Lotus Developer Domain
The Technical Resource for Lotus software
LDD Today

Level: All
Works with: Extended Search 3.7
Updated: 01-Jul-2002

by
Lauren
Wendel

IBM Lotus Extended Search 3.7 is an upgrade release for Domino Extended Search 3.5 and will be available this month. Release 3.7 introduces a new name, IBM Lotus Extended Search, to represent its ability to operate with a number of Web application servers, including Domino, WebSphere, and others across a number of operating systems: Windows NT and 2000, IBM AIX, and Sun Solaris. This release provides several new product and API features and enhancements.

In this article, we'll cover the following features:

- Data Source Links for Microsoft SQL and Microsoft Access
- International versions of Extended Search Administration
- Support for IBM WebSphere Application Server and DB2
- Data source wizards
- Java API support

This article assumes that you are familiar with Extended Search. For information about the technical architecture and components that comprise Extended Search, see the *LDD Today* article "**Introduction to Lotus Extended Search**."

New Data Source Links

Extended Search uses Data Source Links to connect directly from the Extended Search server to a source application, so users can query that application. With previous Extended Search releases, you used the ODBC Link to search information within a variety of relational database search sources, including Microsoft SQL Server and Access. In this release, you can use the new Data Source Links written specifically for Microsoft SQL Server and Access to search those sources. The Data Source Links for Microsoft SQL and Access increase search performance throughput and provide greater control to access specific data types in each of the applications. The ODBC Link is still available to access many other database sources.

International versions

Extended Search 3.7 is National Language Support (NLS) enabled. It recognizes source data stored in different languages and returns that data to search applications. In addition, Extended Search 3.7 provides international versions of the documentation, administrative applications, templates, and search samples. Languages supported in this release include: Brazilian Portuguese, Czech, Danish, Dutch, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Russian, Spanish, Swedish, Simplified Chinese, and Traditional Chinese. International versions of Extended Search 3.7 will be available at First Customer Ship.

Support for WebSphere Application Server 4.x and IBM DB2 7.2

Extended Search previously supported WebSphere Application Server 3.5 and now supports WebSphere's latest

© Copyright IBM

release for application and search hosting and management. IBM DB2 is used to maintain server and data source configuration information, and Extended Search supports DB2 Releases 6, 7.1, and new with this release, 7.2.

Easier search source setup and configuration: Data source wizards

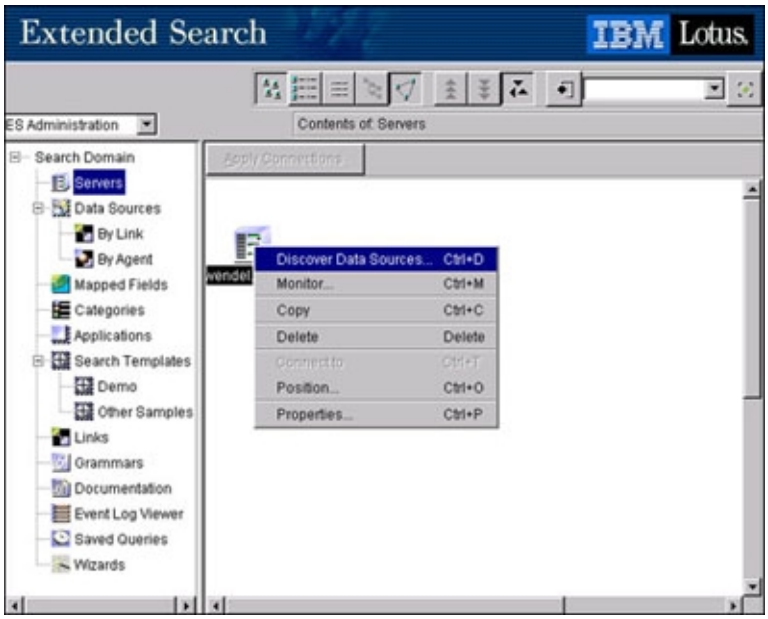
Probably the most significant new feature in Extended Search 3.7 is Data source wizards that simplify configuration. There are several steps you need to take to make source servers and data available to search applications—and most importantly—to users! To make several of the tasks easier, Extended Search 3.7 provides data source configuration wizards to guide you through these operations:

- Configuring mapped fields
- Configuring data source parameters
- Configuring hitlist (search results) fields
- Importing and exporting (configuration) data between Extended Search server applications

Before using these wizards, it's important to have a broad understanding of how data sources are identified, categorized, and then selected for use within search applications. In short, Extended Search first locates a data source using Data Source Discoverers. Next, it configures the data sources and categorizes the sources by data source type. Finally, it configures the search applications associated with each category. The following sections describe this process in more detail.

Discover data sources for search

Extended Search uses the Data Source Discoverer to connect to local or remote data servers and to identify applications or databases available on those servers. The administrator selects data applications from the list presented through the specific Data Source Discoverer and adds those applications and a standard set of the Data Source Discoverer fields to the Extended Search configuration database (CDB). The following screen shows how to access the Data Source Discoverer from your Extended Search server. From the Extended Search administration applet, right-click the Extended Search server icon and then choose Discover Data Sources.



Configure discovered data sources

When Extended Search discovers a data source and adds it to the system, it automatically defines many required items, like a basic set of fields from the source that may be searched, language of source content, and the grammar used to convert search requests to the source server syntax. During configuration, you can add more fields from the source, and you can set field usage controls to limit which fields are available to certain search applications. You can map fields with different names at each search source to a global field definition. For instance, you can map fields to link those with the same meaning in different data sources to a common term used in a search application, such as Author.

In addition, Extended Search sets data source parameters automatically for each data source type discovered, such as the data format used within the data source or the file path to search on the server. You can add or modify data source parameters, and you can set the following options:

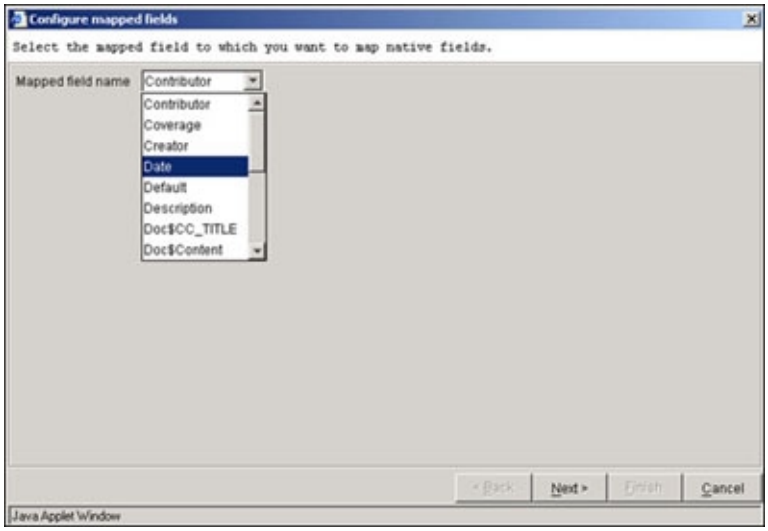
© Copyright IBM

- *Smart Hitlist Actions* enables users to act on the search results, for example, to save the search results, to export to HTML or XML, or to email the results to other users or applications.
- *Import or Export Data Source Configurations* allows you to export data source configurations and to import them for use in other Extended Search configuration databases in the same domain for quick redeployment of the data source in search applications.

Categorize data sources
Extended Search categorizes discovered data sources to easily identify data sources of a certain type, for example, all Lotus Notes data sources or all sources that the Marketing department wants to search within a search application. Data source categorization is flexible. You can set categories to link data sources of a particular type. Alternatively, you can categorize a set of search sources that should be made available to particular user groups within the organization, like Finance or Marketing department users. By default, Extended Search categorizes discovered data sources by data source type.

Configure search applications
Extended Search links the categorized data sources to search applications accessed by users. Extended Search supplies sample search applications that you can customize as needed. Applications are frequently defined for use by specific user groups or for corporate intranets or externally available Internet search applications. During this step, you select data source fields to search within the application and set options, like the order of fields presented in the URL hitlist or retrieved from the search source. In addition, you can import and export defined applications between Extended Search systems in the same domain.

Configure mapped fields wizard
The Configure mapped fields wizard makes it easier for you to select a field that will be mapped—or a field that is common across multiple data sources—so that users can search for that field in an application. They can also search many different data source fields with different names to obtain a single field result. In the example in the following screen, the Configure mapped fields wizard is used to guide you to select the date field as the global field to be mapped to other fields in different data sources that correspond with the Date field, for example, Date Created. As a result, in the search application, the mapped field Date will execute search results against a number of different data source fields, each having date information, but different names in their data sources.



Import and export data wizard
This handy wizard presents the steps required to export definitions made on one Extended Search server to another server in the same domain. Using this wizard, you can export:

- A data source
- Search application definitions
- An entire configuration database

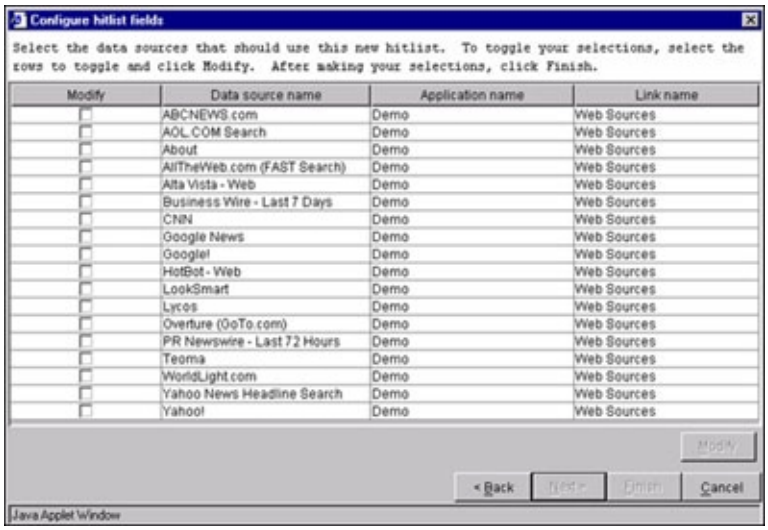
You can also use this wizard to import data sources or applications from other Extended Search systems.

Configure data source parameters wizard
While many data source configuration parameters are automatically configured specifically for various data

© Copyright IBM

sources used in search, you can set additional optional parameters for each data source using the Configure data source parameters wizard. For example, for performance reasons, you can choose to leave a data source connection open after a query if the particular data source supports that parameter. The Configure data source parameters wizard presents the required steps to select the data parameter name (another example might be: SubDirSearch for a File directory search) and to associate it with the appropriate data source for use by specific search applications.

Configure hitlist fields wizard
The Configure hitlist fields wizard makes it easy for you to select fields that become the hitlist, or search results, displayed from one or more data sources in a search application. The wizard presents the available search applications and the data sources linked to the search applications. Finally, the wizard presents the available mapped or native fields that can be selected and made available to users in application search results. The following screen shows the Configure hitlist field wizard:



New Extended Search Java API support for manipulation of stored query results

Using Extended Search, you can save search results (hitlist URLs or hitlists and associated content) to a file system for later review. Many customers want to use the API to programmatically access and manage these results—for example, to programmatically email results to individuals or to applications. Using new Java Beans provided with Extended Search 3.7, you can access and use these search results programmatically within applications. For example, you can:

- Programmatically load and evaluate stored search result content fields against topic areas that users may subscribe to within a personalization application
- Forward results to a workflow application when topic criteria terms are matched within search results

Using the new Java Beans, you can evaluate and programmatically manage data flow processes with stored search results. The new Java Beans supporting this capability are:

- EsQueryFolderObjectBean
- EsStoredQueriesBean
- EsStoredQueryHitListLoadBean
- EsStoredQueryHitListsBean
- EsStoredQueryObjectBean.

You can find more information about the new Java Beans in the Extended Search Programming Guide that will be provided with Extended Search 3.7.

Future plans for IBM Lotus Extended Search

As mentioned in the *LDD Today* article "**Introduction to Lotus Extended Search**," the Lotus Extended Search development team is working towards the next release, IBM Lotus Extended Search 4.0. That release will support several key new search links including:

- Lotus Discovery Server
- Lotus QuickPlace
- WebSphere Portal Search Index

© Copyright IBM

Also in the works is search results integration with Lotus Sametime, allowing instant messaging and chat responses to be included with content source search results. Stay tuned to the LDD **Extended Search forum** for details about Beta availability for Lotus Extended Search 4.0 later this year.

The Lotus Extended Search product team is interested in your reception and comments on our latest release. We encourage you to communicate with us directly through the LDD **Extended Search forum** and via your IBM and Lotus sales and business partner and technical support representatives. The product team has added numerous new and useful search and administrative features resulting from your requests and enterprise application requirements.

To find out more about Lotus Extended Search, we encourage you to review the many existing product information white papers and FAQs at the **Lotus Extended Search home page**.

ABOUT THE AUTHOR

Lauren Wendel is product manager for Lotus Extended Search, Lotus Discovery Server, and expertise technologies. Previously, Lauren worked with the Lotus Enterprise Integration team for five years, overseeing the initial releases of Lotus Enterprise Integrator, DECS, ERP Connectors, and the Connector API Toolkit. She has also worked as a developer consultant within the Lotus Business Partner program, and previously, within the 1-2-3 engineering team. Lauren's also managed systems planning at Wells Fargo Bank, Citibank, Duke University School for Executive Education, and Grant Thornton Ltd. She enjoys running the "occasional" marathon and sings with a community chorus.

© Copyright IBM