

Infor Enterprise Search Administration Guide

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Infor Enterprise Search Administration: Overview

This topic describes how to navigate on the IES 11.0 administration console pages and also provides information about the icons and other information on the pages.

Terminology

Following are some terms that are used in Infor Enterprise Search that a system administrator must be familiar with:

Crawl

Crawling is a term used for the process of iterating through Lawson data for the purpose of creating or updating indexes to that data. Much of the work of an Infor Enterprise Search administrator involves scheduling and managing crawls.

For some installations, incremental crawls are supported. Incremental crawling means that only records that have been changed since the most recent crawl will be included in the crawl. This can save significant time when updating indexes. A crawl that is not incremental crawls an entire table.

Deployment

A deployment is a product-specific set of files that are installed and integrated into a search instance to allow the product to be integrated with Infor Enterprise Search for searching and/or indexing.

A deployment is delivered as a zip file that is deployed via the Infor ION Grid to a search instance. This zip file contains an implementation of ION Enterprise Search that enables searching and/or indexing of product specific data and any other dependencies that are required by the deployment, including libraries and properties files.

There are two types of deployments, Managed and External.

Managed deployments include code that lets Infor Enterprise Search create indexes based on data repository definitions. A managed deployment can also perform post-processing of search results before they are sent to the user which allows for security and other filtering to be performed.

External deployments allow IES to search and then consolidate search results (hits) from external repositories in a format that can be consumed by Infor Lawson products.

Interest Center

An interest center is a set of data that you can search. Typically, it is made up of data tables that are related to an Infor Lawson system.

Because interest centers point to specific types of data, users can select only interest centers that are applicable to their search resulting in a more targeted results list.

For administrators, interest centers provide flexibility in applying security.

Repository

A repository is the overall data set for Infor Enterprise Search from which interest centers are derived.

Logging

Most IES activities are logged. Logs are available from the Grid management pages. More information about the logs is in the Grid administration documentation.

IES Administrative Interfaces

This topic describes the interfaces that are used to administer IES.

IES Grid administration pages for the IES application

Infor Enterprise Search 11 is installed and administered from the Infor ION Grid. Typically, you use the Grid when you install IES or perform an update. In some cases, you also use it when you are adding or updating features that are not automatically enabled when IES is installed.

Note: In previous versions of IES, deployments were managed in LifeCycle Manager (LCM). (In some situations, for example, certain releases of IES for M3, LCM is still used.)

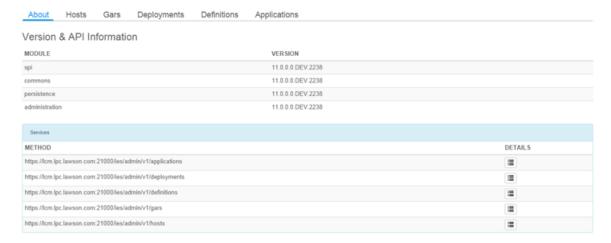
Administrators performing tasks using the Grid must be knowledgeable about the Grid as a whole. This document provides specific instructions about using the Grid for IES-specific tasks but familiarity with the Grid is assumed.

Details about how to navigate to these pages to administer IES are in this document.

For complete information about using the Grid, in general, refer to your Grid administration documentation.

IES instance management pages

This document uses the term "IES instance management pages" to refer to a set of pages that are for working with IES.



These pages give access to such tasks as:

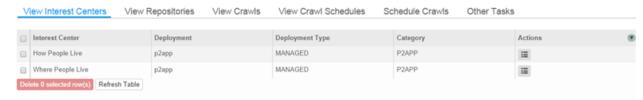
- Starting or stopping an instance
- Viewieg details about an instance
- Updating an application, that is, install an updated version of an instance.
- Pushing out, or make available to users, an updated instance.
- · Launch the Admin and Search pages.

The Admin pages are for performing such administrative tasks as managing crawls (indexing). The Search pages are for running a search.

Note: You can select multiple tasks from an administrative page. When you do, the requested action is batched.

IES instance maintenance pages

This document uses the term "instance maintenance pages" to refer to a set of pages that are primarily for administering crawls, interest centers and repositories.



From these pages, you can perform such tasks as:

- View, cancel, or schedule crawls
- View, update or delete interest centers and repositories

Complete details about how to navigate to these pages and how to use them are in this document.

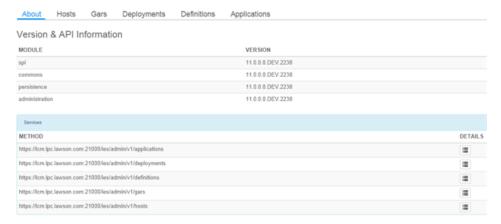
Navigating to the Instance Maintenance Pages

1 Navigate to the IES URL and provide credentials if prompted. If you are unsure of the URL or if you cannot access it, consult your system administrator.

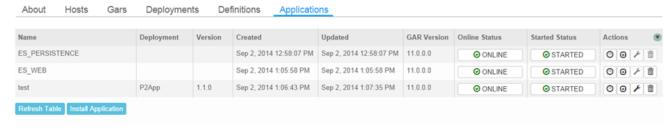
The format of the URL is similar to the following:

http(s)://gridHost:gridPort/ies/admin/

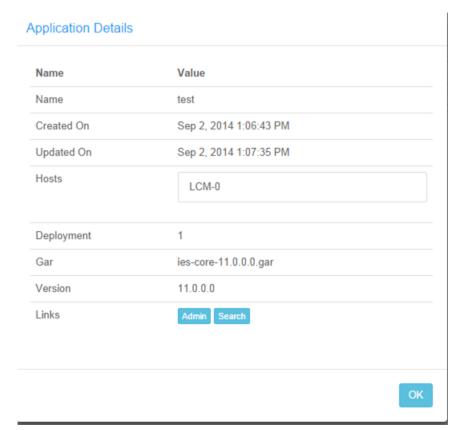
2 If prompted, provide the IES administration user ID and password.



3 By default you are on the About tab. To select an application to maintain, move to the Applications tab.



- **4** To move to the IES instance maintenance page for an IES instance application, click the Application Details button in the row for the application you want to work with. (This button is the left-most button in the Actions column.)
- **5** On the Applications Details page, click the Admin button.



You will be on the page for selecting a task.



Administering Interest Centers and Repositories

Viewing Interest Centers

From the View Interest Centers page, you can:

- See a list of the currently installed interest centers.
- · View details about an interest center.
- Perform a search to view a subset of all interest centers.
- Delete an interest center.

	Viewing interest centers
1	These instructions assume you are on the Crawls and Interest Centers administration main page.
2	If you are not already on the View Interest Centers tab, click it.
3	Scroll through or filter the list to locate interest centers you want to select.
4	To view details about the interest center, with the interest center you want to view selected, move to the Actions column and then click the Details button.

Interest Center Details: Repository Deployment Deployment Type States MANAGED p2app People p2app MANAGED Counties **MANAGED** p2app Zip Codes p2app MANAGED Close

Close the Details page when you are finished viewing information.

- ____**5** To delete one or more interest centers, which you would do it you knew that one of them was no longer needed, select a row and then click Delete selected row(s).
- ____6 To update the table for the selected repositories, which you might do if you knew that some data had been added, select a row and then click Refresh Table.

Managing Repositories

From the View Repositories page of the Infor Enterprise Search administration menu, you can:

- See a list of the currently installed repositories.
- · See the interest center associated with a repository.
- Filter to view a subset of all repositories.
- View details about a specific repository through the Actions button.
- Delete a repository.
- 1 These instructions assume you are on the IES administration main page for selecting a task. For more information, see "Navigating to the Instance Maintenance Pages" on page 8.
- 2 Click the View Repositories tab.
- 3 Scroll through the list or use a filter to locate the repository you want to select and click on those that you want to view or take action on.
- **4** To view information about associated Interest Center, Repository and Deployment, move to the Actions column and then select the Repository Details button. (Close the Details information window when you are finished viewing.)

5	To delete one or more repositories, which you would do it you knew that one of them was no longer needed, select a row and then click Delete selected row(s).
6	To update the table for the listed repositories, which you might do if you knew that some data had been added, select a row and then click Refresh Table.

This section describes how to administer crawls. (Crawling is the term used for creating or updating an index.)

- "Viewing Crawls" on page 13
- "Administering Crawl Schedules" on page 14

Viewing Crawls

Crawling is a term used for the process of iterating through your data for the purpose of creating or updating indexes to that data. This section describes the Infor Enterprise Search Administrator page that lets you view and search for scheduled and completed crawls.

- 1 These instructions assume you are on the IES administration main page for selecting a task.
- 2 If you are not already on the View Crawls tab, click it.
- 3 From here you can view crawls in the following ways:
 - By state: Options are:
 - Active: Currently executing
 - Waiting: A crawl is scheduled and is waiting to execute
 - Completed: The crawl completed normally, with errors, or was cancelled.
 - By status: Options are:
 - Normal: The crawl completed normally
 - Running: The crawl is currently executing
 - Queued: A scheduled crawl is in the queue awaiting execution time
 - Canceled: The crawl was canceled by an administrator
 - Error: The crawl encountered errors
 - You can also view crawls by Repository, Start Date, Duration and whether or not it is an Incremental crawl.

4 Perform an action. You can:

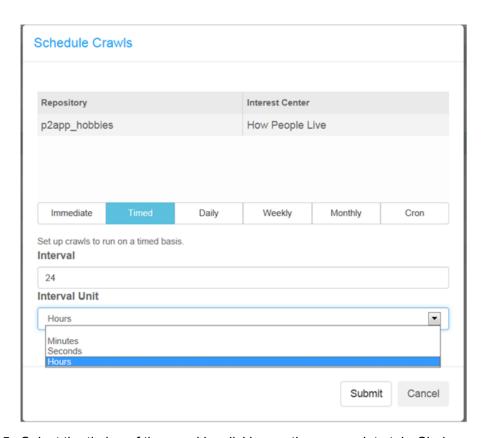
- Click Refresh Table You might do this if some tables have been updated but not yet indexed.
- With the row containing the crawl/s you want to work selected, you can:
 - Click "Delete selected rows." You might do this if you no longer need the information about the crawl.
 - Rerun a crawl. You might do this if the status showed that it completed with errors (after you have checked the cause of the error and corrected it) or canceled it yourself.

Administering Crawl Schedules

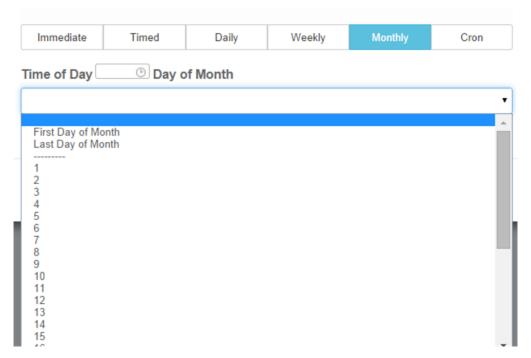
This section describes the administration page that lets you schedule crawls.

Scheduling a crawl

- 1 These instructions assume you are on the Crawls and Interest Centers administration main page.
- 2 To view crawl schedules, click the View Crawls Schedules tab.
 - A list of crawls waiting to be executed appears.
- 3 Click the Schedule Crawls tab.
- **4** To schedule a crawl, click the row of the repository (or multiple repositories) that you want to crawl and then click Schedule Crawls.



- **5** Select the timing of the crawl by clicking on the appropriate tab. Choices are:
 - Immediate: The selected crawl begins when you click Submit.
 - Timed: Select in Minutes, Seconds or Hours how often you want the selected crawl/s to run.
 - Daily: Select the time at which you want the selected crawl/s to run every day.
 - Weekly: Select the time and day of the week for which you want the selected crawl/s to run once per week.
 - Monthly: Select the number for the day of the month.



Cron: Infor Enterprise Search supports standard Cron format for dates/times in schedules.
 When you select Cron formatting, a text box for typing a schedule appears. Incorrectly typed strings are not accepted.

Note: This document does not provide details about how to formulate a string.

The Quartz Project web site is an excellent resource and includes a tutorial: http://www.quartz-scheduler.org/documentation/quartz-2.1.x/tutorials/crontrigger

Rescheduling or canceling a scheduled crawl

A crawl that has been scheduled can be canceled or rescheduled.

- 1 From the View Crawl Schedules page, select the row that contains the crawl you want to reschedule or cancel.
- 2 To delete, click the Delete selected row button.
- 3 To reschedule, click the Schedule button (clock icon) in the Actions column and select the new time.

Incremental crawls

When a crawl has been scheduled, the Incremental Crawls Button appears on the page. Select this option if you want to ensure that only tables that have been updated will be crawled.

Enabling and Administering Special Search Features

This chapter provides topics for making features available to users that are not enabled by default. It also explains how to maintain special search data that has been localized for our site, including synonyms and stop words.

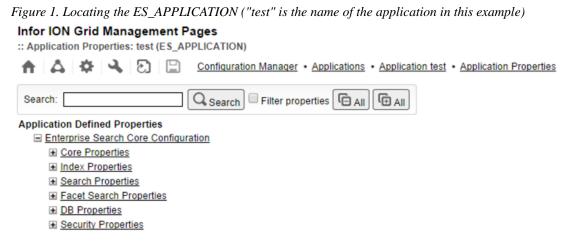
Navigating to the Grid Pages for Editing IES Properties

This topic describes the general location of IES application properties that you might need to configure. Depending on the properties you need to configure, the Grid pages you need to access might be different. This section describes two ways to get to these pages. The individual sections that follow tell you which method you need to use for the property you are editing.

Note: There are multiple ways to get to these pages. This section describes only one. More information is in the Grid documentation.

Navigating to IES Core Configuration Properties

- **1** From the Grid Management Configuration page, select Applications, the IES instance application and then click Configuration.
- **2** Click Edit Properties and then from the Application Defined Properties section of the page, select Enterprise Search Core Configuration.



The instructions that follow tell you where to locate the property you want to figure (Core Properties, Index Properties, Search Properties and so on).

Navigating to IES Management Pages

- 1 From the main Grid Management page, go into Topology view and then locate the IES instance you want to edit.
- 2 At the bottom of the page, click Management Pages. The IES Management page appears.



3 Click the link for the IES property you want to manage.

Verify that Extensions have been Installed

Several IES features are installed as extensions to the product. When they have been installed, they appear in the Grid in the applications list and are available for use by the product

Available extensions are:

- Auto Suggest: The system automatically suggests search terms based on previous searches
- User Query Hits: The system tracks how many times a particular query is run by users
- Clickthrough Data: The system ranks search data based on how often it is requested
- 1 From the Grid Management Configuration home page, select Applications and then verify that an application designated as "ES_EXTENSIONS" has been installed. (This designation appears in the far-right column.)
- 2 Double-click your extensions application to see the list of extensions that has been installed.

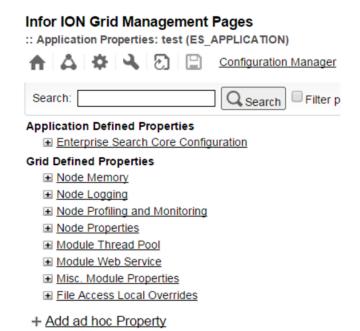
Enabling the Spellcheck feature

If enabled, spellchecking can be applied to users's search strings. This topic explains how to enable spellchecking.

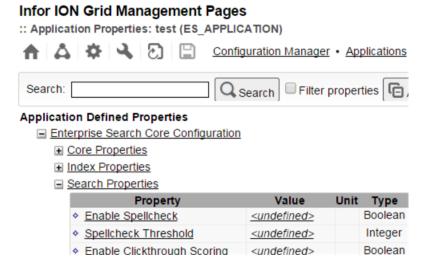
These instructions assume you are already logged into the Grid and are familiar with navigating to the Infor Enterprise Search application. For more information, see "Navigating to the Grid Pages for Editing IES Properties" on page 17.

Before you start This feature must also be enabled within the application that uses Enterprise Search.

- 1 Navigate to the Grid application page for the IES instance for which you want to enable this feature.
- **2** From the application page, click Configuration and then click Edit Properties.



3 From the Application Defined Properties section of the page, select Enterprise Search Core Configuration->Search Properties.



- **4** Click "<undefined>" in the Value field for the Enable Spellcheck property and then select Enable Spellcheck.
- 5 Click Create Property (or Remove Property if you are disabling it).

Configuring Maximum Number of Search Results Returned

By default, a maximum of 50 results are returned. You can change that number for all users if you want. This topic describes how to do it.

Number of search results returned can affect performance. If you increase the number of results and then notice that search performance has slowed, consider returning to a smaller number.

- 1 Navigate to the Grid application page for the IES instance for which you want to enable this feature.
- **2** From the application page, click Configuration and then click Edit Properties.
- **3** From the Application Defined Properties section of the page, select Enterprise Search Core Configuration->Search Properties.
- 4 Click "<undefined>" in the Value field for the Max Search Result property and then type the number you want to use. (Default is 50.)
- 5 Click Create Property (or Remove Property if you are disabling it).

Enabling Clickthrough Scoring

Clickthrough scoring is a mechanism that IES can use to track how often search terms are used by users and in turn rank the most frequently used terms higher so that they will appear in users's results lists more often. This section describes how to enable the feature.

- 1 Navigate to the Grid application page for the IES instance for which you want to enable this feature.
- 2 From the application page, click Configuration and then click Edit Properties.
- **3** From the Application Defined Properties section of the page, select Enterprise Search Core Configuration->Search Properties.
- **4** Click "<undefined>" in the Value field for the Clickthrough Scoring property and then click the checkbox for the property to select it.
- 5 Click Create Property (or Remove Property if you are disabling it).

Creating unique stop words

Stop words are words that occur commonly in your searchable documents but add no value in a search.

IES delivers a set of stop words. These are common English words, including articles (such as, "a," "an," "the"), pronouns (such as, "their," "they," "this," "that"), prepositions (such as, "for," "or" "with"), simple verb forms (such as, "was," "were," "will") and so on.

You might want to create your own list of stop words if your site's content includes a large number of common words that are not useful in a search but could affect search durations. If you create your own list, the list delivered with IES will be overwritten. (You can get around this by adding any simple English words that you want to be stop words in your own list.)

- 1 Navigate to the Grid application page for the IES instance for which you want to enable this feature.
- 2 On the right side of the page, click Management Pages. The IES Management page appears.
- 3 Select Manage Stop Words.

A dialog box for working with stop words appears. If any stop words already exist, they will be listed on the page.

Figure 2. Stop Words management dialog box

Infor ION Grid Management Pages

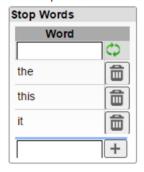
:: Index Stop Words



IES Management . Index Stop Words

+ Import

Add stop words from a file.



- 4 To add a new stop word, type the word in the text box next to the + symbol and then click the + sign.
 - Only one word can be added at a time. If you have a phrase, for example, "not applicable," add "not" and "applicable" as two separate entries.
- 5 If you want to delete a stop word, click the Delete icon (trash can) to the right of a word.
- 6 You will need to update indexes in order for stop words changes to take effect.

Note: The "Index Stop Words" link at the top of the page is navigation showing that you are currently at the page for indexing, or, in this case, adding, stop words.

To import a list of stop words

1 Prepare the list of words to be imported.

In a spreadsheet or another tool that can save files in CSV format, type a list of stop words. Each stop word should be on a single line.

Save the file in CSV format.

- **2** When you are ready to import stop words, navigate to the Stop Words dialog box on the IES Management page for the instance you want to update.
- **3** Click Import. Browse to the location of your CSV file and, with the file name selected, click Add. The stop words are added to your system.
- 4 You will need to update indexes in order for stop words changes to take effect.

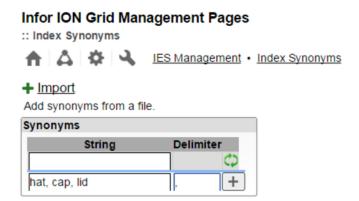
Adding synonyms to your Search installation

Synonyms are words that are similar to those that a user types in a search. You can add words that make sense for your installation.

- 1 From the main Grid page, go into Topology view and then locate the IES instance you want to edit.
- 2 On the right side of the page, click Management Pages. The IES Management page appears.
- 3 Select Manage Synonyms.
 - A dialog box for working with synonyms appears. If any synonyms already exist, they will be listed on the page.
- **4** To add new synonyms, in the String field, type the words in the blank text book separated by the character shown in quotes in the Delimiter field.

When a user types any one of the words in a String, Enterprise Search will search for all other words in the string.

For example, if a user types "hat," "cap," and "lid" will also be included in the search.



- 5 If you want to delete a string of synonyms, click the Delete icon (trash can) to the right of the string.
- 6 You will need to update indexes in order for synonyms changes to take effect.

Note: The "Index Synonyms" link at the top of the page is navigation showing that you are currently at the page for indexing, or, in this case, adding, synonyms.

Managing translations

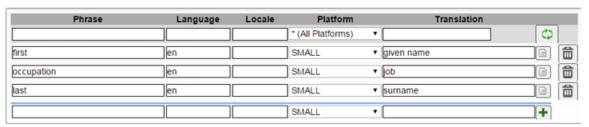
This topic describes how to view, add, change or delete translations from within the IES Management page. This is a way to update translations "on-the-fly."

1 From the main Grid page, go into Topology view and then locate the IES instance you want to edit.

- 2 On the right side of the page, click Management Pages. The IES Management page appears.
- 3 Select Manage Translations.

A dialog box for working with translations appears. Translations that already exist are listed. You can use filtering techniques to view the translations.

Figure 3. Adding a new translated term



- **4** To add a new term, move to the blank text box at the bottom of the page and populate the following fields:
 - Phrase: Term that needs to be translated
 - Language: Language to be translated to; use the appropriate format (for example, "en" for English)
 - Locale: This optional field can be used to specify characteristics about the language, for example, "French Canadian" in an installation where both French and French Canadian are used. It can also be used for specialized terms that are used at your site. If Locale is populated, Language + Locale are presented to the user.
 - Platform: This relates to the type of device that the translation will be displayed on. The translation will translate as concisely or with as much as detail as possible depending on your choice here.

 Options are SMALL, MEDIUM, LABGE and JUMPO where "SMALL" would be appropriate for.
 - Options are SMALL, MEDIUM, LARGE and JUMBO where "SMALL" would be appropriate for handheld device and JUMBO could be used on a desktop computer.
 - Translation: Type the text that you want the user to see when they type the phrase.
 Click the + button when you are ready to add the phrase.
- 5 If you want to delete a translation, click the Delete icon (trash can) to the right of the phrase

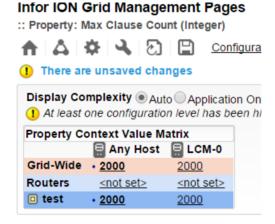
Changing Maximum Clause Counts

You can change the maximum number of clauses, or, the size of the data that can be retrieved through a search. You can do this for all IES application instances in the Grid or for a specific Instance.

1 From the main Grid page, locate the IES instance you want to edit.

- 2 From the application page, click Configuration and then click Edit Properties.
- **3** From the Application Defined Properties section of the page, expand Enterprise Search Core Configuration>Search Properties.
- 4 Click Max Clause Count (the name of the property), not the Value field next to the name.
- 5 On the Property Context Value Matrix dialog box, click in the Any Host field for the Grid ("Grid-Wide" field) or the name of the application instance.

Figure 4. Setting Max Clause Count for the "test" IES application instance



6 Click Create Property (or Update Property if you are changing the number or Remove Property to disable it).

Enabling Facet Search Counts Display

If your system supports Facet searching, the feature itself is automatically enabled. However, displaying of Facet search counts is disabled by default. If you want to display Facet search counts, follow these steps.

- 1 From the main Grid page, locate the IES instance you want to edit.
- 2 From the application page, click Configuration and then click Edit Properties.
- **3** From the Application Defined Properties section of the page, expand Enterprise Search Core Configuration>Facet Search Properties.
- 4 For Display Search Counts, click the Value field.
- 5 In the pop-up dialog box, enable Display Facet Counts and then click Create Property (or Remove Property if you are disabling it).

Setting the Search Refresh Interval or Interval Unit

By default the search refresh interval is set to five minutes.

Use this procedure to change the properties that control the interval. You can set the unit for the interval (seconds, minutes, hours or days) and the number of seconds, minutes, hours or days. You can make this change for all IES application instances in the Grid or a specific IES instance.

- 1 From the main Grid page, locate the IES instance you want to edit.
- 2 Click Edit Properties and then from the Application Defined Properties section of the page, expand Enterprise Search Core Configuration>Index Properties.
- 3 To change the interval: Expand Index Commit Interval. On the Property Context Value Matrix dialog box, click in the Any Host field for "Grid-Wide" to change the value for all IES instances or in the Any Host field for the specific application and then type a number for the interval. (This number reflects the number of seconds, minutes, hours or days, depending on the setting for the Interval Unit property.)
- 4 To change the interval unit: Expand Index Commit Interval Units.
 - On the Property Context Value Matrix dialog box, click in the Any Host field for "Grid-Wide" to change the interval for all IES instances or in the Any Host field to change for a instance.
 - In the pop-up dialog box, select Seconds, Minutes, Hours or Days.
- 5 Click Create Property (or Update Property if you are changing an existing property or Delete Property to disable).

Locating / Configuring a Logical ID for an Instance

When configuring an instance, you might need to locate the drillback logical ID for the product Enterprise Search is configured against. Use these steps to locate the logical ID.

This section describes how to locate a logical ID and how to configure it for an IES instance.

- 1 Gather the drillback logical ID for the product Enterprise Search is configured against.

 If you are configuring Infor Ming.le, the sub-section below describes how to locate the logical ID.

 For other applications, refer to your product documentation.
- 2 Navigate to the Grid application page for the IES instance for which you want to configure the logical ID.
- 3 From the application page, click Configuration and then click Edit Properties.
- **4** From the Application Defined Properties section of the page, select Enterprise Search Core Configuration->Core Properties.
- **5** For Logical Id reference, click the Value field. In the pop-up dialog box, type the logical ID you located in step 1.
- **6** Click Create Property (or Remove Property if you are removing it).

Locate the drillback ID for Infor Ming.le

- 1 Navigate to the Infor Ming.le home page as an administrator.
- 2 For a SharePoint 2010 Ming.le environment: Click the "Site Actions" dropdown menu (upper-right corner) and then click "View All Site Content." Under the "Lists" section, click "Infor Application Deployments."

Or

For a SharePoint 2013 Ming.le environment: Click the gear icon (upper-right corner). From the dropdown menu, click "Site Contents" and then click "Infor Application Deployments."

The logical IDs will be located under the "Logical ID" column of the page.

For IES for Infor Lawson, the Logical ID for Infor Lawson Ming.le is typically similar to:

lid://infor.lawson-s3.1

Configuring and running an incremental crawl (Infor Lawson systems only)

An incremental crawl crawls only tables that have been updated since the previous crawl. A timestamp on the table is checked to determine which tables need to be crawled. Incremental crawls can save time in processing, particularly for large tables.

This topic describes the general steps that you must take in order to configure for and use incremental crawls. Most of the procedures are performed on the Infor Lawson server side. (This topic does not provide step-by-step instructions for Infor Lawson System Foundation tasks but instead tells you where to find the required information.)

Note: You must perform the configuration shown here for each index that you want to crawl incrementally. If you have multiple tables/indexes that you plan to configure for incremental crawling, it is a good idea to perform the configuration at the same time.

Run ctmaint to attach a timestamp to a table

The ctmaint utility allows you to attach a timestamp to a table.

When you are finished adding timestamps for all tables that you want to run incrementally, you must perform the blddbdict, dbreorg, cobcmp sequence in order for the updates to take effect.

Instructions for running all required utilities are in the following documents:

- Application Development Workbench (for UNIX and Windows)
- Application Development Workbench Standards (for IBM i)
- System Utility Reference Guide

All documents are available in the Infor Lawson System Foundation infocenter.

Add the incrementable parameter to the search index

1 Open the search index for the table you want to run incremental crawls against in an editor.

Example:

LAWDIR/MyAppProdLine/search/index/AppIndex.xml

2 Locate the Repository node and add the following parameter to the file:

```
incrementable = true
```

Example showing "ACDETAIL" repository and table:

```
<REPOSITORY repositoryId="ACDETAIL" primaryTable="ACDETAIL" type="S3TABLE"
incrementable="true">
```

3 Optional: Run the validation script to check your XML. Type

GENDIR/search/validate

4 When you are finished making edits, save and close the file.

Refresh repository data

After all other configuration has been performed, perform the steps in this section to refresh the table/index definitions in the repository.

These steps are performed in the Grid.

- 1 Load modified table definitions into Enterprise Search.
 - From the IES Admin UI Other Tasks page, select Load Resources.
- **2** After the load completes, run a full (non-incremental) crawl on the repository.

Running a crawl as incremental (ongoing task)

After all one-time configuration as described in the previous subsections has been performed, the "Incremental" checkbox will be available for selection on modified repositories when you perform a crawl.

- "Maintenance recommendations" on page 29
- "Starting and/or stopping an IES instance" on page 30

Maintenance recommendations

This topic provides some overview information about some routine maintenance checks that you, as an Infor Enterprise Search system administrator, should perform regularly.

Running maintenance crawls

It is important to run maintenance crawls at specified times, for example, every weekend, in addition to any crawls you might run for business reasons at your site. A crawl cleans up and optimizes current indexes, preventing the IES server response time from becoming slow.

Memory usage

Monitoring performance is an important administration task for IES. Making changes to memory allocations might be the answer to some performance issues.

This section provides some information about how to allocate memory if you notice performance issues that you believe might be related to memory usage.

These are some ideas to start with only. Each system administrator must consider all systems running at their site, in addition to IES, in order to make the best decision for their system.

For the operating system

IES functionality is IO-intensive. IES will use as much processing power as is available to the application when crawls are running. IES can also require large amounts of memory when used with large data sets.

In general, it is a good idea to grant the OS a similar amount as you grant to IES Java processes. This ensures that there is sufficient memory for the OS to cache frequently used references without having to swap memory which can degrade system performance.

Other configuration changes

Depending on how your system is performing and what new components you might be installing, you might need at various times to do such things as:

- Adjust the heap size.
 - Instructions are in the *Infor Enterprise Search Installation Guide* and in your Grid administration guide. See topics on modifying the grid max heap.
- Adjust Smart Office search parameters (S3).
 - Instructions are in the Infor Enterprise Search Installation Guide.
- Adjust Lawson Smart Office profile settings for Lawson Business Intelligence (LBI).
 Instructions are in the Infor Enterprise Search Installation Guide.

Starting and/or stopping an IES instance

This topic describes how administrators stop and start an IES host. You might do this when performing routine system maintenance.

1 In a browser, launch the IES Administration UI.

http(s)://gridHost:gridPort/ies/admin

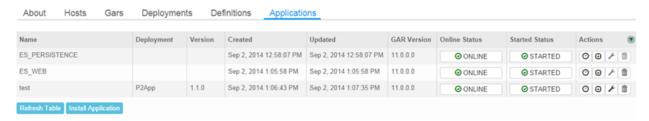
where

gridHost and gridPort are your IES installation location and port in the Grid

Note: If you are configuring IES for Infor Lawson, this is DSSO Router port.

2 Click the Applications tab.

IES instances appear on the page.



3 In the row of the instance you want to stop / or start, click in the appropriate column.