

Master Data Management System (MDMS)

Installation & Setup Guide

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Chapter 1 Introduction

Master Data Management System (abbrev. MDMS) is a module that ensures data consistency when replicating data between multiple Microsoft Dynamics 365 Business Central databases. For this purpose, MDMS offers functions that enable the user to set up any set of data within Dynamics 365 Business Central database and replicate it to another Dynamics 365 Business Central database.

With its features for replication, master data management and data consistency, the MDMS application supports companies that use Dynamics 365 Business Central in multiple subsidiaries.

In MDMS, target companies with databases, to which data will be replicated are set up as receivers. It is possible to set up multiple receivers

The structure of data replicated is set up as data sets.

Users can use any number of created data sets and set them up to be replicated to a particular receiver, by using the replication card. Replication can be set up as either Full or Incremental. While processing incremental replication only data changed or added within the last replication will be exported.

The module is particularly useful when a company wants to create and maintain standardized Dynamics 365 Business Central cards (e.g. items, BOMs, vendor cards) in one main company/headquarters – called “master” company, and afterwards synchronize the cards and data with its subsidiaries (“receiver” companies).

The MDMS application uses SOAP Web Services as a data transport layer.

Chapter 2 Glossary

MDMS: Master Data Management System.

Master Company: A company where all data considered global is stored.

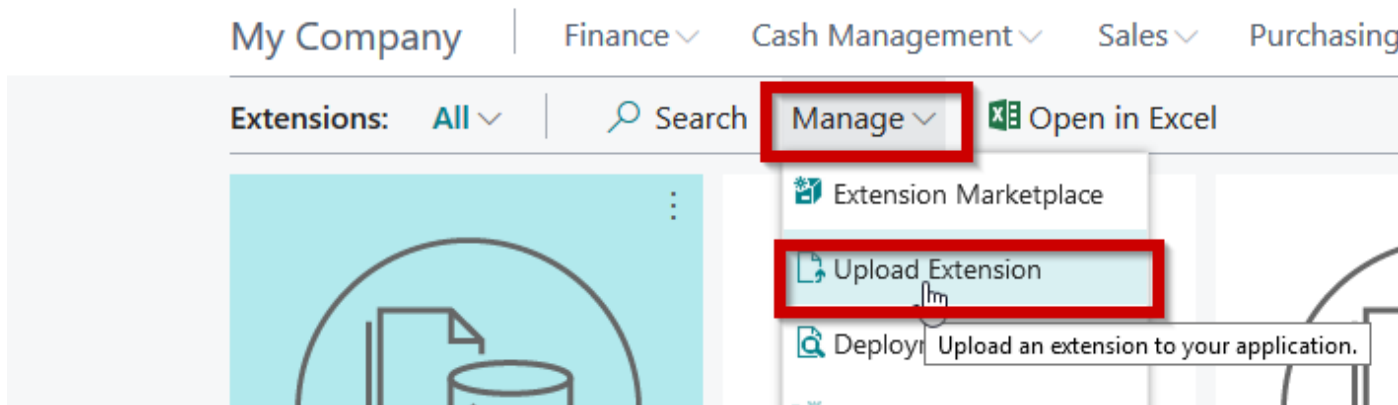
Receiver Company: A company to which data is sent.

Chapter 3 Module Objects Installation

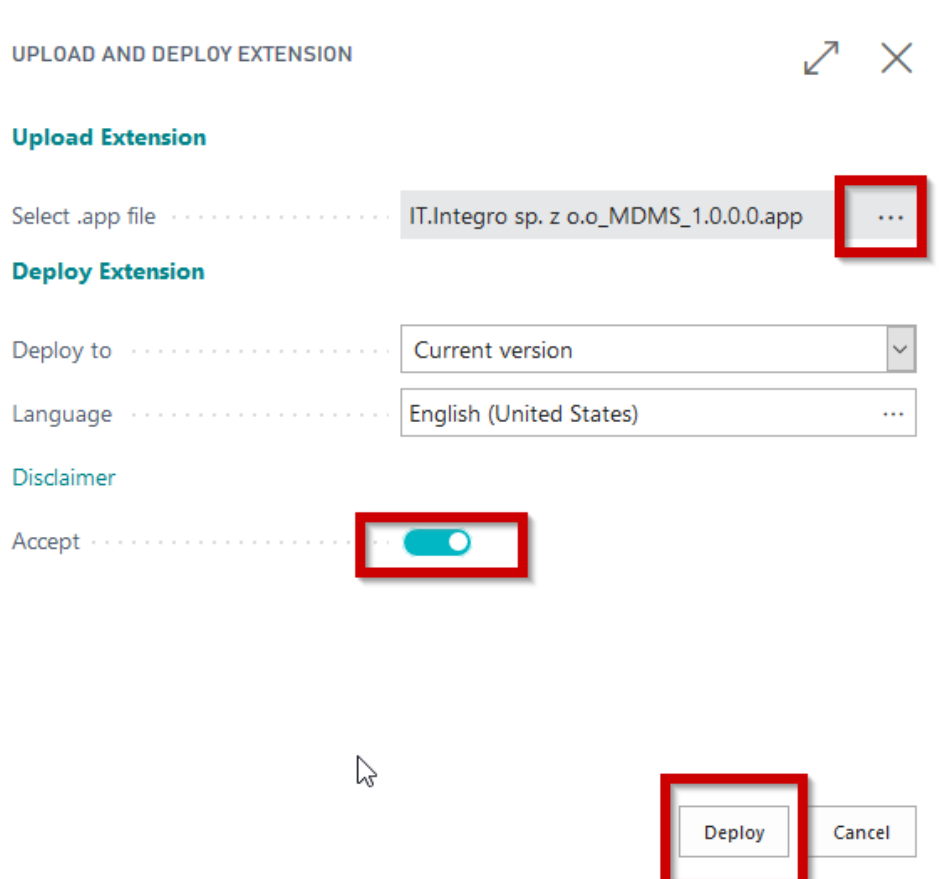
The MDMS application installation package for Dynamics 365 Business Central is available as the .app file. To install the MDMS application in Dynamics 365 Business Central database, follow the steps below:

1. Upload the file as an extension. Choose **Extensions, Manage** and **Upload Extension**:

Dynamics 365 Business Central



Select the file in the **Select** .app file field, then select the **Accept** toggle button and **Deploy**:



2. Wait until the deployment of the MDMS extension is completed

Chapter 4 Master Company Setup

NOTE: The setup elements described in this guide apply only to the setup of the basic environment. To obtain more information on how to set up data sets and replications and how to run synchronization, please refer to *MDMS User Guide*.

The following elements need to be set up for the master company:

- number series for data sets and replications.
- MDMS setup
- user permissions and user setup
- MDMS admin profile assignments
- Receivers

4.1. Number Series

It is necessary to set up two number series:

1. Data Set Nos.
2. Replication Nos.

Number series can be set up using the standard Dynamics 365 Business Central No. Series page:

NO. SERIES ✓ SAVED ↗

CODE	DESCRIPTION	STARTING NO.	ENDING NO.	LAST DATE USED	LAST NO. USED	DE... NOS.	M N
JOB-WIP	Job-WIP	WIP0000001	WIP9999999	-	-	<input checked="" type="checkbox"/>	^
LOT	Lot Numbering	LOT0001	LOT9999	-	-	<input checked="" type="checkbox"/>	
MACHCTR	Machine Centers	M00010	M99990	-	-	<input checked="" type="checkbox"/>	
MDMS-DS	MDMS Data Set	DS001	-	-	-	<input checked="" type="checkbox"/>	
MDMS-REP	MDMS Replication	REP001	-	-	-	<input checked="" type="checkbox"/>	
M-FIRMP	Firm Planned orders	101001	102999	-	-	<input checked="" type="checkbox"/>	

4.2. MDMS setup

The MDMS Setup page can be opened from: MDMS / MDMS Setup by choosing MDMS/MDMS Setup.

MDMS Setup

General

Allow Deleting Before...

Track History of Sent ...

Numbering

Data Set Nos. MDMS-DS

Replication Nos. MDMS-REP

Master Company Setup

Master Company

Legacy Log Processing ...

Block Record Rename ...

Records per Sync. Me...

The following fields should be set up in the master company:

1. Data Set Nos.

Specifies the number series to be used for numbering new dataset records.

2. Replication Nos.

Specifies the number series to be used for numbering new replication records.

3. Master Company

Specifies if the current company is a master company. This setting enables a number of functionalities, including blocking certain actions for records in the tables that are part of active data sets.

4. Block Record Rename

If this field is selected, users will not be able to rename any record in synchronized

5. Block Record Delete

If this field is selected, users will not be able to delete any record in synchronized

6. Records per Sync. Message

Specifies the number of records sent per one message. The smaller a dataset is, the larger the number is, 0 will result in a default value of 300. If any error occurs, the number should be decreased.

7. Allow Deleting Before Replication

8. Auto Synchronize

Specifies that synchronization entries are automatically synchronize after replication process.

4.3. User permission & User Setup

As part of the MDMS module, a new permission set has been created: MDMS. It contains all permissions required to set up and execute module functions.

← PERMISSION SETS

Search + New Edit List Delete Permissions User Groups Copy Permission Set...

PERMISSION SET	NAME	TYPE	EXTENSION NAME
INTELLIGENTCL...	Intelligent Cloud Busi...	Extension	Business Central Intelligent Cloud
LATE PAYMENT ...	Late payment predicti...	Extension	Late Payment Prediction
MDMS	MDMS	Extension	MDMS
MSWALLETSTA...	MSWallet Permissions	Extension	Microsoft Pay

It needs to be assigned to selected user(s).

On MDMS User Setup page (available under: MDMS / MDMS User Setup):

← MDMS USER SETUP ✓ SAVED ↗

Search + New Edit List Delete Open in Excel

USER ID	RECEIVER NO.	MDMS SUPER USER
ADMIN		<input checked="" type="checkbox"/>
		<input type="checkbox"/>

1. User ID

Specifies user ID.

2. Receiver No.

Specifies the user assigned to the receiver. This connection is necessary when replication is processed at the record level. For more information about record-level replication, see *User Guide*.

3. MDMS Super User

Specifies that the user is the master data super user. If this checkbox is selected, the user will be able to perform all activities for the records that are part of synchronized data sets. It is possible to block delete/rename actions in the master company on the MDMS Setup page. In the case of a receiver company, it depends on settings defined for a relevant replicated data set. When the system recognizes the current user as the master data super user, no restrictions will apply. For more details, refer to *User Guide*.

4.4. Receivers

Receiver is a company that will receive data sent from the master company.

For each receiver company, a Web Service needs to be published: codeunit 20020709.

It's important to enter exactly ReceiverWS (codeunit name without prefix) in the Service Name field: Copy or note down the URL from the **SOAP URL** field for the created service.

WEB SERVICES

Search + New Edit List Delete Reload Open in Excel More options

OBJECT TYPE	OBJECT ID	OBJECT NAME	SERVICE NAME	ALL TE...	PU...	ODATA V4 URL	ODATA URL
Codeunit	1801	Company Setup Service	CompanySetupService	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable	Not applicable
Codeunit	1803	Encrypted Key/Value Managem...	EncryptedKeyValue	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable	Not applicable
Codeunit	5324	Exchange Service Setup	ExchangeServiceSetup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable	Not applicable
Codeunit	20020709	ITI ReceiverWS	ReceiverWS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable	Not applicable
Codeunit	1544	Workflow Webhook Subscription	WorkflowActionResponse	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable	Not applicable

To set up a receiver, open the Receiver Card page from: MDMS / Receivers:

← ...CEIVER CARD | WORK DATE: 28.01.2021 ✎ + 🗑 ✓ SAVED ↗

DK

Show Attached | Actions Fewer options

General

No. Group Receiver

Description

Web Services

Authorization Method WebServices Username

WebServices Address WebServices Password

The following fields need to be set up:

- No.**
Specifies the number of the receiver.
- Description**
Specifies the description of the receiver.
- WebServices Address**
Specifies a Web service address. The URL address pasted into this field should end after the company name and before the word "Codeunit". For example:

<http://SERVER:7047/INSTANCE/WS/Receiver/Codeunit/ReceiverWS> should be:
<http://SERVER:7047/INSTANCE/WS/Receiver>

4. **WebServices Username** and **Webservices Password**

Specify the credentials needed to log into the remote webservices

5. **Authentication Method**

Http Authentication Method. Currently, only Basic authentication is supported.



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