CommonSpot™
Release 10.0
Upgrade Guide
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Chapter 1 Upgrade Process and Steps

Upgrading to this release of CommonSpot is similar to other CommonSpot upgrades. Depending on your current version, you may have specific pre-update steps. We recommend that you read through the following sections before upgrading to CommonSpot 10.0.

- **Recommended Upgrade Process**
- **Pre-Upgrade Steps**
- **Upgrade Steps**
- **Upgrading CommonSpot on a ROPS in a Shared Database Configuration**
- **Notes on Upgrading ColdFusion**
- **Deploying on Lucee**

⚠️ **Important Note:** Because of the number and type of updates made to improve security in this release of CommonSpot, it is important that you complete the upgrade as described in Chapter 2: extract this release of CommonSpot to a new directory, then copy keys and any custom modules from the old directory to the new one. “Over-installing” – extracting the new files to an existing /commonspot/directory – will retain obsolete modules that may leave your site vulnerable to security breaches.

### 1.1. Recommended Upgrade Process

From a high-level perspective, you should perform the following steps when upgrading CommonSpot:

1. **Read the Release Notes** – Find out what’s new in CommonSpot and how it might affect your site and the upgrade process. Read Release Notes for every build between your old version and this one.

2. **Read Pre-Upgrade Steps** – Depending on which version you are upgrading from and whether or not your databases support UTF-8, you may need to perform pre-upgrade steps. Read the Pre-Upgrade Steps in Chapter 1 of this document and the Chapter Upgrading from a Version Earlier than 6.0.

3. **Plan** – Planning is the most important and most overlooked step. Make sure you know the steps you need to take. The Support Department is happy to review your upgrade plans and answer upgrade question. If you are unsure, PaperThin provides Consulting Upgrade Services to help you upgrade or do it for you.

4. **Back up** – Back up web site files (specifically, any custom CommonSpot files) and all databases for your existing Production site(s).

5. **Set up a Development Environment** – We cannot recommend strongly enough that you perform the upgrade in a development environment first before upgrading your production environment. Set up a development environment that matches your current production environment. If you have one or more Read-Only Production Servers (ROPS), PaperThin recommends that you set up at least one ROPS in the test configuration. If you do not have CommonSpot development server licenses, contact your Account Representative for temporary or permanent licenses.
6. **Deploy Backups in Development** – For more information on this process, see the CommonSpot KB articles http://www.paperthin.com/support/knowledgebase/articles/How-to-Migrate-a-CommonSpot-Site.cfm and/or http://www.paperthin.com/support/knowledgebase/articles/how-to-migrate-a-commonspot-site-for-upgrade-purposes.cfm

7. **Test in Development** – Next, test that the development environment is working properly. Check all of your custom script elements and custom render handlers to make sure that they are running as expected in the new CommonSpot environment. Verify that your styles are doing what you expect.

8. **Upgrade in Development** – Perform the actual CommonSpot upgrade in the development environment.

9. **Test** – After you have completed the upgrade, thoroughly test your site. This release of CommonSpot includes significant changes affecting browser use, cache handling, and security. Test your site thoroughly in Development to reduce the chances of issues in Production. If your site receives heavy traffic, or you are near capacity, we recommend that you also include performance testing.

10. **Schedule Production Upgrade** – To minimize down time for the upgrade and to ensure you have the proper support, schedule your upgrade. Make sure the proper resources are available (Database Administrators, Web Administrators, testers, etc.). If your site is mission critical, you can schedule PaperThin Retainer Support for the upgrade period.

11. **Back up Again** – Just before you perform the upgrade on Production, back up your file system and databases again.

12. **Upgrade Production** – Once you complete the preceding steps, upgrade your Authoring Server.

13. **Test Production** – Enable authoring (see “Authoring State” in the CommonSpot Administrator’s Reference) and test your Production server(s) to verify a successful upgrade.

   **Note:** If your upgrade includes new hardware or upgrades to supporting software, we recommend running the final production upgrade on new hardware and testing there. This will allow you to keep your existing production environment running until you cut over to the new server(s).

Refer to CommonSpot Upgrade Steps for step-by-step instructions for upgrading your CommonSpot installation.

### 1.2. Pre–Upgrade Steps

Before you begin the upgrade process, complete the following steps:

1. **Check System Requirements**
2. **Check UTF–8 Support**
3. **Check Character Set Configuration (Oracle Only)**
4. **Check JVM settings & Modules**
5. **Check Database Permissions**
6. **Download the Archive & License Keys for this release**
7. **Replicate / Synchronize Content to ROPS**
8. Replication Customers: Rename `\sync\wddx`
9. Stop Authoring
10. Turn Off Browser Add-ons
11. Redirect Traffic to a Temporary Page
12. Manually Clear Cache (Large Sites)

If you plan to upgrade to this release of CommonSpot on the Lucee platform, see Deploying on.

Once you complete the steps above, you can perform the upgrade.

1.2.1. Check System Requirements and Support Updates

Before upgrading to the latest release of CommonSpot make sure you review the latest system requirements. You can find a full and up-to-date listing of requirements at:

http://www.paperthin.com/support/tech-specs.cfm

You will need to make sure that you are running supported versions of the following:

- Operating System (Windows, Linux or Solaris)
- ColdFusion or Lucee
- Database (SQL Server, Oracle or MySQL)
- Browser (Internet Explorer, Chrome, Safari or Firefox)

JRE – Java Runtime

Running CommonSpot on a virtual machine (VM) requires a static MAC address.

For all releases, review the latest Support communications and updates to deprecated values on the PaperThin Support site. See:

http://www.paperthin.com/support/knowledgebase/articles/deprecated-values.cfm

(requires login)

1.2.2. Check UTF-8 Support

Beginning with release version 6.0, all CommonSpot databases must be configured to support UTF-8.

If you are currently running version 6.0, 6.1, or any of the following versions and all of your databases are UTF-8, you can upgrade directly to the current release, only if using ACF


- CommonSpot 5.0.3
- CommonSpot 5.1.0
- CommonSpot 5.1.1
Note: We strongly recommend that sites using a version of CommonSpot earlier than 6.0 use the Database Migration Tool to determine whether they are running under UTF-8. This tool will validate, and, if necessary, convert all databases to UTF-8.

If any of your databases are not UTF-8, or you are running a version earlier than 5.0.3 or 5.1.1, you must perform additional steps before upgrading to this release. See below for more information on the steps required to upgrade your environment. If you are running Oracle, you must upgrade to 5.1.1 and install Hot Fix 5.1.1.25a prior to running Data Migration, as described below.

1.2.3. For SQL Server Environments: Check the Backward Compatibility Setting

If the Compatibility Level setting for SQL Server is set to a version earlier than SQL Server 2005, upgrade may fail with the following error:

Unable to find a unique table schema name. Please contact PaperThin Support.

Set backward compatibility to a version later than 2000.

1.2.4. Check JVM Settings & Modules

Please refer to the Recommended ColdFusion Settings document on the PaperThin web site at http://www.paperthin.com/support/knowledgebase/articles/configuration-settings.cfm and check your JVM settings compared to those recommended for this release.

1.2.5. Check Database Permissions

Regardless of the database type (Oracle, SQL Server or MySQL) all CommonSpot databases must have Create View permissions. If you are running Oracle, creating or upgrading sites to this release of CommonSpot requires that the owners of each Content, Sites, or Users database have at least Connect, Resource, and Create View roles, and have sufficient quota available in default table space. Each CommonSpot data source requires a separate Oracle user on a compliant database instance.
1.2.6. Download the Release 10.0 Archive & License Keys

In order to upgrade to this release, download the new software from the PaperThin Site at http://www.paperthin.com/support/downloads. The software is available in .zip file format (for Windows or Linux/Solaris).

**Note:** A 2009 Microsoft security enhancement to the native Windows unzip utility disables JavaScript file extraction by default. If your installation uses this utility, you may discover missing, incomplete, or corrupted files after unzipping the CommonSpot archive, or you may find that CommonSpot user interface menus display but do not work. PaperThin recommends that you use an unzip utility that does not block extraction of JavaScript files.

You can usually correct this problem by trying again or using a different unzip utility.

This release of CommonSpot also requires that you download new License Keys from the PaperThin Support Site (www.paperthin.com/support/downloads/) in order to certify the keys. These keys are valid for both your current version and the upgrade version. It is a good practice to download these keys into a new directory outside of CommonSpot for safekeeping before you begin the upgrade. Before starting the upgrade, extract the keys into the /commonspot/keys directory, then restart the ColdFusion Application Server.

1.2.7. Stop Authoring

Instruct all Contributors to publish their changes, then disable CommonSpot authoring on all sites to prevent content updates until after the upgrade completes. Click Change in the center panel of the Server Administration dashboard to disable all author, edit, and update functions for all sites and subsites using this instance of CommonSpot.

Your version of the CommonSpot Administrator’s Reference provides details.

**Note:** To protect Datasheet and Simple Form data, CommonSpot automatically disables submission of Simple Forms and updates or deletions for Datasheet data once authoring is disabled. A javascript alert displays for any submission or deletion attempts.
Note: Remember to restore authoring after the upgrade is complete.

1.2.8. Make Sure that no Content Currently Requires Approval

Upgrading with content in a pending approval state can cause error conditions post-upgrade. Before beginning the upgrade process, review Reports – Pages Waiting for Approvals and update approval status.

1.2.9. Replicate/Synchronize Content to ROPS

If you use CommonSpot Replication, force a manual replication after you disable authoring to make sure that the latest content replicates to all Read-Only Production Servers.

If you are running under a shared database environment, synchronize your content and then make sure that you do not have any pending records in either the RemoteRequests and FileActionQueue tables for each site’s site content database. This ensures that all content is up to date on all ROPS prior to upgrade.

In a Shared Database environment, once the Author server is upgraded, the ROPS will prevent access until it is also upgraded. The upgrade does not need to be run on the ROPS because the shared database has already been upgraded via the Author box upgrade process. All you need to do is stop the ColdFusion service, rename the commonspot folder, and place the new CommonSpot code on the ROPS, along with the new keys and the old servervars.cfm file in the commonspot/keys/ folder, and restart ColdFusion or Lucee. You may copy the new commonspot folder from the authoring server.

Upgrade a Replication ROPS the same as you would an Author server.

1.2.10. Replication Customers Only: Rename \wddx\

Before upgrading, rename the commonspot\sync\wddx directory (for example, \wddx_old). After upgrade and before replicating, copy all files from the old commonspot\sync\wddx directory to the new commonspot\sync\wddx directory.

1.2.11. Turn Off Browser Add-ons

Turn off Firebug or any other monitoring or debugging utilities that may interfere with the upgrade.

1.2.12. Redirect Traffic to a Temporary Page

If you wish to display a message that your site is temporarily down, configure your Web Server to redirect all traffic to a temporary page. Note that you need to allow access to /commonspot to run the upgrade. The simplest way may be to redirect traffic based on an IP Address. Consult your Web Server Administrator for specific instructions.
1.2.13. Manually Clear Cache on Upgrade Servers (Large Sites)

Because sites with a large number of subsites and cache files have reported ColdFusion timeouts during the final step of the upgrade process (Clearing Cache Files), PaperThin recommends that sites manually clear cache at the file-system level for CommonSpot servers before starting the upgrade.

For example, remove files in:
\commonspot-data\customers\commonspot-users\sites\commonspot-site-issues\mapped\cache

where commonspot-users is the users datasource for the site and commonspot-site-issues is the name of the datasource for the site.
Chapter 2 CommonSpot Upgrade Steps

Once you successfully complete the pre-upgrade steps, follow these steps to upgrade to this release of CommonSpot.

2.1.1. Extract CommonSpot Modules

CommonSpot is made up of hundreds of HTML, JavaScript, CSS, ColdFusion, and Java files. You need to extract these from the .zip archive downloaded from http://www.paperthin.com/support/downloads.

Follow these steps to properly extract the CommonSpot files:

1. Stop ColdFusion.
2. First rename the current /commonspot/ directory to /commonspot_old/.
3. Extract the new files from the zip into the parent of the old directory. The .zip contains a new /commonspot/directory.
4. Verify that the ColdFusion user has proper file permissions to the CommonSpot modules. For example, in a non-Windows environment, issue the following commands, replacing $username$ and $groupname$ with the values appropriate for your server:
   ```
   chown -R $username:$groupname *
   chmod -R 775 *
   ```
5. Copy the commonspot_old/keys directory (containing the new keys downloaded as part of the Pre-Upgrade Steps) into the new /commonspot/keys/ directory. Copy the entire directory, making sure to include servervars.cfm.
6. Copy any customized modules from /commonspot_old/ to /commonspot/. For example, make sure to replace the security files loaderrequest.dat and directrequest.dat in the new /commonspot/ directory. Copy the sync\wddx folder from commonspot-old to the new commonspot folder.
7. In addition, copy any other custom files. For example, evaluate the edit-form-data.cfm and delete-form-data.cfm modules in {yoursite}/datasheet–modules directory.
   - If you have not made changes in these files, replace them with the files in the /commonspot/newsite.datasheet directory for all existing sites.
   - If you did customize these files, copy these and any other customized files to their respective directories within the new /commonspot/ directory or related directory.
8. Start ColdFusion.

Note that once you restart ColdFusion, the following message displays to site visitors until the upgrade completes. As described in the pre-upgrade steps, you can optionally redirect traffic to a temporary page.
2.1.2. Run the Upgrade Script

Navigate to http://{your_commonspot server_name}/commonspot/upgrade/ to begin running the upgrade script.

The upgrade process consists of the following steps:

1. CommonSpot Upgrade
2. Checking Search Configuration
3. Coldfusion Administrator Settings
4. Database Requirements
5. Upgrades to be Performed
6. Status
7. Upgrade Completed
8. Validate Database Schema

2.1.3. CommonSpot Upgrade

The first screen of the upgrade process provides a pre-upgrade checklist of steps and requests the ColdFusion Administrator password. You should perform the steps outlined on this page. When complete, enter the ColdFusion password and click **Next** to continue with the upgrade process.
2.1.4. Checking Search Configuration

CommonSpot checks your current search configuration at the beginning of the upgrade process.

Note that the version of the search engine integrated with Adobe ColdFusion does not support searches with leading wildcard characters, for example, "Spot" or "?aperThin". You can eliminate this problem by upgrading the Solr engine to the latest release from Apache. CommonSpot 10.0 supports native implementation of the latest Solr search engine. See Server Admin – Configuration – CommonSpot Search Settings. See the *Developer's Guide* for details on using the search engine API and customization. Also note that searches with leading wildcards are not currently supported by Lucee.

This step reports how the installed search service handles leading wildcards and word matches, as well as other configuration issues and errors.

<table>
<thead>
<tr>
<th>CommonSpot Upgrade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking full-text configuration...</td>
</tr>
<tr>
<td>Done - 0 errors, 1 warnings.</td>
</tr>
</tbody>
</table>

Warning encountered while testing full-text engine configuration and compatibility:
1. Search engine is not able to process criteria with leading wildcard characters (example: "*status" or "?-axis")

After installation, you can run this utility from Server Admin – Utilities – Server Tools.

If you do not use the search service that ships with ColdFusion or Lucee, call Support for advice on cleaning your site of references to search configuration prior to running the upgrade.

2.1.5. ColdFusion Administrator Settings

The second screen in the upgrade process displays recommended and current ColdFusion settings. Settings that are out of sync with recommended values are highlighted for your consideration.

Out-of-date settings may be automatically changed to the recommended setting when you click Next.

**Note:** The timeout changes only if the current setting is less than 300 seconds. CommonSpot does not change this if the current setting equals or exceeds the recommended setting.
CommonSpot Upgrade

**Lucee Server Administrator Settings:**
The following tables display the recommended and current values for various settings within the Lucee Server Administrator. Those settings that are out of sync with the recommended values are indicated with the ⬤ icon. Note that the upgrade process will modify these settings automatically if you click the 'Next >>' button.

### Settings - Regional:

<table>
<thead>
<tr>
<th>Setting Name</th>
<th>Recommended</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Time Server</td>
<td>Unchecked</td>
<td>Unchecked</td>
</tr>
</tbody>
</table>

### Settings - Request:

<table>
<thead>
<tr>
<th>Setting Name</th>
<th>Recommended</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeout requests after (seconds)</td>
<td>300</td>
<td>300</td>
</tr>
</tbody>
</table>

### Settings - Output:

<table>
<thead>
<tr>
<th>Setting Name</th>
<th>Recommended</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable Whitespace Management</td>
<td>Checked</td>
<td>Checked</td>
</tr>
</tbody>
</table>

### Settings - Scope:

<table>
<thead>
<tr>
<th>Setting Name</th>
<th>Recommended</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable Session Variables</td>
<td>Checked</td>
<td>Checked</td>
</tr>
</tbody>
</table>

### Services - Datasource - BLOB

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Recommended</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>commonspot-sites</td>
<td>Unchecked</td>
<td>Unchecked</td>
</tr>
<tr>
<td>commonspot-users</td>
<td>Unchecked</td>
<td>Unchecked</td>
</tr>
<tr>
<td>commonspot-site-issues</td>
<td>Unchecked</td>
<td>Unchecked</td>
</tr>
<tr>
<td>commonspot-site-oracle</td>
<td>Unchecked</td>
<td>Unchecked</td>
</tr>
<tr>
<td>commonspot-site2</td>
<td>Unchecked</td>
<td>Unchecked</td>
</tr>
</tbody>
</table>

### Services - Datasource - CLOB

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Recommended</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>commonspot-sites</td>
<td>Checked</td>
<td>Checked</td>
</tr>
<tr>
<td>commonspot-users</td>
<td>Checked</td>
<td>Checked</td>
</tr>
<tr>
<td>commonspot-site-issues</td>
<td>Checked</td>
<td>Checked</td>
</tr>
<tr>
<td>commonspot-site2</td>
<td>Checked</td>
<td>Checked</td>
</tr>
</tbody>
</table>
2.1.6. Database Requirements
The third page verifies your data sources, checking to ensure that they meet the minimum requirements.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Database Info</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>commonspot-sites</td>
<td>MySQL (v 5.5.32)</td>
<td>Meets Req.</td>
</tr>
<tr>
<td>commonspot-users</td>
<td>MySQL (v 5.5.32)</td>
<td>Meets Req.</td>
</tr>
<tr>
<td>commonspot-site-site2</td>
<td>MySQL (v 5.5.32)</td>
<td>Meets Req.</td>
</tr>
<tr>
<td>commonspot-site-issues</td>
<td>MySQL (v 5.5.32)</td>
<td>Meets Req.</td>
</tr>
<tr>
<td>commonspot-site-oracle</td>
<td>Oracle (v 12.1.0.1.0)</td>
<td>Meets Req.</td>
</tr>
</tbody>
</table>

2.1.7. Upgrades to be Performed
The fourth page details all the upgrades that will occur and prompts for data backup. After checking the information and verifying that you have backed up your databases, click Next.
### 2.1.8. Status

CommonSpot displays status for each upgraded entry.

![CommonSpot Upgrade](image)

- **Status:** Upgrading content database
- **Detail:** Rebuilding 'WIP_' tables
- **Datasource:** commonspot-site-oracle
- **Datasources Remaining:** 1
- **Datasources Completed:** 3

### 2.1.9. Upgrade Completed

Once the upgrade completes, the following page displays, reminding you to restart your ColdFusion service. Keep this page open during restart, and then follow instructions for validating your database schemas. You will need to log in again. Additionally, the upgrade process may report key violations, keyword errors, or other conditions (not shown in the image below). See CommonSpot Post-Upgrade Steps for more details.
CommonSpot Upgrade

The upgrade process has completed.

Please review the steps below before continuing.

NOTE: Do not close this browser window. Keep it open for reference.
After you restart Lucee Server, open another browser window to run the appropriate tools listed in the additional steps.
The tools are located in the Commonsplot Tools section of the Commonsplot Administrator.

Required Steps:  • Restart the Lucee Server.
A Lucee Server restart is required before performing any additional actions.

Additional Steps:  • Validate the database schemas
Verifies that all datasources have been applied with the latest database schema.

2.1.10. Validate Database Schema

Clicking Validate the database schemas displays the login screen, then a site-specific version of the screen below for inspecting and verifying your database schemas.

### Database Table Validator

Please select one or more 'User' and/or 'Site' databases to validate.

Sites database(s):
- commonsplot-sites

Users database(s):
- commonsplot-users

Site database(s):
- commonsplot-site-internet

[Validate Schema]

The schema update reports inconsistencies in the database schema, as shown below.
Review the files in the /commonspot/logs folder for additional information and fix these errors. If no errors occur in this stage of the upgrade process, CommonSpot reports success and displays a link to the Administrator dashboard.
2.2. CommonSpot Post-Upgrade Steps

After completing the CommonSpot upgrade, perform the following tasks

1. Migrate Custom Field Type Rendering Modules from CFM to CFC
2. Check CKEditor Installation and Configuration
3. Check and Compare Tidy RTE Settings
4. Optionally Run Check Form Consistency
5. Optionally Rebuild Stub Files
6. Re-enable Scheduled Jobs
7. Enable Stale Cache Handling
8. Re-enable Authoring
9. Clear Browser Cache
10. Upgrade to the latest version of the ADF
11. Manually Reindex Search Collections
12. Check for Patches

2.2.1. Migrate Custom Field Type Rendering Modules from CFM to CFC

In order to move forward to responsive design and better coding practices, this and future CommonSpot releases require CFC-based Custom Field Type Render Modules. If you have any existing Custom Field Types, you must convert these from CFM modules to CFCs. Note that if you are using any Custom Field Types from the ADF, PaperThin has converted the ADF Custom Field Types already. However, you must upgrade to version 2.0 of the ADF to get these updates. See the 10.0 Release Notes, and the CommonSpot 10.0 Developer’s Guide for details. For updates to these documents, see http://www.paperthin.com/support/knowledgebase/articles/commonspon-10-form-changes-for-developers.cfm (requires login).

2.2.2. Check CKEditor Installation and Configuration

CommonSpot now uses the CKEditor for rich text editing. This full-function open source text editor is configured by default to run from a CDN location. If you wish to install the CKEditor locally, you must download and install it yourself, and then configure CommonSpot to use this installation (as a CommonSpot resource). Additionally you can configure the options for how the CKEditor behaves. See the Rich Text Editor Settings dialog in Site Administration page under the Authoring Tools section, for more information.

For those upgrading from a previous version of CommonSpot, there are some differences in how the new CKEditor handles style versus the old CommonSpot Rich Text Editor. See the 10.0 release notes.
2.2.3. Check References to Search Collections

If you are upgrading from a version of ColdFusion that previously supported Verity, the names of your search collections will change, affecting any Global Custom Elements that reference those collections. Update any search collection references in your Global Custom Elements to the new names.

2.2.4. Optionally Enable a Direct Interface to Solr

This release of CommonSpot includes the ability to interface directly with Solr so you no longer have to use the search engine included with Adobe ColdFusion or Lucee. CommonSpot 10 supports the latest Solr version available at the time of release. By comparison, ColdFusion ships with Solr 3.4 and Lucee ships with an even earlier version of the Lucene engine. Interfacing to the latest Solr release delivers significant improvements in search performance and accuracy, while providing a foundation for enhancements, such as faceted search, in future CommonSpot releases.

CommonSpot does not ship with Solr – you must download it separately from Apache – but the installation process is very simple. For details on downloading, installing and configuring Solr to interface directly with your site see: http://www.paperthin.com/support/knowledgebase/articles/upgrading-solr.cfm

2.2.5. Configure Resources and Libraries

The CommonSpot Site Administration dashboard now includes a convenient set of tools for managing JavaScript and CSS resources and libraries, including responsive design frameworks and other assets used by render handlers, custom scripts, and other custom code. Features include the ability to import third-party resources and to globally define resource loading order from a single location in CommonSpot, See Site Administration – Resources and Libraries.

2.2.6. Check and Compare Tidy RTE Settings

This release includes recent updates to the Tidy configuration in the default location: /commonspot/dhtmledit/tidy/tidy.cfg

This file separates settings as follows.

1 – Old and unchanged
2 – Old and modified
3 – New

Any changes to Tidy settings made through Site Admin – Authoring Tools – Rich Text Editor Settings are stored in the site root folder. After upgrade, compare current settings there to the updated default version in /commonspot/dhtmledit/tidy/tidy.cfg and merge changes, as appropriate.
2.2.7. Remove Temporary Page

If you configured your web server to redirect users to a temporary page, you should remove that configuration so user can now access your site.

2.2.8. Optionally Run the Check Form Record Consistency Utility

If you are upgrading from a version earlier than release 6.0, and experience unexpected results (missing data) from filters previously working for Custom Elements, Simple Forms, Metadata Forms, or XML Publication Definition records, run this utility from Site Admin – Utilities – Tools. This tool resolves inconsistencies resulting from fields added to forms already in use. Use this utility to repair form data.

2.2.9. Optionally Rebuild Stub Files

CommonSpot includes a feature for regenerating all the files CommonSpot uses to build pages. You can optionally rebuild stub files post-upgrade to refresh all page addresses. This step is required if upgrading from anything earlier than 8.0.2 with HF 15.

Note, however, that running this utility can be very process-intensive, depending on the number of pages involved. Also note that Shared Database Configurations should only run this utility after all site ROPS are back online. For best results, rebuild stub files off-peak. For details see the Site Administrator’s Reference and the discussion of page structure and stub files in the Developer’s Guide.

2.2.10. Review and Re-enable Scheduled Jobs

CommonSpot includes a job manager for creating and managing all CommonSpot jobs from a single authoring server interface. As part of the upgrade process, PaperThin recommends a full review of all scheduled tasks. If you were using any Generate Static Content jobs, delete them from the ColdFusion Administrator. If there are any Static Content scheduled jobs listed in CommonSpot, delete them via the CommonSpot UI. Static Content Generation was deprecated as of release 9.0.1 of CommonSpot.

If you are upgrading from a version earlier than 6.2, this interface replaces ColdFusion management of CommonSpot jobs and requires you to explicitly add jobs as follows.
If you used...  Then ...

These Server Scheduled Jobs

| CommonSpot Replication Monitor | From the Server Administration dashboard, expand the Utilities left panel, click Scheduled Jobs, click Add Scheduled Job, then select Check Replication. |

These Site Scheduled Jobs

| CommonSpot Content Expiration | From the Site Administration dashboard, expand the Utilities left panel, click Scheduled Jobs, click Add Scheduled Job, then select Send Content Freshness Reminders. |
| CommonSpot Link Validator      | From the Site Administration dashboard, expand the Utilities left panel, click Scheduled Jobs, click Add Scheduled Job, then select Send Broken Link Notifications. |

Stale Cache

If you enabled stale cache for any of your sites you must explicitly schedule the Rebuild Stale Cache job to refresh stale cache. This scheduled job gives you more control over stale cache regeneration and replaces the automated background process for refreshing stale cache in release 6.1. From the Server Administration dashboard, expand the Utilities left panel, click Scheduled Jobs, click Add Scheduled Job, then select Rebuild Stale Cache.

Background Cache Building

You can now explicitly schedule cache rebuilding through the Scheduled Job interface. CommonSpot provides options designed to optimize cache rebuild for sites using Cache Server/Stale Cache features, as well as for those not using these options.

If you are running under a single stand-alone environment or a multi-server environment, we recommend scheduling a rebuild of your cache on a nightly basis on a server that can handle the processing (for example, an authoring server during off hours).

From the Site Administration dashboard, expand the Utilities left panel, click Scheduled Jobs, click Add Scheduled Job, then select Rebuild Cache. See “Scheduled Jobs” and “Scheduled Job Definitions” in the CommonSpot Administrator’s Reference.

Note: Make sure that the Heartbeat job is scheduled to run at the server level for each of your servers. We recommend scheduling this job to run every two minutes on all servers in your configuration.

CommonSpot also allows you to create new scheduled jobs. You can optionally execute any of the 1,000+ CommonSpot “command” API methods. The new Scheduled Job Manager takes care of all the details of inserting jobs and maintaining changes through the ColdFusion Administrator. For details on creating and setting job schedules, see “Scheduled Jobs” in the CommonSpot Administrator’s Reference. After entering
In CommonSpot, remove all CommonSpot jobs from the ColdFusion Administrator on all servers running CommonSpot.

2.2.11. Enable Stale Cache

If you are not already using the CommonSpot Stale Cache feature, you can improve site performance by enabling Stale Cache handling. This feature addresses the problem of degraded performance sometimes observed when frequent changes to content – particularly for pages with Page Index Elements or Custom Elements in re-use mode – result in wait times during cache regeneration. With this option enabled, you can choose to serve recently expired, or stale, cache to reduce or eliminate delays in delivering content to site visitors.

To use this feature, first analyze the performance/content freshness benefits for your site. Then configure whether and how long to serve stale cache at the site, template, or page level. Page-level settings override template settings, and template settings override site settings. Configure site-wide settings for handling Stale Cache, through Site Administration – Site Properties / Settings – Cache Properties. Customize settings at the individual template or page level through Properties – Cache/Static Settings.

For detailed instructions on using these settings, refer to the CommonSpot Administrator’s Guide.

2.2.12. Re-enable Authoring

Since authoring was disabled in the pre-upgrade steps, re-enable it now.

2.2.13. Replication Customers: Copy Old wddx Files to New Directory

Once the upgrade completes and before replicating, copy all the files from the old /commonsot/sync/wddx directory to the new /commonsot/sync/wddx directory.

2.2.14. Clear Browser Cache

Since Web browsers cache JavaScript and other files affected by the upgrade process, all CommonSpot contributors must clear Web browser cache files before using a new version of CommonSpot. Contributors using more than one browser type must clear cache for each type used. For best results, review browser Help for instructions on how to clear cache.

2.2.15. Upgrade to the latest version of the ADF

If you currently use the CommonSpot Application Development Framework, download the latest version at http://community.paperthin.com/projects/ADF/
2.2.16. Manually Reindex Your Search Collections
As of Adobe ColdFusion release 10.0, the Verity search engine is no longer integrated with ColdFusion and CommonSpot no longer supports it. CommonSpot supports SOLR for Adobe ColdFusion and Lucene for Lucee and automatically creates corresponding search engine collections during upgrade.

After upgrade, you will need to manually reindex all search collections. See Site Admin – Utilities – Manage Search Collections.

2.2.17. Check for Patches
After you upgrade, check the Support site for updates to the latest build. PaperThin issues and documents patches on a timely basis to improve product usability and performance. For best results, regularly check for, install critical and issue specific patches. Do not install a patch unless advised by PaperThin or you have the symptom corrected by the patch.
Chapter 3 Upgrading CommonSpot on a ROPS in a Shared Database Configuration

Note: This information applies to a Read–Only Production Server in a Shared Database configuration, not a Replication configuration.

Upgrading CommonSpot in a shared database environment requires synchronizing the Authoring and Read–Only Production Servers through a process identical to that used to synchronize data after you install CommonSpot patches. See “Installing Patches” in the CommonSpot Shared Database Configuration Guide for information on using the Synchronize CommonSpot Installation tools for that process.

To complete the upgrade for your current configuration on the Authoring server, perform the following steps:

1. Stop ColdFusion on all Read–Only servers.
2. Create a new /commonspot/ directory for extracting files as described under Extract CommonSpot Modules. Copy CommonSpot files to each ROPS by
   a. Manually copying the 'commonspot' directory (and all subdirectories) from the authoring server to each ROPS, or
   b. Extracting the upgrade zip on each ROPS
   
   DO NOT USE the Server Administration > Shared Database > Synchronize CommonSpot tool.
3. You can optionally run the Synchronize CommonSpot Installation utility after any manual file operations to verify that the installations are synchronized. If the files are updated, the process will not take as long.
4. Restart ColdFusion on all Read–Only servers.
Chapter 4 Post–Upgrade Considerations for ColdFusion

When installing a new version of ColdFusion, be sure to read Adobe’s Release Notes for specific information affecting CommonSpot. Here are a few points to keep in mind:

- If you are running Adobe ColdFusion 10 or later, you must configure the ColdFusion administrator to use a password only. Usernames are not supported.
- Verify that your ColdFusion datasource settings on all CommonSpot servers have both UTF-8 and CLOB enabled.

ColdFusion no longer supports Verity Collections. The upgrade process converts existing Verity collections to their equivalent under Solr. From Site Administration -> Site Search -> Manage Full-Text Search Collections and reindex all collections after upgrade. Be aware that this task is resource intensive and can take awhile to complete depending on the size of the collection.
Chapter 5 Deploying on Lucee

CommonSpot supports Lucee, the open source CFML engine. For details on supported versions see:

http://www.paperthin.com/support/tech-specs.cfm

If you are upgrading for the first time on Lucee, first upgrade on the non-Lucee platform, then migrate the site to Lucee. You must minimally upgrade to CommonSpot version 7.

See:

http://www.paperthin.com/support/knowledgebase/articles/convert-from-acf-to-railo-lucee.cfm
Chapter 6 Upgrading from a Version Earlier than 6.x

The following applies to environments running versions of CommonSpot earlier than release 7.0

6.1. Environments running CommonSpot versions earlier than 5.0.3 or 5.1.1

If you are running any version of CommonSpot 5 and all of your databases are configured to be UTF-8, you can install this release directly.

Otherwise, you must run the Database Migration Tool to convert your databases to UTF-8. The Database Migration Tool is available as a patch for 5.0.3 and 5.1.0 (see next section if you are running these versions) and built into CommonSpot 5.1.1. If you are running a version of CommonSpot earlier than 5.1.1, first upgrade to CommonSpot 5.1.1 so that you can run the Database Migration Tool.

For more information on this process review the related knowledgebase articles at:

http://www.paperthin.com/support/knowledgebase/articles/How-to-Migrate-a-CommonSpot-Site.cfm

http://www.paperthin.com/support/knowledgebase/articles/how-to-migrate-a-commonspot-site-for-upgrade-purposes.cfm

Note: You cannot upgrade directly from any version prior to CommonSpot 5.0.0.

6.2. Non-Oracle Environments currently running CommonSpot 5.0.3 or 5.1.0

If you are running version 5.0.3 or 5.1.0, and all of your CommonSpot databases are configured to be UTF-8, you can install this release directly.

Otherwise, you must download and install Hot Fix 5.0.3.50 or 5.1.0.40 respectively, then run the Database Migration Tool to convert your databases to UTF-8. For more information on this process review the related knowledgebase article at http://community.paperthin.com/articles/2010/02/27/How-to-Migrate-a-CommonSpot-Site.cfm. Please note that the hot fixes are separate patches for each version. Make sure to use the correct patch for your version.

6.3. Oracle Environments

If you are running Oracle and using CommonSpot 5.0.3 or 5.1.0, and you are not using UTF-8, you must upgrade to 5.1.1 and install Hot Fix 5.1.1.25a prior to running Data Migration. If you are running Oracle as your database, you must also ensure that at least one of the following database configuration settings is in use:
NLS_CHARACTER_SET = 'AL32UTF8' (primary character set is UTF-8)
NLS_NCHAR_CHARACTER_SET = 'AL16UTF16' ('international' character set is UTF-16)

**Note:** PaperThin strongly recommends setting the Oracle Initialization value to CHAR for the NLS_Length_Semantics setting. Accepting the default value BYTE for this setting may result in unexpected errors for content containing extended characters.

Determine the current configuration by running the following query:

```sql
SELECT *
FROM NLS_Database_Parameters
WHERE Parameter IN
('NLS_CHARACTERSET','NLS_NCHAR_CHARACTERSET','NLS_LENGTH_SEMANTICS')
```

**Important NOTE:** Do not remove any record from the SitePages table under any circumstances.

### 6.4. Customers Upgrading from Versions Earlier than 6.2: Record Scheduled Job Settings, then Stop Scheduled Jobs

*If you are upgrading from a version earlier than 6.2,* note that this release includes a new scheduled job manager, for creating and managing all CommonSpot jobs from a single authoring server interface, replacing ColdFusion management of CommonSpot jobs.

Before upgrade, note your current settings for CommonSpot jobs inserted in the ColdFusion Administrator.

After upgrade, remove all CommonSpot jobs from the ColdFusion Administrator on all servers running...
CommonSpot and restore them through the CommonSpot Scheduled Job interface on authoring, as described for post-upgrade tasks.

Once you record job settings, stop all CommonSpot scheduled jobs by pausing them in the ColdFusion Administrator.

6.5. Post–Upgrade Tasks for Pre–6.0 Upgrades

Once you complete the upgrade from version earlier than 6.0, complete the following steps, then complete the steps described in “Post–Upgrade Steps” earlier in this document.

1. Review the conversion–warnings.log
2. Custom Element – Specify Custom Data Type
3. Custom Datasheet Action Modules
4. Rebuild the CommonSpot Thumbnail Library
5. Recreate and Reassign Search Collections
6. Check Default Security Settings
7. Check Taxonomy Term Delimiters
8. Validating Users, Content, and Sites Databases
9. Review the Keyword Conversion Log
10. Ignore Data Annotation Error

6.5.1. Review the conversion–warnings.log

This task is required only if upgrading from a version earlier than 6.0.

The upgrade process now includes a data normalization process. This process “unescares” previously escaped data in many places, including the SitePages table, with the potential for primary key violations. This can occur when two or more pages have names ending in a space, or in a non–breaking space plus a space, and a page with the same name contains no ending spaces. Depending on the database, the key value may be trimmed of its trailing or leading spaces.

The upgrade process writes a special log file (conversion–warnings.log) in the /commonspot/logs directory to record these events and report them on the “Upgrade Finished” page. The log file indicates if any conflicting SitePages records were renamed and includes the names of affected files. These page names contain the Page ID of the conflicting record appended in the form of _currentPageID_.

Example: Record 200 has a page name of “foo” and record 300 has a page name of “foo ” (with a trailing space). Because trimming the space for “foo ” would produce a page name identical to record 200, CommonSpot renames “foo ” (with a trailing space) to foo_300_. If record 400 also has a page name of “foo;nbsp ” (non–breaking space followed by a space), the data normalization process translates the nbsp entity into a space. Since the trim removes both spaces, again conflicting with record 200, CommonSpot renames “foo;nbsp ” to foo_400_.

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If you discover these entries in the conversion-warnings log, locate the pages in your live 5.0.3 or 5.1 site and take the appropriate action. In some cases, you may see unnecessary duplicates, which you can delete via the CommonSpot interface, or you may see entries that need renaming. Once you make changes in the live 5.x site, back up the site and databases and migrate them back to your new development environment. If you decide to re-run the upgrade process on the development server to isolate all cases, rename the conversion-warnings.log file before running the upgrade again.

### 6.5.2. Custom Element – Specify Custom Data Type

This task is required only if upgrading from a version earlier than 6.0. The schema update required for this release affects how custom field type data displays, specifically, the processing and rendering of content containing native HTML characters. This version of CommonSpot gives you the option of specifying one of four HTML data types for each custom field type you have defined. After installation, adjust settings for each of your custom field types through Site Administration – Elements & Forms | Field Types & Masks. Sort on Custom field types, and click the edit icon to modify types. See Add Field Type in the CommonSpot Administrators Reference for details. Note that this only affects sites using custom field types.

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTML</td>
<td>Escapes HTML for editing only.</td>
</tr>
<tr>
<td>HTML Plus</td>
<td>Escapes HTML for editing, does enhanced whitespace handling for rendering.</td>
</tr>
<tr>
<td>Text</td>
<td>Escapes HTML for rendering and editing.</td>
</tr>
<tr>
<td>Unprocessed</td>
<td>No processing for rendering or editing.</td>
</tr>
</tbody>
</table>

### 6.5.3. Custom Datasheet Action Modules

If you maintain custom versions of these modules (/datasheet-modules in the root subsite), test functionality before going live with the new release.

### 6.5.4. Rebuild the CommonSpot Thumbnail Library

This task is required only if upgrading from a version earlier than 6.0. This release of CommonSpot includes faster image rendering in search results and reports through the use of thumbnail images. After performing the upgrade, you need to generate the initial thumbnails. Access the Site Administration dashboard and choose Admin – Site Administration from the top-level menu bar. Expand Utilities in the Site Administration left panel. Click Site Tools and select Build Alternate Image Formats. Perform this operation for every CommonSpot site.
6.5.5. Recreate and Reassign Search Collections

This task is required only if upgrading from a version earlier than 6.0.

If you are upgrading sites with pre–6.0 Verity search collections, you must create new Full Text Search Collections and then map the appropriate subsites to each new collection.

Perform this task by choosing Site Administration from the main Admin top–level menu bar. Expand the Utilities section in the left panel and select Manage Full Text Search Collections.

![Manage Search Collections](image)

Click the **Add Collection** link at the bottom of Manage Search Collections and enter the appropriate name in the following dialog.

![Create Search Collection](image)

Click **Save**, then click a link in the **Subsite Count** column to assign subsites to the collection.

**Note:** If you have a large number of subsites, your UI Scalability settings in Site Admin > Site Properties / Settings > Report Settings dialog for ‘Subsite Selection’ may limit the number of subsites returned in this report. You may need to change your filter criteria in order to modify the results.

Click **Create Collection** to create the new collection. You will need to do this for each collection. Note this operation does not index the content. It merely creates the collection and associates the selected subsites. After creating and assigning all of the collections, reindex each collection by opening the Manage Search Collections dialog, then click the reindex icon 🔄. See the *CommonSpot Administrator’s Reference* for details.
6.5.6. Check Default Security Settings

This task is required only if upgrading from a version earlier than 6.0. CommonSpot 6.0 introduced many new security permissions at all levels. During the upgrade process, CommonSpot maps existing General Security permissions at the Server, Customer, Site, and Subsite levels to new permissions. Please perform a thorough review of your security settings after the upgrade.

Choose Admin – Server Administration from the top-level menu bar. Click to expand Security in the Server Administration Dashboard left pane, and then click General Security to view the General Security dialog, which will display the permissions assigned to specific users and groups. Verify that these permissions are correct for your security needs.

Similarly review General Security settings for Customer Administration, Site Administration, and Subsite Administration. See the CommonSpot Administrator’s Reference for details.

6.5.7. Check Taxonomy Term Delimiters

This task is required only if upgrading from a version earlier than 6.0.

The delimiter for taxonomy terms provided via a user-defined expression has changed.

As described in the 6.0 release notes, to resolve problems arising from taxonomy terms containing commas, linefeed, which is Chr(10) in ColdFusion, %0A URL-encoded, and \
 in JavaScript, now delimits terms.

Note: If you have page indexes or other components that either hard-code such a list or reference a variable or function that returns one, you will need to convert hard-coded delimiters for taxonomy terms to the linefeed character.

6.5.8. Validating Users, Content, and Sites Databases

This task is required only if upgrading from a version earlier than 6.0.

After upgrade, this version of CommonSpot provides the tools used to validate CommonSpot data in the Utilities left panel of the Customer, Site, and Server administration dashboards, as follows:

- For the Users database, Choose Admin – Customer Administration and expand Utilities in the Customer Administration left panel. Choose Customer Tools – Database Table Validator.
- For the Site Content database, choose Admin – Site Administration and expand Utilities in the Site Administration left panel. Choose Site Tools – Database Table Validator.
- For the CommonSpot Sites database, choose Admin – Server Administration and expand Utilities in the Server Administration. Choose Server Tools – Database Table Validator.

6.5.9. Review the Keyword Conversion Log

This task is required only if upgrading from a version earlier than 6.0.

As of release 6.0, CommonSpot provides improved keyword support and uses a different structure for internally storing keywords. Because pre-release testing uncovered instances of mistakenly space-
delimited lists of default and/or enforced keywords (as opposed to correctly comma-delimited lists), the upgrade process now ensures that keywords are valid under the new storage mechanism.

The upgrade process may also create one or more log files containing warnings about keywords. There are two classes of keyword warnings:

- **Truncation errors** – Keyword length is limited to 255 characters – longer keywords are truncated in the conversion process and added to the log file.
- **Long Keyword warnings** – Keywords longer than three words are flagged. Some of these keywords are OK, but because keywords containing many words are often the result of author error, the upgrade process flags these keywords for review.

The upgrade process outputs log files to `/commons spot/logs/commons spot-site-{siteName}-keyword-convert-issues.log` and displays warnings as shown below.

If your site uses long keywords or keyword terms that contain spaces, review entries in this file to confirm items like the following. Note that these keywords may not be invalid, but do require review. Correct any incorrect keywords in this release after upgrading.
One or more keywords in the converted site exceeds three words in length and may be malformed. Please review the list below and make any needed corrections.

Page keyword for 'opening2010' (/about/administration/president/opening2010.cfm)

'2010 academic year opening remarks'

Page keyword for 'State of the University Address 2010' (/about/administration/president/37453_1.pdf)

'2010 state of university'

Page keyword for 'Federal W-4' (/offices/hr/50429_1.pdf)

'2009 Federal Tax form'

Page keyword for 'A Play’s the Thing' (/academics/AAS/Engl/173711_1.pdf)

'A Play’s the Thing'

### 6.5.10. Ignore Data Annotation Error

This task is required only if upgrading from a version earlier than 6.0.

While processing the Data_Annotation table during upgrade, CommonSpot attempts to drop an index for this table. If the index does not exist, CommonSpot reports a non-critical error in the schema-update.log in /commonspot/logs. Because this error does not affect upgrade status, you can safely ignore it.