initiated for the asset; participants in roles attached to the next step typically receive e-mail notifications of their assignments. The system redisplays the Status form to confirm this activity by displaying information similar to the following at the top of the form:



Setting Workflow Deadlines

Workflow recognizes two deadline settings:

- **Process deadline** – the overall time allotted for an asset to pass through a workflow process. There is no default process deadline.
- **Assignment deadline** – the time allotted to complete an assignment as an asset advances through workflow. The default assignment deadline is set by the workflow administrator when he creates a workflow state.

These deadlines are independent of one another; that is, the total of the individual assignment deadlines does not necessarily add up to a process deadline. These deadlines are informational: the system does not impose any sort of penalty or issue error messages when a deadline is exceeded.

Setting Process Deadlines

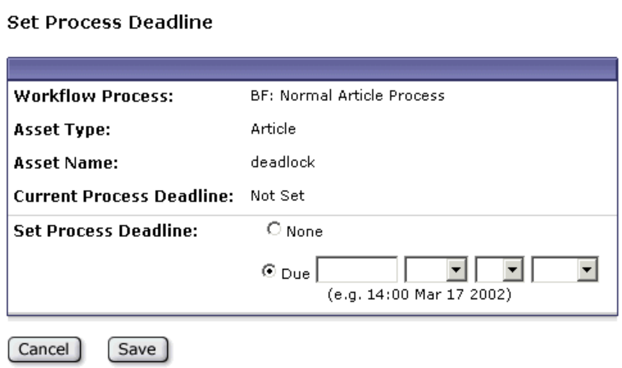
Before you can set a process deadline, the workflow administrator must first have done the following:

- Allowed a process deadline to be set for this workflow process.
- Assigned your role as an administration role for the workflow process, or otherwise provided you with the right privileges.

The option is not available if both of these conditions are not met.

To set a process deadline:

1. Find or create the asset in the Content Server interface.
2. View the asset's status by opening the asset in the Status form.
3. Click in the **Workflow commands** field and then choose **Set Process Deadline** from the drop-down list. The Set Process Deadline form opens:



4. Enter a date in the prescribed format. When setting a process deadline, you should consider where the asset is in the workflow process, and the cumulative time of the remaining steps. The default is to have no process deadline.
5. Click **Save** to complete the operation. The system redisplays the Status form.

The option to set a process deadline is also available on the respective form when you are performing the following tasks, if the two previously mentioned prerequisites are met:

- Placing an asset in workflow
- Creating a workflow group
- Editing a workflow group
- Adding an asset to a workflow group

Setting Assignment Deadlines

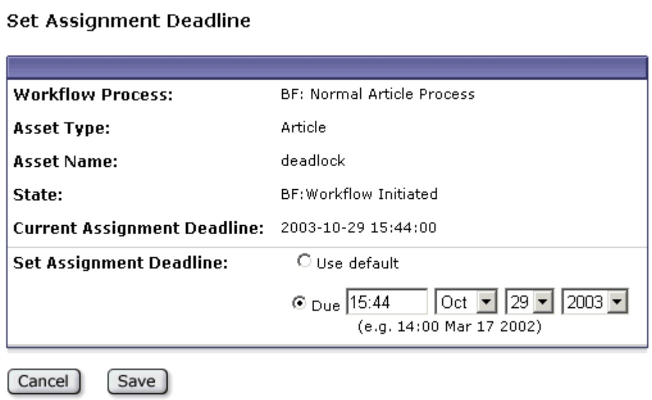
Before you can set an assignment deadline, the workflow administrator must first have done the following:

- Allowed an assignment deadline to be set for this workflow state.
- Assigned your role as an administration role for the workflow process, or otherwise provided you with the right privileges.

The option is not available if both of these conditions are not met.

To set an assignment deadline:

1. Find or create the asset in the Content Server interface.
2. View the asset’s status by opening the asset in the Status form.
3. Click in the **Workflow commands** field and then choose **Set Assignment Deadline** from the drop-down list. The Set Assignment Deadline form opens:


Set Assignment Deadline

Workflow Process:	BF: Normal Article Process
Asset Type:	Article
Asset Name:	deadlock
State:	BF:Workflow Initiated
Current Assignment Deadline:	2003-10-29 15:44:00
Set Assignment Deadline:	Use default Due 15:44 Oct 29 2003 (e.g. 14:00 Mar 17 2002)

Cancel Save

4. Enter a date in the prescribed format. The default assignment deadline derives from the workflow state definition. For Normal Article Process, each state has a duration of one year from the current date and time.
5. Click **Save** to complete the operation. The system redisplays the Status form.

The option to set an assignment deadline is also available on the respective form when you are performing the following tasks, if the two previously mentioned prerequisites are met:

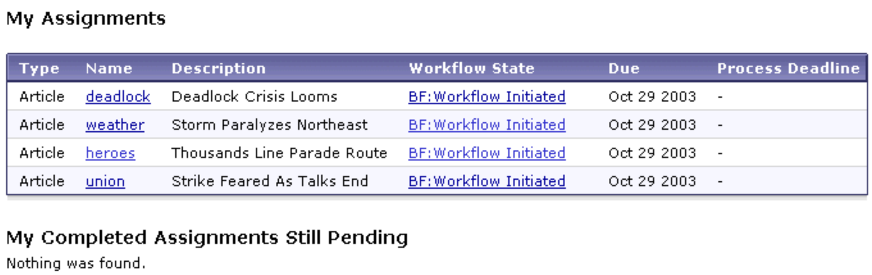
- Placing an asset in workflow
- Finishing an assignment
- Adding an asset to a workflow group

Updating Your Assignment List

When you first log in to a site, your assignments are listed as part of the My Work display that appears by default in the work area portion of the Content Server interface.

To update your list while you are currently logged in, do either of the following:

- Click the **My Work** button on the button bar to refresh the display that appeared when you first logged in.
- Click the **Show My Assignments** icon on the icon bar to constrain the display solely to your workflow assignments, shown as follows:


My Assignments

Type	Name	Description	Workflow State	Due	Process Deadline
Article	deadlock	Deadlock Crisis Looms	BF:Workflow Initiated	Oct 29 2003	-
Article	weather	Storm Paralyzes Northeast	BF:Workflow Initiated	Oct 29 2003	-
Article	heroes	Thousands Line Parade Route	BF:Workflow Initiated	Oct 29 2003	-
Article	union	Strike Feared As Talks End	BF:Workflow Initiated	Oct 29 2003	-

My Completed Assignments Still Pending

Nothing was found.

Notice that each assignment has a **Due** column. Each value in the **Due** column appears with color and symbols to indicate the status of the assignment:

Color/Symbol	Status of the Assignment
Black	Due within the specified time
Red	Due within 24 hours
Bold Red with plus sign (+)	Overdue by the time that is displayed

The latter two events, nearing due and past due, can trigger e-mail to the other participants in the workflow, if timed events are set accordingly for the workflow process. If there is no **Process Deadline** in the display, it means that none was set.

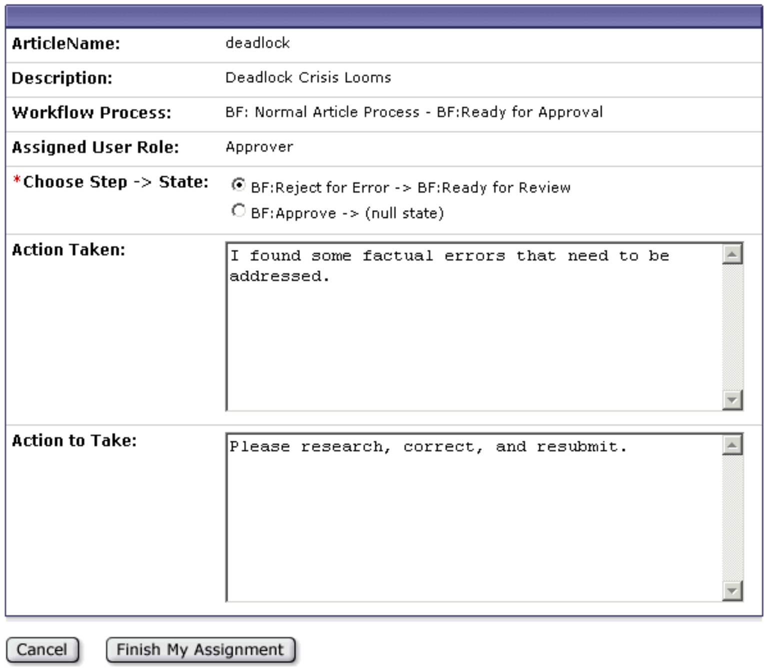
Any assets that appear under **My Completed Assignments Still Pending** are assets that you voted on and that are now queued, waiting for all participants in the role to vote.

Completing Your Assignments

After you finish your work for an assignment, you need to notify the system that you are done so the asset can continue to move through the workflow process. Complete the following steps:

1. Find and select the asset in the Content Server interface.
2. View the asset's status by opening the asset in the Status form.
3. Click in the **Workflow commands** field and then choose **Finish My Assignment** from the drop-down list.

   The Finish My Assignment form appears with all the possible next steps and the states that they lead to.



a. Select the next step and state for the asset.

b. In the **Action Taken** field, type a short description of the work that you completed on the asset.

c. In the **Action to Take** field, type a short suggestion for the next person who will work with the asset.

d. (Optional) If you want to override the time allotted for the next assignment, use the **Assignment Deadline** area to enter a date in the prescribed format. If you do not enter a specific date, the assignment is due within the time set by the next state, which will be the default display when you click the **Due** radio button.

   This feature appears only if enabled by the workflow administrator, and is available only if your user role is assigned as an administration role for the workflow process, or if you otherwise have the right privileges. For more information, see "Setting Assignment Deadlines."

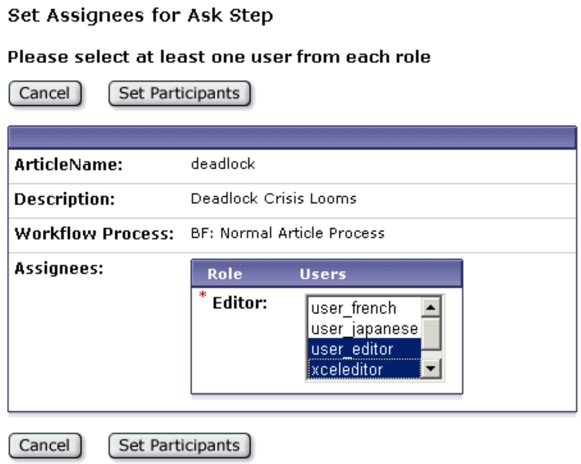
4. Click **Finish My Assignment**.

   The Status form is updated to reflect the change. The action taken is visible in the **Workflow history** summary. The action to take is visible in the **Workflow state** summary.

What happens after you complete your assignment depends on the workflow process definition for the step. There are four possibilities:

- You keep the assignment as the workflow changes state. This means that you can continue to work on the asset in that state. You probably know why it is appropriate for you to keep the assignment, but if you don't, ask your administrator.
- As the workflow changes state, the asset is assigned to no one. Function privileges now control what can be done next with the asset. This is a mechanism that the administrator can use to secure an asset in workflow.

- The asset is assigned to participants in selected roles, indicated as part of the workflow process definition. This is the conventional mechanism for moving an asset through workflow.
- You choose who gets the assignment from all users in selected roles. This method affords the flexibility to decide in real time who should get the assignment. In this case, when you click **Finish My Assignment**, the following form appears:



Select the users in each role that you want to get the assignment, then click **Set Participants**. The system redisplays the form to show the results of your assignment completion.

Delegating Your Assignments

As you review your list of assignments, you might find that you will be unable to complete certain assignments. For example, you might notice that the due date falls within your scheduled vacation time. In situations such as this, you can delegate your assignment to another user who has the same role as you, if this user does not already have the asset assigned in this role. This user is not required to be on the participants list, and can have the asset assigned in another role capacity.

To delegate an assignment:

1. Find and select the asset in the Content Server interface.
2. View the asset's status by opening the asset in the Status form.
3. Click in the **Workflow commands** field and then choose **Delegate Assignment** from the drop-down list.

The Delegate My Assignment form appears:

4. Select the user to whom you want to delegate the assignment. Optionally, enter a comment about your action.

5. Click **Delegate**.

   A confirmation message of the delegation appears at the top of the Status form, and the Workflow state and Workflow history on the form are updated accordingly. This action will also trigger a notification e-mail to the new participant, if your site is configured to do so.

Abstaining from Voting

Sometimes, you are unable to deal with a particular assignment. Your workload is too heavy, perhaps, or you have been miscast in the role. These are situations in which you might want to abstain from voting, that is, waive your participation.

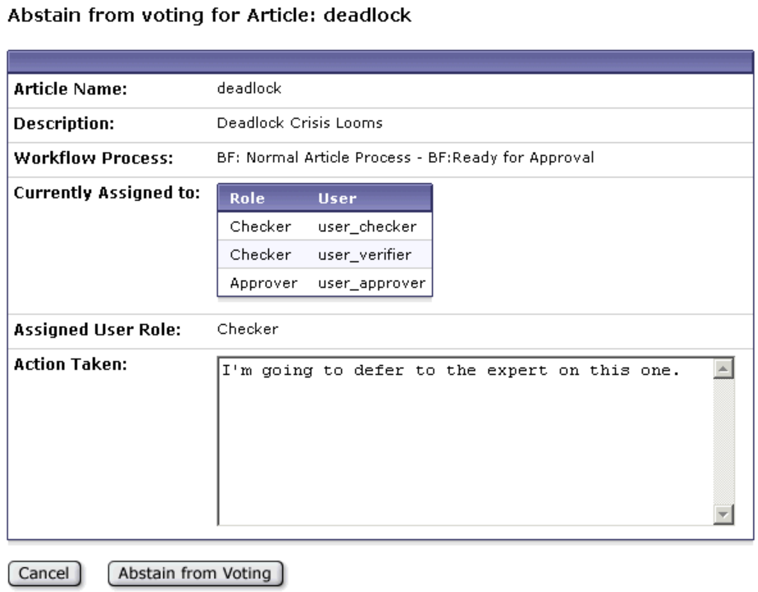
To abstain from voting on an assignment:

1. Find and select the asset in the Content Server interface.

2. View the asset’s status by opening the asset in the Status form.

3. Click in the **Workflow commands** field and then choose **Abstain from Voting** from the drop-down list.

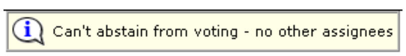
The Abstain from voting form appears:



4. Enter a brief explanation for your action and Click **Abstain from Voting**.

A confirmation message of the abstention appears at the top of the Status form, and the Workflow state and Workflow history on the form are updated accordingly. Note that abstaining does not remove the assignment from your assignments list.

5. If you are the only (or the only remaining) participant in this role, you cannot abstain, as denoted by the following message:



You must find some other means of dealing with this assignment.

Resolving Voting Deadlocks

A deadlock can occur when there is a choice of steps to move the asset to the next state, and each step requires that all participants must vote. If the vote is not unanimous in favor of one step or the other, there is a deadlock.

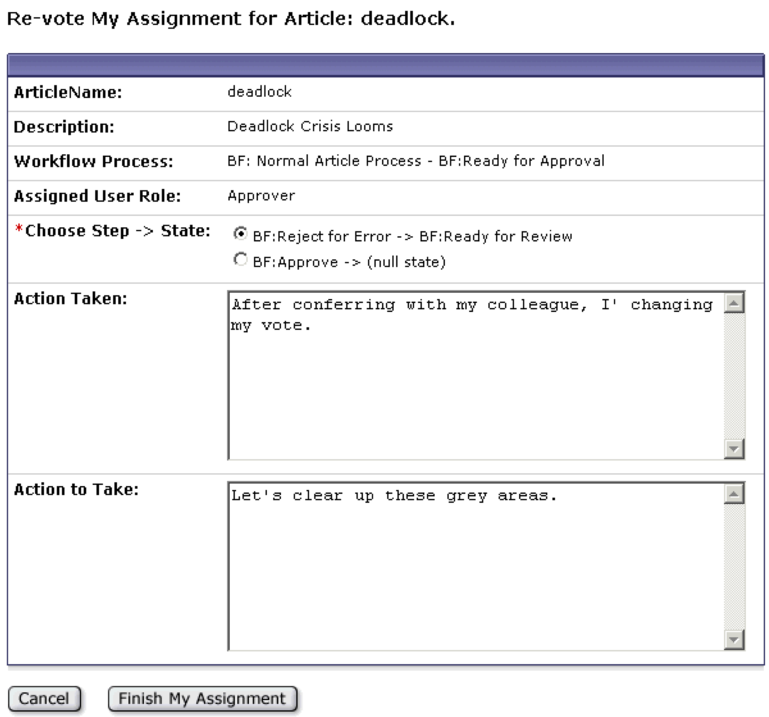
To resolve a deadlock, certain participants must change their vote to achieve unanimity. If you receive an e-mail notification that yours is the dissenting vote causing the deadlock, you must break the deadlock by voting again.

To vote again on an assignment:

1. Find and select the asset in the Content Server interface.

2. View the asset's status by opening the asset in the Status form.

3. Click in the **Workflow commands** field and then choose **Finish My Assignment** from the drop-down list. The following form appears, enabling you to change your vote to resolve the deadlock.



4. Fill in the form as appropriate, and click **Finish My Assignment** to resolve the deadlock.

Tip

In some cases, you can also resolve the deadlock by changing your vote to an abstention, which then clears the way for the asset to move to the next state (see “Abstaining from Voting”).

Frequently, resolving deadlocks involves offline communication and negotiation among participants to achieve consensus.

You resolve group deadlocks in the same manner, except that all members have to agree on all items. If the workflow administrator has used the **Step is group synchronized** feature properly, you should not encounter group deadlocks.

Removing an Asset from Workflow

You must have the right permissions to remove an asset from workflow.

To remove an asset from workflow:

1. Find and select the asset in the Content Server interface.
2. View the asset’s status by opening the asset in the Status form.

3. Click in the **Workflow commands** field and then choose **Remove from Workflow** from the drop-down list. The following form appears:

Remove from Workflow for Article: deadlock

ArticleName:	deadlock
Description:	Deadlock Crisis Looms
Workflow Process:	BF: Normal Article Process - BF:Ready for Review
Currently Assigned to:	**Role** **User** Editor user_editor

Cancel | Remove from Workflow

4. Click **Remove from Workflow**.

   A confirmation message of the removal appears at the top of the Status form, and Workflow history on the form is updated accordingly (task status is cancelled).

Examining an Asset's Participant List

To examine a list of participants for any asset:

1. Find and select the asset in the Content Server interface.
2. View the asset's status by opening the asset in the Status form.
3. Click in the **Workflow commands** field and then choose **Show Participants** from the drop-down list.

   The Show Participants form appears:

Show ParticipantsArticle: deadlock

Step	Users Authorized	Users Notified
BF:Send for Edit Review	user_author	user_editor
BF:StartStep	user_approver, user_checker, user_author, user_editor, user_verifier	user_author
BF:Approve	user_approver, user_checker, user_verifier	No Users.
BF:Reject for Style	user_checker, user_verifier	user_editor
BF:Reject for Error	user_approver	user_editor
BF:Send for Approval	user_editor	user_approver, user_checker, user_verifier

The form lists the authorized users (those who can release the asset, that is, finish the step) and the notified users (those to whom the asset will next be assigned), for each step in the workflow process.

Setting Workflow Participants

You can set participants on assets already in workflow. Perhaps, for example, in your examination of workflow participants, you noticed that a certain user was not listed as a participant in a particular role, and you know that this user should be included.

To set workflow participants:

1. Find and select the asset in the Content Server interface.
2. View the asset's status by opening the asset in the Status form.

3. Click in the **Workflow commands** field and then choose **Set Participants** from the drop-down list.
4. Select the users you want to include and click **Set Participants**.

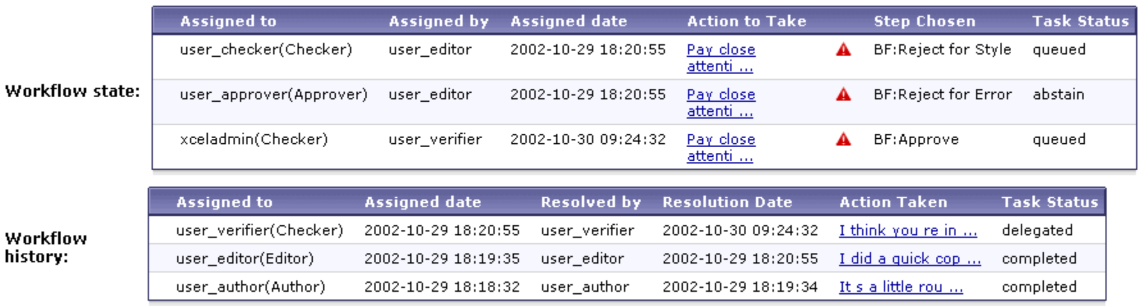
   The participants list for the asset is updated to reflect your changes.

> **Note**
>
> The participants list will be updated as you requested, but added users will get the assignment only if the step assigned to their role has yet to be reached.

Examining an Asset's Workflow Progress

To examine an asset's workflow progress, complete these steps:

1. Find and select the asset in the Content Server interface.
2. View the asset's current state and workflow history by opening the asset in the Status form, as follows:



Workflow state:

Assigned to	Assigned by	Assigned date	Action to Take	Step Chosen	Task Status
user_checker(Checker)	user_editor	2002-10-29 18:20:55	Pay close attenti ...	BF:Reject for Style	queued
user_approver(Approver)	user_editor	2002-10-29 18:20:55	Pay close attenti ...	BF:Reject for Error	abstain
xceladmin(Checker)	user_verifier	2002-10-30 09:24:32	Pay close attenti ...	BF:Approve	queued

Workflow history:

Assigned to	Assigned date	Resolved by	Resolution Date	Action Taken	Task Status
user_verifier(Checker)	2002-10-29 18:20:55	user_verifier	2002-10-30 09:24:32	I think you re in ...	delegated
user_editor(Editor)	2002-10-29 18:19:35	user_editor	2002-10-29 18:20:55	I did a quick cop ...	completed
user_author(Author)	2002-10-29 18:18:32	user_author	2002-10-29 18:19:34	It s a little rou ...	completed

Workflow state indicates where the asset currently is in the workflow process. Each row in **Workflow history** represents a single assignment. Items are ordered with the most recently completed state change at the top of the list.

This table defines all the columns in the **Workflow state** and **Workflow history** section of the Status form:

Column	Definition
Assigned To	The user names of the persons that the asset has been assigned to. Note that the user's role appears in parentheses following the user name.
Assigned By	The user name of the person who finished working with the asset. If the asset is in its initial workflow state, this column shows the user name of the person who assigned a workflow process to the asset.
Assigned Date	The date and time the asset was assigned to the user.
Action to Take	Instructions from the user who assigned the asset (if that person entered instructions in the form; appears as No Comment otherwise). Click to view the full text, if incomplete in this view.

Column	Definition
	This warning icon denotes a deadlock condition for the workflow state and identifies those involved in the deadlock.
Step Chosen	The step indicated by the user who completed the assignment, when there is a choice of next step in the Finish My Assignment form.
Action Taken	Information about the work this user did with the asset (if information was entered on the form; appears as No Comment otherwise). Click to view the full text, if incomplete in this view.
Resolved By	The person whose action moved the asset to the next state.
Resolution Date	The date and time the action was taken to move the asset to the next state.
Task Status	The status of the assignment. Possible values are as follows: • Abstain - the assignee has abstained from voting. • Active - the asset is currently assigned to someone. • Cancelled - the first vote moved the asset to the next state, so the assignment has been canceled for the other assignees. • Completed - the assignee has completed the step. • Delegated - the assignment has been delegated to another user in the same role. • Queued - the asset has multiple assignees for the step, and all must vote before the asset can continue to the next step. Not everyone has voted yet, of the asset is deadlocked.

Workflow Groups

Workflow groups enable you to manage a defined set of assets in a coordinated manner that allows those assets to reach the end of the workflow process together, prior to publishing.

The following subsections describe how you create and manage workflow groups.

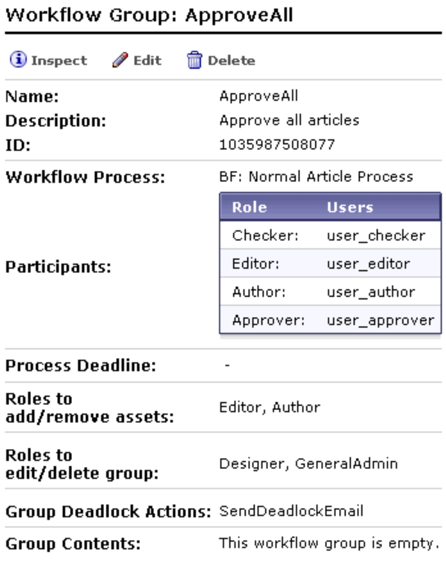
Setting Up a Workflow Group

To set up a workflow group:

1. If the Content Server interface is not already open, log in.
2. Click **Workflow** on the button bar to display the Workflow management console in the work area portion of the Content Server interface.
3. Click the **Create a Workflow Group** hyperlink to open the Workflow Group form. Red asterisks denote required fields. You must add these fields before you can set participants. Fill in the form as described in the following table:

Field	Definition
Group Name	Enter a name for the group.
Description	Enter a brief description of the group’s purpose or function.
Workflow Process	Select a workflow process appropriate to the assets being grouped.
Set Participants	Click this button to set the participants, based on the workflow process you have chosen for the group. The Set Participants for Group form opens. You must select at least one user for each defined role. After you make your selections, click **Set Participants** to return to the Add Workflow Group form.
Process Deadline	Optionally, set a date by which the asset group is to complete the workflow process, using the prescribed format. This feature appears only if it is enabled by the workflow administrator, and it is available only if you have the assigned administrator role for the workflow process, or if you otherwise have the right privileges. For more information, see “Setting Process Deadlines.”
Add/Remove Assets	Specify who can add assets to the group and who can remove assets from the group. Select any user, or all users in selected roles. Choose multiple roles by using the Shift-click or Ctrl-click keyboard mouse combination.
Edit/Delete Group	Specify who can edit this setup and who can delete the group altogether. Select any user, or all users in selected roles. Choose multiple roles by using the Shift-click or Ctrl-click keyboard mouse combination
Group Deadlock Actions	Indicate whether to send e-mail notifications to group members when a deadlock occurs.

4. When you are done filling in the form, click **Save**. The new workflow group definition summary appears:


Workflow Group: ApproveAll

Inspect Edit Delete

Name:	ApproveAll
Description:	Approve all articles
ID:	1035987508077
Workflow Process:	BF: Normal Article Process
Participants:	Role / Users: Checker: user_checker; Editor: user_editor; Author: user_author; Approver: user_approver
Process Deadline:	-
Roles to add/remove assets:	Editor, Author
Roles to edit/delete group:	Designer, GeneralAdmin
Group Deadlock Actions:	SendDeadlockEmail
Group Contents:	This workflow group is empty.

The group also appears as a line item under Workflow Groups on the Workflow management console.

Adding Multiple Assets to a Workflow Group

You must meet the following criteria to add assets to a workflow group:

- You must have the right permission to add assets to a workflow group, as specified in the group definition.
- You must have permission to take the initial step in the Workflow Process that you select for the group.
- The assets must be appropriate to the workflow process assigned to the group.
- You cannot add assets that are already in workflow.

To add multiple assets to an existing workflow group:

1. Add the assets that you wish to put into the workflow group to your Active List.
2. Click the **Workflow** tab at the top of the screen. A list of your workflow groups displays.
3. Click the **Items** hyperlink of the group you want to add assets to. The Workflow Group page appears.
4. Click the **Active List** tab and hilight the assets that you want to add to the workflow group.
5. Click the **Add to Group** button on the Workflow Group page. A page appears confirming that you have added the assets to your workflow group. Any assets that you cannot add will have error messages next to them explaining why you cannot add them to the group.

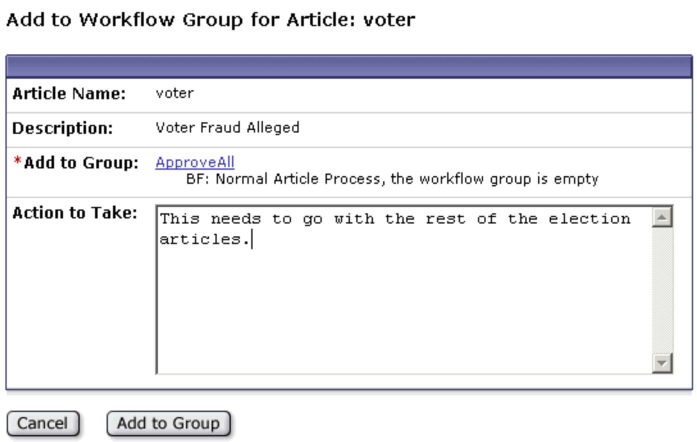
Adding Assets to a Workflow Group When the Tree is Turned Off

You must have the right permission to add an asset, as specified in the group definition, and the asset must be appropriate to the workflow process assigned to the group. You cannot add an asset that is already in workflow.

To add an asset to a workflow group:

1. Find and select the asset in the Content Server interface.
2. View the asset's status by opening the asset in the Status form.
3. Click in the **Workflow commands** field and then choose **Add to Workflow Group** from the drop-down list.

The Add to Workflow Group form appears:


Add to Workflow Group for Article: voter

Article Name:	voter
Description:	Voter Fraud Alleged
***Add to Group:**	ApproveAll BF: Normal Article Process, the workflow group is empty
Action to Take:	This needs to go with the rest of the election articles.

Cancel Add to Group

4. If there are multiple workflow groups, use the Add to Groups area to select which group to add the asset to.
5. (Optional) In the **Action to Take** text box, enter an appropriate instruction or comment.
6. (Optional) If you want to override the time allotted for the next assignment, use the **Assignment Deadline** area to enter a date in the prescribed format. Click the **Due** radio button to display the default time allotted.

   This feature appears only if enabled by the workflow administrator, and is available only if you have the assigned administrator role for the workflow process, or if you otherwise have the right privileges. For more information, see "Setting Assignment Deadlines."
7. Click **Add to Group**.

   A message confirming the addition to the group appears at the top of the Status form, and a **Workflow group** field is added below the **Workflow commands** drop-down field, with a link to the workflow group. Click the link to see the group contents:


Workflow Group: ApproveAll

Inspect

Name: ApproveAll
Description: Approve all articles
ID: 1035987508077

Group Contents:

Type	Name	Assigned to	Workflow State	Step Chosen	Task Status
Article	voter	user_author(Author)	BF:Workflow Initiated	-	active

Removing Assets from a Workflow Group

You must have the right permission to remove an asset, as specified in the group definition.

To remove an asset from a workflow group:

1. Find and select the asset in the Content Server interface.
2. View the asset's status by opening the asset in the Status form.

3. Click in the **Workflow commands** field and then choose **Remove from Workflow Group** from the drop-down list.

   The Remove from Workflow Group form appears.

4. Click **Remove from Group**.

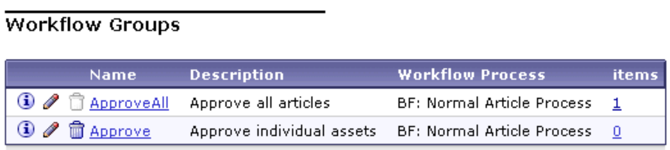
   A message at the top of the Status form confirms that the asset was removed from the group, and workflow details on the form are updated accordingly. Although the asset was removed from the workflow group, it continues in the workflow process to which it was assigned as part of the group. Note, however, that removing an asset from workflow also removes it from any workflow group it is assigned to.

Editing or Deleting a Workflow Group

You must have the right permission to edit or delete a workflow group, as specified in the group definition. The group must be empty before you can delete it.

To edit or delete a workflow group:

1. If the Content Server interface is not already open, log in.
2. Click **Workflow** on the button bar to display the Workflow management console in the work area portion of the Content Server interface.
3. Locate the workflow group that you want to work on, and click the appropriate icon for the action that you want to take (the icons are dimmed and unavailable if you do not have the right permission):



   a. The pencil icon opens the same form used to add the group, with fields preselected based on the group definition. Make your edits, remembering to use the Ctrl key if you are making additions to current selections. When you are done, click **Save** to complete the operation.

   b. The trashcan icon removes the group if you confirm the operation. The group must be empty to be removed.

> **Note**
>
> If you add participants as new members, they do not receive assignments for assets that are already in the group, only for assets that are added afterward.

Workflow Reports

Workflow reports allow you to track the progression of assets and user assignments in workflow. They are a convenient mechanism for determining current workflow status. Workflow reports also enable you to perform searches across asset types.

The following subsections describe how you create and manage workflow reports.

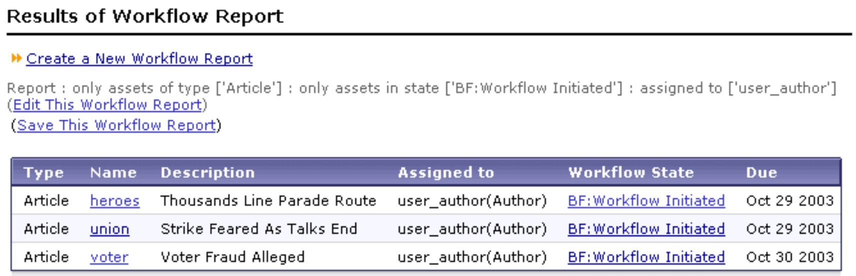
Setting Up a Workflow Report

To set up a workflow report:

1. If the Content Server interface is not already open, log in.
2. Click **Workflow** on the button bar to display the Workflow management console in the work area portion of the Content Server interface.
3. Click the **Create a Workflow Report** hyperlink to open the Create Workflow Report form. Fill in the form as described in the following table:

Field	Definition
Asset Type	Choose whether to report on all asset types or specific asset types. You can choose multiple assets by using the Shift-click or Ctrl-click keyboard mouse combination.
Workflow State	Choose whether to report on all workflow states or specific workflow states. You can choose multiple states by using the Shift-click or Ctrl-click keyboard mouse combination. Remember that workflow states are independent of workflow processes.
Assigned to	Choose whether to report on: • Any user • Specific users • All users of specific roles You can choose multiple users by using the Shift-click or Ctrl-click keyboard mouse combination.
Due Date	Choose to report on assignments that have: • Any due date • A due date within a selected time period ranging in increments from 20 minutes to three days • A date that is past due by a selected time period ranging in increments from 20 minutes to three days
Report Options	Specify how many returned items to report on, ranging in increments from two to 300. Specify to sort the report by: • Assignee (assigned to) • State of the asset (workflow state) • when the assignment was made (date assigned)

4. When you are done filling in the form, click **Report**. The Results of Workflow Report form appears:


Results of Workflow Report

Create a New Workflow Report

Report : only assets of type ['Article'] : only assets in state ['BF:Workflow Initiated'] : assigned to ['user_author']
(Edit This Workflow Report)
(Save This Workflow Report)

Type	Name	Description	Assigned to	Workflow State	Due
Article	heroes	Thousands Line Parade Route	user_author(Author)	BF:Workflow Initiated	Oct 29 2003
Article	union	Strike Feared As Talks End	user_author(Author)	BF:Workflow Initiated	Oct 29 2003
Article	voter	Voter Fraud Alleged	user_author(Author)	BF:Workflow Initiated	Oct 30 2003

In addition to the report items found, if any, this form shows the filtering criteria specified. You can edit these criteria by clicking the **Edit This Workflow Report** hyperlink, which returns you to the Workflow Report form.

Saving Workflow Report Criteria

When you click **Report** after entering criteria to generate a report, you also have the option of saving the report criteria and making it available to other users. Saving reports means that you can execute them at will with a single click, without having to re-enter the criteria each time.

To preserve report criteria:

1. From the Results of Workflow Report form, click the **Save This Workflow Report** hyperlink to open the Save Workflow Report form:


Save Workflow Report:

*Name: Imminent Articles

Share this Search

Share with Users of Roles: Designer, Editor, Expert, GeneralAdmin

Created by: user_author

Filter String: (Edit This Search)

Cancel Save

2. Fill in the form as follows:
   a. Enter a name for the report (this is a required field). The name you specify here will appear as a hyperlink in the report line item under **Workflow Reports** on the Workflow Management Console.
   b. If you want to share this report with others, select the check box, and then select the roles you want to share with. You can choose multiple roles by using the Shift-click or Ctrl-click keyboard mouse combination.
   c. If you want to review or edit the criteria, click **Edit This Search**. Doing so requires you to run the report again, and click **Save This Workflow Report** again at the results form to return to the save form.
3. Click **Save**.

Running Workflow Reports

To run a workflow report:

1. If the Content Server interface is not already open, log in.
2. Click **Workflow** on the button bar to display the Workflow management console in the work area portion of the Content Server interface.
3. Locate the report you want to run in the list of saved reports:

Click the report name or the eyeball icon to execute the report. If you want to save the results, you can print the work area frame.

Editing or Deleting Saved Workflow Reports

To edit or delete a workflow report:

1. If the Content Server interface is not already open, log in.
2. Click **Workflow** on the button bar to display the Workflow management console in the work area portion of the Content Server interface.
3. Locate the report that you want to edit or delete in the list of saved reports and click the appropriate icon for the action that you want to take.
   - To edit the report, click the pencil icon, which opens the same form used to create the report, with fields preselected based on the original criteria. Make your edits, remembering to use the Ctrl key if you are making additions to current selections. When you are done, click **Report** to execute the report again. Then, click **Save This Workflow Report** to return to the save form and click **Save**.
   - To delete the report, click the trashcan icon, then confirm your intention by clicking **Delete This Item**.

Chapter 6

Revision Tracking

Use the Content Server Enterprise Edition revision tracking feature to track and control the changes that are made to your assets. With revision tracking, you can control assets as follows:

- Enforce that only one person at a time can edit or delete an asset.
- Keep track of past versions of an asset and who created them.
- Restore an asset to a previous version (that is, roll it back).

This chapter describes revision tracking and the procedures used to track assets. It contains the following sections:

Note that revision tracking is a configurable feature, which must be enabled for your site. Contact your administrator if you have any questions or concerns about revision tracking as it applies to you.

Overview

Revision tracking allows you to check out, or lock, assets. When you check out an asset, no one else can change it. When you are done with the asset, you check it back in. Then it is available to others.

Revision tracking does not keep others from looking at the details of an asset or keep assets from being found by searches, queries, or collections.

You control access to an asset by checking it out and back in. There are three commands that control access to assets:

- **Check out**. Only one user can check out an asset at one time. If other users try to check the asset out or modify it, CSEE informs them that the asset is unavailable.

  If an asset is assigned to you in a workflow, and you have checked out the asset, then you cannot finish your assignment until you check the asset back in.

  An asset that is checked out cannot be approved for publishing until it is checked in.

- **Check in**. You check in assets that you have checked out. After the asset is checked in, others can work with it, and if the asset is assigned to you in a workflow, you can finish your assignment.

  When you check in an asset that you have checked out, a record is made of the checkin, and a copy of the last saved version of the asset is preserved (the number of versions kept varies from organization to organization).

  Another option is to check in the asset so that you have an archived version but to keep it checked out. This option enables you to store a version but keeps the asset available to you alone.

- **Undo Checkout**. If you check out an asset and then decide that you don’t want to save the work you did on it, cancel or “undo” the checkout. In this case, the asset is simply unlocked and no new version is saved.

Rollback and Revision History

When you check in an asset that you have checked out, CSEE adds it to a list of previous versions. You can later restore the asset to one of those previous versions and you can examine the asset’s revision history.

- **Rollback** is when you restore the asset to a previous version. When you have an asset checked out, you can roll it back to any previous version. Rollback restores the contents of an asset, but does not reset the status (created, edited, received, and so forth) as of the previous version, nor does it affect workflow status. If the asset is part of a workflow, anyone who has the appropriate permissions can restore it to a previous version.
- **Revision History.** You or any user can list and examine the revision history of an asset. The revision history also shows who, if anyone, currently has the asset checked out.

Automatic Checkout and Checkin

If you try to edit, delete, roll back, or set workflow for an asset that is not already checked out, CSEE checks it out to you automatically. When you save the edited asset, CSEE checks it back in automatically and saves the version. (When you manually check out an asset, edit it, and then save it, the version is not saved until you manually check the asset back in.) Therefore, if the situation requires it, you can choose to bypass the step of manually checking out and checking in an asset and rely on the automatic revision tracking feature, instead.

When to Use Automatic Checkout

Be sure that you rely on automatic checkout only when it is appropriate to do so. For example, if you are going to make one simple change to an asset, you can use automatic checkout. But you should not use automatic checkout if you are making extensive revisions. When an asset is automatically checked out to you, CSEE saves an official, archived version of the asset each time you click **Save**. Therefore, if you make several changes to an asset—saving and inspecting each change separately—CSEE checks in a version of the asset at each save. Depending on the number of versions CSEE is configured to store, you might write over older versions that you wanted to keep with the automatically checked-in versions.

Commands That Use Automatic Checkout and Checkin

The following table describes CSEE commands that check out or check in assets automatically:

Command	Effect on Revision Control
New	As soon as you open a new asset form, the asset is checked out to you and a SYSTEM version is stored. This version has no content. When you save the asset, another (second) version is stored.
Edit	Checks out the asset and prohibits another user from editing the version.
Save	Checks in the asset. (But only if it was checked out automatically.)
Copy	Checks out a new copy of the asset. The source asset is not checked out during the copy operation. The new copy behaves as if you created a new asset as described above in the New function column. The only difference is that there is more data included in the copied version. The copied item is brought up in the **Edit** form. When the item is saved, a second version of the asset is created.
Delete	Checks out the asset. When the user confirms the deletion, CSEE checks the asset back in.
Build	Checks out the collection asset. When the operation completes, the asset is checked back in.
Place	Checks out the page asset. When the operation completes, the asset is checked back in.
Rollback	Clicking **Rollback** checks out the asset, then immediately checks it back in.

Checking Out Assets

To check out an asset:

1. If the Content Server interface is not already open, log in.
2. Find and select the asset you want to check out.
3. Open the asset in the Inspect form and click **Check Out** under the action bar.

If the asset has been checked out by another user, the Content Server interface displays a message indicating that. If your checkout is successful, the Content Server interface displays the message: **Checkout Successful**, and updates the checkout status as follows:

Undoing a Checkout

To undo a checkout:

1. If the Content Server interface is not already open, log in.
2. Find and select the asset.
3. Open the asset in the Inspect form and click **Undo Checkout** under the action bar.

The Content Server interface displays the message: **Undo Check Out Successful!**; the asset is returned to the database without a record of this checkout.

Checking In Assets

To check in an asset that you have checked out:

1. If the Content Server interface is not already open, log in.
2. Find and select the asset you want to check in.
3. Open the asset in the Inspect form and click **Check In** under the action bar.

   The Content Server interface displays a checkin form:

4. (Optional) In the **Comments** text box, enter comments or instructions that pertain to the version that you are checking in. Comments are displayed with the asset title when you view the version history.
5. **Keep Checked Out** (optional) Select this option if you want to back up the asset but need to continue working on it.
6. Click **Check In**.

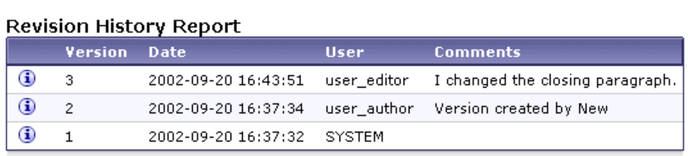
   A confirmation message appears.

Examining Version History

To examine an asset's version history:

1. If the Content Server interface is not already open, log in.
2. Find and select the asset whose history you want to examine.
3. Open the asset in the Inspect form and click **Show Versions** under the action bar.

   The Content Server interface displays a Revision History Report for the asset.



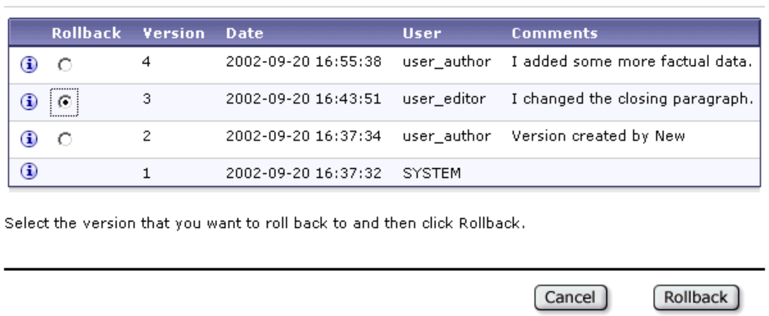
You can view any listed version by clicking the appropriate inspect icon in the left column. The Inspect view appears in a separate window.

Reverting to a Previous Version (Rollback)

To roll back an asset:

1. If the Content Server interface is not already open, log in.
2. Find and select the asset you want to roll back.
3. Open the asset in the Inspect form and click **Rollback** under the action bar.

   The Content Server interface displays a list of the asset's versions:



4. Select the option in the **Rollback** column next to the version of the asset that you want to return to.
5. Click **Rollback**.

   A confirmation message appears. Note that rolling back an asset creates another version.

Releasing Locked Assets

Because automatic checkout is in effect when revision tracking is enabled, you might accidentally check out an asset while you work in the Content Server interface. If so, that asset is locked and no one else can work with it. To make sure that you are not stopping other people from working with assets that you inadvertently checked out, review the assets checked out to you and check in any assets that you do not need.

To release locked assets:

1. If the Content Server interface is not already open, log in.
2. Click the **Show My Checkouts** icon on the icon bar.

   The system displays a list of all the assets that are currently checked out to you.

3. For any asset that should **not** be checked out to you, select it and check it back in. See "Checking In Assets" for help with this step.

Section 2

Using CS-Engage

This section describes tasks and responsibilities performed by marketers who want to target site visitors for marketing campaigns, using Content Server Engage, an optional Content Server Enterprise Edition product.

This section contains the following chapters:

Chapter 7

Overview

With Content Server Direct Advantage, you use the flex asset model to create an online catalog offering products and content for sale. If you want to divide your market into segments that define specific groups of customers and then target those segments with personalized promotional or marketing messages, the solution is Content Server Engage.

The CS-Engage software adds merchandising features to Content Server Enterprise Edition and extends the XML and JSP object methods available for programming your e-commerce site. It enables you to design online sites that gather information about your site visitors and customers, evaluate that information, and then use that information to personalize the product placements and promotional offerings that are displayed for each visitor.

Note

CS-Direct and CS-Direct Advantage must be installed before you can install CS-Engage.

This chapter contains the following sections:

About Merchandising Assets

With CS-Engage, you use merchandising assets to do the following:

- Collect visitor data using the visitor attribute, history attribute, and history definition assets
- Use that visitor data to define visitor segments (segment assets)
- Recommend products and content to visitors based on the segments they belong to (recommendation assets)
- Run promotions that apply to all or specific segments (promotion assets)

Developers and administrators create and manage the visitor data and recommendation assets, while marketers create and manage the segment and promotion assets. As with any of the other Content Server applications, you create and work with assets on the management site. Then, when assets are approved, you publish them to your delivery site.

Marketers and developers are expected to collaborate extensively to implement effective merchandising efforts. Development tasks associated with CS-Engage are covered in-depth in the *CSEE Developer’s Guide*.

Using Segments to Categorize Visitors

Segments are assets that categorize groups of visitors based on the visitor data that you are gathering about them. You build segments by determining which kinds of visitor data to use as filtering criteria and then setting the values that qualify or disqualify a visitor for the segment.

You use the Segment Filtering forms in CS-Engage to categorize groups of visitors based on the visitor attributes, history attributes, and history definitions created by the developers.

Segments are the key to personalization with CS-Engage. When visitors browse your site, the information they submit is used to qualify them for segment membership. When the site displays a page with a recommendation or promotion, CS-Engage determines which segments a visitor belongs to and displays the product recommendations or promotional messages that are designated for those segments.

For detailed information on segments, see Chapter 8, “Grouping Visitors into Segments.”

Making Recommendations to Segmented Visitors

You create recommendation assets and then configure them by rating assets based on their importance to the segments that you have created.

Recommendations are assets that determine which products or content should be featured or “recommended” on a site page. These assets are rules that are based on the segments the visitors qualify for, and, in some cases, relationships between the product or content assets.

Recommendations have templates. A recommendation returns a list of assets to its template when the template is rendered on a site page. The items in a list of recommended assets are rated according to their importance to the current visitor based on the segments that the visitor belongs to.

For detailed information on recommendations, see Chapter 9, "Creating and Configuring Recommendations."

Basing Promotions on Buying Patterns

Promotions are assets that define an offer of value (a discount) to the visitors based on the products that the visitor is buying and the segments that the visitor qualifies for. This value can be offered in several ways:

- A discount off the purchase price of the promoted products
- A discount off the entire value of the shopping cart
- A discount off shipping charges
- A combination discount: a shipping discount with a price or cart discount

Promotions use the same templates as recommendations. You decide which recommendation the promotion overrides, and CS-Engage uses that recommendation's template to render the promotion on the site page.

For detailed information on segments, see Chapter 10, "Creating Promotions."

Chapter 8

Grouping Visitors into Segments

Segments are assets that categorize groups of visitors based on the visitor data that you gather about them. You build segments by determining which kinds of visitor data to use as filtering criteria and then setting the values that qualify or disqualify a visitor for the segment.

This chapter describes segments and presents procedures for creating them. It includes the following sections:

About Segments

Segment are assets that divide visitors into groups based on common characteristics.

Segments are the key to personalization and merchandising with Content Server Engage. When you are using recommendations and promotions on your site pages, the content or products displayed on a site page are dependent on the segments that the visitor qualifies for. You, as a marketer, create the visitor segments that the site pages depend on because you know which merchandising messages should be associated with specific visitor segments.

When database or site administrators create a database query, they specify parameters that a database record must match in order to be included in the results of the query. When you build a segment, you specify filtering criteria that a visitor must match in order to be included as a member of that segment.

Segments and Visitor Data Assets

You build segments by using the visitor data assets as filtering criteria. There are three kinds of visitor data assets:

- **Visitor attributes** hold types of information that specify one characteristic only. For example, there can be attributes named "years of experience," "job description," or "number of children."

  When visitors change the data, the new data overwrites the old. For example, if a visitor changes her "job description" from "butcher" to "baker," there is no record of the fact that the visitor used to be a butcher.

- **History attributes** are individual information types that you group together to comprise a single type of historical record. This record is a **history definition**, the third kind of visitor data asset. For example, a history definition called "purchases" could be made up of the history attributes "SKU #", "itemname", "quantity", and "price."

  CS-Engage treats the data recorded as a history definition as a whole unit of information. It assigns a timestamp to and stores each instance of the data, which means that you can create segments based on counts or sums of history definitions.

Developers create the visitor data assets based on the kinds of information that the marketing and design teams want to collect and analyze. Then you and the other marketers can use those assets to create segments that categorize your visitors while the developers program your site pages to collect this data.

Developing Segments: Process Overview

There are five general steps for creating segments:

1. A cross-functional design team including developers and marketers determines the data you want to gather about your site visitors.
2. The developers create and define the necessary visitor attributes, history attributes, and history definitions using the forms in CS-Engage. Then, they program the appropriate site pages to collect and store the data. For example, they might create an online registration form for visitors to fill out with information that qualifies them for segments.
3. When visitors browse your site, the information they submit is stored in the Content Server database. With help from the developers and database administrators, you analyze this data and decide how to segment your visitors. (Note that even before you analyze your visitor data you can create simple segment definitions, such as Mac Users vs. PC Users.)
4. You (the marketers) use the Segment Filtering forms in CS-Engage to categorize groups of visitors based on the visitor attributes, history attributes, and history definitions.
5. Now when visitors browse your site, the information they submit is used to qualify them for segment membership. The promotional messages and recommended products are personalized based on the segments that visitors qualify for.

About the Segment Forms

The segment forms display the visitor data assets that you can use to define segments. The forms display the visitor data assets that your site developers created. However, there are a number of default visitor data assets that you can use to create segments before your site developers create the site-specific ones for your site.

This section describes the segment forms.

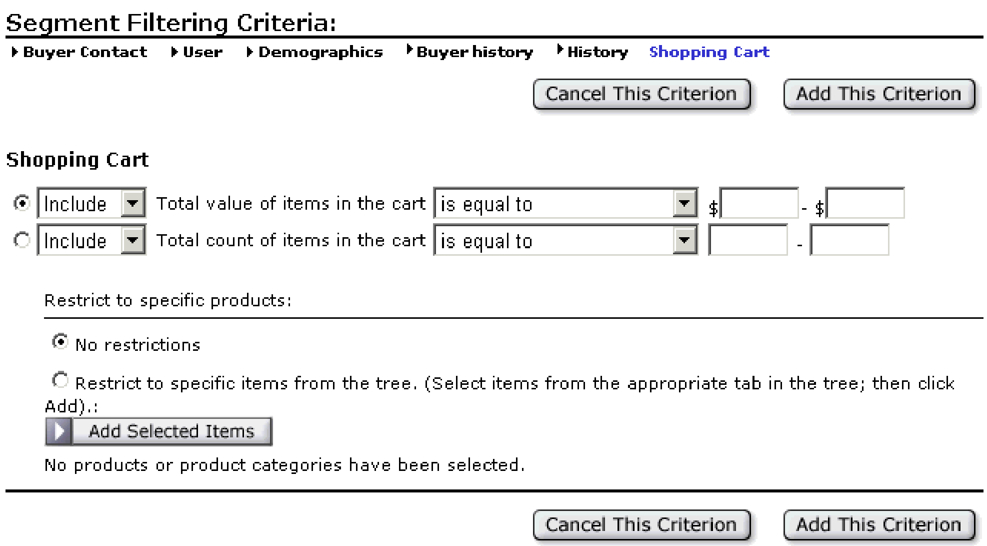
Categories

CS-Engage uses categories to organize Visitor data assets in the Segment Filtering forms. The visitor data assets are listed under categories that are displayed across the top of the forms. For example:

When you click a category, the form refreshes to show you the visitor attributes or the history definitions in that category. Because these assets are so different, the developers assign different categories to them. In the example, the developers added the category **Demographics** for visitor attributes that are related to personal information about the visitors.

Shopping Cart Form

“Shopping Cart” is listed as a category on the segment filter forms but the shopping cart is a special, default feature rather than a category of attributes.



You can use the Shopping Cart form to create segments based on the following kinds of conditions:

- The total value of all the products in the shopping cart
- Whether a specific product is in the shopping cart
- Whether a certain number of products are in the shopping cart

- Whether a certain number of specific products is in the shopping cart

If you want to implement a promotion based on the current state of a visitor’s shopping cart, use this form to build a segment and then use the segment in the promotion.

The Shopping Cart form is always available for defining your segments. Therefore, even before your site developers create visitor attributes or history definitions, you can create segments defined by shopping cart information.

Transact Visitor Data

If your online site uses Transact, there are 17 visitor attributes, 4 history attributes, and 1 history definition loaded into the Content Server database during the installation of CS-Engage. Therefore, if your site uses Transact, there is default visitor data that you can use to create segments before the developers begin creating the visitor data assets that your cross-functional team decided that you need.

Transact Visitor Attributes

The default Transact visitor attributes are listed under the category named **Buyer Contact**. Therefore, if your site has Transact, when you click the **Buyer Contact** link from a Segment Filtering form, the list includes at least the following visitor attributes:

- Login name.
- Street address.
- Additional street address information.
- City name.
- Two character country code.
- County name.
- E-mail address.
- FAX number.
- Locale setting. This is either a two-letter language code plus a two-letter country code, or just the language code. For an up-to-date list of the valid codes that you can use, check the following URLs:

  http://www.ics.uci.edu/pub/ietf/http/related/iso639.txt

  http://www.ics.uci.edu/pub/ietf/http/related/iso3166.txt
- Name of person. By default, this is the first and last name. Your Transact database might be configured differently.
- Additional name information about a person such as title.
- Password.
- Postal or zip code.
- State or province name.
- Telephone number.
- WWW address (URL).

Transact History Attributes and History Definition

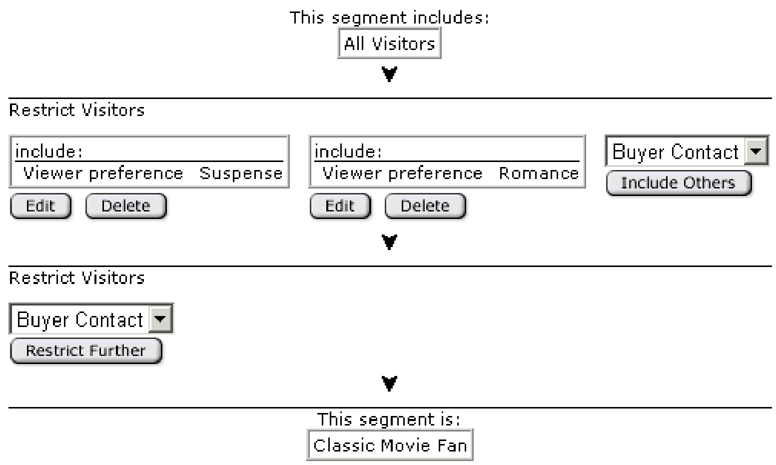
The default Transact history definition, called **Purchase summary**, is listed under the category named **Buyer history**. Therefore, if your site has Transact, when you click the **Buyer history** link from a Segment Filtering form, the list includes at least the **Purchase summary** history definition.

The **Purchase summary** history definition consists of the following history attributes:

- Product list - the list of products stored in the product tables in your Content Server database.
- Store ID - a list of the store IDs that are present in the Transact database. When you create a segment criteria based on the Purchase summary history definition, you must specify a store ID because purchase information is based on the store where the items were purchased.
- Total number of items - the total number of all items purchased; you cannot select one specific item to sum.
- Total amount of sales.

Segment Definition Form

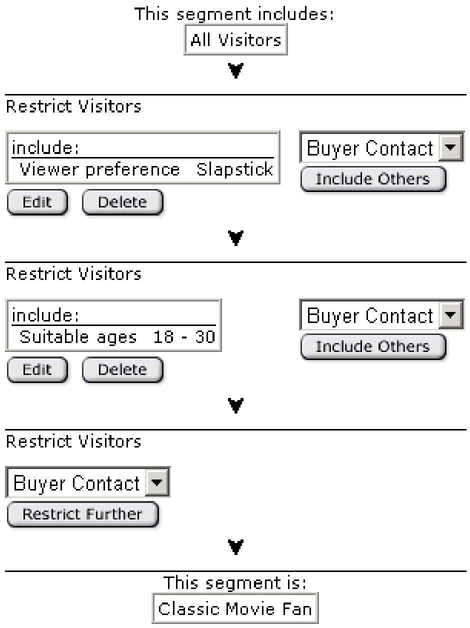
While you create a segment, CS-Engage displays each condition (criterion) that you specify in a form similar to the following:



As you add criteria to a row (across the table), you create a more inclusive segment. In the preceding form, the visitor can be interested in either suspense movies or romance movies or both kinds of movies to be included in the segment.

In other words, you add more factors that can qualify a visitor for a segment by working across the table, adding criteria to the same row.

As you add criteria to a column (down the table), you create a more restrictive segment. In the following example, a visitor belongs to the segment only if both the criteria are true:



The visitor must be interested in slapstick movies and be between the ages of 18 and 30 to belong to the segment. In other words, you add restrictions to a segment by working down the form, adding them to the column.

In summary, segments broaden as you add criteria across the table and narrow as you add criteria down the table.

Creating Segments

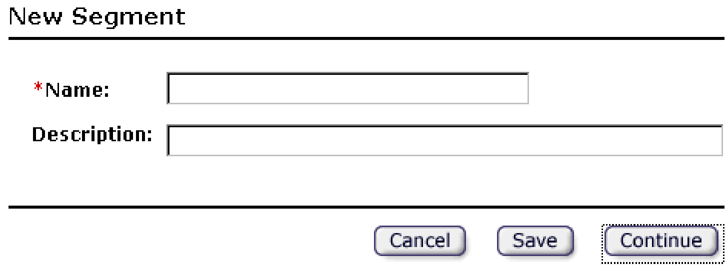
Before you create segments, be sure the following tasks have been completed:

- The marketing, design, and development teams met to determine the kinds of data that you want to collect about your visitors.
- The developers created the visitor attributes, history attributes, and history definitions that the cross-functional team decided are necessary.
- You (the marketers) obtained a list or overview of the visitor data assets that were created and you understand what they mean and how they are categorized.

Step 1: Name and Define the Segment

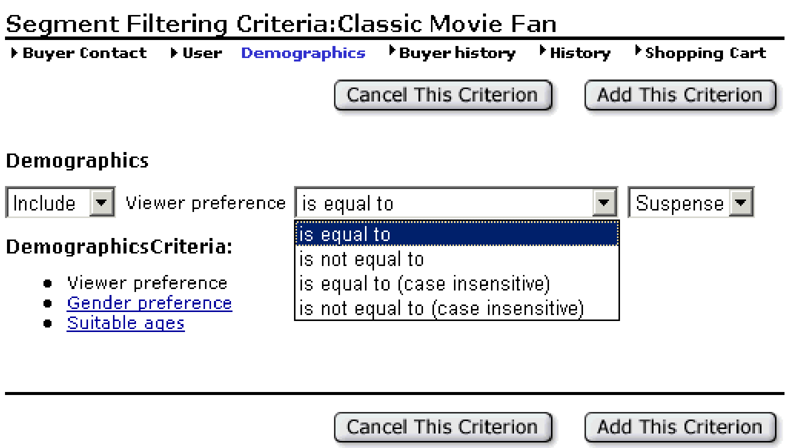
1. If the Content Server interface is not open, log in.
2. Click **New** on the button bar to display in the work area the list of asset types you can create.
3. Select **Segments** from the list (if Segments is not in the list, you do not have the right permissions to create new segments).

   The New Segment form appears:



4. Click in the **Name** field and enter a unique, descriptive name for the segment. You can enter up to 64 alphanumeric characters, including spaces. The first character must be a letter.
5. Click in the **Description** field and enter a brief description of the segment. You can enter up to 128 alphanumeric characters.
6. Click **Continue**.

   The Segment Filtering Criteria form appears. Categories of visitor attributes and history definitions that you can use to build a segment are listed across the top of the form.



   Note that filtering on text strings is case-sensitive unless specifically selected to be case-insensitive.

7. Do one of the following:
   - If you want to create a segment based on a visitor attribute, go to "Step 2: Create Segment Filtering Criteria with Visitor Attributes."
   - If you want to create a segment based on a history definition, go to "Step 3: Create Segment Filtering Criteria with History Definitions."
   - If you want to create a segment based on the shopping cart, go to "Step 4: Define the Segment with Shopping Cart Criteria."

Step 2: Create Segment Filtering Criteria with Visitor Attributes

1. In the Segment Filtering Criteria form, click the name of a category that lists visitor attributes.

   CS-Engage displays a list of the attributes in the category.
2. Click the name of the attribute that you want to use to define the segment.
3. The form displays constraint fields that are meaningful for that attribute.
4. Use the form to set the attribute values that include a visitor in the segment or exclude a visitor from the segment.

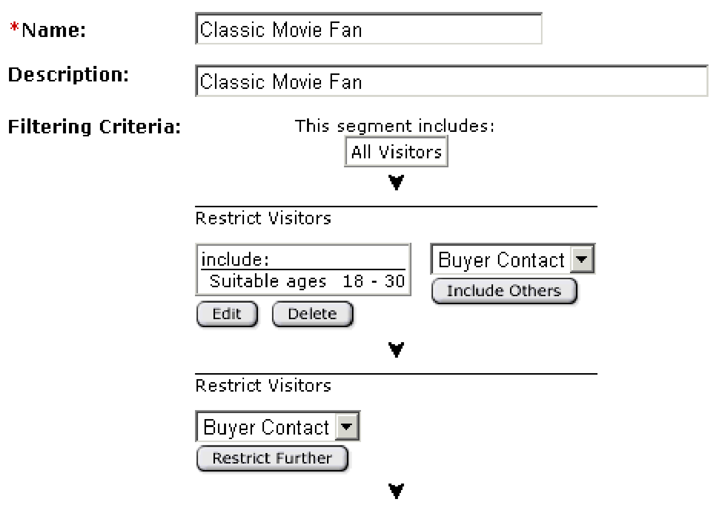
   For example, if the attribute is "age" and you want to include people between the ages of 18 and 30, set the values as follows:

   To exclude people who are in that age range, set the values as follows:

   To include only people who are 18, set the values as follows:

5. Click **Add this Criterion**.

   The criterion is added to the segment.



6. Do one of the following:
   - If you are finished creating this segment, click **Save**.
   - To add another criterion to the segment, continue this procedure.
7. Do one of the following:

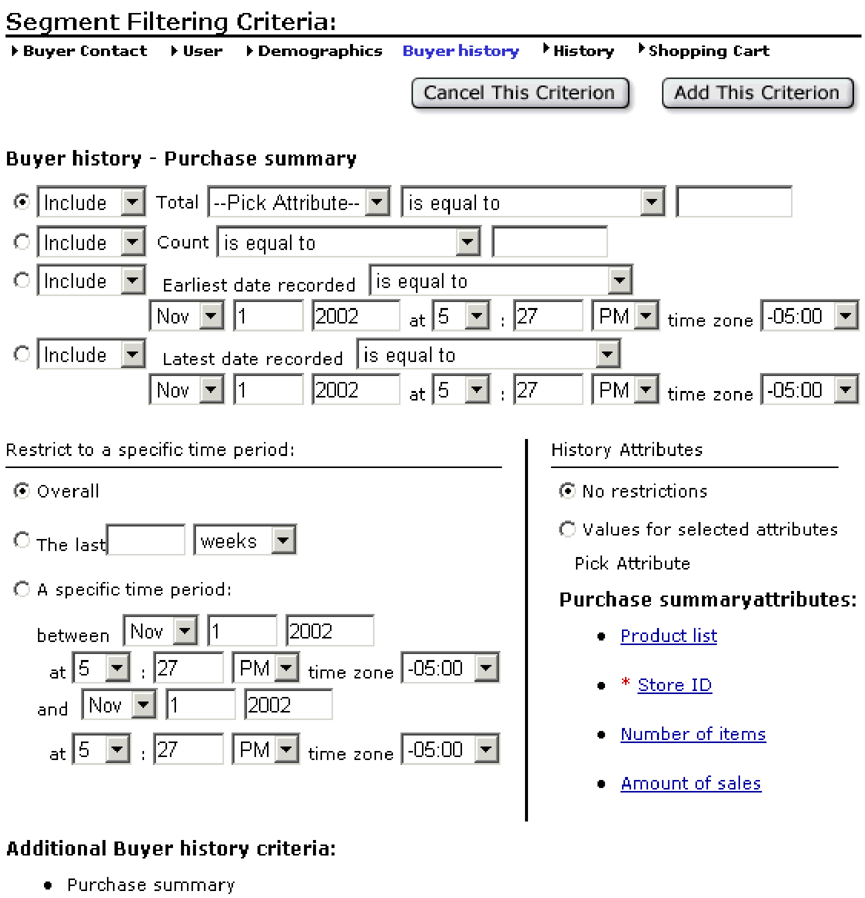
- To add another criterion that qualifies a visitor for this segment, click in the drop-down field to the right (in the same row) of the criterion that you just added, select a category name from the drop-down list, and then click **Include Others**.
- To add more restrictions to the segment, click in the drop-down field under (in the next row) the criterion that you just added, select a category name from the drop-down list, and then click **Restrict Further.**

8. Do one of the following;
   - If you selected a visitor attribute category, go back to step 2 in this procedure.
   - If you selected a history definition category, go to "Step 3: Create Segment Filtering Criteria with History Definitions."
   - If you selected **Shopping Cart**, go to "Step 4: Define the Segment with Shopping Cart Criteria."

Step 3: Create Segment Filtering Criteria with History Definitions

1. In the Segment Filtering Criteria form, click on a category for a history definition.

   The Segment Filtering Criteria form for history definitions is displayed. It shows the first history definition in the category. For example:



   It has three general areas that you use to restrict or filter items:

   - The options area at the top of the form

- The time restriction area on the left of the form
- The history attribute restriction area on the right of the form. This section lists the history attributes that define the history definition.

Tip

To use a different history definition from the one displayed in the form, select one from the **Additional Criteria** list at the bottom of the form.

2. Use one or more of the following options to create simple or complex criteria by using all three areas in the Segment Filtering Criteria form to restrict or filter one item.

Option 1: Filtering Based on a Total

You can define the segment based on a total amount, such as the total amount spent, a total price, or a total number of items. For example, using the Transact history definition named **Purchase summary**, you can define the segment as visitors who have spent $100 in **Total amount of sales**.

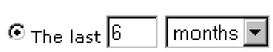
To define a segment based on a total, complete the following steps:

1. Select the **Total** option and then set the values that include a visitor in the segment or exclude a visitor from the segment.

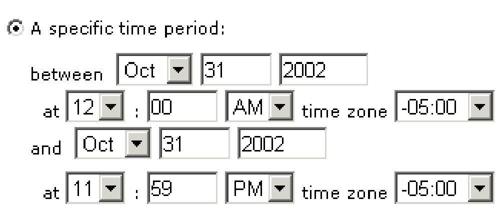
   For example, to include visitors who have spent $100 or more, set the **Purchase summary** values as follows:

2. Under **Restrict to a specific time period**, specify the time period to use for the total.

   For example, to include visitors who spent the specified amount during the last six months, set the time option value as follows:



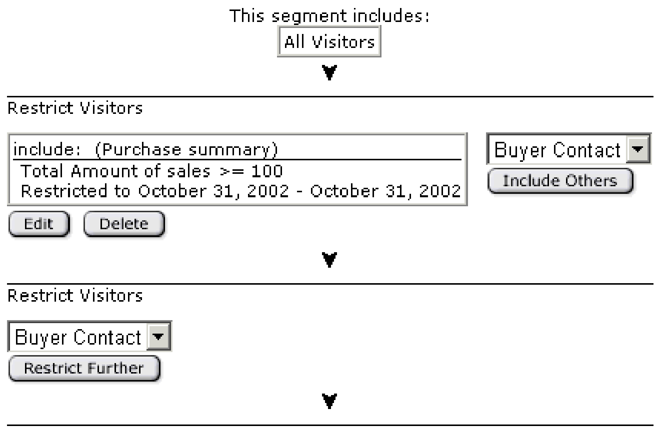
   To include visitors who spent the specified amount on a specific day—perhaps a holiday—set the values as follows:



3. (Optional) If you want to further restrict this criterion by adding a history attribute to it, go to "Option 5: Adding a History Attribute to Further Define the Segment." For example, if you are creating this criterion based on the Transact history definition named **Purchase summary** and you want to base the segment on the total amount spent on a specific product, select **Product List**, and then select the product to be used when calculating the total.

4. Click **Add this Criterion**.

The criterion is added to the segment.



5. Do one of the following:

- If you are finished creating this segment, click **Save**.
- To add another criterion to the segment, continue this procedure.

6. Do one of the following:

- To add another criterion that qualifies a visitor for this segment, click in the drop-down field to the right of the criterion that you just added, select a category name from the drop-down list, and then click **Include Others**.
- To add more restrictions to the segment, click in the drop-down field under (in the next row) the criterion that you just added, select a category name from the drop-down list, and then click **Restrict Further.**

7. Do one of the following;

- If you selected a visitor attribute category, go to “Step 2: Create Segment Filtering Criteria with Visitor Attributes.”
- If you selected a history definition category, go to “Step 3: Create Segment Filtering Criteria with History Definitions.”
- If you selected Shopping Cart, go to “Step 4: Define the Segment with Shopping Cart Criteria.”

Option 2: Filtering Based on a Count

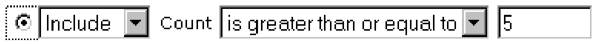
You can define the segment based on the total number of times this history definition was recorded for a visitor.

For example, you can define the segment based on the number of times the Transact history definition named **Purchase summary** was recorded for a visitor. The effect of this criterion is that CS-Engage considers how many times a visitor purchased anything instead of considering what they bought or how much they spent.

To define a segment based on a count, complete the following steps:

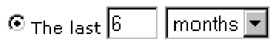
1. Select the **Count** option at the top of the form and then set the values that include a visitor in the segment or exclude a visitor from the segment.

For example, if you are using the Purchase summary history definition and you want to include visitors who have purchased something (anything) at least five times, set the values as follows:

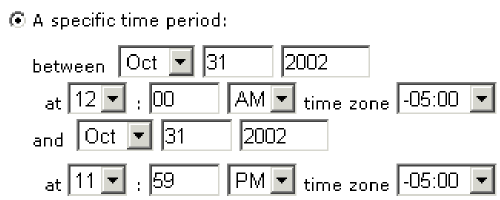


2. Under **Restrict to a specific time period**, specify the time period to use for the count.

   For example, to include visitors who bought during the last six months, set the time option values as follows:



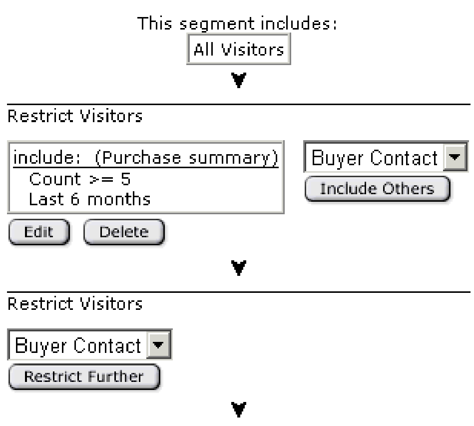
   To include visitors who bought something on a specific day—perhaps a holiday—set the values as follows:



3. (Optional) If you want to further restrict this criterion by adding a history attribute to it, go to "Option 5: Adding a History Attribute to Further Define the Segment." For example, if you are creating this criterion based on the Transact history definition named **Purchase summary**, and you want to base the segment on the number of times a visitor bought a specific product, select **Product List**, and then select the products.

4. Click **Add this Criterion**.

   The criterion is added to the segment.



5. Do one of the following:
   - If you are finished creating this segment, click **Save**.
   - To add another criterion to the segment, continue this procedure.

6. Do one of the following:

- To add another criterion that qualifies a visitor for this segment, click in the drop-down field to the right (in the same row) of the criterion that you just added, select a category name from the drop-down list, and then click **Include Others**.
- To add more restrictions to the segment, click in the drop-down field under (in the next row) the criterion you just added, select a category name from the drop-down list, and click **Restrict Further.**

7. Do one of the following;
   - If you selected a visitor attribute category, go to "Step 2: Create Segment Filtering Criteria with Visitor Attributes."
   - If you selected a history definition category, go to "Step 3: Create Segment Filtering Criteria with History Definitions."
   - If you selected Shopping Cart, go to "Step 4: Define the Segment with Shopping Cart Criteria."

Option 3: Filtering Based on the First Time a History Definition Was Recorded

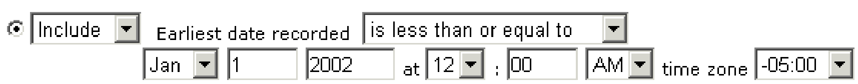
You can define the segment based on the first time the history record was recorded for visitors.

For example, using the Transact history definition named **Purchase summary**, you can define the segment based on the first time the visitor purchased something—in other words, the first time a **Purchase summary** record was recorded for the visitor.

To define the segment based on the first time the definition was recorded, complete the following steps:

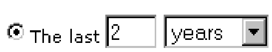
1. Select the **Earliest** option at the top of the form and then set the values that include a visitor in the segment or exclude a visitor from the segment.

   For example, using the Purchase summary history definition to include visitors who have purchased something on or before January 1, 2002, set the values as follows:



2. Under **Restrict to a specific time period**, specify the time period to use for this condition.

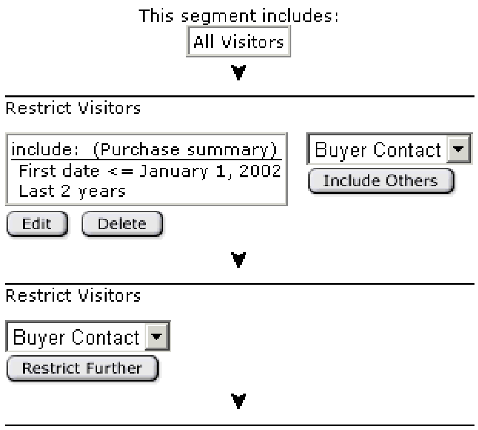
   For example, if you want to include visitors who purchased something on or before a specific date (January 1, 2002, in this example) but you do not want to include them if the date of that purchase was more than two years ago, set the values as follows:



3. (Optional) If you want to further restrict this criterion by adding a history attribute to it, go to "Option 5: Adding a History Attribute to Further Define the Segment." For example, if you are creating this criterion based on the Transact history definition named **Purchase summary** and you want to define the segment based on the first time the visitor purchased a specific product, select **Product List**, and then select the products.

4. Click **Add this Criterion**.

   The criterion is added to the segment.



5. Do one of the following:
   - If you are finished creating this segment, click **Save**.
   - To add another criterion to the segment, continue this procedure.
6. Do one of the following:
   - To add another criterion that qualifies a visitor for this segment, click in the drop-down field to the right (in the same row) of the criterion that you just added, select a category name from the drop-down list, and then click **Include Others**.
   - To add more restrictions to the segment, click in the drop-down field under (in the next row) the criterion that you just added, select a category name from the drop-down list, and then click **Restrict Further.**
7. Do one of the following;
   - If you selected a visitor attribute category, go to "Step 2: Create Segment Filtering Criteria with Visitor Attributes."
   - If you selected a history definition category, go to "Step 3: Create Segment Filtering Criteria with History Definitions."
   - If you selected Shopping Cart, go to "Step 4: Define the Segment with Shopping Cart Criteria."

Option 4: Filtering Based on the Last Time a History Definition Was Recorded

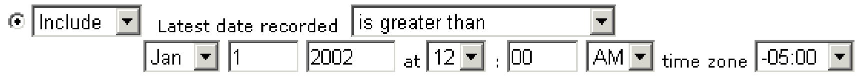
You can define the segment based on the last time (the most recent time) the history definition was recorded for a visitor.

For example, using the Transact history definition named **Purchase summary**, you can define a segment based on the most recent time the visitor purchased something—in other words, the last time a **Purchase summary** record was recorded for the visitor.

To define the segment based on the last time the history definition was recorded, complete the following steps:

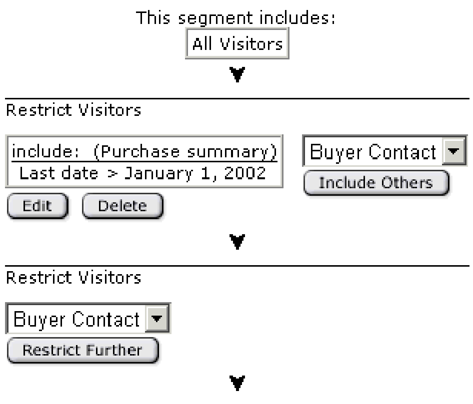
1. Select the **Latest** option at the top of the form and then set the values that include a visitor in the segment or exclude a visitor from the segment.

   For example, to include visitors who have purchased something since January 1, 2002, set the values as follows:



2. Under **Restrict to a specific time period**, specify the time period to use for this condition (**Overall** in the example below).
3. (Optional) If you want to further restrict this criterion by adding a history attribute to it, go to "Option 5: Adding a History Attribute to Further Define the Segment." For example, if you are creating this criterion based on the Transact history definition named **Purchase summary** and you want to define the segment based on the most recent time the visitor purchased a specific product, select **Product List**, and then select the products.
4. Click **Add this Criterion**.

   The criterion is added to the segment. For example:



5. Do one of the following:
   - If you are finished creating this segment, click **Save**.
   - To add another criterion to the segment, continue this procedure.
6. Do one of the following:
   - To add another criterion that qualifies a visitor for this segment, click in the drop-down field to the right (in the same row) of the criterion that you just added, select a category name from the drop-down list, and then click **Include Others**.
   - To add more restrictions to the segment, click in the drop-down field under (in the next row) the criterion that you just added, select a category name from the drop-down list, and then click **Restrict Further.**
7. Do one of the following;
   - If you selected a visitor attribute category, go to "Step 2: Create Segment Filtering Criteria with Visitor Attributes."
   - If you selected a history definition category, go to "Step 3: Create Segment Filtering Criteria with History Definitions."
   - If you selected Shopping Cart, go to "Step 4: Define the Segment with Shopping Cart Criteria."

Option 5: Adding a History Attribute to Further Define the Segment

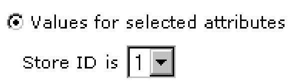
You can add a history attribute to create a more complex criteria—one that further restricts the count, total, first, or last record by taking a specific attribute into consideration.

For example, one of the attributes that define the Transact history definition named **Purchase summary** is **Store ID**. This attribute is required, which means when you define a segment based on a visitor's purchase history, you must also specify at which stores the purchases were made.

To add a history attribute to further define the segment, complete the following steps:

1. Select and configure one of the four options at the top of the form (**Count**, **Total**, **Earliest**, or **Latest**). If you need help with this step, go to one of these procedures:
   - Option 1: Filtering Based on a Total
   - Option 2: Filtering Based on a Count
   - Option 3: Filtering Based on the First Time a History Definition Was Recorded
   - Option 4: Filtering Based on the Last Time a History Definition Was Recorded
2. Under **History Attributes** (on the right side of the form), select the **Values for selected attributes** option.
3. Under the attribute list for this history definition, click the history attribute that you want to use as a filter.

   The form displays constraint fields that are meaningful for that attribute.
4. Use the constraint fields to set the attribute values that further constrain the criterion. For example:

5. Under **Restrict to a specific time period**, specify the time period to use for this condition.
6. Click **Add this Criterion**.

   The criterion is added to the segment.
7. Do one of the following:
   - If you are finished creating this segment, click **Save**.
   - To add another criterion to the segment, continue this procedure.
8. Do one of the following:
   - To add another criterion that qualifies a visitor for this segment, click in the drop-down field to the right (in the same row) of the criterion that you just added, select a category name from the drop-down list, and then click **Include Others**.
   - To add more restrictions to the segment, click in the drop-down field under (in the next row) the criterion that you just added, select a category name from the drop-down list, and then click **Restrict Further.**
9. Do one of the following;
   - If you selected a visitor attribute category, go to "Step 2: Create Segment Filtering Criteria with Visitor Attributes."

- If you selected a history definition category, go to "Step 3: Create Segment Filtering Criteria with History Definitions."
- If you selected Shopping Cart, go to "Step 4: Define the Segment with Shopping Cart Criteria."

Option 6: Adding Products to Further Define the Segment

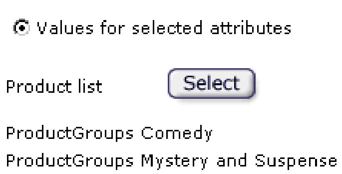
You can add products to create a more complex criteria—one that further restricts the count, total, first, or last record by taking specific products into consideration—if the history definition that you use to define this segment is either the Transact history definition named **Purchase Summary** or any other history definition with a product list. For example, you can include visitors only if they have spent $50 on socks during the month of January.

To add a product to the segment definition:

1. Select and configure one of the four options at the top of the form (**Count**, **Total**, **Earliest**, or **Latest**). If you need help with this step, go to one of these procedures:
   - Option 1: Filtering Based on a Total
   - Option 2: Filtering Based on a Count
   - Option 3: Filtering Based on the First Time a History Definition Was Recorded
   - Option 4: Filtering Based on the Last Time a History Definition Was Recorded
2. Under **History Attributes** (on the right side of the form), select the **Values for selected attributes** option.
3. Under the attribute list, select **Product List**.

   The form displays a **Select** button.
4. In the tree, select the Product tab.
5. Click the product that you want to select. To select more than one product use Ctrl-click and Shift-click.
6. Click **Select**.

   CS-Engage lists the product parents and products that you selected. For example:

   If the tree is toggled off, the **Select** button becomes a right arrow which, when clicked, opens a pop-up window where you can select items from your active list and history.
7. Under **Restrict to a specific time period**, specify the time period to use for this criterion.
8. Click **Add this Criterion**.

   The criterion is added the segment.
9. Do one of the following:
   - If you are finished creating this segment, click **Save**.
   - To add another criterion to the segment, continue this procedure.

10. Do one of the following:

- To add another criterion that qualifies a visitor for this segment, click in the drop-down field to the right (in the same row) of the criterion that you just added, select a category name from the drop-down list, and then click **Include Others**.
- To add more restrictions to the segment, click in the drop-down field under (in the next row) the criterion that you just added, select a category name from the drop-down list, and then click **Restrict Further.**

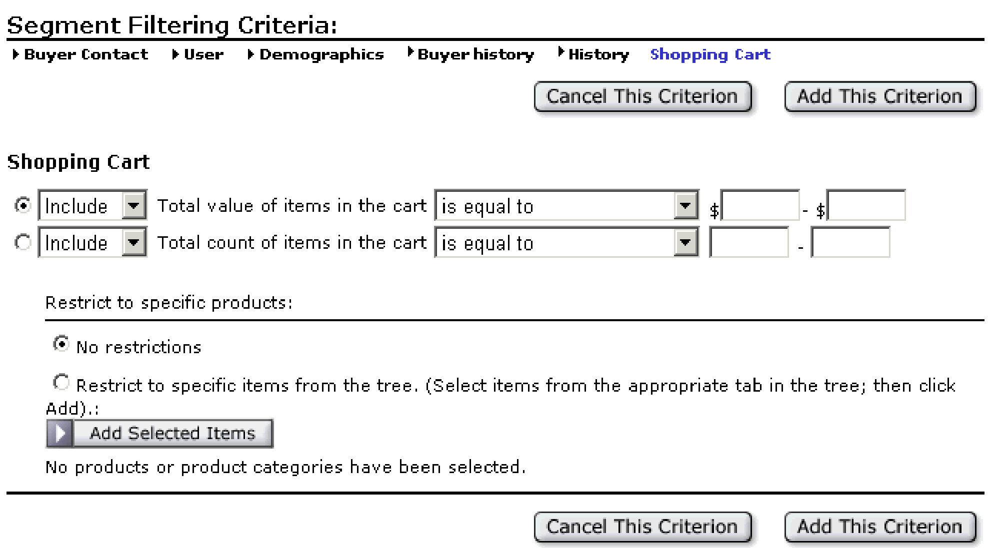
11. Do one of the following;

- If you selected a visitor attribute category, go to “Step 2: Create Segment Filtering Criteria with Visitor Attributes.”
- If you selected a history definition category, go to “Step 3: Create Segment Filtering Criteria with History Definitions.”
- If you selected Shopping Cart, go to “Step 4: Define the Segment with Shopping Cart Criteria.”

Step 4: Define the Segment with Shopping Cart Criteria

1. Click the **Shopping Cart** category.

CS-Engage displays the Shopping Cart filter form:



2. Do one of the following:

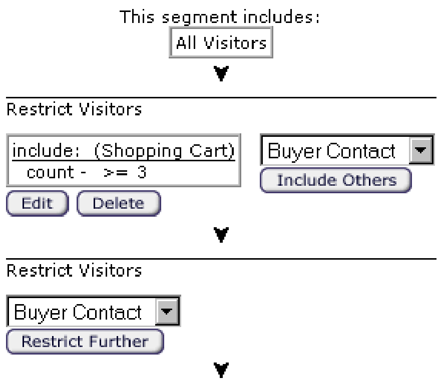
- To define this segment based on the total **value** of the items in a visitor’s shopping cart, select the first option and then set the values. For example, to include visitors who have at least $50 worth of products in their carts, set the values as follows:

- To define this segment based on the total **number** of items in the visitor’s shopping cart, select the second option and then set the values. For example, to include visitors who have three or more items in their carts, set the values as follows:

3. To restrict the item count or cart value to specific products in the catalog:
   a. Select **Restrict to specific items from the tree**.
   b. In the tree, select the Product tab.
   c. Click the product that you want to select. To select more than one product use Ctrl-click and Shift-click.
   d. In the Segment Filtering form, click **Add Selected Items**.

      If the tree is toggled off, the **Add Selected Items** button becomes a right arrow which, when clicked, opens a pop-up window where you can select items from your active list and history.
4. Click **Add this Criterion**.

   The shopping cart criterion is added to the segment.



5. Do one of the following:
   - If you are finished creating this segment, click **Save**.
   - To add another criterion to the segment, continue this procedure.
6. Do one of the following:
   - To add another criterion that qualifies a visitor for this segment, click in the drop-down field to the right (in the same row) of the criterion that you just added, select a category name from the drop-down list, and then click **Include Others**.
   - To add more restrictions to the segment, click in the drop-down field under (in the next row) the criterion that you just added, select a category name from the drop-down list, and then click **Restrict Further.**
7. Do one of the following:
   - If you selected **Shopping Cart**, return to step 2 in this procedure.
   - If you selected a visitor attribute category, go to "Step 2: Create Segment Filtering Criteria with Visitor Attributes."
   - If you selected a history definition category, go to "Step 3: Create Segment Filtering Criteria with History Definitions."

Sample Segment Assets

When you install CS-Engage with the Burlington Financial extensions, you get two sample segment assets:

- **BFfrequentvisitors**
- **highriskinvestors**

These sample assets appear on the **Marketing** tab in the tree. These segments are designed to work in concert with the sample recommendation and promotion assets that also appear on the Marketing tab. Use these sample segments as a template for creating segment assets for your site.

Publishing Segments

When your segments are ready, you must approve them so they can be published to your delivery system. CS-Engage can then use the segments to assess visitors and recommend the appropriate items to them.

Be sure to examine or inspect your segments to verify that you configured them correctly before approving them for publishing.

For more information about approving and publishing assets, see Chapter 4, "Publishing."

After You Publish

After you have created, verified, and published the segments, you must assign ratings to the products and content that are significant to members of each segment. For details, see "Creating and Configuring Recommendations."

You can also create promotions after you have created segments. For more information, see "Creating Promotions."

Chapter 9

Creating and Configuring Recommendations

Recommendations are assets that determine which products and content are featured or "recommended" on a site page. Recommendations calculate which assets to recommend based on the segments the visitors qualify for, and, in some cases, relationships between the flex assets representing products and content.

After you create recommendation assets, you configure them by rating assets based on their importance to the segments that you have created. Assets are recommended (or are **not** recommended) based on those ratings. Additionally, one kind of recommendation defines relationships between flex assets. You determine which assets have those relationships.

This chapter contains the following sections:

About Recommendation Assets

A recommendation asset collects, assesses, and sorts flex assets representing product and content, and then recommends the most appropriate of these assets for the current visitor. How does it determine which are the most appropriate assets? By consulting the list of segments that the visitor belongs to.

You create segments and then rate the flex assets for their importance to each segment. When a recommendation asset is invoked from a site page, Content Server Engage determines which segments the current visitor qualifies for, and then selects the assets that are identified by the recommendation with the highest rating for those segments. These are the assets that are "recommended" to the visitor.

There are three types of recommendations:

- **Related items** – returns a list of recommended items based on relationships between flex assets that represent products and content. You determine which of these assets have these relationships. (This type of recommendation was formerly known as "context-based.")
- **Static lists** – returns separate static lists of recommended items for selected segments, and with no segment affiliation. (A variant of this type of recommendation was formerly known as "manual.")
- **Dynamic lists** – returns a dynamic list of recommended items, based on an asset that you select. (A variant of this type of recommendation was formerly known as "SQL.")

Note

You can continue to use and update SQL recommendations from earlier versions, but you cannot create new SQL recommendations.

CS-Engage uses a recommendation's configuration options and the asset ratings to constrain the list of recommended items when the list contains more items than the template that renders the site page is programmed to display. For related items recommendations, CS-Engage also uses asset relationships to constrain the list. For any recommendation, CS-Engage never recommends an asset to a visitor if its rating for that visitor is 0.

Developing Recommendations: Process Overview

Following are the basic steps for setting up recommendations:

1. Designers and developers meet with the marketing team to define all the merchandising messages that you want to display on your site and to plan how to represent those messages using recommendation and promotion assets.
2. The designers and developers design and code templates for the recommendations. They also write **CSElement** assets designed to generate dynamic lists.
3. You then use the CS-Engage recommendation forms to name and configure the recommendations.

4. Using the CS-Engage flex asset forms, you rate how important the assets are to each segment, and, therefore, to the individual visitors who become members of those segments. (Typically, you assign ratings to flex parents instead of to individual flex assets.)
5. For each related items recommendation, you assign to flex assets (representing products and content) the assets with relationships that are defined by that recommendation. (Typically, you specify relationships for flex parents instead of for individual flex assets.)

About Rating and Confidence Values

When CS-Engage calculates which are the most appropriate assets for the current visitor, it multiplies the asset's **rating** by the **confidence** value assigned to the asset by the recommendation to obtain the asset's final rating.

This section defines both of those values.

Rating

An asset's **ratings** are the values that you assign to represent the asset's importance or unimportance to the members of the segments that you created. You can manually assign three kinds of ratings to an asset:

Rating	Description
In Segment	Used when the current visitor is a member of a specific segment.
Out of Segment	Used when the current visitor is not a member of a specific segment.
When no other ratings apply	Used when no other ratings apply. (The "fallback" rating.)

There is also a system default rating for flex assets or flex parents that have not been assigned any of these specific ratings. The system default is set to 50 unless you and your web development team decide to change it (through an XML or JSP object method on your site pages). The system default represents the average or middle point in the rating scale for your site, which is why FatWire recommends that you keep the system default rating set to 50.

Only flex assets representing products and content can be rated for segments. Basic assets (article, image, and so on) and any other asset created with AssetMaker cannot be rated for segments.

Range

The valid range of ratings is 0 through 100. The individual values of 0 and 100 affect an asset's rating as follows:

- A rating of 0 for a segment tells CS-Engage to never recommend the asset to a member of the segment. For example, you might want to make sure that your site never recommends PCs or PC accessories to members of a segment named “Macintosh Users.”

- A rating of 100 for a segment tells CS-Engage to always recommend the asset to a member of the segment, and, to exclude any asset that is not rated at 100.

Inheritance of Ratings

Flex assets and flex parents inherit In Segment, Out of Segment, and “fallback” (when no other ratings apply) ratings from their parents. The asset or parent’s final rating is the average of its individual rating (which is the system default rating if it has no individual rating) plus its inherited rating. The asset’s inherited rating is the average of its parent’s rating plus the parent’s inherited rating.

For example:

Asset or Parent	Individual Rating	Inherited Rating	Final Rating
Asset Parent A (top-level group)	80	the system default, 50*	(80 + 50) / 2 = **65**
Asset Parent B (child of Asset Parent A)	60	65	(60 + 65) / 2 = **62.5**
Asset 1 (child of Asset Parent B)	70	62.5	(70 + 62.5) / 2 = **66.25**

* When the asset has no inherited rating because the asset is at the top level of the hierarchy, the system default is used as the inherited rating.

If the flex asset inherits a rating for a segment that it does not have an individual rating for, CS-Engage averages the inherited rating with the system default rating (which is typically 50) to determine the final rating.

For example:

Asset or Parent	Individual Rating	Inherited Rating	Final Rating
Asset Parent A (top-level group)	80	the system default, 50	(80 + 50) / 2 = **65**
Asset Parent B (child of Asset Parent A)	none, so the system default of 50 is used	65	(50 + 65) / 2 = **57.5**
Asset 1 (child of Asset Parent B)	70	57.5	(70 + 57.5) / 2 = **63.75**

Because the values of 0 and 100 are special, the following rules apply to them:

- If either the individual or the inherited rating is 0, the final rating is 0.
- If either the individual or the inherited rating is 100, the final rating is 100 unless the other value is 0.

If the current visitor belongs to more than one segment and the asset has ratings for those segments, the following rules apply:

- The highest of the ratings is the final rating.
- If one of those ratings is 0, the final rating is 0.

Confidence

An asset’s **confidence** is a manually assigned value used as a scaling or weighting factor when a recommendation determines which assets to return for the current visitor. Confidence values are assigned differently for each kind of recommendation.

Confidence values are specific to the recommendation asset that assigns them. In other words, confidence values from one recommendation do not affect the asset’s rating when it is being assessed by a different recommendation.

Range

Because confidence is a scaling factor, it is presented as a percentage. The valid range of percentage values is 0 through 100. The values of 0% and 100% affect an asset’s rating as follows:

- A confidence value of 0% means the asset will never be returned by that recommendation because the asset’s rating is multiplied by 0% (0), which results in a rating of 0.
- A confidence value of 100% means the asset’s rating is not scaled or affected by the confidence at all because the asset’s rating is multiplied by 100% (1).

Inheritance

Typically you designate relationships between flex assets representing products and content, and assign a confidence level to that relationship at the parent level because assets inherit the confidence value assigned to their parents by the recommendation.

If the asset has more than one confidence value for the same recommendation, CS-Engage uses the highest value (even if one of those values is 0). It does not average them.

About Selection Criteria and Sort Order

Selection Criteria and **Sort** are configuration options that affect the selection and sorting of the assets that are returned to a template by the recommendation asset.

You use the **Selection Criteria** options to specify how the recommendation asset selects items. You use the **Sort** options to specify how the items that are selected are ordered when they are displayed.

Selection Criteria

The method that you select for **Selection Criteria** determines how CS-Engage selects items from the database. There are two **Selection Criteria** methods:

- **Highest** – CS-Engage selects the assets with the highest rating for the current segments (that is, the segments that the current visitor belongs to).

- **Random** – CS-Engage uses a weighted random algorithm to select the assets from the list. Use this selection criteria to design a recommendation that rotates its message, keeping the recommended items current or different each time a visitor returns to the site page. The selections are still based on the ratings of the assets, however, because this is a weighted random algorithm. The higher the asset's rating for the current segment, the more likely it is to be chosen.

  For example, a template is coded to call a recommendation that uses the random selection criteria method for one asset. The possibilities include these three products:

Asset	Rating
Movie 123	95
Movie ABC	87
Movie RedYellowBlue	65

  The probability of the product being selected is its rating divided by the sum of all the ratings (247). Therefore, "Movie 123" has a 38% chance of being selected, "Movie ABC" has a 35% chance, and "Movie RedYellowBlue" has a 26% chance.

Sort Options

After the **Selection Criteria** method determines which items to pass to the template, the **Sort** options determine the order in which the template should render them.

You can sort the list of selected items by using the following options:

- **Product attribute** – sorts by product attributes such as Price, SKU, or Color, and so on (depending on which product attributes are used in your system).
- **Content attribute** – sorts by content attributes such as Headline, Filename, or Author, and so on (depending on which content attributes are used in your system). Note that content attribute means only those attributes that are used to define CS-Direct Advantage content assets, not CS-Direct content assets.
- **Asset type** – sorts items in the list alphabetically based on their asset types. With this method, advanced article assets are first (AArticles), then advanced image assets (AImages), and then the product assets. You can reverse the sort order by selecting the descending option (the product assets are then listed first).
- **Confidence** – sorts the returned items by their confidence values.
- **Rating** – sorts the returned items by their rating.

Note

The product and content attribute categories that appear are based on sample site data. Your sort options may display other attribute categories.

You can add as many sort options as you want to a recommendation. CS-Engage uses these options in the order in which they appear on the recommendation form.

Recommendation Asset Types

The following sections describe the three recommendation asset types and how ratings are calculated for each type.

Static Lists

A static lists recommendation asset holds static, preselected lists of assets. When a template invokes the recommendation, it returns the items on the static lists.

You create a static lists recommendation by selecting items in the tree and adding them to specific segments. You can also create a static list from the tree with no segment affiliation.

For each item that you add to a segment's static list, you can assign a confidence value for In Segment and Out of Segment ratings.

Because this is a static lists recommendation, the items in the lists remain the same until you change them (or delete them from the database).

Calculating Ratings for Static Lists

If a template invokes a static lists recommendation but it does not ask for a specific number of items, CS-Engage calculates ratings only to eliminate assets with a rating of 0. The recommendation then returns all the items on its list that are not rated 0 for the current visitor.

When a template invokes a static lists recommendation **and** it requests fewer items than are on the recommendation's list, CS-Engage uses the **Selection Criteria** method specified in the recommendation to determine which assets to return.

CS-Engage calculates the assets' ratings as follows:

1. It determines which segments the current visitor belongs to.
2. It examines each item on the recommendation's list to determine whether that item has a rating for any of the segments that apply to the current visitor.
3. For each item that has an appropriate rating, it multiplies the rating by the confidence value for that asset (from the recommendation's list). This value is the asset's final rating. For example, if the rating is 90 and the confidence is 75%, it calculates the final rating to be 67.5 (that is, 90 x .75).

If the **Selection Criteria** method is **Highest**, CS-Engage recommends the assets with the highest final ratings. If the **Selection Criteria** method is **Random**, CS-Engage uses a weighted random algorithm to select and return the recommended items.

Dynamic Lists

A dynamic lists recommendation references a special asset called a CSElement asset, which your developers have coded as a type of program known as an element. When a template invokes the recommendation, it executes the element, which returns a list based on the conditions defined in the element. For example, you could create a recommendation named "New Products" whose referenced element selects only those products that have been added to the database in the past five days.

You create a dynamic lists recommendation by selecting a CSElement asset in the tree. You can then test the selected element by displaying the current list results. The element is required to return a list of a specific type containing these columns:

- asset name – the name of the asset, which is guaranteed to be unique for the site
- asset id – generated identifier of the asset
- asset type – the name of the asset class (for example, "Products")
- confidence – a value that is either calculated by the developer, or assigned by CS-Engage as 1 (100%)

As its name implies, this type of recommendation is dynamic: each time it is invoked by a template, the recommendation executes the element, which regenerates the list, based on the current state of the database.

Note

For backward compatibility, you can continue to use existing SQL recommendations, which return dynamic resultset lists containing assettype, assetid, and an optional confidence value. You cannot, however, introduce new SQL recommendations.

Calculating Ratings for Dynamic Lists

If a template invokes a dynamic lists recommendation but it does not ask for a specific number of items, the recommendation returns all the items it obtains from the generated list. CS-Engage does not calculate ratings in this case.

If a template invokes a dynamic lists recommendation **and** it requests fewer items than are on the recommendation's list, CS-Engage uses the **Selection Criteria** method specified in the recommendation to determine which assets to return.

CS-Engage calculates the asset ratings as follows:

1. It determines which segments the current visitor belongs to.
2. It examines each item returned by the element to determine whether that item has a rating for any of the segments that apply to the current visitor.
3. For each item that has an appropriate rating, it multiplies the rating by the confidence value for that asset (from the element). This value is the asset's final rating. For example, if the rating is 90 and the confidence is .75, it calculates the final rating to be 67.5 (90 x .75).

   If the element does not return a confidence value, CS-Engage assigns a confidence value of 1 to each item in the list.

If the **Selection Criteria** method is **Highest**, CS-Engage recommends the assets with the highest final ratings. If the **Selection Criteria** method is **Random**, CS-Engage uses a weighted random selection to return the recommended items.

Related Items

A related items recommendation holds the name of a relationship. When a template invokes a related items recommendation, items are returned (recommended) only if they are manually configured to have the relationship named by the recommendation with the asset that is currently displayed on the page.

Typical relationships between assets are cross-sell and up-sell relationships. For example, a related items recommendation named Cross-Sell displays a list of western movies on rendered pages that display suspense movies because the marketers determined that people who buy westerns also buy suspense movies.

You create a related items recommendation by naming it and specifying that it is a related items recommendation.

You must then determine which flex assets have the relationship represented by this recommendation with other flex assets. You use the flex asset and flex parent asset forms to assign these relationships, and you assign the confidence value that represents the asset's weight or scale for that recommendation.

When the recommendation is rendered by its template, CS-Engage does the following:

- Identifies which assets have the relationship named by the recommendation with the currently displayed asset.
- Examines the ratings for those assets to determine whether those assets are appropriate for the current visitor.

Calculating Ratings for Related Items

In this example, a template that displays a product description for Movie 123 invokes a related items recommendation named Cross-Sell. The template for Cross-Sell asks for five assets that have the Cross-Sell relationship with Movie 123. CS-Engage does the following:

1. Determines which segments the current visitor belongs to.
2. Examines the **Related Items** section on the product form for Movie 123 to determine which products and/or product parents are listed for the Cross-Sell recommendation. It also examines the related items for all parents of Movie 123.
3. Creates a preliminary list of all the movies and other products that have the Cross-Sell relationship with Movie 123. (This list includes all the products that inherited this relationship from their parents.)
4. Examines the **Ratings** section on the product forms for all the movies and products on the preliminary list.
5. Constrains the preliminary list to include only those movies and products that have applicable ratings for the segments that the current visitor belongs to.
6. Determines the confidence value for each of these items.
7. Multiplies the rating by the confidence for each product on the constrained list.

If the **Selection Criteria** method is **Highest**, CS-Engage recommends the five assets with the highest final ratings. If the **Selection Criteria** method is **Random**, CS-Engage uses a weighted random selection to return the five recommended items.

Creating Recommendation Assets

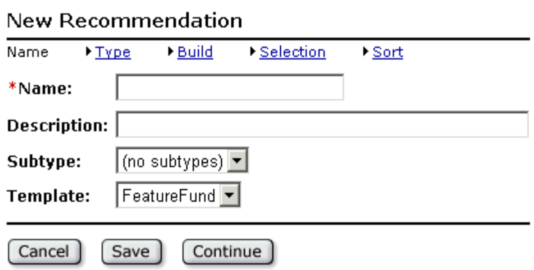
The following sections describe how to create the three types of recommendation assets.

Creating Static Lists Recommendations

To create a static lists recommendation:

1. If the Content Server interface is not already open, log in.
2. Click **New** on the button bar.
3. Select **Recommendation** from the list of asset types.

   The **New Recommendation** form appears:

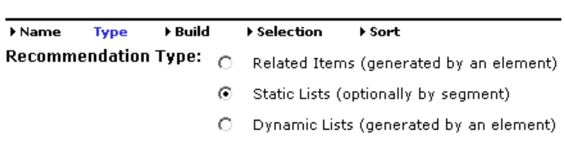
4. In the **Name** field, enter a unique, descriptive name for the recommendation. You can enter up to 64 alphanumeric characters, including spaces. The first character must be a letter.
5. In the **Description** field, enter a brief description of the recommendation. You can enter up to 128 alphanumeric characters.
6. In the **Subtype** field, select a subtype from the drop-down list. A subtype is a way of categorizing recommendations. If no subtypes were defined by the developers for the recommendation asset type, the drop-down list is empty.
7. In the **Template** field, select a template from the drop-down list.

   Note

   If this field does not display a drop-down list, it means that no templates have been created for recommendations. Contact your developers about creating templates for recommendations.

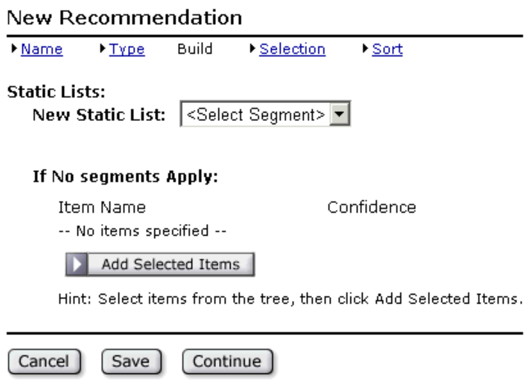
8. Click the **Continue** button to select the type of recommendation that you are creating. Alternatively, you can click **Type** in the line below the form title.

   The type form appears:

9. Select **Static Lists**, then click the **Continue** button to build the recommendation. Alternatively, you can click **Build** in the line below the form title.

The build form appears:



10. Build static lists as follows:

a. From the drop-down list, select a segment.

b. From the tree, select items that you want to appear on the list for this segment; then click **Add Selected Items**.

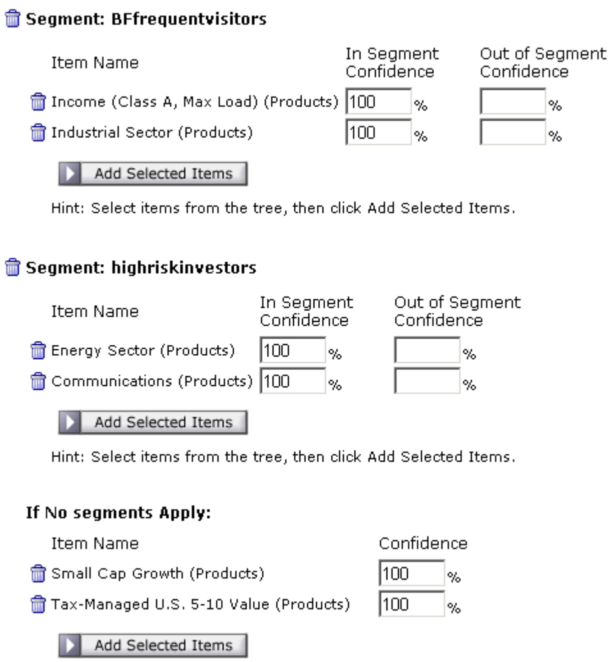
If the tree is toggled off, the **Add Selected Items** button becomes a right arrow which, when clicked, opens a pop-up window where you can select items from your active list and history.

c. Assign a confidence value for each item, both **In Segment** and **Out of Segment**; that is, a weighting factor for the recommendation to use in determining which assets to return for the current visitor—when that visitor is a member of the segment and when that visitor is not a member of the segment. The defaults are 100% and 0% respectively. For additional information, see “About Rating and Confidence Values.”

d. Repeat steps a, b, and c for as many segments as you want to include. After you select a segment, it no longer appears in the drop-down list.

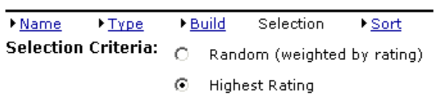
e. (Optional) Select items and add them to the **If No Segments Apply** category. Assign confidence values as appropriate.

The completed form will look similar to the following:



11. Click the **Continue** button to set selection criteria. Alternatively, you can click **Selection** in the line below the form title.

    The selection criteria form appears:



12. Choose which method the recommendation will use to select items. For descriptions of these methods, see the section "Selection Criteria."
13. Click the **Continue** button to set sort criteria. Alternatively, you can click **Sort** in the line below the form title. Set sort criteria as described in the section "Configuring Sort Order."
14. At the completion of the sort criteria stage, you click **Save** to finish asset creation. You can also click **Save** as you progress through the stages to save the asset at that stage.

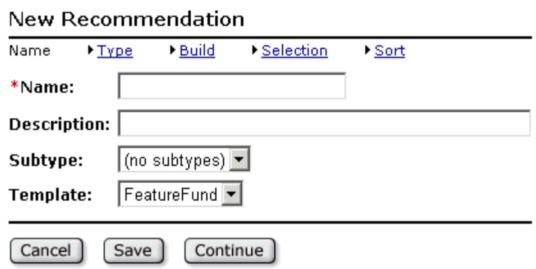
Creating Dynamic Lists Recommendations

Talk to your designers and developers beforehand about which CSElement assets you want recommendations that you are creating to invoke.

To create a dynamic lists recommendation:

1. If the Content Server interface is not already open, log in.
2. Click **New** on the button bar.
3. Select **Recommendation** from the list of asset types.

    The **New Recommendation** form appears:



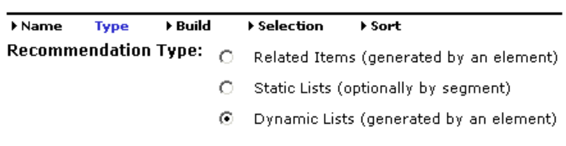
4. In the **Name** field, enter a unique, descriptive name for the recommendation. You can enter up to 64 alphanumeric characters, including spaces. The first character must be a letter.
5. In the **Description** field, enter a brief description of the recommendation. You can enter up to 128 alphanumeric characters.
6. In the **Subtype** field, select a subtype from the drop-down list. A subtype is a way of categorizing recommendations. If no subtypes were defined by the developers for the recommendation asset type, the drop-down list is empty.
7. In the **Template** field, select a template from the drop-down list.

Note

If this field does not display a drop-down list, it means that no templates have been created for recommendations. Contact your developers about creating templates for recommendations.

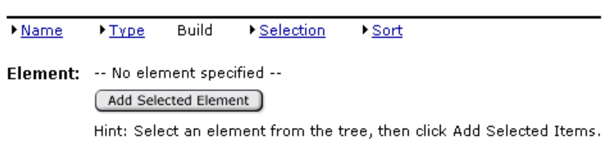
8. Click the **Continue** button to select the type of recommendation you are creating. Alternatively, you can click **Type** in the line below the form title.

   The type form appears:



9. Select **Dynamic Lists**, then click the **Continue** button to build the recommendation. Alternatively, you can click **Build** in the line below the form title.

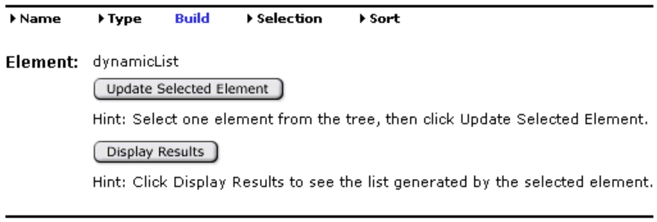
   The build form appears:



10. From the **Design** tab in the tree, select the CSElement asset that you want to execute, and click **Add Selected Element**. Note that you can select only one element.

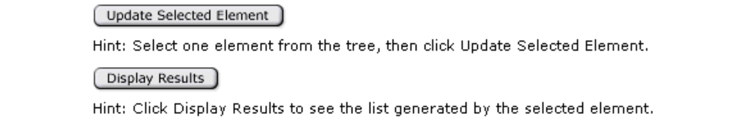
If the tree is toggled off, the **Add Selected Element** button becomes a right arrow which, when clicked, opens a pop-up window where you can select an element from your active list and history.

A form similar to the following appears:



11. If you want to change the CSElement asset, select another one and click **Update Selected Element** to replace the listed asset. To view the list that the element will currently generate, click **Display Results**.

A form similar to the following appears:



Results:

Asset Name	Asset ID	Asset Type	Confidence
Income (Class A, Max Load)	993403844495	Products	100.0%
Domestic Equity Portfolio	993403844773	Products	100.0%
Emerging Markets Equity Fund	993403845336	Products	100.0%
Small Cap	993403845588	Products	100.0%
Mid Cap Stock Fund	993403845840	Products	100.0%
Global Fund	993403846085	Products	100.0%
EastSouth Fund	993403846326	Products	100.0%
Tech Titans	993403846578	Products	100.0%
Financial Titans Fund	993403846823	Products	100.0%
Large Cap Growth (Class A, Max Load)	993403847128	Products	100.0%
International Titan Funds	993403847744	Products	100.0%
Ero Titans	993403847970	Products	100.0%
Worldwide Spectrum	993403848918	Products	100.0%
Small Cap (Class A, Max Load)	993403849555	Products	100.0%
Convertible Bond	993403849979	Products	100.0%
Small Cap Growth	993403850319	Products	100.0%
DJ Index	993403851044	Products	100.0%
Ultra Risk Int'l	993403851295	Products	100.0%
Small Gain Tax Hedge	993403851802	Products	100.0%
Energy Sector	993403852228	Products	100.0%
Financial Services Specialty	993403852438	Products	100.0%
Health Care	993403852646	Products	100.0%
Communications	993403853236	Products	100.0%
Utilities Specialist	993403853448	Products	100.0%
International Index Fund	993403854142	Products	100.0%
Select Industrial Equipment	993403855059	Products	100.0%
Tax-Managed U.S. 5-10 Value	993403855278	Products	100.0%
Doculab Super Fund	993559376745	Products	100.0%

Remember that the list is dynamic, so the list contents are likely to change when the recommendation is invoked by the template. If you select another CSElement asset from the tree, the currently displayed list results will be cleared.

When you click **Display Results**, several other outcomes are possible:

- The element fails to return the expected list type.
- The returned list is missing a required column.
- The element encountered the displayed error condition.
- The element fails to return any assets (not necessarily an error; the expected assets may not yet exist, in which case, you should contact your administrator).

If you encounter any of these conditions, select another CSElement asset and try again.

12. Click the **Continue** button to set selection criteria. Alternatively, you can click **Selection** in the line below the form title.

    The selection criteria form appears:

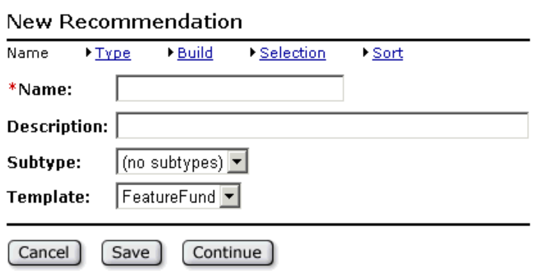
13. Choose which method the recommendation will use to select items. For descriptions of these methods, see the section "Selection Criteria."
14. Click the **Continue** button to set sort criteria. Alternatively, you can click **Sort** in the line below the form title. Set sort criteria as described in the section "Configuring Sort Order."
15. At the completion of the sort criteria stage, you click **Save** to finish asset creation. You can also click **Save** as you progress through the stages to save the asset at that stage.

Creating Related Items Recommendations

To create a related items recommendation:

1. If the Content Server interface is not already open, log in.
2. Click **New** on the button bar.
3. Select **Recommendation** from the list of asset types.

   The **New Recommendation** form appears:

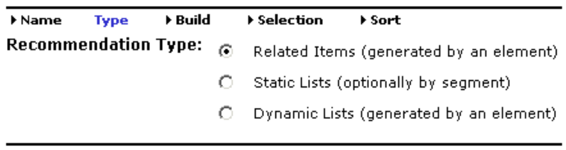
4. In the **Name** field, enter a unique, descriptive name for the recommendation. You can enter up to 64 alphanumeric characters, including spaces. The first character must be a letter.
5. In the **Description** field, enter a brief description of the recommendation. You can enter up to 128 alphanumeric characters.
6. In the **Subtype** field, select a subtype from the drop-down list. A subtype is a way of categorizing recommendations. If no subtypes were defined by the developers for the recommendation asset type, the drop-down list is empty.
7. In the **Template** field, select a template from the drop-down list.

Note

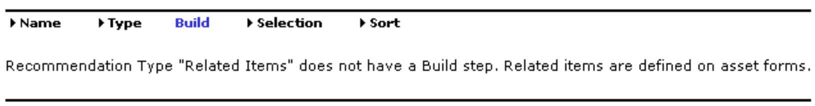
If this field does not display a drop-down list, it means that no templates have been created for recommendations. Contact your developers about creating templates for recommendations.

8. Click the **Continue** button to select the type of recommendation that you are creating. Alternatively, you can click **Type** in the line below the form title.

   The type form appears:

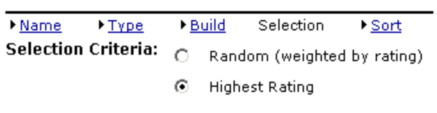


9. Because there is no build step for this recommendation type, click **Selection** in the line below the form title to go to the selection criteria form. If you click **Build** or the **Continue** button by mistake, the following message appears:



10. Click the **Continue** button to set selection criteria. Alternatively, you can click **Selection** in the line below the form title.

    The selection criteria form appears:



11. Choose which method the recommendation will use to select items. For descriptions of these methods, see the section "Selection Criteria."
12. Click the **Continue** button to set sort criteria. Alternatively, you can click **Sort** in the line below the form title. Set sort criteria as described in the section "Configuring Sort Order."
13. At the completion of the sort criteria stage, you click **Save** to finish asset creation. You can also click **Save** as you progress through the stages to save the asset at that stage.

This recommendation now appears in the recommendation lists for flex assets and flex parent assets.

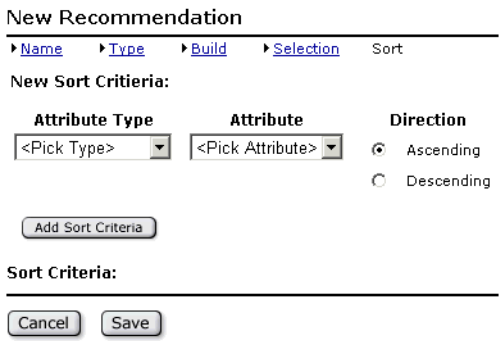
Configuring Sort Order

The steps for configuring sort order for a recommendation are the same for all three types.

To configure the sort order for a recommendation:

1. From the selection criteria form, click the **Continue** button to set sort criteria. Alternatively, you can click **Sort** in the line below the form title.

   The sort criteria form appears.

2. In the **Attribute Type** field, do one of the following:
   - To sort by a product attribute, select **Product Attributes.**
   - To sort by a content attribute, select **Content Attributes.**
   - To sort by asset type, confidence, or rating, select **Special**.

   For more information about these options, see “Sort Options.”

3. In the **Attribute** field. The items in the list depend on the option that you selected in the **Attribute Type** field.
   - If you selected **Product Attribute**s in that field, this field lists all the product attributes in the database.
   - If you selected **Content Attributes** in that field, this field lists all the content attributes for CS-Direct Advantage content assets (but not the attributes for CS-Direct content assets).
   - If you selected **Special** in that field, this field displays **_ASSETTYPE_**, **_CONFIDENCE_**, and **_RATING_**.

   Note

   The product and content attribute categories that appear are based on sample site data. Your sort options may display other attribute categories.

   Select an option from the drop-down list.

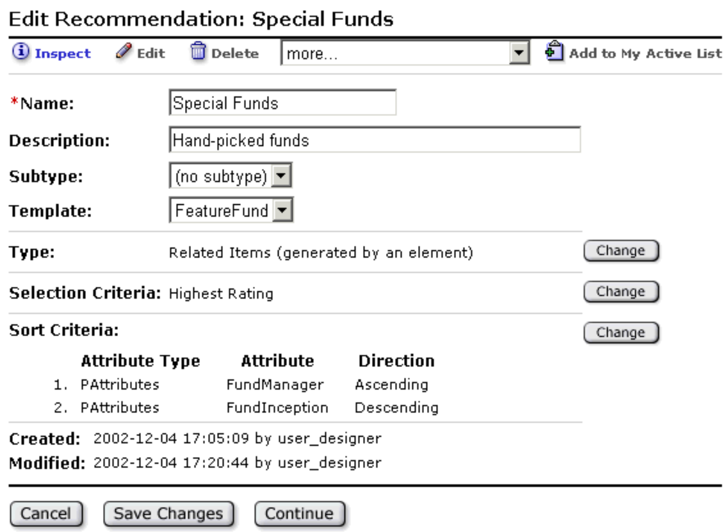
4. In the **Direction** field, select whether the sort should be ascending or descending.
5. Click **Add Sort Criteria**. Your criteria appear at the bottom of the form.
6. (Optional) Continue to add criteria by repeating steps 2 through 5. Be sure to add new sort criteria in the order in which you want CS-Engage to sort.

7. At the completion of the sort criteria stage, you click **Save** to finish creating the asset. You can also click **Save** as you progress through the stages to save the asset at that stage.

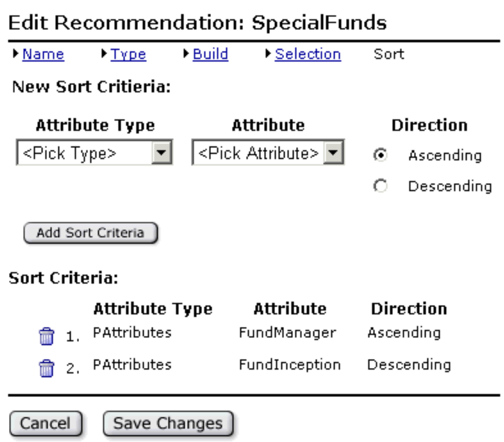
Editing Recommendation Assets

To edit a recommendation asset:

1. If the Content Server interface is not already open, log in.
2. Find the asset that you want to edit.
3. Open the asset in the Edit form:



4. Click the **Change** button next to the area that you want to edit. For example, to edit the sort criteria, click the corresponding button; the system will redisplay the sort criteria form with the current selections in the Recommendation wizard:

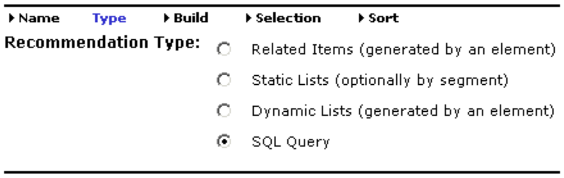


5. Make your edits and click **Save Changes** to complete the operation. The system redisplays the asset's Inspect form.

SQL Recommendations

If you have SQL recommendations from an earlier version of CS-Engage, you can continue to use and edit them in this version, but you cannot create new SQL recommendations.

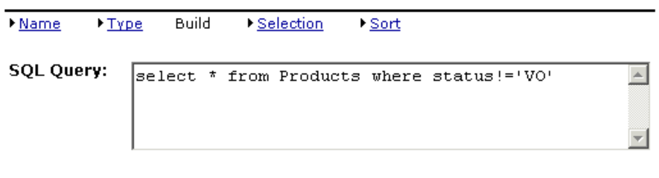
1. If you open an existing SQL recommendation in the Edit form and go to the type stage, **SQL Query** appears as the selected type, as follows:



   This option remains for the duration of the session. If you change the type, save the asset, and re-open it in the Edit form, **SQL Query** no longer appears as a type selection.

2. Click the **Continue** button to edit the query. Alternatively, you can click **Build** in the line below the form title.

   The build form appears:



3. If you know how to code in SQL, edit the query as necessary, or follow the instructions of your developers. When you are finished, click **Save Changes**. The system redisplays the asset’s Inspect form.

Configuring Assets to Be Recommended

The next step is to work with the catalog and configure the segment ratings and asset relationships for the assets that you want to merchandise with recommendations. Specifically, you need to use the flex asset and flex parent asset forms in the Content Server interface to do the following:

- Rate how important the assets and parent assets are to the members of each segment.
- Configure the asset relationships that are represented by the related items recommendations.

Assigning Ratings to Assets

You can assign ratings to individual flex assets or to flex parents. FatWire recommends using asset parents to assign ratings, for the following reasons:

- It is much easier to manage the ratings for multiple assets if those assets reside in groups. In fact, it is often a good idea to create flex parents whose sole purpose is to assign ratings to child assets. You can make all of the assets that have identical rating conditions children of the same parent. Then, you can modify the ratings for all the child assets by making a single change.
- It is easier to compare the ratings for one group of assets to the ratings of another group than it is to compare the ratings of individual assets.
- Ratings are calculated more quickly because there are fewer assets with individual ratings. This speeds up system performance.

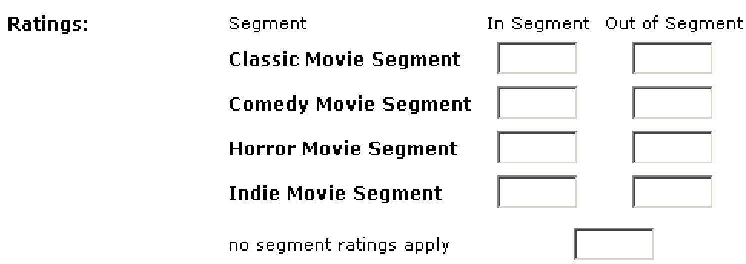
You should avoid using ratings to try to promote a specific flex asset in a specific circumstance. Instead, you should recommend specific assets in specific conditions, using either a static lists recommendation or a promotion to accomplish your goal.

Before you begin, be sure to complete the following tasks:

- Examine the segments to understand how they are defined and then determine which flex parents are significant for which segments.
- Ask your site developers whether they coded the templates to change the system default rating for unrated assets. If they did not override the system default rating, that default rating is 50. This rating represents the average or middle point in your rating scale. Make a note of this value and keep it in mind while you rate assets. For example, rating an asset at lower than the system default rating means that it is unlikely that it would ever be recommended to a site visitor.

To assign ratings to assets:

1. If the Content Server interface is not open, log in.
2. Find and select the flex asset or flex parent that has segment ratings that you want to assign.
3. In the Edit form for the asset, scroll to the **Ratings** list. This section of the form lists all the segments that have been created for this site. For example:



4. Using a range of 0 through 100 (100 is the highest value), rate this asset for the segments in the list:
   - Enter a value in a segment’s **In Segment** column to rate the asset for members of this segment.
   - Enter a value in a segment’s **Out of Segment** column to rate the asset for visitors who are not members of this segment.

- Enter a value in the **no segment ratings apply** field to rate the asset for segments who do not have a specific rating designated. This value represents the asset's intrinsic value when no segment ratings apply.

For more information about ratings, see "About Rating and Confidence Values."

5. Click **Save Changes**.

The segment ratings are assigned to this asset.

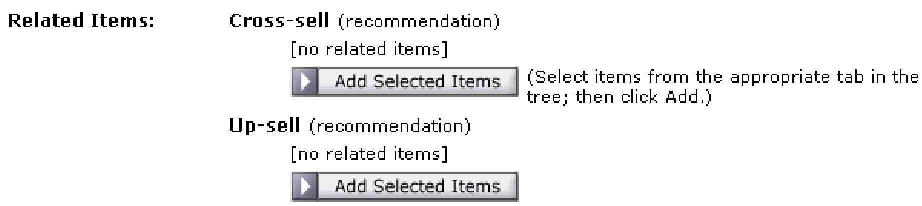
Configuring Relationships for Flex Assets

Before you begin, be sure to complete the following tasks:

- Ask the developers to describe each of the related items recommendations (that is, the relationships that the related items recommendations represent).
- Find out whether the recommendation is programmed to display a combination of flex assets, for example, products and content assets, so that you can configure the relationships correctly.

To configure relationships between assets, complete the following steps:

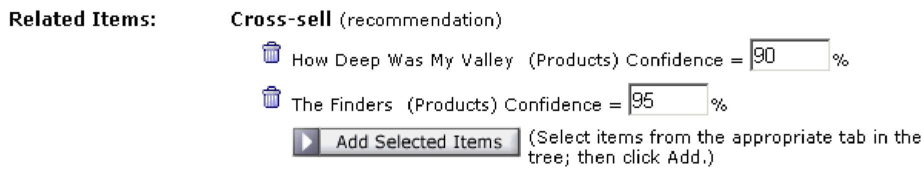
1. If the Content Server interface is not open, log in.
2. Find and select the flex parent that has related items relationships that you want to configure.
3. In the Edit form for the parent, scroll to the **Related Items** list. For example:



4. In the tree, select the tab that is appropriate for the flex asset that you are setting up a relationship to. For the Burlington Financial sample site, it is the **Product** tab.
5. In the tree tab, click to select the flex asset or flex parent. To select more than one, use Ctrl-click and Shift-click.
6. In the Edit asset form, under the name of the recommendation that defines this relationship, click the **Add Selected Items** button.

   If the tree is toggled off, the **Add Selected Items** button becomes a right arrow which, when clicked, opens a pop-up window where you can select items from your active list and history.

   CS-Engage lists the assets under the recommendation.
7. Click in the **Confidence** column next to an asset or asset parent and enter a value that represents the weight (or importance) of this relationship as a percentage. Enter a percentage between 0 and 100. If you enter 0 or leave the field empty, the asset is excluded from this recommendation. For example:



8. Repeat step 7 for each item in the list.

9. Repeat steps 4 through 8 for each recommendation that applies to this asset.

10. Click **Save Changes**.

The asset relationships are assigned to this asset.

Verifying Recommendation Assets

To verify that you configured your recommendation assets correctly, complete the following kinds of exercises:

- Create some test segments.
- In the flex asset and flex parent asset forms (product and product parent, for example), assign ratings for the segments.
- Browse your site as a visitor and register yourself so that you qualify for the test segment.
- Examine the items that the recommendation assets return.
- If you find problems, ask your developers to write test pages that isolate the problem.

Sample Recommendation Assets

When you install CS-Engage with the Burlington Financial extensions, you get four sample recommendation assets:

- **BF Frequent Visitors**
- **General Funds**
- **New High Risk Investors**
- **Similar Funds**

These sample assets appear on the **Marketing** tab in the tree. These recommendations are designed to work in concert with the sample segment and promotion assets that also appear on the **Marketing** tab. Use these sample recommendations as a context for creating and configuring recommendation assets for your site.

Publishing Rated Flex Assets

After you assign ratings to flex parents and configure relationships between them, you must approve these assets so they can be published to your delivery system. Rating and relationships take effect only after they are published.

For more information about approving assets, see Chapter 4, “Publishing.”

Chapter 10

Creating Promotions

Promotions are merchandising assets that offer some type of value or discount to your site visitors based on the products that the visitor is buying and the segments that the visitor qualifies for.

This chapter describes promotions and presents procedures for creating them. It contains the following sections:

About Promotions

Promotions offer some type of value to your site visitors and customers based on the segments the visitors belong to and products that they buy. This value can be offered in several ways:

- A discount off the purchase price of the promoted products.
- A discount off the entire value of the shopping cart.
- A discount off shipping charges.
- A combination discount: a shipping discount with a price or cart discount.

You (the marketers) define your promotions by using the following criteria:

- The segment members who qualify for the promotion. Promotions can be offered to everyone or to visitors in selected segments.
- The products to promote.
- The value the customers receive when they purchase the promoted product.
- The duration of the promotion.

- The text or graphics (or both) that appear on the rendered site page that notifies visitors of the promotion.
- The location of the notification. Promotions are displayed on the live (public) site pages by replacing the recommendation that would normally appear there.

About Promotions and Recommendations

Recommendation assets are the delivery mechanism for all promotional content. When you create a promotion asset, you determine where you want the promotion to be displayed by selecting a recommendation asset. The promotion replaces, or overrides, the recommendation and uses the template assigned to that recommendation to render the promotion in place of the recommendation that would normally be displayed.

Consequently, when Content Server Engage calculates the recommendation that a template asks for, it automatically checks whether there are any promotions that should override the recommendation. If so, it passes the promotion back to the recommendation's template and the template displays the promotion instead.

When Promotions Overlap

More than one promotion can use the same recommendation. What happens, then, when a visitor qualifies for more than one promotion and those promotions are using the same recommendation? It is easiest to explain with an example:

Example: Overlapping Promotions

There are two promotions running and both override the same recommendation:

Promotion 1:	End-of-Summer Sale
Discount:	10% off the entire contents of the visitor's shopping cart
Segments it applies to:	All segments

Promotion 2:	Printer Sale
Discount:	30% off all printers
Segments it applies to:	1) Home Office Worker 2) Back to School

Note

Promotions do not have segment ratings. Either the promotion applies to the segment or it doesn't.

Question: How does CS-Engage decide which promotion to display if the visitor is from either the Home Office Worker segment or the Back to School segment? And which discount is applied?

Answer: CS-Engage randomly selects which promotion to display (each has a 50/50 chance) but it applies both discounts. However, applying both discounts does not mean that printers are discounted twice.

Examine the contents of this shopping cart:

box of paper

printer

toner cartridge

Before CS-Engage applies the discounts, it lists and compares the promotions for all the items in the cart:

box of paper	10%	
printer	10%	30%
toner cartridge	10%	

CS-Engage then applies the largest discount to each item. Therefore, on the final bill, the box of paper and the toner cartridge are 10% off and the printer is 30% off (not 40%).

Question: Only one of the promotions was displayed: how do the shoppers understand the total on the invoices?

Answer: If you (the marketers) created the promotions correctly, you entered a meaningful description of the discount in the CS-Engage discount forms. Those descriptions are printed on the invoice next to the discounted items.

Creating Promotions

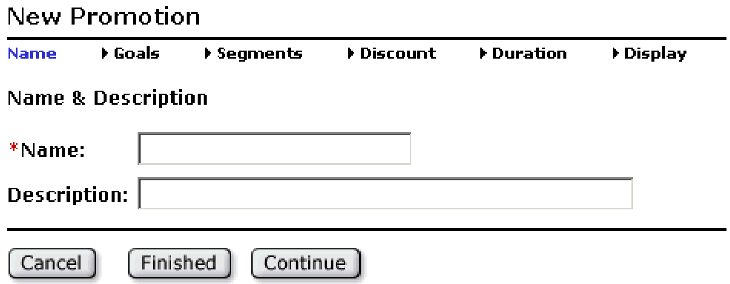
Before you create your promotions, be sure that you complete the following tasks:

- Ask your site developers for a list of all the recommendations in your system and a description of where each one is programmed to appear.
- If you are creating promotions that apply to specific segments, you and the other marketers must create the segments.

Step 1: Name and Define the Promotion

1. If the Content Server interface is not open, log in.
2. Click **New** on the button bar to display in the work area the list of asset types you can create.
3. Select **Promotions** from the list (if Promotions is not in the list, you do not have the right permissions to create new promotions).

   The New Promotion form appears:

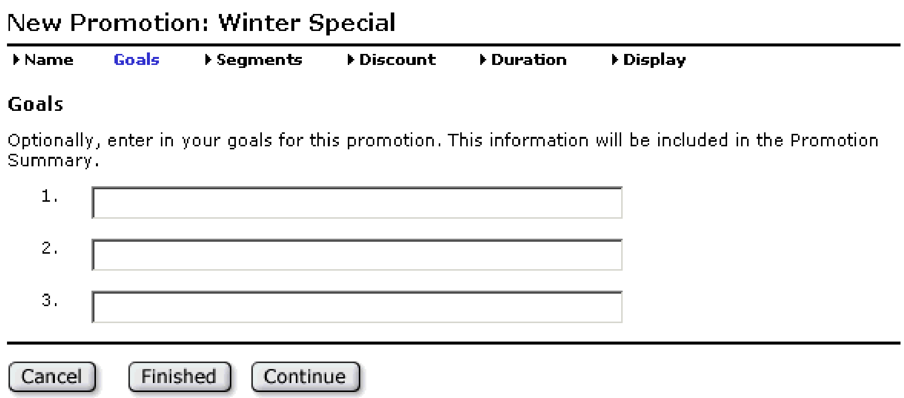


4. Click in the **Name** field and enter a unique, descriptive name for the recommendation. You can enter up to 64 alphanumeric characters, including spaces. The first character must be a letter.
5. Click in the **Description** field and enter a brief description of the promotion. You can enter up to 128 alphanumeric characters.
6. Click **Continue** or select the **Goals** link on the promotion navigation bar.

   The Goals form appears.

Even though you can skip to any of the promotion forms using this navigation bar, be sure that you create your first promotions in the sequence that takes place when you use the **Continue** button. Remember that the information you enter on any form is not saved to the database until you click **Finished**.

Step 2: Define the Goals for the Promotion



A statement of goals is useful if your work is to be reviewed by others. Additionally, you might want to document why you designed the promotion a certain way after the promotion is complete.

1. Click in the first **Goal** field and describe a goal.
2. Enter goals in the second and third **Goal** fields, as needed.
3. Click **Continue**.

   The Segment form appears, as shown in the next step.

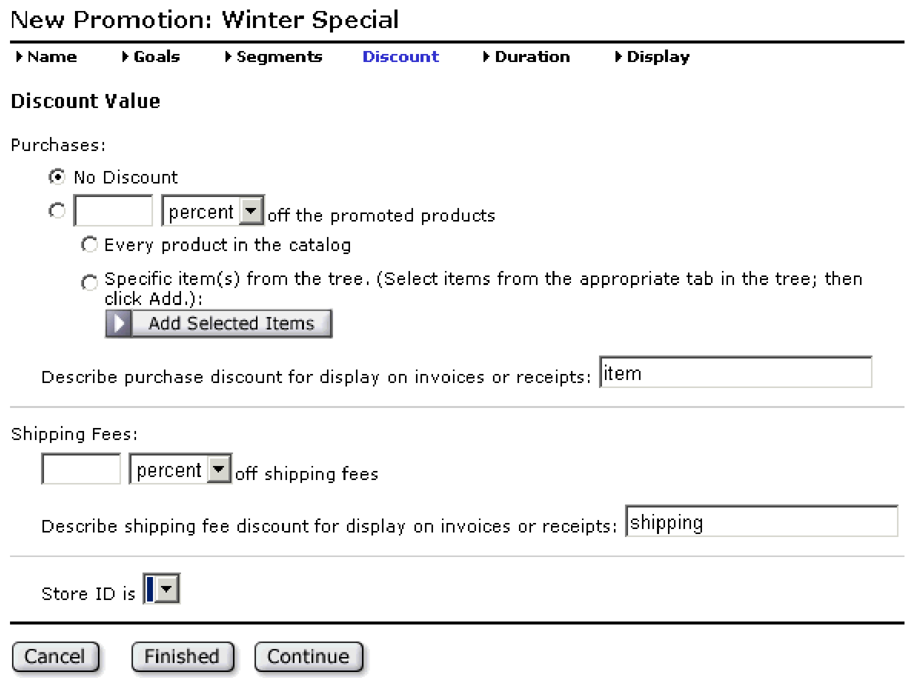
Step 3: Define Which Visitors Are Eligible for the Promotion

Use the Segment form to select the visitors who are eligible for the promotion. If you do not make any selections on this form, all visitors to the site are eligible for the promotion.

1. Do one of the following:
   - To offer the promotion to all visitors to the site, select **Apply to all visitors**.
   - To restrict the promotion to visitors from certain segments, select **Apply to selected segments** and select the segments to whom you want to offer the promotion.
2. (Optional.) If you need to create a new segment for the promotion, complete the following steps:
   a. Open a new browser window by clicking the arrow icon in the upper right corner of the form.
   b. Create a new segment in the new window. For help with this step, see “Creating Segments” in Chapter 8.
   c. Click the **Refresh** icon in the parent window (the window in which you are creating the promotion).
   d. Repeat the first step in this procedure to include this segment in the promotion.
3. Click **Continue.**

   The Discount form appears, as shown in the next step.

Step 4: Define the Discount



Note

To configure the discount to be based on the current state of a visitor's shopping cart, create a segment based on the shopping cart. Then, select that segment for the promotion. For information about creating segments based on the shopping cart, see "Step 4: Define the Segment with Shopping Cart Criteria" in Chapter 8.

To define the discount use the following options:

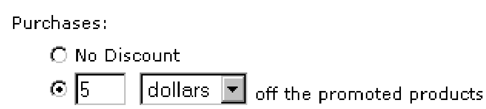
- "Option 1: Discounting the Entire Shopping Cart"
- "Option 2: Discounting Specific Products"
- "Option 3: Discounting the Shipping Costs"

You can combine either of the first two options with the third option, but you cannot combine the first two options.

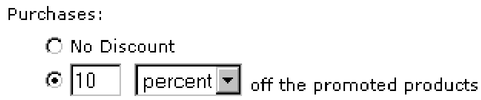
Option 1: Discounting the Entire Shopping Cart

1. Select the second option under **Purchases** and then set the values that define the discount.

For example, to offer $5.00 off, set the values as follows:

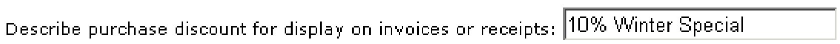


To offer 10% off, set the values as follows:



2. Select **Every product in the catalog**.
3. Click in the **Describe purchase discount** text box and enter a meaningful description of the discount. The text that you enter in this field is displayed on the invoice or receipt next to the items that it applies to. Use it to describe to your visitors how their bill is calculated.

   For example:

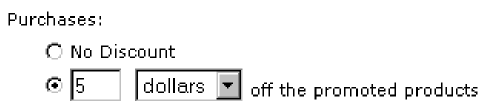


4. Either click **Continue** or go to the procedure “Option 3: Discounting the Shipping Costs.”

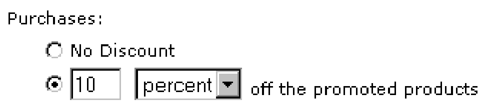
Option 2: Discounting Specific Products

1. Select the second option under **Purchases** and then set the values that define the discount.

   For example, to offer $5.00 off, set the values as follows:



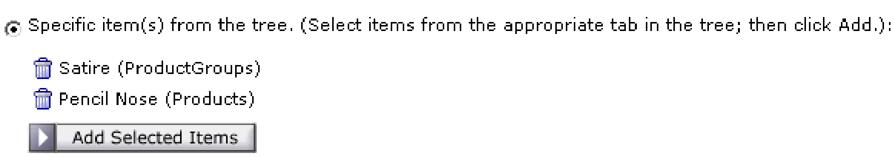
   To offer 10% off, set the values as follows:



2. Select the products that the discount applies to:
   a. Select **A specific product or product category**.
   b. In the tree, select the tab appropriate to the flex asset you are applying a discount to. For the Burlington Financial sample site, it is the Product tab.
   c. Click to select the product or product category from the tree. To select more than one, use Control + click and Shift + click.
   d. In the Promotion form, click **Add Selected Items**.

      If the tree is toggled off, the **Add Selected Items** button becomes a right arrow which, when clicked, opens a pop-up window where you can select items from your active list and history.

      The flex assets or flex parents that you selected are listed on the form. For example:



3. Click in the text box and enter a meaningful description of the discount. The text that you enter in this field is displayed on the invoice or receipt next to the items that it applies to. Use it to describe to your visitors how their bill is calculated.

   For example:

4. Either click **Continue** or go to the procedure "Option 3: Discounting the Shipping Costs."

Option 3: Discounting the Shipping Costs

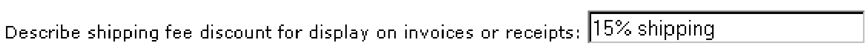
You can discount shipping in addition to, or instead of, discounting purchases.

1. Under **Shipping Fees**, set the values that define the discount.

   For example, to offer 15% off shipping set the values as follows:

2. Click in the **Describe shipping fee discount** text box and enter a meaningful description of the discount. The text that you enter in this field is displayed on the invoice or receipt next to the items that it applies to. Use it to describe to your visitors how their bill is calculated.

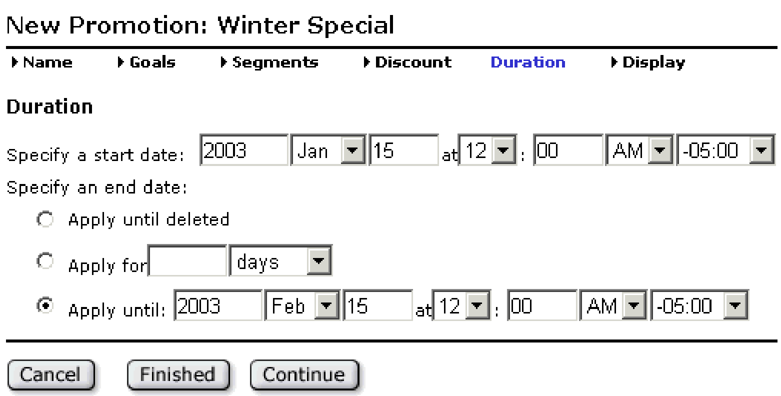
   For example:



3. Click **Continue.**

   The Duration form appears, as shown in the next step.

Step 5: Define the Promotion's Duration



If you do not specify how long the promotion should run, the promotion runs until you delete it.

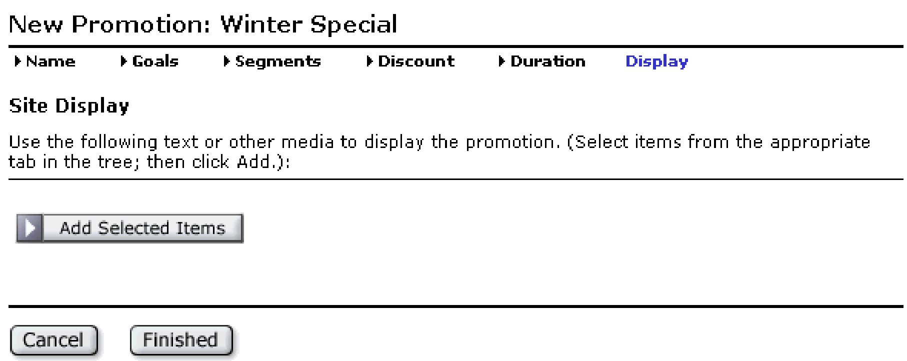
1. Under **Duration**, set a start date and start time.
2. Specify when the promotion will end. Do one of the following:

- If you want the promotion to run until you delete it or change its duration, select **Apply until deleted**. Use this option if you are designing an ongoing promotion with an indefinite duration. When you want to cancel it, you can either delete it or you can edit it and apply an end duration date.
- If you want the promotion to run for a certain period of time after the start time that you specified in step 1, click **Apply for**. Enter a whole number (not a fraction or decimal) in the text box and choose hours, days, weeks, months, or years from the drop-down field.
- If you want the promotion to run until a specific date, select **Apply until** and enter the date and time that you want it to end. The current date and time are displayed by default.

3. Click **Continue.**

   The Display form appears, as shown in the next step.

Step 6: Advertise the Promotion on Your Site



1. In the tree, select the tab appropriate to the asset that you want to use to advertise the promotion.
2. Click to select the name of the asset that you want to use to advertise this promotion. (Typically a promotional banner is stored as either an article or an image).

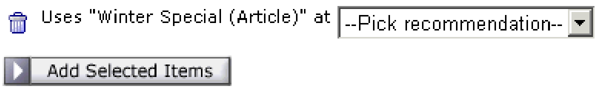
Note

You can select more than one asset. (Use Ctrl-click and Shift-click.) If you do, when the promotion is displayed on your site pages, CS-Engage displays the content that was rated the highest for the segments that the visitor belongs to. In other words, if you are using this promotion for more than one segment, you can use segment-specific ad banners for the promotion.

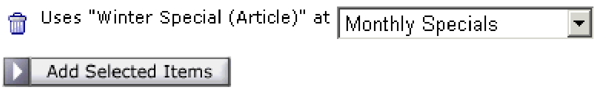
3. Click **Add Selected Items**.

   If the tree is toggled off, the **Add Selected Items** button becomes a right arrow which, when clicked, opens a pop-up window where you can select items from your active list and history.

   The items appear on a list in the form with a drop-down list box of recommendations next to each name. For example:



4. Click in the **Pick recommendation** field next to the first item. Select the name of the recommendation that you want to replace or override with this item. (The recommendation provides the location for the text you selected in step 3.) For example:



5. Repeat step 4 for each item that you selected in step 3.
6. Click **Finished**.

   The Inspect form appears, displaying a summary list of information about the promotion.

Sample Promotion Asset

When you install CS-Engage with the Burlington Financial extensions, you get a sample promotion asset, **High Risk Discount**, that appears on the **Marketing** tab in the tree. This promotion is designed to work in concert with the sample segment and recommendation assets that also appear on the Marketing tab. Use the sample promotion as a template for creating promotion assets for your site.

Publishing Promotions

After you create a promotion, it must be approved before it can be published to your delivery system. The promotion takes effect only after it is published. Be sure to examine or inspect your promotion to verify that you configured it correctly before you approve it for publishing.

For more information about approving assets, see Chapter 4, "Publishing."

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