



eBook Search Guide

Version 4.5

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About This Guide

This guide describes the eBook Search feature introduced for SFX 3.4. The eBook Search allows you to search for eBooks with active full text portfolios. This guide contains the following sections:

- **eBook Search Set-Up Instructions** on page 9
- **eBook Search Interface** on page 19
- **Configuring the eBook Search** on page 27
- **eBook Search Infrastructure** on page 7
- **Separate RSI Indexes for Serials and Monographs** on page 37
- **Server Admin Utility Options for eBook Search and eBook RSI** on page 41
- **eBook Search Set-Up for Consortium Model 2** on page 55

1

eBook Search Infrastructure

Before you can use the eBook Search you must set up the eBook Search infrastructure. Instructions for set-up can be found in **eBook Search Set-Up Instructions** on page 9.

The eBook Search infrastructure consists of the following three components:

- TRACKING table
- eBook RSI index
- eBook Search index (Solr)

The TRACKING table is a table in the global schema of the SFX installation that is used to keep track of changes in all of the local instance databases, as well as changes in the global schema. The TRACKING table is updated by triggers and stores all changes to be included in SFX-Verde publishing and the incremental build of the eBook RSI and eBook Search indexes.

The eBook RSI index is a new, separate RSI index for books that stores the holdings information of all active books in the SFX instance. Data from the eBook RSI index is used to build the A-Z eBook Search index. The eBook RSI index can be built incrementally (only updating those rows in the index that were changed) using the TRACKING table data, which significantly reduces index build time.

The eBook Search index is an index that contains all of the information needed to successfully perform searches in the eBook Search interface. This includes title, ISBN, author, and Vendor information, as well as activation and profile information.

The eBook Search index uses a dedicated Solr index. Within the Solr index, each instance set up to use the eBook Search has its own Solr core.

The eBook Search Solr index is build and updated using the following two sources of information:

- the SFX databases (both global and local)
- the monograph RSI (for activation information)

The Solr index (and RSI index for monographs) must be built using the Server Admin Utility in the following situations:

- Before you can start using the eBook Search for the first time
- After changes in the SFX KnowledgeBase (e.g. related to activation) or in case of eBook Search configuration changes

For more information on building the RSI and eBook search indexes, refer to the **Server Admin Utility Options for eBook Search and eBook RSI** on page **41**.

2

eBook Search Set-Up Instructions

This section includes:

- **Prerequisites** on page 9
- **Solr Sizing Requirements** on page 9
- **Setting up the eBook Search** on page 11
- **eBook Search Set-Up Scripts for SFX Installations with Multiple SFX Instances** on page 15

Prerequisites

The 4.3.0 Service Pack (including both the software and extra packages) needs to be applied on the SFX server.

NOTE:

If you want to implement the instructions below without first logging out after applying the 4.3.0 SP, do the following: as the `sfxglb41` user, go to the home directory of the `sfxglb41` instance and type `source .cshrc`

Solr Sizing Requirements

Before setting-up the eBook Search, it is important to ensure the SFX server can handle the additional disk space and memory usage to support this new tool.

The following tables provide some statistics and requirements that need to be met before you can set up the eBook Search.

Disk Space

For about 350,000 active book objects (in an SFX instance without institutes defined), about 500MB additional disk space is required in addition to the

current SFX disk space requirements. For each institute defined in the instance, another 60-70MB disk space is required.

It is strongly recommended to take into account future growth of the eBook collection when considering disk space requirements.

For example:.

Table 1. Disk Space

Number of Active Book Objects	Number of Institutes	Size (MB)
350,000	No institutes (only default)	500
350,000	2 (default + 1 institute)	550
350,000	3 (default + 2 institutes)	600
900,000	No institutes (only default)	1200
900,000	4 (default + 3 institutes)	2100

Memory Usage

The Solr index requires the following additional memory in addition to the current SFX memory requirements, depending on the number of active book objects for each instance using the eBook Search:

Table 2. Heap and Cache Size

Number of Active Book Objects	Number of Indexes (Solr Cores)	Number of Institutes	Heap Size Required (MB)	Total Memory (MB)
300,000 - 400,000	1	No institutes (only default)	500	750
350,000	1	6 (default +5 institutes)	500	750
350,000	1	11 (default +10 institutes)	500	750
900,000	1	No institutes (only default)	500	750
300,000 - 400,000	3	No institutes (only default)	700	1050
300,000 - 400,000	10	No institutes (only default)	1200	1800
300,000 - 400,000	20	No institutes (only default)	2000	3000

- Configure the heap size in the `max_memory_size` parameter in the `solr_startup_params` section in the `/config/solr_index.config_` file as described in **Setting up the eBook Search** on page 11.

Heap size depends on the number of instances using Solr and on the number of active book records.

- Total memory is calculated as: required heap size + 50% of the required heap. This should be either free memory or cached memory.

It is recommended to have additional 1GB of free/cached memory regardless to the new component for other processes run on the machine.

- Take into account future growth of the eBook collection when considering memory usage requirements of your SFX installation, as well as additional instances that may use the eBook Search in the future.
-

Setting up the eBook Search

Perform the following procedure as the `sfxglb41` user. Part of the procedure uses the Server Admin Utility. (For complete details on the options in the Server Admin Utility, see **Server Admin Utility Options for eBook Search and eBook RSI** on page 41).

ASP customers should not perform any steps that involve using the `sfxglb41` user. These are handled by the hosting team.

- 1 In the global instance, in the `solr_startup_params` section of the `/exlibris/sfx_ver/sfx4_1/sfxglb41/config/solr_index.config_` configuration file, perform the following configuration changes:

```
Section "solr_startup_params"  
  active "N"  
  max_memory_size 500  
  port 8079  
  check_memory "Y"  
  timeout "300"  
EndSection
```

- Set the `active` parameter to `Y`.
- For the `max_memory_size` parameter – Specify a value (in MB) using the Heap Size Required column of the Memory Usage table (detailed in the Solr Sizing requirements section). Make sure that the Heap Size corresponds to the number of active book objects in the SFX installation (taking into account activation in all instances using the eBook Search). The default defined in the configuration file is 500.

- The default for the `timeout` parameter is 300 (5 minutes), but you can increase the value if Solr is known to need more time than that to start up.
- 2 Start Solr.
 - a From the main menu, select **1 Start services**.
 - b Select **12 Start Solr**.
 - 3 Create a Solr core for all local instances.
 - a Select **14 Solr index**.
 - b Select **3 Create Solr cores for all instances**.
 - 4 (optional) Change the Solr password to something other than the default. (The default password is `sfx2012`.)
 - a Select **3 Change passwords**.
 - b Select **4 Change Solr password (only by sfxglb41)**
 - 5 Create the `TRACKING_TABLE` and triggers.
 - a Select **13 TRACKING table set-up and maintenance**.
 - b Select **2 Create table and triggers**.

NOTE:

This step is required only for non-Verde customers. Verde customers already have triggers in place before 4.3.0 for SFX-Verde publishing. These triggers are automatically adapted to work with the tracking table when applying the 4.3.0 SP.

Perform the following steps as a local instance user of each instance where A-Z eBooks will be used:

NOTE:

Steps 1 and 4 can be done for multiple instances in the SFX installation. For more information, see **eBook Search Set-Up Scripts for SFX Installations with Multiple SFX Instances** on page 15.

- 1 (optional) Review and make changes as desired to the default eBook Search profile provided with the 4.3.0 SP. To do this, from the Set-up and Administration section of the SFX Admin Center, click **Configuration** and then click **eBook Search**.

NOTE:

It is possible to define additional eBook profiles - either manually or by copying the profiles defined for the A-Z eJournals list by using a wizard in the eBook configuration section. For more information, refer to the **Copying eJournals Configuration** section of the *SFX General User's Guide*.

Perform the following steps using the Server Admin Utility:

- 2 Build RSI eBooks and A-Z eBooks indexes:
 - a Select **7 AZ Index**.
 - b Select **2 eBook Search index tools**.
 - c Select **2 (Re)build eBook RSI and Search index**.
- 3 Set up RSI and A-Z eBooks scheduled tasks.
 - a Select **7 AZ Index**.
 - b Select **2 eBook Search index tools**.
 - c Select **4 Schedule an eBook Search (and RSI) index build**.

NOTE:

It is recommended to set up the following two scheduled tasks:

- an incremental only build once a day (or on another frequent schedule)
- a build using the **incremental unless complete build is required** option once every night (or on another less frequent schedule - for example, a few times a week or even weekly). Do not schedule this build to run during the day because a complete build is performed if the incremental build cannot be run. Running a complete build may impact SFX performance.

Alternatively, it is possible to only set up only the second scheduled task if there are few changes expected in activation information for books and if it is acceptable to not have the activation changes reflected immediately in the eBook search and RSI monographs.

It is possible to build or schedule a build of the RSI and eBook Search indexes for multiple instances. For more information, see **Monograph RSI and eBook Search Index Build for Multiple SFX Instances** on page 17.

-
- 4 Change `config/rsi.config` for each local instance to use a separate RSI index for eBooks and eJournals. Set the parameter to `Y` to ensure eBook data is stored in a dedicated RSI index.

```
Section "monograph_parameters"  
    Separate_RSI_for_Books "Y"  
EndSection
```

NOTE:

You can change `config/rsi.config` for multiple instances in one go by using a script. For more information, see **Script to Change config/rsi.config** on page 15.

- 5 For customers with Consortia model 2 - consortia API only, see **eBook Search Set-Up for Consortium Model 2** on page 55 to complete the consortia-specific set-up.
- 6 Edit the `local_httpd.config` file:

NOTE:

Perform the following only if the instance name in apache is not identical to the instance name in the SFX installation. For example, perform this step if the instance name on the server is `sfx1c141` - but the SFX `base_url` is `<server>:<port>/sfx1c13`. In this case, `sfx1c13` is the instance aliased name.

- a Log on as the instance user and type `cn`
- b Type `vi local_httpd.config`
- c If the following lines already exist in the `local_httpd.config` file:

```
RewriteEngine on

RewriteRule ^/<instance_aliased_name>-([^/]+)/azlist$ /
<instance_aliased_name>/azlist/$1 [PT,E=__INST_URL_PART:-$1]
RewriteRule ^/<instance_aliased_name>-([^/]+)/(.*)$ /
<instance_aliased_name>/$2 [PT,E=__INST_URL_PART:-$1]
```

add the following on the line after `RewriteEngine on`:

```
# For the azlist script redirect
RewriteRule ^/<instance_aliased_name>-([^/]+)/azbook(.*) /
<instance_aliased_name>/az$2?param_perform_value=ebook
[QSA,PT,E=__INST_URL_PART:$1]
```

NOTE:

Make sure to replace `<instance_aliased_name>` (in two places) with the instance aliased name.

- d Type `:wq` to save the file.
- e Restart the local instance apache:

```
apachectl stop
apachectl start
```

eBook Search Set-Up Scripts for SFX Installations with Multiple SFX Instances

Script to Change config/rsi.config

It is possible to use a script to change the `config/rsi.config` file for each local instance (or list of local instances) so that a separate RSI index is created for eBooks and eJournals.

Run the script as the `root` or `sfxglb41` user (in which case you are prompted for each instance UNIX password). It takes as input one of the following parameters:

- `--all_instances` (all local instances on the server)
- `--all_except_test_instances` (all local instances on the server, except for those with either `test` or `tst` in their name)
- `--file` (the list of instances is taken from a configuration file)

Location and name of the script:

```
/exlibris/sfx_ver/sfx4_x/config/sfxglb41/admin/rsi_tools/  
update_all_rsi_books.pl
```

Location and name of the configuration file:

```
/exlibris/sfx_ver/sfx4_x/config/sfxglb41/config/  
rsi_ebook_setup.config_
```

In the following section:

```
Section "configuration"  
<instance_name1>  
<instance_name2>  
EndSection
```

Instructions when using the `--all_instances` option:

- 1 Log on to the server as the `sfxglb41` user.
- 2 Type `da`.
- 3 Type `./rsi_tools/update_all_rsi_books.pl --all_instances`.

The following is displayed:

```
Begin applying changes to RSI configuration file process.  
Switching to instance: sfxlcl41.  
Password:  
Instance: sfxlcl41 - Configuration file changed (config/  
rsi.config).  
Switching to instance: new41.  
Password:  
Instance: new41 - Configuration file changed (config/  
rsi.config).Configuration file(s) changed. Check /exlibris/  
sfx_ver/sfx4_1/sfxglb41/logs/  
rsi_ebook_setup.20120525174037.log for details.
```

Script to Copy all A-Z eJournal Profiles for Each Local Instance

This section describes the script to copy all A-Z eJournal profiles for each local instance (or a list of local instances) and create corresponding eBook Search profiles.

The script copies the profiles from A-Z eJournals to eBook Search for multiple instances. Run it as the `sxglb41` user and use as input one of the following parameters and the location and name of the configuration file, and the instance names:

- `--all_instances`
- `--all_except_test_instances`
- `--file`

The script can be used instead of having to use the copy profile wizard from the SFX Admin Center > eBook Search configuration interface for each instance.

The Script uses all A-Z eJournal profiles defined in a local instance to create corresponding eBook Search profiles (but only if they do not yet exist as an eBook Search).

For settings that do not exist in the A-Z eJournal list configuration, the following default settings are used:

- **Enable book thumbnails:** off
- **Enable link between A-Z eJournal and eBook search:** off

Location and name of the script:

```
/exlibris/sfx_ver/sfx4_x/config/sfxglb41/admin/aztools/  
copy_AZ_profiles.pl
```

Location and name of the configuration file:

```
/exlibris/sfx_ver/sfx4_x/config/sfxglb41/config/  
AZ_ebook_profiles.config_
```

```
Section "Instances"  
<instance_name1>  
<instance_name2>  
EndSection
```

Instructions when using the `--all_instances` option:

- 1 Log on to the server as the `sfxglb41` user.
- 2 Type `da`.
- 3 Type `./aztools/copy_AZ_profiles.pl --all_instances`

The following is displayed:

```
Starting to work on instance sfxlcl41...  
  Copying profile arts...  
  finished.  
Done for instance sfxlcl41.  
Starting to work on instance new41...  
Done for instance new41.  
Done for ./aztools/copy_AZ_profiles.pl
```

Monograph RSI and eBook Search Index Build for Multiple SFX Instances

It is possible to run and schedule the RSI and eBook Search index for multiple instances. Use **Server Admin Utility > 7 A-Z index > 4 AZ Index**. The following is displayed:

```
1 eJournal A-Z index tools  
2 eBook Search index tools  
3 eJournal A-Z index tools for multiple instances (only by  
sfxglb41)  
4 eBook Search index tools for multiple instances (only by  
sfxglb41)
```

Select **4 eBook Search index tools for multiple instances** to create the RSI and eBook Search index for multiple instances.

For more information about this option, see [eBook Search Index Tools for Multiple Instances](#) on page 44.

3

eBook Search Interface

This section includes:

- [eBook Search Overview](#) on page 19
- [Accessing the eBook Search](#) on page 19
- [Searching eBooks](#) on page 20
- [eBook Search Result Display](#) on page 21
- [Building the eBook Search](#) on page 24

eBook Search Overview

The eBook Search allows you to search for ebooks with active full text portfolios. You can access this feature as a stand-alone interface or you can configure it to appear in a combined interface with the A-Z list. For more information, see [Configuring the eBook Search](#) on page 27.

The following information is retained when moving between the A-Z eJournal List and the eBook Search:

- the tab that was last selected in the A-Z eJournals List
- the last search performed in each tab of the A-Z eJournals List
- the last search performed in A-Z eBooks Search
- Whether table view or detail view was last selected in the eJournals or eBook Search (in case the default view was not selected)

Accessing the eBook Search

To access the eBook Search, type the following URL in your Web browser:

http://<sfx_server>:<port>/<instance>/azbook

ExLibris The bridge to knowledge

Find e-Journal Find e-Book English

Title: Starts with Contains Exact

ISBN

Author Last name First name/Initials

Vendor

- ABC-CLIO
- AIP Scitation
- American Psychological Association
- Cambridge University Press
- Chinese eBook Consortium

Search results for:
Vendors: -ebrary-

Figure 1: eBook Search

You can add the following parameters to the eBook Search URL:

- lang=<3digit_language_code>

This parameter is used to present the appropriate language eBook Search. The accepted three-digit language codes are all ISO 639-2 three letter codes (plus Chi-simplified and chi-traditional).

For example: <http://demo.exlibrisgroup.com:3210/demo/az-books/?lang=eng>

- embedded=ML

This parameter removes the header image from the eBook Search display.

NOTE:

This parameter cannot be used to integrate the eBook Search with MetaLib (an option that does exist for the A-Z eJournals list).

Searching eBooks

You can perform a search based on the following parameters:

- Title – the book title. You can perform the search according to the following options:
 - Starts with
 - Contains
 - Exact
- ISBN
- Author – only the last name is required. Note that not all books in the SFX KnowledgeBase currently have author information loaded. When performing an author search, books without authors are not included in the search result. You can configure the author field to not be displayed. For more information, see [Configuring the eBook Search](#) on page 27.

NOTE:

The Last name box can also be used to search for corporate and meeting names.

- Vendor – select a vendor from the drop-down list. More than one vendor can be selected.
 - Only ebooks with active getFullTxt or getSelectedFullTxt services (not getAbstract, getTOC, and getHolding services) are included in the eBook Search.
 - Threshold and coverage information is not included in the eBook Search.
 - Local title override for books is not included in the eBook Search.
-

eBook Search Result Display

After you perform a search, the eBook Search displays the results in Table view or Detail view. For information on determining which view is displayed by default, see [Configuring the eBook Search](#) on page 27.

Table View

The following is an example of Table view:

Total number of e-Books: 7289			
Switch to Detail View		None of these? More options	
Title Starts with:		Showing page 1 of 365 pages.	
10 - The * The - The * Abo - Ace * Ach - Ado * Ado - Aff * Next set of titles >>			
Book title	ISBN	Author	Actions
10 strategies for reentering the workforce : career advice for anyone who needs a good (or better) job now	0-313-35696-3	Ghilani, Mary E.	i S
100 Albums That Changed Popular Music: A Reference Guide	0-313-33825-6	Smith, Chris	i S
100 Decisive Battles	1-57607-075-1	Davis, Paul K.	i S
100 Hispanics You Should Know	1-59158-327-6		i S
100 Media Moments That Changed America	0-313-35517-7	Willis, Jim	i S
100 More Library Lifesavers	0-89789-930-X	Bacon, Pamela S.	i S
100 More Research Topic Guides for Students	0-313-30852-7	McDougald, Dana	i S
The 100 Most Important Chemical Compounds	0-313-33758-6	Myers, Richard Leroy	i S
100 Most Popular African American Authors	1-59158-322-5	Drew, Bernard Alger	i S

Figure 2: eBook Search Table View

In Table view, the following information is displayed:

- Book titles (Main, Abbreviated, Uniform, Alternative, Translation) – Click to skip the SFX menu and display full text (if directLink is turned on).
- ISBN (hardback, paperback, electronic)
- Author information
- i button - Click to display the details dialog box with book information.
- SFX button - Click to display the SFX menu.

Detail View

The following is an example of Detail view:

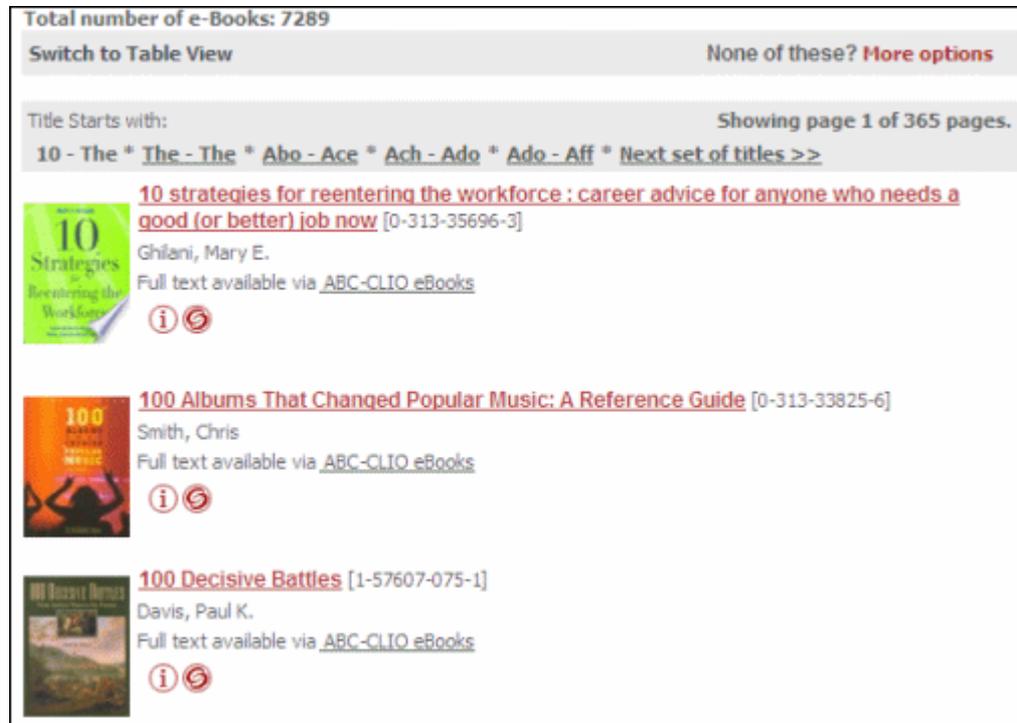


Figure 3: eBook Search Detail View

In Detail view, the following information is displayed:

- Thumbnail – An image of the book’s cover. (If this is configured to be displayed).
- Book Title – Click to skip the SFX menu and display full text (if directLink is turned on).
- Availability Statement – Click the target name to skip the SFX menu and display full text (if directLink is turned on). The OpenURL link includes the object portfolio ID to ensure the SFX menu displays only this target.
- i button - Click to display the details dialog box with book information.
- SFX button - Click to display the SFX menu.

By default, the following information is included in Detail view:

- Book Title (Main, Abbreviated, Uniform, Alternative, Translation)
- ISBN (hardback, paperback, electronic)
- Author information
- Imprint

- Availability information
- Note
- Authentication
- Book History (with related book information)

In the Detail view, a **None of these - More options** link is displayed that enables you to view the SFX menu and see more options (including ILL or DocumentDelivery options, if available).

By default, the following information is included in the Details dialog box:

- Book titles
 - Main
 - Abbreviated
 - Translation
 - Uniform
 - Alternative
- ISBN (hardback, paperback, electronic)
- Author information
- Imprint
- Availability information
- Note
- Authentication
- Book History (with related book information)

This option is available for the eBook Search, because the book for which you are searching may be unavailable electronically, since only a small percentage of books have been converted to electronic format. If a search is unsuccessful, click this link to view an SFX menu with the metadata information from the original search without any additional metadata enhancements from the SFX database.

Building the eBook Search

The eBook Search uses a dedicated Solr index. Within the Solr index, each instance has its own Solr core. The Solr index is build and updated using the following two sources of information:

- the SFX databases (both global and local)
- the monograph RSI (for activation information)

The Solr index (and RSI index for monographs) is built using the Server Admin Utility in the following situations:

- Before you can start using the eBook Search for the first time
- After changes in the SFX KnowledgeBase – for example, activation or eBook Search configuration changes

For more information, see [Server Admin Utility Options for eBook Search and eBook RSI](#) on page 41.

4

Configuring the eBook Search

This section includes:

- **Display** on page 28
- **Content** on page 30
- **Language** on page 32
- **UI Language Control** on page 33

In the SFX Admin center, click **eBook Search** from the **Configuration** section of the **Setup & Administration** area. The following is displayed:

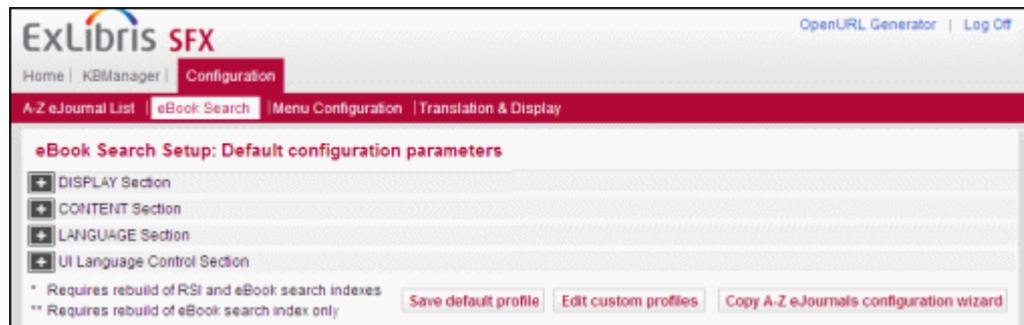


Figure 1: eBook Search Configuration

The following four sections are described below:

- Display
- Content
- Language
- UI Language Control

Display

From the Display section you can configure how the eBook Search is displayed. The following fields are available in this section:

DISPLAY Section

Records per page:
 (settings > 100 may cause performance issues)

Max pagination links: (The default value will be 100)

Pagination link character length: **

Default View: Table View Detail View

Default Search: Starts with Contains Exact

Enable Ajax for title search:

Include related object information in the eBook search index: **

Include books in eBook search index which have no active services,
 but are related to objects with active services **

Display links between eBook Search and A-Z eJournals end user interfaces

A-Z eJournals eBook Search

Hide switch views option:

Hide option 'None of these':

Show Author Search boxes:

Display book thumbnails: Yes No

Figure 2: eBook Search Display

The following table describes the fields of the Display section:

Table 1. eBook Search Display

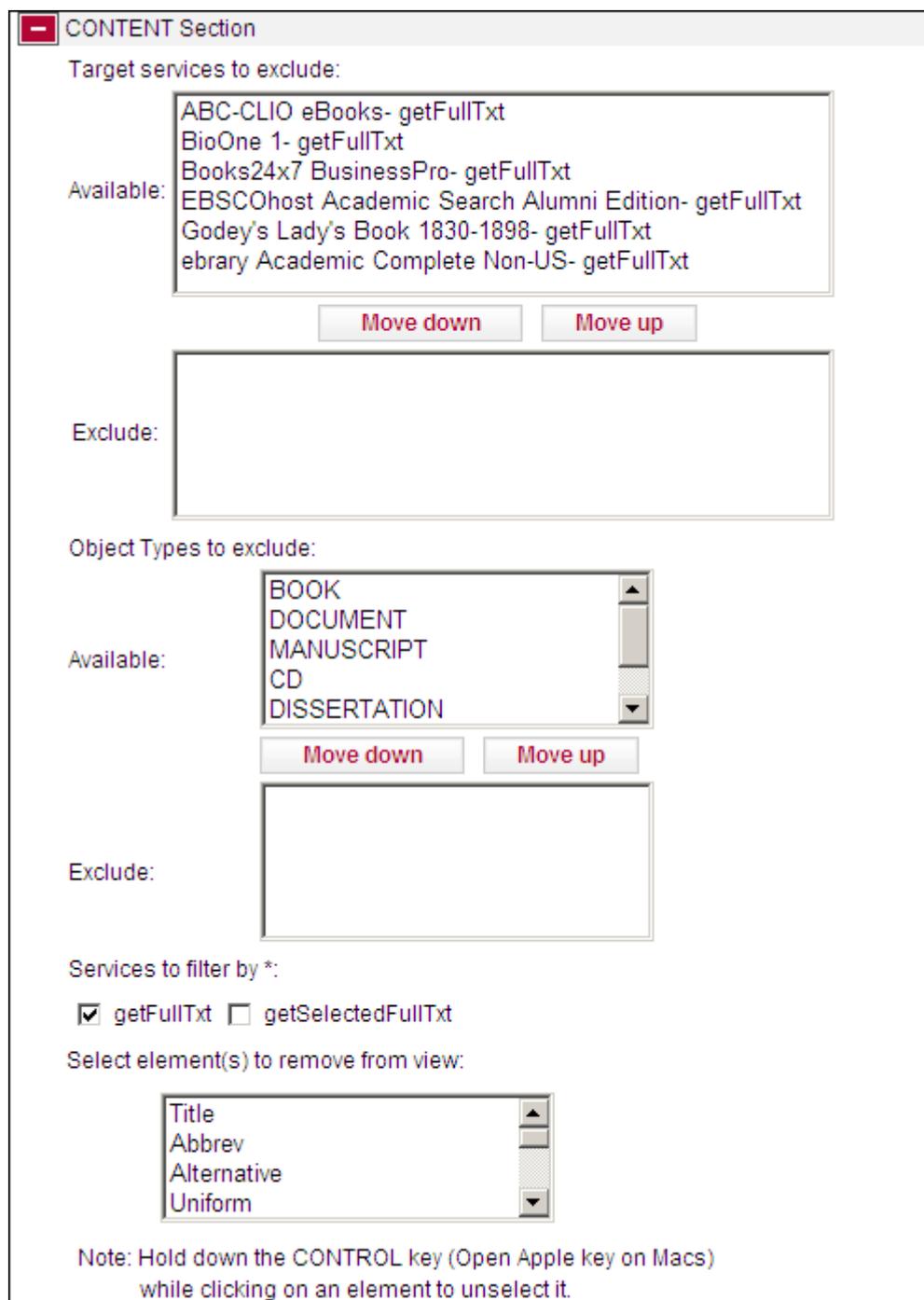
Field	Description
Records per page	The number of records you want displayed on each page.
Max pagination links	The number of pages displayed in the navigation section at the top of each page. For example, if 5 is entered, the navigation section looks like this: < 1 2 3 4 5 >
Pagination link character length	The length of the pagination links.
Default View	Select either Table View or Detail View .

Table 1. eBook Search Display

Field	Description
Default Search	Select either Starts with , Contains , or Exact . By default this is set to Contains .
Enable AJAX for title search	Select to enable the AJAX auto-complete feature. For more information about AJAX, see the AJAX Auto Complete section of the <i>SFX General User's Guide</i> .
Include related object information in the ebook search index	Select to include related object information in the eBook Search. For more information, see the Related Objects section of the <i>SFX General User's Guide</i> . If selected, the following option is available.
Include books in ebook search index which have no active services, but are related to journals with active services	Select to include books in the eBook Search index that have no active services, but are related to books with active services. For more information, see the Related Objects section of the <i>SFX General User's Guide</i> .
Display links between ebook search and A-Z ejournals end user interfaces	Select to display a combined interface with links for both Find eJournal and Find eBook displayed.
Hide switch views option	Hides the option to switch between detailed and table views.
Hide option 'None of these'	Select to hide the None of these? More Options link.
Show author search boxes	Select to display the author search boxes.
Display book thumbnails	Select to display thumbnails of the ebooks in the result display. Select Google books or Amazon from the drop-down list to determine the source of the thumbnail.

Content

From the Content section you can configure the content of the eBook Search results. The following fields are available from the Content section:



CONTENT Section

Target services to exclude:

Available:

- ABC-CLIO eBooks- getFullTxt
- BioOne 1- getFullTxt
- Books24x7 BusinessPro- getFullTxt
- EBSCOhost Academic Search Alumni Edition- getFullTxt
- Godey's Lady's Book 1830-1898- getFullTxt
- ebrary Academic Complete Non-US- getFullTxt

Exclude:

Object Types to exclude:

Available:

- BOOK
- DOCUMENT
- MANUSCRIPT
- CD
- DISSERTATION

Exclude:

Services to filter by *:

getFullTxt getSelectedFullTxt

Select element(s) to remove from view:

- Title
- Abbrev
- Alternative
- Uniform

Note: Hold down the CONTROL key (Open Apple key on Macs) while clicking on an element to unselect it.

Figure 3: eBook Search Content

The following table describes the fields of the Content section:

Table 2. eBook Search Content

Field	Description
Target services to exclude	Select the target services to exclude from the eBook Search. NOTE: The targets displayed in the Available box contain all the active targets (including journal targets). However, in the eBook Search index, targets without active books are excluded from the index, including journal targets listed in the Available box. A maximum of 50 targets can be listed in the Excluded box.
Object types to exclude	Select the object types to exclude. This also includes related objects. NOTE: Only monograph type objects are included in the eBook Search.
Services to filter by	Select the services to be displayed in the eBook Search.
Select elements to remove from view	Select the elements you do not want displayed.

Language

From the Language section you can configure the language of the eBook Search results. The following fields are available in the Language section:

LANGUAGE Section

User Interface Language Set:

<input type="checkbox"/> Catalan; Valencian	<input type="checkbox"/> Estonian	<input type="checkbox"/> Hebrew	<input type="checkbox"/> Slovak
<input type="checkbox"/> Chinese Simplified	<input type="checkbox"/> Faroese	<input type="checkbox"/> Icelandic	<input checked="" type="checkbox"/> Spanish
<input type="checkbox"/> Chinese Traditional	<input type="checkbox"/> Finnish	<input type="checkbox"/> Italian	<input type="checkbox"/> Swedish
<input type="checkbox"/> Czech	<input checked="" type="checkbox"/> French	<input type="checkbox"/> Japanese	<input type="checkbox"/> Welsh
<input type="checkbox"/> Danish	<input type="checkbox"/> Galician	<input type="checkbox"/> Korean	
<input checked="" type="checkbox"/> Dutch	<input checked="" type="checkbox"/> German	<input type="checkbox"/> Polish	
<input checked="" type="checkbox"/> English	<input type="checkbox"/> Greek	<input type="checkbox"/> Portuguese	

Select Default Language:

Select your country **:

Latin diacritics handling **: USA German Danish/Norwegian Swedish

Figure 4: eBook Search Language

The following table describes the fields of the Language section:

Table 3. eBook Search Language

Field	Description
User Interface Language Set	Select the languages to appear in the eBook Search drop-down list. If none is selected, only the default language is available.
Select Default Language	Select the default language to be used by the eBook Search.
Select your country	Select your country. By default this is set to United States.

Table 3. eBook Search Language

Field	Description
Latin diacritic handling	<ul style="list-style-type: none"> ■ USA – All characters with diacritics are sorted as characters without diacritics. For example é is sorted as e. ■ German – All characters with umlaut are sorted as characters without diacritics + e. The German letter ß is sorted as sz. ■ Danish/Norwegian – The following characters are sorted after z: [Æ] [Ø] Å. All other diacritics are disregarded. ■ Swedish – The following characters are sorted after z: Å Ä Ö. The German letter ü is sorted as y. All other diacritics are disregarded. <p>By default this is set to USA.</p>

UI Language Control

From the UI Language Control section you can define the writing system of the objects that are displayed in the eBook Search.

There are two modes of behavior:

- **SFX 3 behavior** – the eBook Search only displays objects with the same writing system as the search term. Objects whose writing system is different than the search term are not displayed – even if the title is in the writing system of the search term. For example, if you enter a search term in English, the eBook Search displays objects whose language is written in a Latin writing system such as English, French, or German – but not objects written in the Chinese, Arabic, or Greek writing systems – even if the title of the object has been translated into a Latin writing system language.
- **SFX 4 behavior** – you can have the eBook Search search for objects whose writing system is different than the writing system of the search term, but whose title is in the same writing system as the search term.

UI Control Visibility Hidden for SFX 3 Behavior

The following fields are available in the UI Language Control section with UI control visibility hidden for SFX 3 behavior:

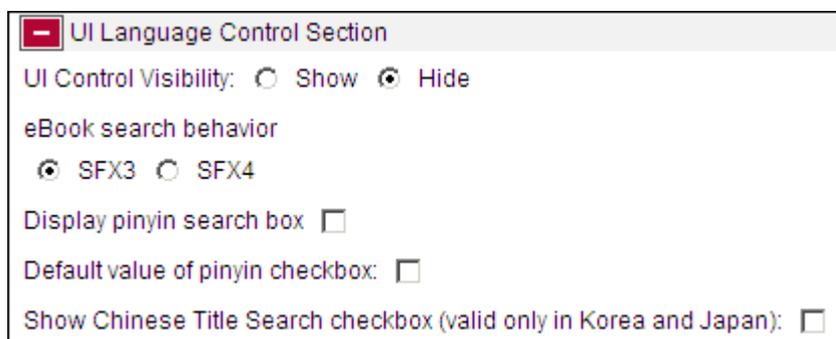


Figure 5: eBook UI Language Control SFX 3 Behavior

The following table describes the fields of the UI Language Control section with UI control visibility hidden for SFX 3 behavior:

Table 4. eBook Search UI Language Control SFX 3 Behavior

Field	Description
UI Control Visibility	Show or hide the ability in the eBook Search to limit searches to specific languages.
eBook Search Behavior	Select whether the eBook Search has the SFX 3 or SFX 4 behavior.
Display pinyin search box	Select to display the pinyin search box in the eBook Search.
Default Value of Pinyin Checkbox	Select to have the Pinyin checkbox in the A-Z List selected by default. The Pinyin checkbox is displayed only if the eBook Search uses both Pinyin and Latin headers.
Show Chinese Title Search Checkbox	Select to display the Chinese Title Search checkbox in the eBook Search. Select this checkbox if the book search profile country setting is Korea or Japan. This checkbox allows the user to limit the title search to search only Chinese titles.

UI Control Visibility Hidden for SFX 4 Behavior

The functionality of the eBook Search when control visibility is hidden for SFX 4 behavior is the same as with the A-Z list. For more information, see the **UI Control Visibility Hidden for SFX 4 Behavior** section of the *SFX General User's Guide*.

NOTE:

It is recommended to select all writing systems or a selection of writing systems for which you want your end users to be able to search. If a specific writing system is not selected, the eBook Search will not display results in those writing systems, even if they exist. Do this only for a specific profile, or where you do not want the titles of a specific writing system to be searchable.

UI Control Visibility Displayed

The functionality of the eBook Search when control visibility is displayed is the same as with the A-Z list. For more information, see the **UI Control Visibility Displayed** section of the *SFX General User's Guide*.

Copying A-Z eJournals Configuration

You can create eBook Search configuration profiles based on existing A-Z eJournal configuration profiles.

To create eBook Search configuration profiles based on existing A-Z eJournal configuration profiles:

- 1 Click **Copy A-Z eJournals configuration wizard**. The following is displayed:

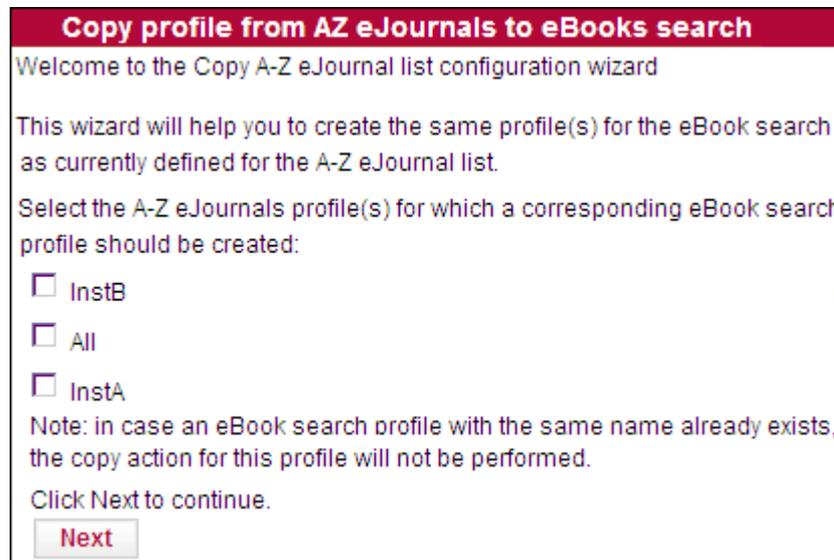


Figure 6: Copy A-Z eJournals Configuration Wizard

- 2 Select the A-Z eJournal profiles for which you want to create a corresponding eBook Search profile.

- 3 Click **Next**. The following is displayed:

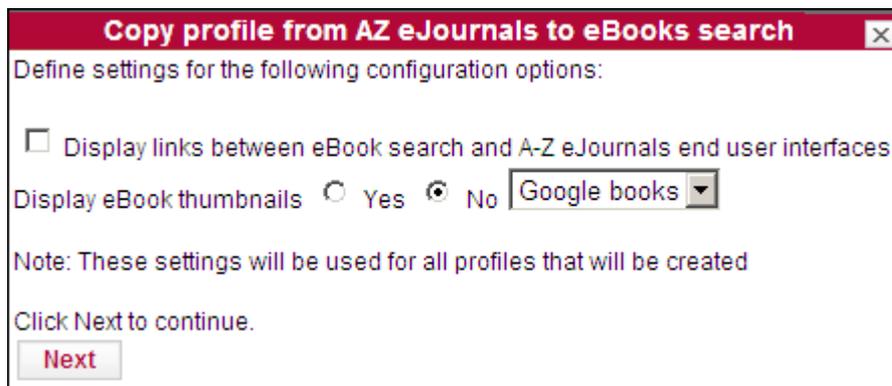


Figure 7: Define Settings

- 4 Select the eBook Search options you want.

NOTE:

If the wizard is used to copy multiple profiles, the options you select apply to all the profiles that are copied. Note that changes to each profile can be made after they have been created.

- 5 Click **Next**. The following is displayed:



Figure 8: Settings Created Successfully

- 6 Click **Finish** to close the wizard.

5

Separate RSI Indexes for Serials and Monographs

This section includes:

- **Overview** on page 37
- **Previous Functionality** on page 38
- **New Functionality** on page 38
- **Configuring Separate Indexes for Serials and Monographs** on page 39
- **Complete Monograph Index Build** on page 39
- **Incremental Monograph Index Build** on page 40

Overview

Following the release of SFX 4.3, there is an option to create separate RSI indexes for serials and monographs. It is recommended to create separate indexes, as this is required for the eBook Search to work. There are two benefits to the new functionality:

- It is possible to perform an incremental build for the monograph index where the existing RSI index is updated with all of the changes that were made in the SFX KnowledgeBase since the last time the index was built, but the whole index is not rebuilt. This build takes much less time than a complete build.
- The mechanism for including activation data from the shared instance in consortia model 2 has been improved. Instead of retrieving and including the shared data in the local instance RSI during the build (old mechanism), the eBook RSI integrates the RSI data from the local and shared instance on-the-fly during the RSI query (which reduces RSI build time).

Previous Functionality

The following characterize the previous functionality where serials and monographs could only be in the same RSI index:

- Data is stored in local instance `RAPID_SERVICE_INDICATOR` table.
- When an RSI API is received, SFX checks the RSI index, which includes both journals and books.
- Only a complete build is available – no incremental build.
- For consortia API, data from a shared instance is included in the RSI index from the local instance during the build.

New Functionality

The following characterize the new functionality where serials and monographs can be in separate RSI indexes:

- RSI ejournals and RSI ebooks are stored in separate DB tables.
- When an RSI API request is received, both the journal and book RSI indexes are checked.

If RSI ejournals are stored in local instance `RAPID_SERVICE_INDICATOR` table:

- Only a complete build is possible – no incremental build.
- For consortia API, data from a shared instance is included in the RSI index from the local instance during the build.

If RSI ebooks are stored in the `IRSI_INSTITUTIONS` and `IRSI_<instance>` global instance tables:

- Both complete build and incremental build are available
- For an incremental build, the `TRACKING_TABLE` table and triggers are used.
- For consortia API, data from a shared instance is not included in the RSI index from the local instance during a build. Instead, on-the-fly querying of the local and shared RSI tables is performed. For a remote shared set-up, replication is used.

NOTE:

The RSI API does not work if an RSI book index exists, but an RSI index for journals does not exist.

Configuring Separate Indexes for Serials and Monographs

To configure SFX to create separate indexes for serials and monographs, set the `Separate_RSI_for_Books` parameter in the `config/rsi.config` file to `Y`. For example:

```
Section "monograph_parameters"  
    Separate_RSI_for_Books "Y"  
EndSection
```

Complete Monograph Index Build

The complete build is needed in the following cases:

- No RSI index data exists yet for the instance (a first build)
This means that the `tracking_id` value in the `CONTROL` table is not defined.
- More than 10,000 changes or more than 20% of the total amount of objects have changed for the instance in `TRACKING_TABLE`. In this case, it is faster to do a complete build.
- Activation changes are made to targets or target services.
- After a KnowledgeBase update has been applied in the SFX installation.

NOTE:

Only object portfolio changes are taken into account, not target or target service changes.

The following scenarios track changes by storing the current value in the `CONTROL` table.

- If one of following changes in institute set-up in the local instance:
 - An institute or group is added or deleted.
 - A group affiliation for an institute is added or deleted.
- If one of following occurs in the consortia API set-up of the local instance:
 - The `active` parameter in the Consortium section of the `ctx_object.config` file is changed from `Y` to `N` or from `N` to `Y`.
 - The value of the `rsi_consortium_members` parameter in the `config/consortium.config` file has changed.

With a complete build, the `TRACKING` table, which contains a list of changes, is ignored. The complete build may be quite heavy on system resources

(depending on the number of eBook activations). It is recommended to not run this process during peak time.

Incremental Monograph Index Build

During an incremental build, the TRACKING_TABLE table lists all of the changes to the instance. This table is updated by the triggers of the local and global database tables.

During an incremental build, SFX makes a list of objects for which activation needs to be recalculated. For this list, the default institute and group activations are all recalculated and the existing RSI index is updated.

The incremental build is fast, depending on the number of changes. Build time can be 10 minutes or less.

The maximum amount of changes before a complete build is needed is defined in the `config/rsi.config` configuration file, in the following section:

```
Section "complete_build_params"
# The parameters below determine the maximum amount of changes
allowed for incremental build of the monograph RSI and A-Z
index.
# If the number of changes in the SFX KB exceeds the
parameters below, a complete build is required.
    max_op_changes "10000"
    max_changes_percent "20"
EndSection
```

6

Server Admin Utility Options for eBook Search and eBook RSI

This section includes:

- **Solr Start/Stop/Restart** on page 41
- **Building the eBook Search Index** on page 43
- **eBook Search Index Tools for Multiple Instances** on page 44
- **Scheduling an eBook Search Index Build for Multiple Instances** on page 47
- **Change Solr Password (only by sfxglb41)** on page 49
- **Set Solr Shared Instance Password (only by sfxglb41)** on page 49
- **TRACKING Table Set-Up and Maintenance** on page 50
- **Solr Index** on page 51

NOTE:

Perform the instructions in this section in the Server Admin Utility.

Solr Start/Stop/Restart

The eBook Search uses a dedicated Solr index. Within the Solr index, each instance has its own Solr core. The Solr index is build and updated using the following two sources of information:

- the SFX databases (both global and local)
- the monograph RSI (for activation information)

Before the Solr index can be used, Solr must be up and running in the SFX installation.

To ensure that the monograph RSI index is used, change the `config/rsi.config` configuration file for each local instance to use a separate RSI index for eBooks and eJournals. For more information, see the **Rapid Service Indicator** section of the *SFX Advanced User's Guide*.

Solr restart is required if you change the Solr password. Solr restart is also required after adding or removing a Solr core, but only if you have chosen not to do an automatic Solr restart as part of the Add/remove Solr core option in the Server Admin Utility.

IMPORTANT:

Do not perform a Solr start, stop, or restart while a Solr index build is being performed in the SFX installation.

To start/stop/restart Solr, select **1 Start Stop Services** from the main menu. The following screen is displayed:

```
Start/Stop services
 1 Proxy Apache start
 2 Proxy Apache stop
 3 Proxy Apache restart
 4 MySQL start
 5 MySQL stop
 6 Instance Apache start
 7 Instance Apache stop
 8 Instance Apache restart
 9 All Apache start
10 All Apache stop
11 All Apache restart
12 Solr start (only by sfxglb41)
13 Solr stop (only by sfxglb41)
14 Solr restart (only by sfxglb41)
```

Building the eBook Search Index

To access the eBook Search index tools, type **2 eBook Search index tools**. The following is displayed:

```
eBook Search Tools
1 (Re)build the eBook Search index
2 (Re)build eBook RSI and Search index
3 Show scheduled eBook Search (and RSI) index builds
4 Schedule an eBook Search (and RSI) index build
Please select [1-4,q,m,u]:
```

Select **1 (Re)build the eBook Search index** to build the eBook Search index or select **2 (Re)build eBook RSI and Search index** to build both the eBook Search and RSI indexes. The following is displayed:

```
Running the eBook search index builder may take a long time,
depending on the amount of active portfolios.
Are you sure you want to continue? [y/n]
```

Type **y**. The following is displayed:

```
The eBook search index build can be either 'complete' or
'incremental'.
Incremental build is recommended as it will take less
resources and time.
Do you want to use incremental build - if this is available in
your instance?
Type (i) for incremental build, or (c) for complete build:
[i]
```

Type **i** for an incremental build or **c** for a complete build. The following is displayed:

```
In case incremental build of the eBook search index cannot be
performed, do you want to run complete build instead?
Note that in a live SFX environment, a complete build of the
eBook search index is recommended to be run at night or during
a server 'slow' time, because it requires a significant amount
of system resources. [y/N]
```

Type **y** or **n** to start the build.

Configuration

The maximum amount of changes before a complete build is needed is defined in the `config/solr_index.config` configuration file in the `complete_build_params` section:

```
Section "complete_build_params"
# The parameters below determine the maximum amount of changes
allowed for incremental build of the monograph A-Z index.
# If the number of changes in the SFX KB exceeds the
parameters below, a complete build is required.
    max_op_changes "15000"
EndSection
```

eBook Search Index Tools for Multiple Instances

Use this option to run or schedule an RSI and eBook Search build for multiple instances. This is done if the SFX installation contains more than one production instance, and the building of the indexes can be set up to be performed one after the other.

Building an RSI or eBook index for multiple instances must be done as the `sfxglb41` user. Additionally, before using this option, sudo permissions need to be set up for the following script:

```
/exlibris/sfx_ver/sfx4_1/sfxglb41/admin/aztools/
az_for_all_instances/run_rsi_az_for_all_instances.pl
```

Otherwise, the following error is displayed:

```
sudo permission for run_rsi_az_for_all_instances.pl is
mandatory, the script cannot run.
```

Select **4 eBook Search index tools for multiple instances** to build the RSI or eBook index for multiple instances. The following is displayed:

```
Building RSI and eBook Search index for multiple instances
(only by sfxglb41)
  1 (Re)build RSI and eBook Search index

Please select [1,q,m,u]:
```

Select **1 (Re)build RSI and eBook Search index**. The following is displayed:

```
Warning: This option can only be used if sudo permissions have
been set up for the file admin/aztools/
run_rsi_az_for_all_instances.pl. Otherwise, the index build
will fail.
Define instances for which index should be (re)build:
  1 all instances
  2 all except test instances
  3 use configuration file
  4 specify instances
Please select [1-4,q,m,u]:
```

Building the Index for All Instances

Select **1 all instances** to build the index for all instances. The following is displayed:

```
Running the index builder may take a long time, possibly hours
depending on the amount of active portfolios.
Are you sure you want to continue? [y/n]
```

Type **y** to continue. The following is displayed:

```
Logging activity for /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/
aztools/az_for_all_instances/
run_rsi_az_for_all_instances_new.pl at '/exlibris/sfx_ver/
sfx4_1/sfxglb41/logs/run_rsi_az_for_all_instances_new.pl-
2012-05-24T13:35:11.log'.
Starting /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/aztools/
az_for_all_instances/run_rsi_az_for_all_instances_new.pl
  Running journals Index build for instance: sfx1c141 -
done.
  Running journals Index build for instance: new41 -
done.
Done for /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/aztools/
az_for_all_instances/run_rsi_az_for_all_instances_new.pl
```

Building the Index for All Local Instances Except the Test Instances

Select **2 all except test instances** to build the index for all local instances except the test instances.

Building the Index for Instances Listed in a Configuration File

Select **3 use configuration file** to build the index for instances listed in a configuration file. This option checks the following locations:

- the global instance file – /exlibris/sfx_ver/sfx4_x/sfxglb41/config/rsi_ebook_setup.config

The instances should be listed in the `index_build` section. For example:

```
Section "index_build"
SST01
SST02
SST03
EndSection
```

NOTE:

Edit the file in the global instance. Do not break the symbolic links to this file in the local instances.

- the `rsi_az_index` section in the `config/rsi.config` file of the local instances:

```
Section "rsi_az_index"
    scheduled_build "Y"
EndSection
```

If this section exists and the value is `Y`, the instance is added to the set of instances for which the build is run. If this section does not exist or its value is `N`, the instance is not included in the build. The default value for the `scheduled_build` parameter is `N`.

Building the Index for Specific Instances

Select **4 specify instances** to build the index for specific instances. The following is displayed:

```
Please enter instances names (comma separated if multiple):
```

Enter the list of instances that you want included in the build separated by a comma (,). The following is displayed:

```
This option will first (re)build RSI index - then (re)build
eBook search index.
Running the RSI + eBook search index builder may take a long
time, depending on the amount of active portfolios.
Are you sure you want to continue? [y/n]
```

Type **y** to continue. The following is displayed:

```
The RSI + eBook search index build can be either 'complete' or
'incremental'.
Incremental build is recommended as it will take less
resources and time.
Do you want to use incremental build - if this is available in
your instance?
Type (i) for incremental build, or (c) for complete build:
[i]
```

Type **i** for an incremental build, or **c** for a complete build. If you typed **i**, the following is displayed:

```
In case incremental build of the RSI + eBook search index
cannot be performed, do you want to run complete build
instead?
Note that in a live SFX environment, a complete build of the
RSI + eBook search index is recommended to be run at night or
during a server 'slow' time, because it requires a significant
amount of system resources. [y/N]
```

Type **y** or **n**. The following is an example of an output:

```
-----> sudo /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/
aztools/az_for_all_instances/run_rsi_az_for_all_instances.pl
--object_type=m --build_type=i --list=sfxlcl41,new41 dLogging
activity for /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/aztools/
az_for_all_instances/run_rsi_az_for_all_instances_new.pl at
'/exlibris/sfx_ver/sfx4_1/sfxglb41/logs/
run_rsi_az_for_all_instances_new.pl-2012-05-24T15:01:03.log'.
Starting /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/aztools/
az_for_all_instances/run_rsi_az_for_all_instances_new.pl
Running eBooks Index build for instance: sfxlcl41 -
done
Running eBooks Index build for instance: new41 - done.
Done for /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/aztools/
az_for_all_instances/run_rsi_az_for_all_instances_new.pl
```

Scheduling an eBook Search Index Build for Multiple Instances

You can schedule a build for the eBook Search Index for multiple instances to occur on a specific date and time.

It is recommended to set up the following two scheduled tasks:

- An incremental only build once a day (or on another frequent schedule). This build is fast and does not impact SFX performance.

- A build using the **incremental unless complete build is required option** once every night (or less frequently, for example, a few times a week or even weekly).

Do not schedule this build to run during the day because a complete build is performed if the incremental build cannot be run. Running a complete build may impact SFX performance.

Alternatively, it is possible to only set up only the second scheduled task if there are few changes expected in activation information for books and if it is acceptable to not have the activation changes reflected immediately in the eBook search and RSI monographs. It is possible to build or schedule a build of the RSI and eBook Search indexes for multiple instances.

To schedule a build of the RSI and A-Z index for multiple instances:

- 1 Log on as the `root` user.
- 2 Type `crontab -e`
- 3 Specify the scheduled build of the indexes by using the following syntax:

```
<scheduling time/date/frequency> /exlibris/sfx_ver/sfx4_1/  
sfxglb41/admin/aztools/az_for_all_instances/  
run_rsi_az_for_all_instances.cron <options>
```

For example:

```
16 12 * * 01 /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/aztools/  
az_for_all_instances/run_rsi_az_for_all_instances.cron --  
build_type=c --object_type=m --instances=all_except_test
```

The following describes the parameters used in the command:

- **Build type**
 - `--build_type` (required) – can be either `c` for complete build, or `i` for incremental build

If you choose an incremental build, the following additional options are available:

 - `--no_complete` – do not do a complete build if an incremental build is not possible
 - `--email=<email>` – the e-mail address to which to send an e-mail if an incremental build cannot be performed
- **Object type**
 - `--object_type` (required) – can be `m` for monographs (to build the monograph RSI and eBook Search index) or `s` for serials (to build the serials RSI and A-Z index)

- List of instances (list/instances) for which to build the indexes.

Do one of the following:

- Provide a list of instances by using: `--list=<instance_name>`
(separate instance names with a comma (,)).
- Indicate the instances by using: `--instances=<all/
all_except_test/file>`

For more information on the structure of the scheduling time/date definition, see <http://en.wikipedia.org/wiki/Cron>.

Change Solr Password (only by sfxglb41)

The eBook Search uses a dedicated Solr index. Within the Solr index, each instance (both local and global) has its own Solr core, with a corresponding user name (identical to the instance name) and password. This option allows to change the Solr password.

To change the Solr password, select **3 Change Passwords** from the main menu. The following is displayed:

```
Passwords
 1 Change Unix password
 2 Change MySQL instance password
 3 Change MySQL root password
 4 Change Solr password (only by sfxglb41
 5 Generate encrypted password for use in
configuration files
 6 Set Solr shared instance password (only by
sfxglb41)
Please select [1-46,q,m]:
```

NOTE:

A Solr restart is required after you change the Solr password.

Set Solr Shared Instance Password (only by sfxglb41)

If you have set up Consortia Model 2 (consortia API) in the SFX instance, where the shared and local instances do not exist in the same SFX installation and you changed the password in the shared installation, use this option to change the

password also in the SFX installation of the local instances. Set the shared instance Solr password to be identical to the Solr password in the local instance, or the index build in the shared instance fails.

TRACKING Table Set-Up and Maintenance

The TRACKING table is a table in the global schema of the SFX installation that is used to keep track of changes in any of the local instance databases or the global schema. The TRACKING table is updated by triggers and stores all changes to be included in SFX-Verde publishing and in the incremental build of the RSI and eBook Search indexes.

To access this option, select **13 TRACKING table set-up and maintenance (only by sfxglb41)** from the Main menu. The following is displayed:

```
1 Check status of TRACKING table and triggers
2 Create table and triggers
3 TRACKING table cleanup
```

Checking the Status of the Tracking Table and the Triggers

Select **1 Check status of TRACKING table and triggers** to check the status of the TRACKING table and the triggers. If they have been set up and do not have any problems, the following is displayed:

```
Checking use of TRACKING table:
    TRACKING table is enabled.
Checking TRACKING table:
    TRACKING table OK.
Checking size of TRACKING table:
    42 entries found in TRACKING table.
Earliest entry found:          2012-03-23
Most recent entry found:      2012-03-23
Checking triggers:
Triggers are ok.
```

If there are problems with the triggers, the following is displayed:

```
Checking triggers:
Problem detected with triggers in following instance(s):
sfxlcl41,sfxtst41.
Triggers will need to be recreated. Please run step 2.
```

Creating the Table and the Triggers

Select **2 Create table and triggers** to create the table and triggers if they do not exist or to recreate them if problems have been detected. The following is displayed:

```
Checking existence of TRACKING table:
TRACKING table exists.
Do you wish to create / recreate triggers? [Y/n]y
```

Type **y** to create the triggers. This process does not change the TRACKING table and can be performed without causing any harm to SFX-Verde publishing.

Cleaning the TRACKING Table

Select **3 TRACKING table cleanup** to clean up the TRACKING table. The following is displayed:

```
1 Clean TRACKING table
2 Schedule clean-up of TRACKING table
3 List scheduled tasks for clean-up of TRACKING table
```

Select **1 Clean TRACKING table** to clean the TRACKING table. The following is displayed:

```
Do you want to delete entries from TRACKING table which are no
longer needed by programs using this data? [Y/n]
```

Type **y**. The following is displayed:

```
/exlibris/sfx_ver/sfx4_1/tmp/tracking_table_archive/
archive_TRACKING_TABLE_1.sql.gz created.
Entries no longer needed are now removed.
Removed 10334 entries.
```

An archive file with the old data from the TRACKING table is stored in the `/exlibris/sfx_ver/sfx4_1/tmp/tracking_table_archive/` directory, and the archived data is removed from the TRACKING table.

Data is archived if it is older than 6 months. Data not published to Verde as part of the SFX-Verde publishing process is not archived.

Solr Index

The eBook Search uses a dedicated Solr index. Within the Solr index, each instance has its own Solr core. The Solr index is build and updated using the following two sources of information:

- the SFX databases (both global and local)

- the monograph RSI (for activation information)

Before the Solr index can be used, Solr should be up and running in the SFX installation, and a Solr core should exist for the global instance and each local instance where the eBook Search will be used.

Select **14 Solr index (only by sfxglb41)** to create or remove a Solr core. The following is displayed:

```
Solr index maintenance
1 Create a Solr core
2 Remove a Solr core
3 Create Solr cores for all instances
```

NOTES:

- During the initial set-up, it is recommended to create a Solr core for all instances in the SFX installation.
 - A Solr restart is required after creating or removing a Solr core if you choose to not do one automatically.
-

Select **1 Create a Solr core** to create a Solr core. The following is displayed:

```
This option allows to create a Solr core for an instance. In
case a core is created, the Solr service should be restarted.
Would you like the Solr service to be restarted automatically?
[y/n] y
Please enter the instance name for which you want to create a
Solr core: SST04
In case a core for the instance already exists, would you like
to recreate it or skip its creation?
Note that recreating the Solr core will remove all its data.
Type (r) for recreating the core or (s) for skipping the core
creation: [s] r
Starting to create new core and update configuration...
Adding core to Solr...
Core added!
  Adding entry to Jetty configuration...
  File updated!
  Adding entry to Web configuration...
  File updated!
done!
```

NOTE:

If a core already exists for an instance, it is possible to either skip the core creation or recreate the core. It is recommended to skip the core creation unless there is a serious problem with the Solr core that requires it to be rebuilt. This is because recreating a Solr core for an instance removes all its data, which means the eBook Search index needs to be rebuilt using a

complete build. This may take a while for instances with a lot of eBook activations.

Select **2 Remove a Solr core** to remove a Solr core. The following is displayed:

```
Please enter the instance name for which you want to remove
the Solr core: sfxtst41
Starting remove core for user sfxtst41...
  Dropping Solr core for user sfxtst41...
  Core unloaded!
  Removing record from Jetty configuration for user
sfxtst41...
  Record removed!
  Removing record from Web configuration for user
sfxtst41...
  Record removed!
done!
```

Only run this option for instances where SFX-Verde publishing is not set up, and the eBook Search interface is not in use.

Select **3 Create Solr cores for all instances** to create a Solr core for all of your SFX instances. The following is displayed:

```
This option allows to create Solr cores for all instances. In
case a core is created, the Solr service should be restarted.
Would you like the Solr service to be restarted automatically?
[y/n] y
This option will create a Solr core for each of the instances
in the SFX installation:  sfxlcl41, sfxst41
In case a core for an instance already exists, would you like
to recreate it or skip its creation?
Note that recreating a Solr core for an instance will remove
all its data.
Type (r) for recreating the core or (s) for skipping the core
creation:  [s] s
You selected to skip a core creation in case it already
exists.
Are you sure you want to continue? [y/n] y
Working on instance: sfxlcl41
Starting to create new core and update configuration...
Adding core to Solr...
Core added!
    Adding entry to Jetty configuration...
    File updated!
    Adding entry to Web configuration...
    File updated!
done!
Working on instance: sfxst41
Starting to create new core and update configuration...
Adding core to Solr...
Core with name sfxst41 already exists!
Skipping core creation
Restarting solr...
Stopping solr...
Done!
Starting solr...
Done!
```

7

eBook Search Set-Up for Consortium Model 2

This section describes how to set up the eBook Search feature for consortium model 2 - multiple SFX instances - including one instance for shared resources.

This section includes:

- [Overview](#) on page 55
- [Configuration for Consortia API - eBook Search](#) on page 56
- [Setting Up Replication for RSI in Both the Shared \(Master\) and Local \(Slave\) Instances](#) on page 59
- [Rebuilding A-Z eBooks in the Remote Shared Instance](#) on page 60
- [Troubleshooting and Debugging](#) on page 60

Overview

In Consortium model 2, each local institution has its own local instance and is responsible for its non-shared data. A central office manages the shared resource instance (shared instance) and is responsible for all shared data.

Interaction between the SFX instances results in the generation of the SFX menu and the A-Z List.

After completing the general eBook Search set-up (as described in [eBook Search Set-Up Instructions](#) on page 9), perform the following additional steps in the SFX environment if model 2 is set-up:

- Configure the shared and local instances configuration files – `config/ctx_object.config` and `config/consortium.config`. See [Configuration for Consortia API - eBook Search](#) on page 56.

If the shared instance does not exist in the same SFX installation as the local instance (this set-up is called a remote shared set-up), do the following, as well:

- Set-up replication for RSI. See [Setting Up Replication for RSI in Both the Shared \(Master\) and Local \(Slave\) Instances](#) on page 59.
- Rebuild the eBook search index (with a complete build) in the SFX installation of the remote shared instance. See [Rebuilding A-Z eBooks in the Remote Shared Instance](#) on page 60.

Configuration for Consortia API - eBook Search

Perform the configuration both in the local instance and the shared instance. The configurations are different depending on whether local and shared instances exist in same installation or not.

Configuration in the Local Instance Where Local and Shared Instances Exist in the Same SFX Installation

- 1 In the `config/ctx_object.config` file, set the `active` parameter of the `consortium` section to `Y`:

```
Section "consortium"  
    active      "Y"  
    <include:$ENV{SFXCTRL_HOME}/config/consortium.config>  
    consortium_name      "my_consorium"  
EndSection
```

NOTE:

This should be already set up, since it is required for SFX menu forwarding of requests to the shared instance.

- 2 Perform the following changes in the `config/consortium.config` file:
 - Set the `shared_instance_name` section to the name of shared instance that exists in the same installation:

```
Section "shared_instance_name"  
    <instance>  
EndSection
```

NOTE:

Use the instance UNIX name (not the instance Apache alias name).

- Set the `shared_type` section to local:

```
Section "shared_type"  
    local  
EndSection
```

- Leave the following sections blank:
 - `schema_for_replication`
 - `is_shared`
 - `remote_shared_of`

Configuration in a Shared Instance Where Local and Shared Instances Exist in the Same SFX Installation

- In the `config/consortium.config` file, set the `is_shared` section to `Y`:

```
Section "is_shared"  
    Y  
EndSection
```

- No configuration is required in the `config/ctx_object.config` file.

Configuration in the Local Instance Where Local and Shared Instances Do Not Exist in the Same SFX Installation

- 1 In the `config/ctx_object.config` file, set the `active` parameter in the `consortium` section to `Y`:

```
Section "consortium"  
    active      "Y"  
    <include:$ENV{SFXCTRL_HOME}/config/consortium.config>  
    consortium_name "my_consorrtium"  
EndSection
```

NOTE:

This should be already set up, since it is required for SFX menu forwarding of requests to the shared instance.

- 2 In the `config/consortium.config` file:

- The `schema_for_replication` section looks like the following:

```
Section "schema_for_replication"  
    <shared_remote_instance_name>  
EndSection
```

Replace `<shared_remote_instance_name>` with `shared_<name of shared instance>`.

- Set the `shared_instance_name` section with the name of the shared instance:

```
Section "shared_instance_name"  
    <instance>  
EndSection
```

NOTE:

Use the instance UNIX name (not the instance Apache alias name).

- Set the `shared_type` section with the value `remote`:

```
Section "shared_type"  
    remote  
EndSection
```

- Leave the following sections blank:

- `is_shared`
- `remote_shared_of`

Configuration in a Shared Instance Where Local and Shared Instances Do Not Exist in the Same SFX Installation

In the `config/consortium.config` file:

- set the `is_shared` section to `Y`:

```
Section "is_shared"  
    Y  
EndSection
```

- Set the `remote_shared_of` section with at least one value. Fill in the servername and solr port of each SFX installation that contains local instances. The default solr port is 8983:

```
Section "remote_shared_of"  
    http://il-sfx08:8983  
EndSection
```

- Leave the following sections blank:

- `schema_for_replication`
- `shared_instance_name`
- `shared_type`

Setting Up Replication for RSI in Both the Shared (Master) and Local (Slave) Instances

NOTE:

This set-up is only required if the local and shared instances do not exist in the same SFX installation. In this case, replication needs to be set up for the shared instance RSI date to ensure that the shared instance data is available to the local instances.

The following tables are replicated from the remote shared installation:

- KB_OBJECT_IDENTIFIERS
- RSI_MONOGRAPH_<shared_name>
- RSI_MONOGRAPH_INSTITUTION

- 1 For each instance, choose a unique `server_id` (one for the master instance and one for each slave SFX installation)

NOTE:

It is important to make sure that each `server-id` is unique. The `server-id` is stored in the `my.cnf` file of each SFX installation that is part of the replication - so if instances are added at a later stage, it is important to check that the new `server-id` does not yet exist.

- 2 On the master (remote shared instance machine)
 - a As a prerequisite, build the RSI for eBooks in the shared instance.
 - b As as the `sfxglb41` user, add the following to the `my.cnf` file in the `/exlibris/sfx_ver/sfx4_1/data` directory of the `sfxglb41` instance:
 - `server-id=<number1 - positive integer, should differ from slave(s)>`
 - `log-bin=/exlibris/sfx_ver/sfx4_1/data/log-bin`
 - `expire-logs-days=5`
 - `binlog-do-db=sfxglb41`
 - `binlog_format=ROW`
 - `log_bin_trust_function_creators=1`
 - c Restart MySQL.
 - d Run the setup script for the master.
 - e Enter `cd /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/database/`
 - f Enter `perl replication_setup_master.pl`
 - g Follow the instructions given by the script.

- 3 On the slaves (all local/slave machines) as the `sfxglb41` user:
 - a Put the tar file with the master data created in step 2.d in the slave `/data` directory.
 - b Copy the `shared_data.tgz` file from remote machine to the local shared instance schema directory (`/exlibris/sfx_ver/sfx4_1/data/`).
 - c Run the setup script for the slave.
 - Enter `cd /exlibris/sfx_ver/sfx4_1/sfxglb41/admin/database/`
 - Enter `perl replication_setup_slave.pl`
 - Follow the instructions given by the script.
 - d Edit `my.cnf`:
 - `server-id=<number2 - positive integer, differ from master's and other slaves'>`
 - `replicate-rewrite-db=<global instance name on shared>'shared_<shared instance name>`
 - `replicate-wild-do-table= shared_<shared instance name>.IRSI_<shared instance name>%`
 - `replicate- do-table= shared_<shared instance name>.IRSI_INSTITUTIONS`
 - `replicate- do-table= shared_<shared instance name>.KB_OBJECT_IDENTIFIERS`
 - e Restart MySQL.

Rebuilding A-Z eBooks in the Remote Shared Instance

Build RSI eBooks and A-Z ebooks using the Server Admin Utility:

- 1 Select **7 AZ Index**.
- 2 Select **2 eBook Search index tools**.
- 3 Select **1 (Re)build the eBook Search index**.

Troubleshooting and Debugging

- To remove the lock file if the RSI building process has to be stopped:

- a** In the local instance, connect to MySQL as the `root` user and enter:

```
use <local instance db schema>
```

- b** Select `control_value` from `CONTROL` where `control_group = 'rsi_monograph'` and `control_name='currently_running'`

```
+-----+
| control_value |
+-----+
| 1             |
+-----+
```

- c** Update `CONTROL`. Set `control_value = 0` where `control_group = 'rsi_monograph'` and `control_name='currently_running'`

- d** Check by selecting `control_value` from `CONTROL` where `control_group = 'rsi_monograph'` and `control_name='currently_running'`.

```
+-----+
| control_value |
+-----+
| 0             |
+-----+
```

- To recover from an error in replication on the slave instance:

- a** Log on as the master and connect to MySQL as the `root` user.

- b** Enter `show master status;`

```
+-----+-----+-----+-----+
| File           | Position   | Binlog_Do_DB   |
Binlog_Ignore_DB |
+-----+-----+-----+-----+
| log-bin.000004 | 1029359794 | sfxglb41,sfxglb41 |
+-----+-----+-----+-----+
```

- c** Use the file and position information in the slave.

- d** Go to the slave instance (`sfx1c141`) and log on to MySQL as the `root` user.

- e** Enter `stop slave;`

- f** Enter the following:

```
CHANGE MASTER TO MASTER_HOST='il-sfx04',
MASTER_USER='repl_slave', MASTER_PASSWORD='repl_slave',
MASTER_LOG_FILE='<fill in 'show master status' File>',
MASTER_LOG_POS=<Fill in 'show master status' Position>,
master_port=3310;
```

- g** Enter `start slave;`
- In case of problems with activations not being shown in the local instance after rebuilding RSI in the shared instance:

- a** In the master and slave instances, log on to MySQL as the `root` user:

```
mysql -p<mysql_root_pwd> -uroot
```

- b** Enter the following:

```
'show master status' on master  
'show slave status' on slave
```

- c** Check that the `position` value is the same for both the master and slave instances.