



Informatica® Data Integration - Free & PayGo

Microsoft Dynamics 365 for
Operations Connector

This software and documentation are provided only under a separate license agreement containing restrictions on use and disclosure. No part of this document may be reproduced or transmitted in any form, by any means (electronic, photocopying, recording or otherwise) without prior consent of Informatica LLC.

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation is subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License.

Informatica, the Informatica logo, Informatica Cloud, and PowerCenter are trademarks or registered trademarks of Informatica LLC in the United States and many jurisdictions throughout the world. A current list of Informatica trademarks is available on the web at <https://www.informatica.com/trademarks.html>. Other company and product names may be trade names or trademarks of their respective owners.

Portions of this software and/or documentation are subject to copyright held by third parties. Required third party notices are included with the product.

See patents at <https://www.informatica.com/legal/patents.html>.

DISCLAIMER: Informatica LLC provides this documentation "as is" without warranty of any kind, either express or implied, including, but not limited to, the implied warranties of noninfringement, merchantability, or use for a particular purpose. Informatica LLC does not warrant that this software or documentation is error free. The information provided in this software or documentation may include technical inaccuracies or typographical errors. The information in this software and documentation is subject to change at any time without notice.

NOTICES

This Informatica product (the "Software") includes certain drivers (the "DataDirect Drivers") from DataDirect Technologies, an operating company of Progress Software Corporation ("DataDirect") which are subject to the following terms and conditions:

1. THE DATADIRECT DRIVERS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.
2. IN NO EVENT WILL DATADIRECT OR ITS THIRD PARTY SUPPLIERS BE LIABLE TO THE END-USER CUSTOMER FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES ARISING OUT OF THE USE OF THE ODBC DRIVERS, WHETHER OR NOT INFORMED OF THE POSSIBILITIES OF DAMAGES IN ADVANCE. THESE LIMITATIONS APPLY TO ALL CAUSES OF ACTION, INCLUDING, WITHOUT LIMITATION, BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, MISREPRESENTATION AND OTHER TORTS.

The information in this documentation is subject to change without notice. If you find any problems in this documentation, report them to us at infa_documentation@informatica.com.

Informatica products are warranted according to the terms and conditions of the agreements under which they are provided. INFORMATICA PROVIDES THE INFORMATION IN THIS DOCUMENT "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT.

Publication Date: 2023-04-04

Table of Contents

Preface	4
Informatica Resources.	4
Informatica Network.	4
Informatica Knowledge Base.	4
Informatica Documentation.	4
Informatica Product Availability Matrices.	5
Informatica Velocity.	5
Informatica Marketplace.	5
Informatica Global Customer Support.	5
 Chapter 1: Introduction to Microsoft Dynamics 365 for Operations Connector.....	 6
Microsoft Dynamics 365 for Operations Connector assets.	6
Administration of Microsoft Dynamics 365 for Operations Connector.	7
Register a native application with Azure Active Directory.	7
Configure the -Dlog4j.configuration property	7
 Chapter 2: Microsoft Dynamics 365 for Operations connections.....	 8
Microsoft Dynamics 365 for Operations connection properties.	8
 Chapter 3: Mappings and mapping tasks with Microsoft Dynamics 365 for Operations Connector.....	 10
Microsoft Dynamics 365 for Operations sources in mappings.	10
Microsoft Dynamics 365 for Operations lookups in mappings.	11
 Appendix A: Data type reference.....	 13
Microsoft Dynamics 365 for Operations and transformation data types.	13
 Index.	 14

Preface

Use *Microsoft Dynamics 365 for Operations Connector* to learn how to read from Microsoft Dynamics 365 for Operations by using Data Integration. Learn to create a connection, develop mappings, and run mapping tasks in Data Integration.

Informatica Resources

Informatica provides you with a range of product resources through the Informatica Network and other online portals. Use the resources to get the most from your Informatica products and solutions and to learn from other Informatica users and subject matter experts.

Informatica Network

The Informatica Network is the gateway to many resources, including the Informatica Knowledge Base and Informatica Global Customer Support. To enter the Informatica Network, visit <https://network.informatica.com>.

As an Informatica Network member, you have the following options:

- Search the Knowledge Base for product resources.
- View product availability information.
- Create and review your support cases.
- Find your local Informatica User Group Network and collaborate with your peers.

Informatica Knowledge Base

Use the Informatica Knowledge Base to find product resources such as how-to articles, best practices, video tutorials, and answers to frequently asked questions.

To search the Knowledge Base, visit <https://search.informatica.com>. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team at KB_Feedback@informatica.com.

Informatica Documentation

Use the Informatica Documentation Portal to explore an extensive library of documentation for current and recent product releases. To explore the Documentation Portal, visit <https://docs.informatica.com>.

If you have questions, comments, or ideas about the product documentation, contact the Informatica Documentation team at infa_documentation@informatica.com.

Informatica Product Availability Matrices

Product Availability Matrices (PAMs) indicate the versions of the operating systems, databases, and types of data sources and targets that a product release supports. You can browse the Informatica PAMs at <https://network.informatica.com/community/informatica-network/product-availability-matrices>.

Informatica Velocity

Informatica Velocity is a collection of tips and best practices developed by Informatica Professional Services and based on real-world experiences from hundreds of data management projects. Informatica Velocity represents the collective knowledge of Informatica consultants who work with organizations around the world to plan, develop, deploy, and maintain successful data management solutions.

You can find Informatica Velocity resources at <http://velocity.informatica.com>. If you have questions, comments, or ideas about Informatica Velocity, contact Informatica Professional Services at ips@informatica.com.

Informatica Marketplace

The Informatica Marketplace is a forum where you can find solutions that extend and enhance your Informatica implementations. Leverage any of the hundreds of solutions from Informatica developers and partners on the Marketplace to improve your productivity and speed up time to implementation on your projects. You can find the Informatica Marketplace at <https://marketplace.informatica.com>.

Informatica Global Customer Support

You can contact a Global Support Center by telephone or through the Informatica Network.

To find your local Informatica Global Customer Support telephone number, visit the Informatica website at the following link:

<https://www.informatica.com/services-and-training/customer-success-services/contact-us.html>.

To find online support resources on the Informatica Network, visit <https://network.informatica.com> and select the eSupport option.

CHAPTER 1

Introduction to Microsoft Dynamics 365 for Operations Connector

You can use Microsoft Dynamics 365 for Operations Connector to connect to Microsoft Dynamics 365 for Operations from Data Integration.

Use Microsoft Dynamics 365 for Operations Connector to securely read data from Microsoft Dynamics 365 for Operations. After you read data from Microsoft Dynamics 365 for Operations other applications, databases, or flat files for analyzing the data. You can use Microsoft Dynamics 365 for Operations objects as sources in mappings and mapping tasks.

When you run a mapping task, the agent uses the OData API to perform the specified operation and read data from Microsoft Dynamics 365 for Operations.

Microsoft Dynamics 365 for Operations Connector assets

Create assets in Data Integration to integrate data using Microsoft Dynamics 365 for Operations Connector.

When you use Microsoft Dynamics 365 for Operations Connector, you can include the following Data Integration assets:

- Mapping
- Mapping task

For more information about configuring assets and transformations, see *Mappings*, *Transformations*, and *Tasks* in the Data Integration documentation.

Administration of Microsoft Dynamics 365 for Operations Connector

You can use Microsoft Dynamics 365 for Operations Connector after the organization administrator performs the following tasks:

- Register a native application with Azure Active Directory
- Configure the log4j.configuration property

Before you use Microsoft Dynamics 365 Connector for Operations from Data Integration with a local Secure Agent, allow access to the domains listed in the following Knowledge base article: [000186990](https://support.microsoft.com/en-us/kb/000186990)

Note: If you enable the retry count and run a task, the task stops responding when the Microsoft Dynamics 365 for Operations server is down or not reachable from the Secure Agent.

Register a native application with Azure Active Directory

Azure Active Directory is a cloud-based directory that provides identity management services. You can use Azure Active Directory to securely communicate with cloud-based applications.

To use Microsoft Dynamics 365 for Operations Connector, the organization administrator needs to register a native application with Azure Active Directory. After the organization administrator registers the native application with Azure Active Directory, you can communicate with the services of Microsoft Dynamics 365 for Operations.

To register a native application with Azure Active Directory, see <https://docs.microsoft.com/en-us/dynamics365/operations/dev-itpro/data-entities/services-home-page>.

Configure the -Dlog4j.configuration property

1. Copy the log4j.properties file from <Secure Agent installation directory>\downloads\package-MSDAX7.<version>\package\plugins\449700 directory and place it in a location in the Secure Agent machine.
2. Set the JVM option for type DTM to -Dlog4j.configuration=<log4j.propertyfile location> \log4j.properties in the system configuration details of the Secure Agent.
3. Restart the Secure Agent.

CHAPTER 2

Microsoft Dynamics 365 for Operations connections

Create a Microsoft Dynamics 365 for Operations connection to securely read data from Microsoft Dynamics 365 for Operations. You can use Microsoft Dynamics 365 for Operations connections to specify sources and lookups in mapping tasks.

Create a connection and associate it with a mapping or mapping task. Define the source properties to read data from Microsoft Dynamics 365 for Operations

You can create a Microsoft Dynamics 365 for Operations connection on the **Connections** page. The connection becomes available to the entire organization.

Microsoft Dynamics 365 for Operations connection properties

When you set up a Microsoft Dynamics 365 for Operations connection, configure the connection properties.

The following table describes the Microsoft Dynamics 365 for Operations connection properties:

Property	Description
Connection Name	Name of the connection. Each connection name must be unique within the organization. Connection names can contain alphanumeric characters, spaces, and the following special characters: _ . + -, Maximum length is 255 characters.
Description	Description of the connection. Maximum length is 4000 characters.
Type	The Microsoft Dynamics 365 for Operations connection type.
Runtime Environment	The name of the runtime environment where you want to run the tasks. Specify a Secure Agent or a Hosted Agent.

Property	Description
Authentication Type	<p>The authentication method that the connector must use to login to the web application.</p> <p>Select one of the following authentication types:</p> <ul style="list-style-type: none"> - OAuth 2.0. Requires the service URL, username, password, and application ID. - OAuth 2.0 Client Secret Grant. Requires the service URL, application ID, tenant ID, and client secret. - OAuth 2.0 Client Certificate Grant. Requires the keystore file, keystore password, key alias and key password. Not applicable.
Service URL	<p>Enter the URL of the Microsoft Dynamics 365 for Operations service in the following format:</p> <p><code>https:<server name>:<port number></code></p> <p>or</p> <p><code>http:<server name>:<port number></code></p> <p>If you don't specify the port number in the URL, the agent uses port number 443 in the query.</p>
Username	The user name to connect to Microsoft Dynamics 365 for Operations account.
Password	The password to connect to Microsoft Dynamics 365 for Operations account.
Application ID	The native application ID for Microsoft Dynamics 365 for Operations.
Tenant ID	The directory ID for Azure Active Directory.
Client Secret	The client secret for the Microsoft Dynamics 365 for Operations account.
Retry Error Codes	The comma-separated http error codes for which the retries are made.
Retry Count	<p>The number of retries to get the response from an endpoint based on the retry interval.</p> <p>Default is 0.</p>
Retry Interval	<p>The time in seconds to wait before Microsoft Dynamics 365 for Operations Connector retries for a response.</p> <p>Default is 60 seconds.</p>

CHAPTER 3

Mappings and mapping tasks with Microsoft Dynamics 365 for Operations Connector

Use the Data Integration Mapping Designer to create a mapping. When you create a mapping, you configure a source to represent a Microsoft Dynamics 365 for Operations object.

Describe the flow of data from the source to the target along with the required transformations. When you create a mapping task, select the mapping that you want to use. Use the Task wizard to create a mapping task. The mapping task processes data based on the data flow logic you define in the mapping.

Microsoft Dynamics 365 for Operations sources in mappings

In a mapping, you can configure a Source transformation to represent a Microsoft Dynamics 365 for Operations source.

The following table describes the Microsoft Dynamics 365 for Operations source properties that you can configure in a Source transformation:

Property	Description
Connection	Name of the source connection.
Source Type	Select Single Object or Parameter.
Object	Name of the source object for mapping.
Filter	Filter value in a read operation. You can add conditions to filter records and reduce the number of rows that the Secure Agent reads from the source.
Sort	Sorts records based on the conditions you specify. Click Configure to add conditions to sort records and reduce the number of rows that the Secure Agent reads from the source.

The following table describes the Microsoft Dynamics 365 for Operations advanced properties that you can configure in a Source transformation:

Property	Description
Number of rows to read	Gets the number of rows specified.
Number of rows to skip	Sets the number of rows you can skip. For example, you can set this property to 10 to begin reading from row 11.
Page Size	Size of the page set to retrieve the maximum number of entries for each page. Default is 100.
Tracing Level	Sets the amount of detail that appears in the log file. You can choose terse, normal, verbose initialization, or verbose data. Default is normal.

Microsoft Dynamics 365 for Operations lookups in mappings

You can create lookups for objects in Microsoft Dynamics 365 for Operations connection. You can retrieve data from a Microsoft Dynamics 365 for Operations lookup object based on the specified lookup condition.

When you configure a lookup in Microsoft Dynamics 365 for Operations, you select the lookup connection and lookup object. You also define the behavior when a lookup condition returns more than one match.

The following table describes the Microsoft Dynamics 365 for Operations lookup object properties that you can configure in a Lookup transformation:

Property	Description
Connection	Name of the lookup connection.
Source Type	Type of the source object. Select Single Object.
Lookup Object	Name of the lookup object for the mapping.
Multiple Matches	Behavior when the lookup condition returns multiple matches. Select Return any row, Return all rows, or Report error.
Filter	Not applicable.
Sort	Not applicable.

The following table describes the Microsoft Dynamics 365 for Operations lookup object advanced properties that you can configure in a Lookup transformation in mappings:

Advanced Property	Description
Number of rows to read	Fetches the number of rows specified. Default value is 0.
Number of rows to skip	Sets the number of rows you can skip. Default value is 0.
Page Size	Size of the page set to retrieve the maximum number of entries for each page. Default value is 100.
Tracing Level	Sets the amount of detail that appears in the log file. You can choose terse, normal, verbose initialization or verbose data. Default is normal.

APPENDIX A

Data type reference

Data Integration uses the following data types in Microsoft Dynamics 365 for Operations mappings and mapping tasks:

- Microsoft Dynamics 365 for Operations native data types appear in the source transformations when you choose to edit metadata for the fields.
- Transformation data types. Set of data types that appear in the transformations. These are internal data types based on ANSI SQL-92 generic data types, which the Secure Agent uses to move data across platforms. They appear in all transformations in a mapping.

When the Secure Agent reads source data, it converts the native data types to the comparable transformation data types before transforming the data.

Microsoft Dynamics 365 for Operations and transformation data types

The following table lists the Microsoft Dynamics 365 for Operations data types that Data Integration supports and the corresponding transformation data types:

Microsoft Dynamics 365 for Operations Data Type	Transformation Data Type
date	date/time
enum	string
guid	string
int32	integer
int64	bigInt
real	decimal
string	string
UtcDateTime	date/time

INDEX

A

- admin tasks
 - configuration property [7](#)
 - log4j.configuration [7](#)
 - register a native application [7](#)
- administration [7](#)
- azure active directory [7](#)

C

- Configuration
 - Dlog4j.configuration Property [7](#)
- connections
 - application ID [8](#)
 - connection properties [8](#)
 - overview [8](#)
 - service URL [8](#)
- connector
 - overview [6](#)

D

- data types
 - native data types [13](#)
 - overview [13](#)
 - transformation data types [13](#)

L

- log4j.properties file [7](#)
- lookup
 - multiple matches [11](#)

M

- mapping tasks
 - advanced source properties [10](#)
 - Number of rows to read [10](#)
 - Number of rows to skip [10](#)
 - overview [10](#)
 - source properties [10](#)
 - sources [10](#)
- mappings
 - advanced source properties [10](#)
 - lookup overview [11](#)
 - lookup properties [11](#)
 - Number of rows to read [10](#)
 - Number of rows to skip [10](#)
 - overview [10](#)
 - source properties [10](#)
 - sources [10](#)
- Microsoft Dynamics 365 for Operations
 - connections [8](#)
 - connector [6](#)
 - object types [6](#)
 - tasks [6](#)

R

- register a native application [7](#)

S

- set JVM option [7](#)