



SAP NetWeaver Connector

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Administration Guide

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Chapter 1: Introduction

This section provides an overview of the Micro Focus SAP NetWeaver Connector.

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SAP NetWeaver Connector

The SAP NetWeaver Connector is a plug-in for the SAP NetWeaver application that aggregates information and sends it to a Connector Framework Server.

The SAP NetWeaver Connector is not an ACI Server and does not support any of the standard connector configuration parameters or actions. The connector is configured through the Netweaver application.

The connector sends documents to a Connector Framework Server (CFS), which processes the information and indexes it into an IDOL server.

After the documents are indexed, IDOL server automatically processes them, performing a number of intelligent operations in real time, such as:

- | | |
|----------------------------|-----------------------|
| • Agents | • Education |
| • Alerting | • Expertise |
| • Automatic Query Guidance | • Hyperlinking |
| • Categorization | • Mailing |
| • Channels | • Profiling |
| • Clustering | • Retrieval |
| • Collaboration | • Spelling Correction |
| • Dynamic Clustering | • Summarization |
| • Dynamic Thesaurus | • Taxonomy Generation |

OEM Certification

SAP NetWeaver Connector works in OEM licensed environments.

Connector Framework Server

Connector Framework Server (CFS) processes the information that is retrieved by connectors, and then indexes the information into IDOL.

A single CFS can process information from any number of connectors. For example, a CFS might process files retrieved by a File System Connector, web pages retrieved by a Web Connector, and e-mail messages retrieved by an Exchange Connector.

To use the SAP NetWeaver Connector to index documents into IDOL Server, you must have a CFS. When you install the SAP NetWeaver Connector, you can choose to install a CFS or point the connector to an existing CFS.

For information about how to configure and use Connector Framework Server, refer to the *Connector Framework Server Administration Guide*.

Filter Documents and Extract Subfiles

The documents that are sent by connectors to CFS contain only metadata extracted from the repository, such as the location of a file or record that the connector has retrieved. CFS uses KeyView to extract the file content and file specific metadata from over 1000 different file types, and adds this information to the documents. This allows IDOL to extract meaning from the information contained in the repository, without needing to process the information in its native format.

CFS also uses KeyView to extract and process sub-files. Sub-files are files that are contained within other files. For example, an e-mail message might contain attachments that you want to index, or a Microsoft Word document might contain embedded objects.

Manipulate and Enrich Documents

CFS provides features to manipulate and enrich documents before they are indexed into IDOL. For example, you can:

- add additional fields to a document.
- divide long documents into multiple sections.
- run tasks including Education, Optical Character Recognition, or Face Recognition, and add the information that is obtained to the document.
- run a custom Lua script to modify a document.

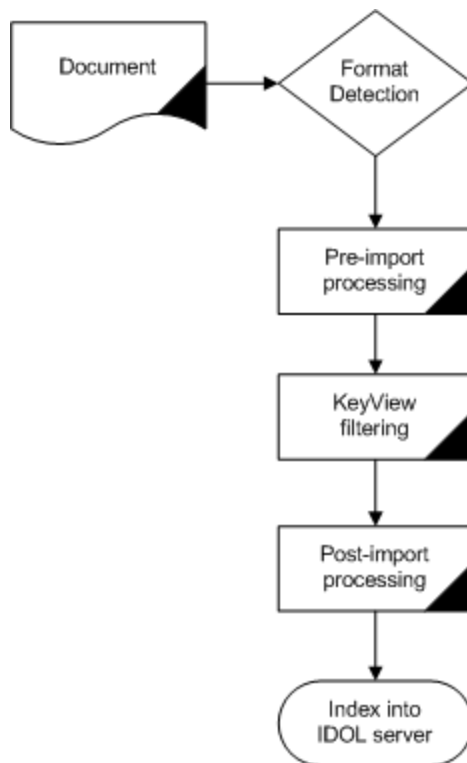
Index Documents

After CFS finishes processing documents, it automatically indexes them into one or more indexes. CFS can index documents into:

- **IDOL Server** (or send them to a *Distributed Index Handler*, so that they can be distributed across multiple IDOL servers).
- **Haven OnDemand**.
- **Vertica**.

Import Process

This section describes the import process for new files that are added to IDOL through CFS.



1. Connectors aggregate documents from repositories and send the files to CFS. A single CFS can process documents from multiple connectors. For example, CFS might receive HTML files from HTTP Connectors, e-mail messages from Exchange Connector, and database records from ODBC Connector.
2. CFS runs pre-import tasks. Pre-Import tasks occur before document content and file-specific metadata is extracted by KeyView.
3. KeyView filters the document content, and extracts sub-files.
4. CFS runs post-import tasks. Post-Import tasks occur after KeyView has extracted document content and file-specific metadata.
5. The data is indexed into IDOL.

The IDOL Platform

At the core of SAP NetWeaver Connector is the *Intelligent Data Operating Layer* (IDOL).

IDOL gathers and processes unstructured, semi-structured, and structured information in any format from multiple repositories using IDOL connectors and a global relational index. It can automatically form a contextual understanding of the information in real time, linking disparate data sources together based on the concepts contained within them. For example, IDOL can automatically link concepts contained in an email message to a recorded phone conversation, that can be associated with a stock trade. This information is then imported into a format that is easily searchable, adding advanced retrieval, collaboration, and personalization to an application that integrates the technology.

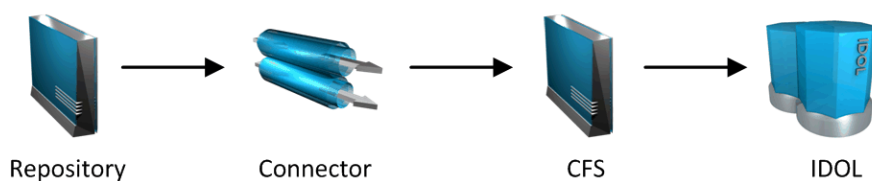
For more information on IDOL, see the *IDOL Getting Started Guide*.

System Architecture

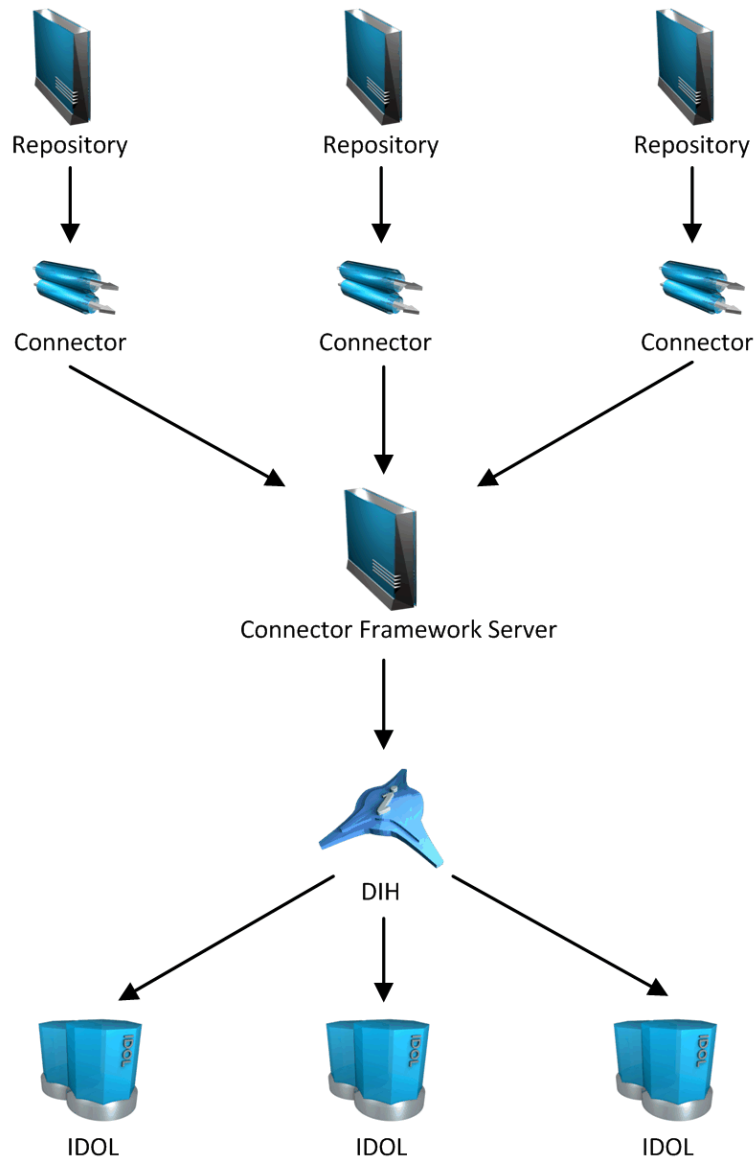
An IDOL infrastructure can include the following components:

- **Connectors.** Connectors aggregate data from repositories and send the data to CFS.
- **Connector Framework Server (CFS).** Connector Framework Server (CFS) processes and enriches the information that is retrieved by connectors.
- **IDOL Server.** IDOL stores and processes the information that is indexed into it by CFS.
- **Distributed Index Handler (DIH).** The Distributed Index Handler distributes data across multiple IDOL servers. Using multiple IDOL servers can increase the availability and scalability of the system.
- **License Server.** The License server licenses multiple products.

These components can be installed in many different configurations. The simplest installation consists of a single connector, a single CFS, and a single IDOL Server.



A more complex configuration might include more than one connector, or use a Distributed Index Handler (DIH) to index content across multiple IDOL Servers.



Chapter 2: Install SAP NetWeaver Connector

This section describes how to install the SAP NetWeaver Connector.

- [System Requirements](#)10
- [Install SAP NetWeaver Connector](#)10

System Requirements

SAP NetWeaver Connector should be installed by a system administrator as part of a larger system that includes an IDOL server and an interface for the information stored in the IDOL server.

To index documents into IDOL you must also install a Connector Framework Server (CFS).

Install SAP NetWeaver Connector

The SAP NetWeaver Connector is a plug-in that must be installed manually on the NetWeaver server. The files are supplied as a zip package.

Complete the following procedures in the order in which they are presented.

Files Provided in the Installer

The installer extracts the following files to the folder you specify:

- `AutonomyIndex.par`. This plugin must be installed in Netweaver. See [Install the Portal Application, on the next page](#).
- `AutonomyIndexWorker.Version.jar`. This file is used by the plugin, and it contains most of the connector implementation.

Configure Autonomy Index Logging

To configure Autonomy index logging, use the following procedure.

NOTE:
This step is optional.

To configure the Autonomy index logging

1. Open the Visual Administrator and log on to the server (for example, `... \j2ee\admin\go.bat`).
2. Browse the tree under the **Server** node to find the **Log Configurator** service and select it.
3. Select **To advanced mode**.
4. On the **Destinations Tab**, select **New**.

5. Assign a name (for example, `autonomy_index_log`) and file name pattern (for example, `/log/autonomy_index.log`).
6. Add a formatter to the destination:
 - a. Click **Add**, then click **Anonymous** and choose **ListFormatter**. Click **OK**.
 - b. Click **Select**. Choose the **Anonymous** ListFormatter.
7. On the **Categories Tab**, Select **New**.
8. Type the name `/AutonomyIndex`.
9. Select the appropriate Severity level or just select **All**.
10. Add the previously created destination to the list by selecting **Add**.
11. Save the configuration changes.

This is the only logging used by the application.

To view the log

1. Open the Log Viewer (also available through Visual Administrator as **Log Viewer** service or use standalone `... \j2ee\admin\logviewer-standalone\logviewer.bat`).
2. Browse to `... \j2ee\cluster\server0\log\autonomy_index.log` (or to the destination you chose above).

Install the Portal Application

To install the portal application (`AutonomyIndex.par`), use the following procedure.

To install the portal application

1. Open the portal (for example, `http://localhost:50000/irj/portal`) as an administrator.
2. Select **System Administration > Support > Portal Runtime > Administration Console**.
3. Select **Browse** and select the `AutonomyIndex.par` to Install and Upload.

Update the Index Management Service

Use the following procedure to update the Index Management Service.

To update the Index Management Service

1. Open the portal (for example, `http://localhost:50000/irj/portal`) as an administrator.
2. Select **System Administration > System Configuration > Knowledge Management**.
3. Select **Global Services > Show Advanced Options > Index Management Service**.
4. Click **Edit**.

NOTE:

Either **OK** or **Cancel** must be selected to release the acquired lock when finished.

5. In the list of index services, enable the new entry `autonomyindexservice`.
6. Click **OK**.

Refresh the Index Service List

Use the following procedure to refresh the index service list. The purpose of this procedure is to ensure the Autonomy Index service appears in the **Service** list when you create an index. For more information, see [Create a New Autonomy Index, below](#).

NOTE:

This procedure is meant for the initial installation only and is not required for upgrades.

To refresh the index service list

1. On the server, open the **SAP Management Console**.
2. Find the **J2EE Process Table** instance.
3. Restart the **J2EE Server** process.

Create a New Autonomy Index

To create a new Autonomy index, use the following procedure.

To create a new Autonomy index

1. Open the portal (for example, <http://localhost:50000/irj/portal>) as an administrator.
2. Select **System Administration > System Configuration > Knowledge Management > Index Administration**.
3. Click **Create**.
4. Enter an ID for the index (this is used as the default IDOL database name though it can be changed).
5. Select the Service **Autonomy Index**. If this is not listed, see [Update the Index Management Service, on the previous page](#) and [Refresh the Index Service List, above](#).
6. Select Items to Index **All**.
7. Click **Create Index**.

Note that the custom properties (see [Configure the Autonomy Index, below](#)) can be added here if desired to override the default values, though also note that the parameter names are case-sensitive. However, it is easier to leave the custom properties blank and modify them after creating the index. The custom properties used by Autonomy Index are automatically created with default values.

Configure the Autonomy Index

The following section describes how to configure the Autonomy Index.

Set the Worker Jar

When you click **Create Index**, a single property is displayed: `WorkerJarFile`. Set this property to the full path of the worker JAR (`Path\AutonomyIndexWorker.Version.jar`), and then click **Save**.

After you have updated this property, the other properties are loaded from the worker jar and set to their default values.

To view these additional properties, navigate away from the Properties page and then navigate back to it.

Set Additional Properties

You can send documents for ingestion in three ways:

- Provide a common file system location to temporarily hold the files. Use this option by setting the `CFSTempDirectory` property to a shared file path and setting the `CFSDDataPort` property to `0`.
- Send all the files over ACI as part of the ingest command data. Use this option by setting the `CFSDDataPort` property to `0` and leaving the `CFSTempDirectory` property blank. Micro Focus does not recommend this option when the repository contains large files.
- Send all files to the CFS over the data port. Use this option by setting the `CFSDDataPort` property to the data port of your CFS.

Having created the Index, you should display the saved properties. Or to change settings for any index, go to **Index Administration** and select the index from the list.

The additional Autonomy Index settings are listed at the bottom of the list of properties and can be modified and saved.

Parameter	Description
BatchSize	The maximum number of documents to send to CFS in a single request.
CFSDDataPort	The data port of the CFS. If this parameter is set, files are transferred to CFS using the data port.
CFSDDataPortCloseBatch	<p>Set this parameter to <code>true</code> to close the data ports used to transfer files to CFS after the <code>AutonomyIndex</code> has processed a set of documents from NetWeaver. This parameter has an effect only when <code>CFSDDataPort</code> is set.</p> <p>Set this parameter to <code>false</code> to keep the ports open. Keeping the ports open might improve performance, but can also result in there being too many connections to CFS at once (depending on the number of Autonomy Indexes that you have set up, and how many nodes there are in your cluster).</p>
CFSDDataPortConnections	The number of simultaneous connections each <code>AutonomyIndex</code> must open for transferring files to CFS. Each <code>AutonomyIndex</code> can also open a data port for deleting

Parameter	Description
	transferred files if ingestion fails, so it opens a maximum of <code>CFSDataPortConnections + 1</code> connections to the CFS data port.
CFSEnableContentTransfer	A Boolean that specifies whether to retrieve files from the SAP NetWeaver repository and send them to CFS so that CFS can populate the document content. To retrieve files, set this property to <code>true</code> . To retrieve only metadata, set this property to <code>false</code> .
CFSHost	The host name or IP address of the Connector Framework Server. The default is <code>localhost</code> .
CFSPort	The ACI port of the Connector Framework Server. The default is <code>7000</code> .
CFSTempDirectory	The location to temporarily write the documents for index. Set this property if you want to transfer files to CFS using a common file path. This property is not set by default and the path must be accessible by both the portal application and the Connector Framework Server. Do not set this parameter if you want to transfer the files over ACI or using the data port.
CFSTimeout	The maximum amount of time to wait for a response when sending ingest commands to CFS. If the timeout is reached and the number of <code>SendTries</code> is reached, the documents are marked as failed. Netweaver will attempt to resend the documents later.
EnableDeletions	Set this parameter to <code>true</code> to alert CFS of documents deleted from NetWeaver and update the index. Set this parameter to <code>false</code> to ignore documents that were deleted from NetWeaver.
FieldNName, FieldNValue	The name and value of a fixed field that must be added to every document indexed. <i>N</i> must be an integer value, starting at 0.
IndexAllProperties	Set this parameter to <code>false</code> if you want to add only indexable properties of NetWeaver documents to metadata of the documents sent to CFS. Set this parameter to <code>true</code> to add all properties.
IndexContentOfExternalLink	<p>Set this to <code>true</code> to retrieve contents from a link target when an external link is indexed. The content in the link target is used as the document content.</p> <p>CAUTION When you set this property to <code>true</code>, note the following security points:</p>

Parameter	Description
	<ul style="list-style-type: none">• The contents of the external link are retrieved using the credentials of the user running NetWeaver, but the ACL for the indexed document is the ACL of the link. Anyone with permission to view the link is treated as having permission to view the link target.• Any links that use the <code>file:</code> protocol are considered links to files on the server, and are also retrieved using the credentials of the user running NetWeaver.
IndexDatabase	The name of the IDOL database to hold the index. This defaults to the Index ID as set above - see Create a New Autonomy Index, on page 12 .
InterObjectDelay	The number of milliseconds to wait between processing documents.
ReferenceFilterResourceFile	This property must be left blank.
ReferenceFilterUntilDate	A date. This property is ignored unless <code>ReferenceFilterResourceFile</code> is set.
SendTries	The number of times to retry sending to CFS. NetWeaver might also retry failed documents.

Add Data Sources to the Index

Use the following procedure to add data sources to the index.

To add data sources to the index

1. From the **Index Administration** page for the particular index, select **Data Sources**.
2. Click **Add**.
3. Select the resources to be indexed and click **OK**.
4. Once all data sources have been added, click **Save**.

You should shortly see documents being indexed. Check the Log Viewer for more information on progress.

Glossary

A

ACI (Autonomy Content Infrastructure)

A technology layer that automates operations on unstructured information for cross-enterprise applications. ACI enables an automated and compatible business-to-business, peer-to-peer infrastructure. The ACI allows enterprise applications to understand and process content that exists in unstructured formats, such as email, Web pages, Microsoft Office documents, and IBM Notes.

ACI Server

A server component that runs on the Autonomy Content Infrastructure (ACI).

ACL (access control list)

An ACL is metadata associated with a document that defines which users and groups are permitted to access the document.

action

A request sent to an ACI server.

active directory

A domain controller for the Microsoft Windows operating system, which uses LDAP to authenticate users and computers on a network.

C

Category component

The IDOL Server component that manages categorization and clustering.

Community component

The IDOL Server component that manages users and communities.

connector

An IDOL component (for example File System Connector) that retrieves information from a local or remote repository (for example, a file system, database, or Web site).

Connector Framework Server (CFS)

Connector Framework Server processes the information that is retrieved by connectors. Connector Framework Server uses KeyView to extract document content and metadata from over 1,000 different file types. When the information has been processed, it is sent to an IDOL Server or Distributed Index Handler (DIH).

Content component

The IDOL Server component that manages the data index and performs most of the search and retrieval operations from the index.

D

DAH (Distributed Action Handler)

DAH distributes actions to multiple copies of IDOL Server or a component. It allows you to use failover, load balancing, or distributed content.

DIH (Distributed Index Handler)

DIH allows you to efficiently split and index extremely large quantities of data into multiple copies of IDOL Server or the Content component. DIH allows you to create a scalable solution that delivers high performance and high availability. It provides a flexible way to batch, route, and categorize the indexing of internal and external content into IDOL Server.

I

IDOL

The Intelligent Data Operating Layer (IDOL) Server, which integrates unstructured, semi-structured and structured information from multiple repositories through an understanding of the content. It delivers a real-time environment in which operations across applications and content are automated.

IDOL Proxy component

An IDOL Server component that accepts incoming actions and distributes them to the appropriate subcomponent. IDOL Proxy also performs some maintenance operations to make sure that the subcomponents are running, and to start and stop them when necessary.

Import

Importing is the process where CFS, using KeyView, extracts metadata, content, and sub-files from items retrieved by a connector. CFS adds the information to documents so that it is indexed into IDOL Server. Importing allows IDOL server to use the information in a repository, without needing to process the information in its native format.

Ingest

Ingestion converts information that exists in a repository into documents that can be indexed into IDOL Server. Ingestion starts when a connector finds new documents in a repository, or documents that have been updated or deleted, and sends this information to CFS. Ingestion includes the import process, and processing tasks that can modify and enrich the information in a document.

Intellectual Asset Protection System (IAS)

An integrated security solution to protect your data. At the front end, authentication checks

that users are allowed to access the system that contains the result data. At the back end, entitlement checking and authentication combine to ensure that query results contain only documents that the user is allowed to see, from repositories that the user has permission to access. For more information, refer to the IDOL Document Security Administration Guide.

K

KeyView

The IDOL component that extracts data, including text, metadata, and subfiles from over 1,000 different file types. KeyView can also convert documents to HTML format for viewing in a Web browser.

L

LDAP

Lightweight Directory Access Protocol. Applications can use LDAP to retrieve information from a server. LDAP is used for directory services (such as corporate email and telephone directories) and user authentication. See also: active directory, primary domain controller.

License Server

License Server enables you to license and run multiple IDOL solutions. You must have a License Server on a machine with a known, static IP address.

O

OmniGroupServer (OGS)

A server that manages access permissions for your users. It communicates with your repositories and IDOL Server to apply access permissions to documents.

P

primary domain controller

A server computer in a Microsoft Windows domain that controls various computer resources. See also: active directory, LDAP.

V

View

An IDOL component that converts files in a repository to HTML formats for viewing in a Web browser.

W

Wildcard

A character that stands in for any character or group of characters in a query.

X

XML

Extensible Markup Language. XML is a language that defines the different attributes of document content in a format that can be read by humans and machines. In IDOL Server, you can index documents in XML format. IDOL Server also returns action responses in XML format.

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If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to swpdl.idoldocsfeedback@microfocus.com.

We appreciate your feedback!