IBM Watson Explorer Content Analytics
Version 11.0

Upgrading to Version 11.0

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If you previously installed IBM® Watson™ Explorer Content Analytics, IBM Watson Content Analytics, or IBM Watson Explorer Annotation Administration Console, you can run an installation program to upgrade to IBM Watson Explorer Content Analytics Version 11.0.

IBM Watson Explorer Content Analytics is provided with the Advanced Edition of IBM Watson Explorer.

After you upgrade to Watson Explorer Content Analytics Version 11.0, you cannot revert to an older version of Watson Explorer Content Analytics or Watson Content Analytics.

Upgrade paths

The following upgrade paths to Version 11.0 are supported:

Table 1. Supported upgrade paths

Upgrade path	Notes
Watson Explorer Content Analytics Version 10.0 and subsequent fix packs	User applications that you created in Version 10.0 are migrated to Version 11.0 and deployed on the application server.
Watson Content Analytics Version 3.5 and subsequent fix packs	User applications that you created in Version 3.5 are migrated to Version 11.0 and deployed on the application server.
IBM Content Analytics with Enterprise Search Version 3.0 and subsequent fix packs	You must upgrade to Watson Explorer Content Analytics Version 10.0 or Watson Content Analytics Version 3.5 before you can upgrade to Watson Explorer Content Analytics Version 11.0.
Watson Explorer Content Analytics Studio Version 10.0 and subsequent fix packs	You can upgrade your existing Content Analytics Studio workspace.
Watson Content Analytics Studio (ICA Studio) Version 3.0 or Version 3.5, and subsequent fix packs	You can upgrade your existing Content Analytics Studio workspace.
Watson Explorer Agent for Windows File Systems Version 10.0 or Watson Content Analytics Agent for Windows File Systems Version 3.5	
Watson Explorer Annotation Administration Console Version 10.0	Collections that you created in Annotation Administration Console Version 10.0 are migrated to Version 11.0.
Watson Explorer Annotation Administration Console Version 11.0	You can migrate collections that you create in Annotation Administration Console Version 11.0 to Watson Explorer Content Analytics Version 11.0.

Server configuration

Your planned Watson Explorer Content Analytics Version 11.0 server configuration must match your existing Content Analytics server configuration. In a multiple server installation, you must upgrade all servers to Version 11.0. The following server configurations are supported:

- All-on-one server with additional servers for search, document processing, indexing, and high availability.
- Distributed servers with a master server, a crawler server, and additional servers for search, document processing, indexing, and high availability.

Application server architecture

You must use the same web application server that you use for your existing Content Analytics applications, either the embedded web application server or WebSphere® Application Server. The administration console, enterprise search application, and content analytics miner must all run on the same type of application server. A hybrid web application environment is not supported.

The Annotation Administration Console supports only the embedded web application server.

For information about supported versions of WebSphere Application Server, see the system requirements.

Related reference:

➡ System requirements

➡ Supported system configurations

Upgrade summary

The upgrade summary provides information about the components that are supported in the Watson Explorer Content Analytics Version 11.0 system.

For items that include data that can be migrated, the table shows whether the migration is handled automatically by the installation program or whether manual steps are required to finalize the upgrade.

Table 2. Upgrade Summary. Summary of supported migration paths

Functional Area	Processing	Version 11.0 Requirements
Topology		
Single server installation		If you currently run the product on a single server configuration, you must upgrade to a single server configuration. You can then add servers to support search, document processing, indexing, and high availability.
Distributed server installation		If you currently run the product on a distributed server configuration, you must upgrade to a distributed server configuration. You can then add servers to support search, document processing, indexing, and high availability.
High availability servers		Supported on AIX® and Windows systems.
IBM BigInsights for Apache Hadoop		Supported on Linux 64-bit systems.
Configuration		

Table 2. Upgrade Summary (continued). Summary of supported migration paths

Functional Area	Processing	Version 11.0 Requirements
Crawlers	Automatic	Crawler configurations are automatically migrated to Version 11.0. If you prefer, you can manually import crawler configuration data to Version 11.0.
Backup and Restore		You cannot create a backup of an older version of the product and restore it on a Version 11.0 system.
Importing and exporting collections		You cannot import and export collections between different versions of the product.
Document cache	Automatic	Cached data is migrated and does not need to be re-crawled. To apply new features to previously crawled data, however, the data must be re-crawled.
In process data		Documents that were crawled but not yet parsed are not migrated. Use the administration console to ensure that no documents are waiting to be parsed before you upgrade to Version 11.0.
Administration	Automatic	Extended administration configurations can be imported to Version 11.0. For example, you might have custom *component*_ext.xml files that modify default crawler behavior and other administration functions. Examples of ways that you can extend configurations include: • Increasing the maximum size of documents crawled by file system crawlers • Configuring multiple threads for file system crawlers • Configuring an isolation level for crawling DB2® databases • Customizing how Lotus Notes® documents are re-crawled • Indexing document-level security for Lotus Notes documents to improve search performance • Configuring a Windows file system crawler to support trusted domains • Creating a plug-in to extract entries from archive files so that individual files can be parsed
Index		
Search index	Automatic	The index is migrated and does not need to be rebuilt. To apply new features to previously indexed data, however, you must rebuild the index.
Analytics index	Manual	You must redeploy all analytic resources and rebuild the analytic indexes after you upgrade to Version 11.0.
Index on IBM InfoSphere® BigInsights server	Automatic	The index is migrated and does not need to be rebuilt. To apply new features to previously indexed data, however, you must rebuild the index.
Application Server		
Embedded application server	Automatic	If you use the embedded web application server in your existing system, the upgrade installation program installs all web applications (ESSearchServer, administration console, enterprise search application, and content analytics miner) on the embedded web application server. After you upgrade to Version 11.0, you must open the Security view in the administration console and select your LDAP server type. You must also reconfigure any LTPA token parameters that you configured for your existing system. LTPA data is not migrated to Version 11.0.

Table 2. Upgrade Summary (continued). Summary of supported migration paths

Functional Area	Processing	Version 11.0 Requirements
WebSphere Application Server and WebSphere Application Server Network Deployment, non-cluster installation	Automatic	If you use WebSphere Application Server in your existing system, the upgrade installation program installs the web applications in the same WebSphere Application Server environment.
Application Programming Interfaces		
SIAPI APIs		Support is provided for the Search APIs only. For custom administration applications, use the REST APIs.
Enterprise search application	Automatic	Configuration changes made through the Search Customizer are migrated.
Content analytics miner	Automatic	Configuration changes made through the Analytics Customizer are migrated.
Custom enterprise search application	Manual	You must back up and redeploy your custom applications.
Search portlet		Not all enterprise search application functions are available in the Version 11.0 search portlet.
Custom search portlet	Manual	You must back up and redeploy your custom search portlets.
Plug-ins	Manual	You must back up and redeploy your custom plug-ins, such as custom plug-ins for crawlers, post-filtering results, exporting documents, and adding custom views to the content analytics miner.
Annotators		
Provided annotators and dictionaries	Automatic	Different annotators and dictionaries are installed for enterprise search collections and content analytics collections.
Custom annotators	Manual	You must back up and redeploy your custom annotators. For a content analytics collection: • If the document cache is enabled, redeploy the analytic resources and rebuild a full index. • If the document cache is not enabled, redeploy the analytic resources and run a full crawl.
Annotation Administration Console		
Collections	Automatic	Supported on Linux and Windows systems. Collections are migrated automatically when you upgrade from Annotation Administration Console Version 10.0 to Watson Explorer Content Analytics Version 11.0. You can also run the upgrade program to migrate collections that you create in Annotation Administration Console Version 11.0.

Related reference:

⇨ System requirements

Running the installation program to upgrade

The installation program migrates your existing collections and configuration data to Watson Explorer Content Analytics Version 11.0. After you run the installation program, additional steps are required to complete the upgrade.

Before you begin

If you plan to configure the system to use WebSphere Application Server or WebSphere Application Server Network Deployment, you must review the following information before you run the upgrade installation program:
- The summary of WebSphere Application Server configuration data.
- The WebSphere Application Server upgrade procedures.

About this task

You must upgrade to a system that has the same type of server configuration. For example, if your current installation is installed as a distributed server configuration, you must install the new software as a distributed server installation. In a multiple server installation, you must upgrade all servers to Version 11.0.

Procedure

To upgrade to a Watson Explorer Content Analytics Version 11.0 system:
1. Create a full backup of your existing system.
2. Update any required prerequisite software:
    - Verify that your operating system is a supported version.
    - If you use WebSphere Application Server, ensure that you use a supported version. Version 8.5.5 is included in the product distribution package. If you want to upgrade, upgrade WebSphere Application Server before you install Watson Explorer Content Analytics Version 11.0. In a distributed server configuration, you must install WebSphere Application Server on the master server and each search server.
    - If you use IBM Content Integrator, ensure that you use a supported version. Version 8.6 is included in the product distribution package. If you want to upgrade, upgrade IBM Content Integrator before you install Watson Explorer Content Analytics Version 11.0. In a distributed server configuration, you must install IBM Content Integrator on the crawler server.
3. Ensure that all content is indexed. Documents that were crawled but not yet parsed or indexed are not migrated. Use the administration console and ensure that there are no documents waiting to be parsed and indexed before you start the installation program to upgrade to Version 11.0.
4. Enter the following command to stop the Watson Explorer Content Analytics system: **esadmin system stopall**
5. If you use WebSphere Application Server, ensure that the ESSearchServer application in WebSphere Application Server is stopped.
6. Run the Watson Explorer Content Analytics installation program to upgrade your system.

Option	Description
AIX or Linux	1. Log in as the root user and enter: `./launchpad.sh` 2. To view information about prerequisites or any known issues before you install the product, click **Prerequisite Information** or **Release Information**. 3. Click **Install Product** and then click the action to launch the installation program.
Windows	1. Log in as a Windows administrator, right-click the `launchpad.exe` file, and select **Run as administrator**. 2. To view information about prerequisites or any known issues before you install the product, click **Prerequisite Information** or **Release Information**. 3. Click **Install Product** and then click the action to launch the installation program.

7. After confirming the installation directory for your existing installation, click **Next**. If your existing system is configured to use WebSphere Application Server, ensure that the values that are displayed, such as host names and installation paths, are correct for your installation of WebSphere Application Server and the IBM HTTP Server.

8. Click **Next** to confirm additional options and to start installing the upgrade software.

9. On Windows, after the software is installed, restart the computer and log in as the Watson Explorer Content Analytics administrative user.

10. Verify the installation by running the First Steps program and clicking **Start Server**. After the server is started, click **Verify Installation**.

11. For a distributed server configuration, or for an all-on-one configuration that includes additional servers, run the installation program on each server in your system topology.

12. Optional: On a Windows File Server, install Agent for Windows File Systems Version 11.0. The agent server enables the system to crawl remote Windows file systems regardless of which operating system (AIX, Linux, or Windows) runs the crawler server.

13. If your collections include crawlers that require setup scripts or the deployment of web services, see the crawler setup requirements and run the provided scripts on the upgraded crawler server.

14. On a Windows client, install IBM Watson Explorer Content Analytics Studio Version 11.0. If you previously installed Content Analytics Studio, upgrade your existing workspace.

15. If your migrated collections include custom annotators that were developed with UIMA SDK, manually migrate the annotators to Apache UIMA 2.7.

16. Clear the browser cache, including cookies, before you open the enterprise search application or content analytics miner. If you do not clear the browser cache, some information, such as details in the **My Profile** dialog, might not be displayed correctly or you might see a message stating that the page is not redirecting properly.

17. See the upgrade summary table for details about re-crawling, re-parsing, and re-indexing the collections that were migrated. For example, you typically do

not need to rebuild the index, but to apply new features that are provided in Version 11.0, an index build is required.

Related tasks:

➦ Single server installation

➦ Distributed server installation

➦ Additional server installation

➦ Agent server installation

➦ Content Analytics Studio installation

Related reference:

➦ System requirements

➦ Crawler setup requirements

➦ WebSphere Application Server documentation

➦ IBM Content Integrator documentation

Upgrading with Microsoft Cluster Service

If you upgrade to Version 11.0 from a system that includes Microsoft Cluster Service (MSCS), you must re-create the Watson Explorer Content Analytics service after you run the installation program.

Procedure

To upgrade from a system that includes MSCS:
1. Log on to the master server that is running with MSCS.
2. Open Failover Cluster Manager.
3. Remove the service that was previously configured for Watson Explorer Content Analytics. The service name for the previous version is `ICA service`.
4. Run the **esharesource.vbs** script and re-create the service resource.
5. If you upgraded from a system that includes MSCS and PowerHA®, run the **esadmin start** command to start the importer session.

Upgrading WebSphere Application Server

If you use WebSphere Application Server to host your web applications in Watson Explorer Content Analytics Version 10.0 or Watson Content Analytics Version 3.5, you must continue to use WebSphere Application Server with Watson Explorer Content Analytics Version 11.0.

About this task

If you currently use WebSphere Application Server Version 8.0, you can continue to use that version with Watson Explorer Content Analytics Version 11.0. To take advantage of performance and other enhancements, you might want to upgrade to Version 8.5.5, which is included in the product distribution package, before you upgrade to Watson Explorer Content Analytics Version 11.0.

Procedure

To upgrade WebSphere Application Server:

1. Ensure that the edition of WebSphere Application Server that you install, such as Standard or Enterprise, matches the currently installed edition.

2. In a distributed server configuration, install WebSphere Application Server on the master server and each search server. You must install the base software and supplemental software (the IBM HTTP Server and WebSphere Application Server Plugin software). For detailed information about installing or upgrading WebSphere Application Server, see the WebSphere Application Server documentation.

3. Confirm that the installation is correctly configured. Access your web server at http://*hostname*/snoop and verify that the page is displayed. If the page is not displayed, correct the configuration settings and try again.

4. Stop all instances of WebSphere Application Server and the IBM HTTP Server, and then migrate your web applications:

   a. Start the WebSphere Application Server Migration Wizard.

   b. Select **Migrate and install the applications**.

   c. Select **Keep the same application installation directories as the previous version**.

   d. Select **Use the port values assigned to the previous (source) installation**.

   e. Start the application server (server1 and ESSearchServer) and IBM HTTP Server.

   f. Confirm that the migrated applications can be accessed. Go to http://*hostname*/snoop and http://*hostname*/search and verify that both pages are displayed. If the pages are not displayed, correct the configuration settings and try again.

5. Follow the procedures for running the Watson Explorer Content Analytics installation program to upgrade to Version 11.0.

What to do next

After you run the Watson Explorer Content Analytics upgrade installation program and verify that version 11.0 is successfully installed, you can remove the older WebSphere Application Server software from your system. On Windows, you must first remove the ESSearchServer service before you remove the older WebSphere Application Server software. For example, run the command **WAS_INSTALL_DIR/ bin/WASService.exe -remove ESSearchServer**.

Related reference:

➡ System requirements

➡ WebSphere Application Server configuration data

➡ WebSphere Application Server documentation

Updating collections after upgrading

To use the enhanced product capabilities, re-crawl, re-parse, and re-index all documents in your collections after you upgrade to Watson Explorer Content Analytics Version 11.0.

About this task

This step is optional, but when documents processed with another version of the product are indexed, search results might be affected. Updating collections after you upgrade is especially important for collections that use the n-gram

tokenization mechanism, but also true for collections that use standard tokenization.

Related reference:

Crawler setup requirements

Upgrading an existing Content Analytics Studio workspace

To continue using a workspace that was created with an earlier version of the product, you must upgrade the workspace before you can use it with the current version of the product.

Before you begin

Create a backup copy of your workspace before you upgrade it. After you upgrade the workspace, it is no longer compatible with earlier versions of the product.

Procedure

To upgrade an existing workspace:

In Watson Explorer Content Analytics Studio Version 11.0, click **Help** > **Upgrade Workspace**.

Upgrading Annotation Administration Console

If you installed Annotation Administration Console Version 10.0, you can upgrade to Annotation Administration Console Version 11.0. You must run the program to upgrade Annotation Administration Console after you install the IBM Watson Explorer Version 11.0 Foundational Components.

About this task

You must upgrade into the existing installation directory. You cannot change other existing settings, such as the data directory path, port assignments, and administrative user ID. If you want to change these settings, you must uninstall Version 10.0 before you install Version 11.0.

For instructions on upgrading Annotation Administration Console, see the following topics in IBM Knowledge Center:
- Upgrading in graphical mode
- Upgrading in silent mode
- Upgrading in console mode

Migrating collections from Annotation Administration Console

If you install IBM Watson Explorer Annotation Administration Console Version 11.0, and later decide that you want to use IBM Watson Explorer Content Analytics, you can migrate your Annotation Administration Console collections. Watson Explorer Content Analytics is provided with IBM Watson Explorer Advanced Edition.

About this task

Collections that you created in Annotation Administration Console are migrated automatically when you run the upgrade program. After you upgrade, you can use the Watson Explorer Content Analytics administration console to administer your migrated collections, which are identified as content analytics collections on the Collections view.

You can modify the migrated collections the same way that you modify any content analytics collection. For example, you can add content by configuring crawlers or importing CSV files, configure rules for parsing, annotating, and indexing content, and configure options to enhance search quality.

Restriction: When you run the upgrade program, the Watson Explorer Content Analytics system configuration will match the configuration of your Annotation Administration Console system:

- Linux or Windows operating system
- All-on-one server configuration (you can later add servers to support search, document processing, and indexing)
- Embedded web application server

Procedure

To migrate Annotation Administration Console collections to Watson Explorer Content Analytics:

1. On the server where Annotation Administration Console is installed, enter the following command: **esadmin system stopall**
2. Run the Watson Explorer Content Analytics installation program to upgrade your system.

Option	Description
Linux	1. Log in as the root user and enter: `./launchpad.sh` 2. To view information about prerequisites or any known issues before you install the product, click **Prerequisite Information** or **Release Information**. 3. Click **Install Product** and then click the action to launch the installation program.

Option	Description
Windows	1. Log in as a Windows administrator, right-click the `launchpad.exe` file, and select **Run as administrator**.
	2. To view information about prerequisites or any known issues before you install the product, click **Prerequisite Information** or **Release Information**.
	3. Click **Install Product** and then click the action to launch the installation program.

3. In the field where you specify the installation directory, specify the Annotation Administration Console installation path (ES_INSTALL_ROOT), such as `/opt/IBM/es` on Linux or `C:\Program Files\IBM\es` on Windows.

4. Click **Next** to use the default settings for all other installation options and start installing the software.

5. On Windows, after the software is installed, restart the computer and log in as the Watson Explorer Content Analytics administrative user.

6. Verify the installation by running the First Steps program and clicking **Start Server**. After the server is started, click **Verify Installation**.

7. Optional: On a Windows File Server, install Agent for Windows File Systems Version 11.0. The agent server enables the system to crawl remote Windows file systems regardless of which operating system runs the crawler server.

8. On a Windows client, install IBM Watson Explorer Content Analytics Studio Version 11.0. If you previously installed Content Analytics Studio, upgrade your existing workspace.

9. If your migrated collections include custom annotators that were developed with UIMA SDK, manually migrate the annotators to Apache UIMA 2.7.

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