

01 August 2023

TO INCREASE 

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# Industrial Equipment Manufacturing (22) for Dynamics 365 Business Central On-Prem 2023 Wave 1

Release Notes

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# Document Information

Title	Industrial Equipment Manufacturing (22) for Dynamics 365 Business Central On-Prem 2023 Wave 1
Subtitle (Subject)	Release Notes
Solution Suite	Industrial Equipment Manufacturing
Category	Release Notes
Author	Adri Cardol (TI)
Published Date	8/1/2023
Status	Final
Comments	None

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# 1. Purpose

This document describes the release of To-Increase **Industrial Equipment Manufacturing (IEM)** for Microsoft Dynamics 365 Business Central 2023 Release Wave 1.

This release replaces IEM for Microsoft Dynamics 365 Business Central 2022 Wave 2 and is based on Update 22.3 for Microsoft Dynamics 365 Business Central (on-premises) 2023 Release Wave 1 (Application Build 22.3.58453, Platform Build 22.0.58423)

# 2. Audience

This document explains the content of the delivery package to consultants of To-Increase partners.

# 3. Deliverables

Refer to <https://business-central.to-increase.com/> for all on-line documentation

## 3.1 On Premises deliverables

Besides the **W1** version the on-premises release is also available in the **NA** and **NL** localization.

- Artefact's folder containing:

IEM Artefacts	W1 version no.	NA version no.	NL version no.
IEM Application (Base)	22.3.90560.0	22.3.90569.0	22.3.90573.0
IEM Extended			
IEM Advanced			
IEM Lifecycle			
Application**			
TI-Common*	19.0.89600.0		
TI-Lifecycle Base*	19.0.89621.0		

\* As there were no platform changes in Business Central no new versions of TI-Common and TI-Lifecycle Base have been created

\* These extensions are mandatory and part of the base installation for To-Increase applications. They are also "Excluded" from the Extension Management page to limit the number of extensions shown.

\*\* This is an empty app that acts as "proxy" application to allow the installation of other apps on the IEM Base application. Refer to [ISV Instructions Application.app](#) if you need to know more about the references in the Applications app.json

The release package contains **Runtime** apps which are required when installing with a customer license. For partners also the apps as well as the source files are included in the package.

More instructions on To-Increase on-line help:

- Refer to [Installation instructions](#) to learn how to install these artefacts.
- Refer to [Checklist to create a demo database](#) with extended CRONUS data to learn how to create a demo database from the included resources.
- RapidStart packages
- Example Lifecycles and Workflows
- TIMEREGISTRATION.zip is a sample process to run the IEM time registration on BC Anywhere

## 3.2 Cloud based deliverables

IEM is also available as a set of cloud-based (universal code compliant) apps named Job Management Suite. These apps can be deployed in the cloud as well as on-premises.

[TI-Advanced Job Management](#)

[TI-Resource Management](#)

[TI-Manufacturing and Service Integration](#)

[In the To-Increase help you can find instructions on how to install it](#)

## 4. Release history for IEM

Microsoft Dynamics 365 Business Central				
	Release Date	Release history for IEM/PE		
2023 Wave 1, update 3	1-8-2023			22.3
2022 Wave 2	15-11-2022			21.0
2022 Wave 1, update 1.3	3-10-2022		20.1.3	
2022 Wave 1, update 1.2	1-09-2022		20.1.2	
2022 Wave 1, update 1.1	1-07-2022		20.1.1	
2022 Wave 1, update 1	1-06-2022		20.1	
2022 Wave 1	6-05-2022		20.0	
2021 Wave 2, update 5	1-04-2022		19.5	
2021 Wave 2, update 4	1-03-2022		19.4	
2021 Wave 2, update 3	1-02-2022		19.3	
2021 Wave 2, update 2	3-01-2022		19.2	
2021 Wave 2, update 0.1	1-12-2021		19.0.1	
2021 Wave 2	1-11-2021		19.0	
2021 Wave 1, update 5	1-10-2021		18.5	
2021 Wave 1, update 3.1	1-09-2021		18.3.1	
2021 Wave 1, update 3	2-08-2021		18.3	
2021 Wave 1, update 2	1-07-2021		18.2	
2020 Wave 2, update 5.2	1-06-2021		17.5.2	
2020 Wave 2, update 5	1-04-2021		17.5	
2020 Wave 2, update 4	1-03-2021		17.4	
2020 Wave 2, update 3	1-02-2021		17.3	
2020 Wave 2, update 2	7-01-2021		17.2	
2020 Wave 2	16-11-2020		17.0	
2020 Wave 1, update 5	2-10-2020		16.5	
2020 Wave 1, update 4	31-8-2020		16.4	
2020 Wave 1, update 3	22-7-2020		16.3	
2019 Wave 2, update 3	24-2-2020	15.3		

*Each release replaces the previous*

Refer to this page for the [To-Increase Release policy](#) for Microsoft Dynamics Business Central

## 5. Granule List

To-Increase **Industrial Equipment Manufacturing (IEM)** for Microsoft Dynamics 365 Business Central 2020 Release Wave 2 (v17) consists of the granules listed below. These granules must be listed in the **Microsoft Dynamics 365 Business Central on premises - and Microsoft Dynamics 365 Business Central on premises subscription** licenses.

Product	Granule	Name	Release	Update
Common				
N108	11.068.690	TI-Common	2023 Wave 1	22.3
	11.068.810	TIC-Lifecycle Management		

AJM		Advanced Job Management		
N050	11.014.510	Foundation	2023 Wave 1	22.3
N050	11.014.520	Resource Planning		
N050	11.014.530	Engineering		
N050	11.014.540	Stage Payments		
N050	11.014.590	Change Orders		
N050	11.014.600	Quotes and Quote Versions		
RM		Resource Management		
N018	11.027.560	Time Registration	2023 Wave 1	22.3
N134	11.027.800	Leave Management		
N135	11.027.830	Task Repository		
N136	11.027.840	Expense Claims		
MFG		Manufacturing Integration		
N011	11.027.520	Planning Advanced	2023 Wave 1	22.3
N012	11.027.010	Planning Information		
N027	11.027.010	Dimensions Production BOM		
N032	11.027.010	Subcontracting		
N095	11.027.010	Registration Manufacturing Output		
N096	11.027.040	Production Lot-size calculation		
N110	11.027.050	Resource Integration Manufacturing		
SER		Service Integration		
N071	11.014.550	Maintenance Plans and Plant Maintenance Job Management Integration	2023 Wave 1	22.3

In on-premises deployments licensing is based on granules while cloud-based (SAAS) deployments make functionality available through application areas. To be able to maintain one codebase for on-premises - as well as SAAS deployments the Product Registration from previous versions has been disabled meaning all products are registered which implies that all IEM granules must be in the customer license in an on-premises deployment.

In Extension Management the SAAS deployment is visible although for on-premises still the “old” granules control the enabled functionality.

In a cloud-based (SAAS) deployment the IEM Extended and – Advanced apps are used to enable the application areas as per the following table:

Business Central	IEM Extension	Application Area	Comments
Essentials	IEM Application	IEMBasic	Advanced Job Management
	IEM Extended	IEMRM	Resource Management
Premium	IEM Advanced	IEMMFG	Manufacturing and Service integration

## 6. Testing

As part of the automated build process in Microsoft Azure DevOps the IEM apps are automatically tested.

## 7. New Features Summary

IEM22.0 for Microsoft Dynamics 365 Business Central Release 2023 Wave 1 is a **major release**, no new features were introduced.

## 8. Fixes / Small improvements Summary

For the Microsoft updates please check the previous what’s new page

ID	Title	Support Case
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	IEM has been aligned with the Microsoft Warehouse Integration for Jobs	

## 9. Upgrading and updating

This page explains about: [Upgrading to Dynamics 365 Business Central 2022 Release Wave 2](#)

When upgrading from previous (<BC14) versions of IEM please contact To-Increase for the relevant upgrade kits to BC14 (Dynamics 365 Business Central Spring 2019)

When upgrading to IEM 20 (Business Central release 2022, wave 1) the IEM warehouse integration fields will be migrated to the fields Microsoft has introduced for this feature. This update process, from IEM update 19.5, will run automatically.

## 10. Known Issues

### 10.1 Client Call Back error

To prevent the "Client Call Back" error make the following adjustment in the "C:\Program Files\Microsoft Dynamics 365 Business Central\190\Service\CustomSettings.config" file:

```

192 <add key="EnableProfileCacheSynchronization" value="false" />
193 <add key="AllowSessionCallSuspendWhenWriteTransactionStarted" value="True" />
194 <add key="ODataServicesV3EndpointEnabled" value="False" />
195 </appSettings>

```

Set the highlighted key "AllowSessionCallSuspendWhenWriteTransactionStarted" from False to True and re-start the BC services.

### 10.2 Installing other ISV apps

Industrial Equipment Manufacturing (IEM) is delivered as an **embed app** replacing the Microsoft Base app. To accommodate these type of apps Microsoft includes the **Application app** in their delivery set which functions as a **Proxy** to avoid redefining the dependencies for each installation.

For more information refer to this [page on the To-Increase Business Central documentation](#)

Also refer to Microsoft doc: [The Microsoft Application.app File](#)

### 10.3 Adding Netronic Visual Job (and Production) Scheduler

To allow saving modifications to resource planning in an IEM database, due to re-scheduling or added resources to a Job Task, you need to make an adjustment in the "C:\Program Files\Microsoft Dynamics 365 Business Central\190\Service\CustomSettings.config" file: (see also 10.1):

```

123 <add key="ClientServicesKeepAliveInterval" value="00:02:00" />
124 <add key="UseSimplifiedFilters" value="False" />
125 <add key="DisableWriteInsideTryFunctions" value="False" />
126 <add key="ExtendedSecurityTokenLifetime" value="0" />

```

Set the highlighted key **DisableWriteInsideTryFunctions** from True to False and re-start the BC services.