

Adding New Objects To The **:::fast** Search Engine

2008
An Oracle "How To" Paper

Presented By:

William Indest



Charles Borg



Table Of Contents

| | |
|------------------------------|----|
| WHYDoTHIS? | 3 |
| HOWToSTEPS | 3 |
| XMLFile | 3 |
| INDEXOBJECTS | 8 |
| SEARCHOBJECTS | 9 |
| BESTPRACTICES | 9 |
| BACKGROUNDINFORMATION | 10 |
| REFERENCES | 11 |



WHYDoThIs?

The Siebel 8.0 demonstration environment has 34 objects indexed for the FAST InStream search engine. Other verticals, such as Public Sector, need more objects available for searching – Cases, Incidents, Leads and Evidence, for example. This document shows the way to accomplish this quickly and without faltering and stumbling along the path of enlightenment.

HOWToSTEPS

Overview:

- Add the objects to an XML file.
- Add objects in the Administration – Search view: Search Definition.
- Add available fields to the Search Definition in the Administration – Search view: Search Indices
- Index the Objects.
- Search the Objects.

XMLFILE

Located in the lovely /sea/siebsrvr/bin directory is the file, SIA_SCC_Field-Mappings.xml. Make a backup and edit this file. Here is an example of how we added the Case object:

XML

```
<!-- (35) Field mapping for Case BC -->
<BusComp name="HLS Case" ui-name="Cases">
  <field bc-name="BC Name"
    ip-name="sblbctype"
    nv-name="sblbctypenavigator"
    ui- name="" />
  <field bc-name="Id"
    ip-name="sblrowid"
    nv-name=""
    ui-name="" />
  <field bc-name="Created"
    ip-name="sblcreationdate"
```

```

        nv-name="sblcreationdatednavigator"
        ui-name="" />
<field bc-name="Created By"
        ip-name="sblcreatedby"
        nv-name="sblcreatedbynavigator"
        ui-name="" />
<field bc-name="Updated"
        ip-name="sbllastupdateddate"
        nv-name="sbllastupdateddatenavigator"
        ui-name="" />
<field bc-name="Updated By"
        ip-name="sbllastupdatedby"
        nv-name="sbllastupdatedbynavigator"
        ui-name="" />
<field bc-name="Name"
        ip-name="title"
        nv-name="titlenavigator"
        ui-name="Name" />
<field bc-name="Description"
        ip-name="description"
        nv-name=""
        ui-name="Description" />
<field bc-name="Case Num"
        ip-name="textid"
        nv-name="textidnavigator"
        ui-name="Case Number" />
<field bc-name="Serial Number "
        ip-name="sgenfield00"
        nv-name="sgenfield00navigator"
        ui-name="Serial #"w/>

```

</BusComp>

where:

- field bc-name refers to the name of the business component's field that you wish to expose to the search administration view.
- Ui-name refers to the name of the field for the user interface.
- Ip-name is the Index-Profile name specified in the Index-Profile file.
- Nv-name refers to the name for navigational purposes.

Index profile fields are defined in the SSC_Index-Profile.xml file on the FAST server. These index profile fields are mapped to Business Component fields and Connectors in SSC_Field-Mappings.xml, to define searchable objects. The index profile fields are re-usable for mapping across Business Component fields and Connectors, therefore you should not need to create additional index profile fields. We didn't. We only mention it so that the reader knows the source of the values of the ip-name field, all of which are listed in the following table:

Fields

| Field Name | Data Type | Description |
|-------------------|-----------|--|
| author | String | Recommended for mapping to String fields, such as author, owner, user, or name. |
| body | String | Recommended for mapping to main content field. |
| description | String | Recommended for mapping to generic descriptive fields, such as comments, FAQ or details. |
| dgenfield00 | Decimal | Recommended for mapping to any monetary or decimal field. |
| dgenfield01 | Decimal | Recommended for mapping to any monetary or decimal field. |
| dtgenfield00 | Date | Recommended for mapping to date or time fields. |
| dtgenfield01 | Date | Recommended for mapping to date or time fields. |
| igenfield00 | Integer | Recommended for mapping to whole number fields. |
| igenfield01 | Integer | Recommended for mapping to whole number fields. |
| Keywords | String | Recommended for mapping to user-defined keywords field only. |
| location | String | Recommended for mapping to site, directory, or path fields. |
| namelist | String | Only to be used for 1:M field mapping. |
| sblbctype | String | Only to be used for mapping to Business Component name. |
| sblcollectionname | String | Only to be used for mapping to Logical Collection name. |
| Sblcreatedby | String | Only to be used for mapping to Siebel CreatedBy system field. |
| sblcreationdate | Date | Only to be used for mapping to Siebel Created system field. |
| Sbldescription | String | Recommended for mapping to any description or comments fields. |
| sblemailaddress | String | Recommended for mapping to email address fields. |
| sblfirstname | String | Recommended for mapping to first name fields. |
| sbllastname | String | Recommended for mapping to last name fields. |
| sblastupdatedby | String | Only to be used for mapping to Siebel LastUpdatedBy system field. |
| Sblastupdateddate | Date | Only to be used for mapping to Siebel LastUpdated system field. |
| Sblname | String | Recommended for mapping to name fields. |
| Sblphonenumber | String | Recommended for mapping to phone, fax, cell phone or pager number fields. |
| sblrowid | String | Only to be used for mapping to RowId system field. |
| sblstatus | String | Recommended for mapping to status fields. |
| sbluserid | String | Recommended for mapping to any String field. |
| Sblvisibilityid | String | Only to be used for mapping to Organization field or other equivalent visibility controller field. |

| Field Name | Data Type | Description |
|-------------------|-----------|---|
| sblvisibilityinfo | String | Only to be used for mapping to Organization Information field or other equivalent visibility information field. |
| sblzipcode | String | Recommended for mapping to zip-code, postal-code or pincode fields. |
| sgenfield00 | String | Recommended for mapping to any String field. |
| sgenfield01 | String | Recommended for mapping to any String field. |
| sgenfield02 | String | Recommended for mapping to any String field. |
| sgenfield03 | String | Recommended for mapping to any String field. This field is not mapped out of the box, therefore it can be mapped to any new or existing String field. |
| sgenfield04 | String | Recommended for mapping to any String field. This field is not mapped out of the box, therefore it can be mapped to any new or existing String field. |
| sgenfield05 | String | Recommended for mapping to any String field. This field is not mapped out of the box, therefore it can be mapped to any new or existing String field. |
| Sgenlist | String | For 1:M mapping only. |
| Summary | String | Recommended for mapping to any summary or descriptive String field, such as Comments, FAQ or Details fields. |
| taxonomy1 | String | Only to be used for taxonomical fields. |
| taxonomy2 | String | Only to be used for taxonomical fields. |
| taxonomy3 | String | Only to be used for taxonomical fields. |
| Textid | String | Recommended for mapping to ID fields. |
| Title | String | Recommended for mapping to the Business Component field which should serve as the search results title field. |

Note: at a minimum you must have the BC Name and Id fields for indexing to work (in addition to your searchable fields). After saving the XML file to the appropriate location (you did make a back-up, right?) load it into Internet Explorer to see if the XML is well formed. If it doesn't display properly in Internet Explorer, find your error and correct it.

ADMINISTER OBJECTS

Launch the Siebel Application; mobile web client is okay. Go to the Administration - Search screen view, Search Definition, ensure the Call Center definition is selected and add the appropriate categories as shown in Figure 1.

Administration

| Name | Version | Default Flg |
|------------------------------|---------|-------------|
| Call Center Definition | 1.0 | ✓ |
| ERM Administrator Definition | 1.0 | |
| Field Service Definition | 1.0 | |
| Marketing Definition | 1.0 | |
| Sales Definition | 1.0 | |
| Service Definition | 1.0 | |
| eChannel Definition | 1.0 | |
| eCustomer Definition | 1.0 | |
| ePortal Definition | 1.0 | |
| eSales Definition | 1.0 | |

| Name | Seq Num | BC Name | View Name | Filter Search Spc | Desc Text |
|---------------------------|---------|-----------------------|----------------------------------|-------------------|-----------|
| Cases | 1 | HLS Case | HLS Case Detail View | | |
| Incidents | 2 | PUB HLS Incident | PUB HLS Incident Detail View | | |
| Leads | 3 | PUB Lead | PUB Lead More Info View | | |
| Evidence | 4 | PUB Evidence | PUB Evidence More Info View | | |
| SmartScript (Call Cen. 10 | | Call Script Path Tran | Smart Script Player View (eApps) | | |

Figure 1: Administration Search - Search Definition View.

Note: be positively absolutely sure your values for the Name field match exactly with the name you specified in the XML file. Add the appropriate Search Indices Settings as in Figure 2:

| Name | Parent Category | Seq Num | BC Name | Status Code | Status Details | Data Source | View Name |
|-----------------------|-----------------|---------|---------------------|-------------|--------------------|------------------------|------------------------------------|
| Cases | 0 | | HLS Case | Indexed | 71 rows Affected | Call Center Definition | HLS Case Detail View |
| Employee | 1 | | Employee | Indexed | 1059 rows Affected | Call Center Definition | Employee List ReadOnly View |
| Service Request | 2 | | Service Request | Indexed | 1020 rows Affected | Call Center Definition | Service Request Detail View |
| Contacts | 3 | | Contact | Indexed | 8659 rows Affected | Call Center Definition | Contact Detail View |
| SR Attachment | 4 | | Service Request Att | Indexed | 16 rows Affected | Call Center Definition | All Service Request List View |
| Account | 5 | | Account | Indexed | 2545 rows Affected | Call Center Definition | Account Detail - Contacts View |
| Solution (Call Center | 6 | | Solution | Indexed | 414 rows Affected | Call Center Definition | Solution Resolution Documents View |
| Common Files | 7 | | | Indexed | | File System | |
| Ext. DB | 8 | | | | | Call Center Definition | |
| Opportunity | 9 | | Opportunity | | | Call Center Definition | Opportunity Detail - Contacts View |

| Display Name | Field Name | Navigate | Searchable | Weighting Factor |
|--------------|---------------|----------|------------|------------------|
| BC Name | | N | N | |
| Case Number | Case Num | N | Y | |
| | Created | N | N | |
| | Created By | N | N | |
| Description | Description | N | Y | |
| | Id | N | N | |
| Case Name | Name | N | Y | |
| Serial # | Serial Number | N | Y | |
| | Updated | N | N | |
| | Updated By | N | N | |

Figure 2: Administration Search - Search Index Settings View.

Ensure that you have added the correct Business Component for all of the Available fields. If you wish to search on a field you need to enter the display name and check the Searchable box.

To reiterate - there are several machinations that demand your attention: the Name field, “Cases” must match that of the declaration in the XML file; the BC name must be correct and all of the fields that you add to the Field Name field in the Available Fields Applet must exist. The Display Name is what will appear in the Search applet.

INDEXOBJECTS

Once you have added the Available fields, highlight the record in the top applet, “Cases”, as shown in Figure 2 and click on the “Index” button. Never click on Index All.

Go to the FAST Search Administration Screen:

<http://localhost:16000/admin/collections/>

This is saved as a Favorites entitled: “FAST InStream 4.1 Admin”. With the Collection Overview highlighted you should see a recent time (on the order of seconds) in the “Last input” column and you will see your indexing



process has begun. This means that you are indexing your new object. Another check of the “Matching Engines>srchhost” should show the Variable – Not indexed/Invalid documents as non-zero. THIS TAKES SOME TIME AND IS NOT IMMEDIATE. When this number is zero the indexing is complete. Refer to the video, **Search – FAST Instream Administration** on DVD 6.

We recommend you view the videos on DVD 6 and the TOIs listed in the References. They are quite helpful.

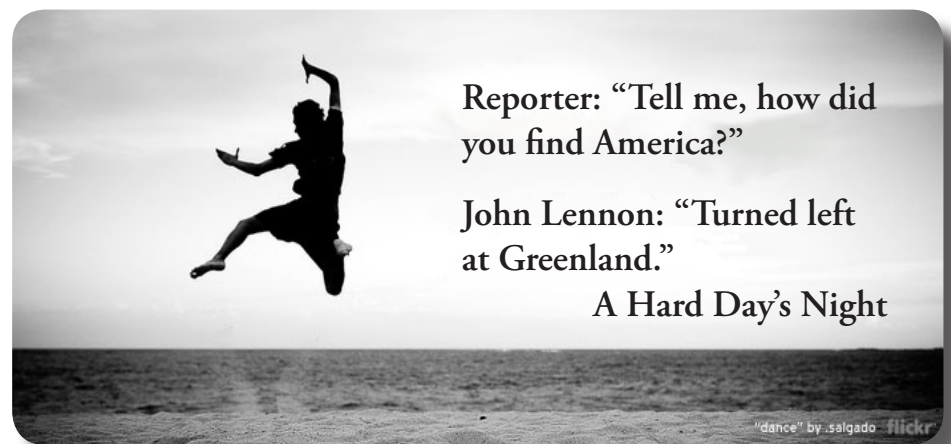
SEARCHOBJECTS

Test your new object by running a search without any search specifications as in Figure 3. The number returned should match the number indexed in the Administration - Search, Search Index Settings View.

Search

The screenshot shows the FAST Search web interface. At the top is a navigation bar with links: home, Calendar, Cases, Contacts, Incidents, Service, and Events. Below this is a sub-navigation bar with 'Cases Home', 'Case List', and 'Case Hierarchy'. The main area is divided into two panels. The left panel, titled 'Search', contains search filters: 'Search for:' (a text input), 'Look In:' (a dropdown menu set to 'Cases'), 'Case Number' (a text input), 'Description' (a text input), 'Case Name' (a text input), and 'Serial #' (a text input). There are 'Go' and 'Clear' buttons at the bottom of this panel. The right panel shows the search results. It indicates 'Search for : Cases', 'Found : 71 result(s)', and 'Sort by : Relevance | DataSource'. Below this is a table titled 'Search Results' with a 'Title' column. The results list several cases, including 'Test case', 'plasma tvs stolen', 'CIRCUIT CITY-2', 'CIRCUIT CITY-1', 'Atta - Suspected Terrorist in US', 'Carlson, Karen-Housing Referral', 'Bartholomew, Jim-Food Program Referral', and 'Stolen Honda Accord in Fremont Hub Shopping Center'.

Figure 3: Blank search returns 71 results, the same number of Cases that were indexed.



BESTPRACTICES

Don't try to add everything at once; take your time and during your first attempt only add a few fields; this makes it much easier to debug.

Don't rush the indexing; be patient and monitor the progress through the FAST Search administration view.

In the demo launcher, the Search Processing group is not required (it is used for automatic refresh of indices).

It is a good idea to keep the Siebel server down

You don't have to bounce the FAST engine.

You'll want to be comfortable that the indexing is proceeding. Make sure you get the Indexed field back in Siebel saying how many records are indexed. Even then the indexing may not have completed yet. If you go into the FAST Admin console you can monitor to some extent what it is doing and see if the overall record number increases as in the video (see References section at the end of this document).

Make sure you have the two FAST InStream services started.

Never use the "Index All" button (at least for this version) you'll likely break everything. You'll only need to index the new objects.

We suggest you leave the Siebel App Server shutdown, log into the application with the windows client to kick off an index

Don't index one object after another. Index one, wait and test, once successful index the next.

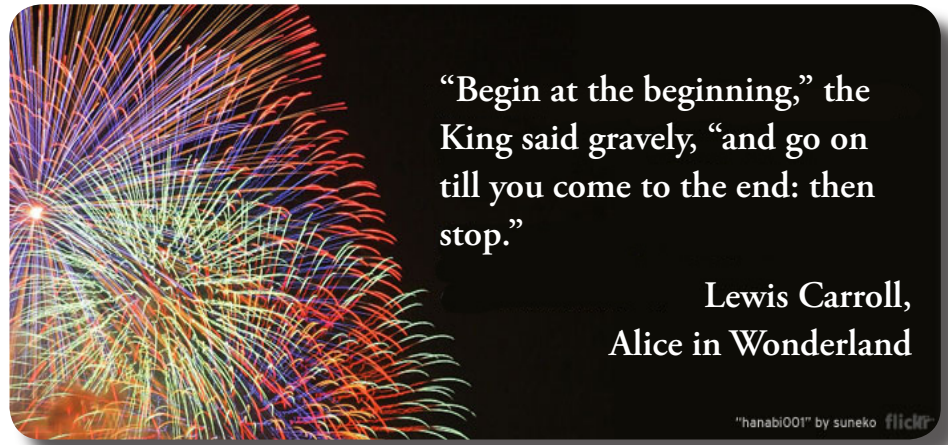
And once again start simple with your object.

BACKGROUND INFORMATION

Gartner Says...

In the past two years, Autonomy acquired Verity; IBM acquired iPhrase Technologies and announced its WebSphere Content Discovery Server; Oracle acquired TripleHop Technologies and announced its Oracle Secure Enterprise Search 10g; and Microsoft and SAP both announced significant investments in search capabilities. Autonomy, FAST, and Endeca offer the broadest set of capabilities across their platforms and have had the most success across a broad range of solution areas. FAST has rapidly gained market share relative to competitors but Autonomy will be a contender with its large market presence and sales force and excellent professional services organization. Endeca's quality product has helped spur quarterly revenue growth.

Google, IBM, Microsoft, and Entopia were strong performers with good success in one or two enterprise search solution areas. Google, IBM, and Microsoft will be the ones to watch in corporate search, in which companies use the products for searching across medium- to small-scale document repositories, collaboration systems, portals, and intranets, and in which high-volume query processing, indexing speeds, and capacities are not required. Corporate search will see significant price declines in the future as search becomes more commoditized.



REFERENCES

Watch This

Siebel Search Administration Guide Version 8.0, Rev. A

DVD 6 – Search – FAST Instream Administration (48 minutes) - This video provides information on the 3rd party enterprise search engine FAST Instream newly integrated with Siebel 8.0. It replaces the previous Hummingbird Fulcrum engine and covers information on the administrative configuration and indexing information specific to the demonstration platform.

DVD 6 – Search – FAST Instream Client (17 minutes) - This video demonstrates Siebel enterprise search functionality for Siebel employee and customer applications with functional configurations and some observations specific to the deployment on the demonstration platform.

Online TOIs: http://ouweb.us.oracle.com/siebel/TOIs_8-0.html

8.0: Siebel Search Administration Functional Overview (14 minutes)
by Hari Gutlapalli

8.0: Siebel Search Configuration and Execution Functional Overview
(32 minutes) by Hari Gutlapalli.



Adding New Objects to the FAST Search Engine
Authors: William Indest, Charles Borg and Eric Tratnyek
Managers: James Perry, Roderick Morin and Todd Kyle

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
oracle.com

End

Copyright © 2007, Oracle. All rights reserved.
This document is provided for information purposes only and the contents hereof are subject to change without notice.
This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission. Oracle, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle