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TO INCREASE 

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Industrial Equipment Manufacturing (20) for Dynamics 365 Business Central On-Prem 2022 Wave 1, Update 1.2

Release Notes

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1. Purpose

This document describes the release of To-Increase **Industrial Equipment Manufacturing (IEM)** for Microsoft Dynamics 365 Business Central 2022 Release Wave 1, update 1.2.

This release replaces IEM for Microsoft Dynamics 365 Business Central 2022 Wave 1 update 1 and is based on Update 20.1 for Microsoft Dynamics 365 Business Central (on-premises) 2022 Release Wave 1 (Application Build 20.1.39901, Platform Build 20.0.39849).

Due to the vacation season it was decided to skip the Microsoft update 4 and only release a W1 hotfix update.

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)	20.1.77325.0	20.1.73244.0	20.1.73246.0
IEM Extended			
IEM Advanced			
IEM Lifecycle			
Application**			
TI-Common*	19.0.70480.0		
TI-Lifecycle Base*	19.0.70518.0		

* 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.

** 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

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

The cloud-based apps (SAAS) are only available in the NA localization and are made available through the Business Central Admin Center.

It is recommended to first update the Sandbox environment (use the [Install Update](#) action) and test the update before updating your Production environment.

4. Release history for IEM

Microsoft Dynamics 365 Business Central	Release Date	Release history for IEM/PE		
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

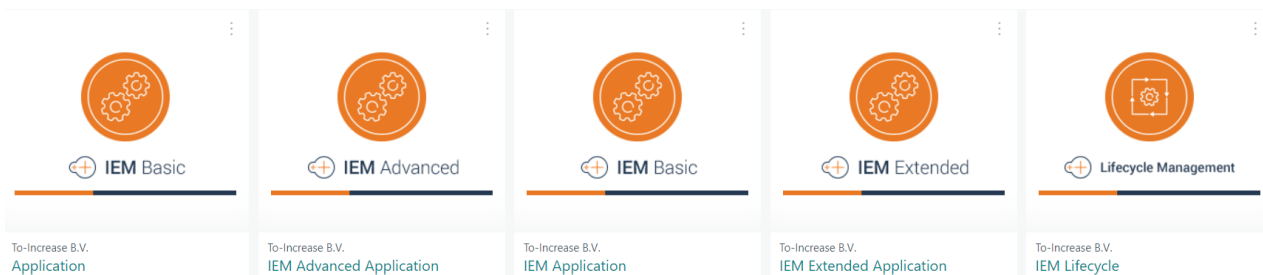
To-Increase **Industrial Equipment Manufacturing (IEM)** for Microsoft Dynamics 365 Business Central 2020 Release Wave 2 (v17) consists of the granules listed below. These granules must be listed in the **Microsoft Dynamics 365 Business Central on premises - and Microsoft Dynamics 365 Business Central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

Product	Granule	Name	Release	Update
Common				
N108	11.068.690	TI-Common	2022 Wave 1	20.1
	11.068.810	TIC-Lifecycle Management		
AJM	Advanced Job Management			
N050	11.014.510	Foundation	2022 Wave 1	20.1
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	2022 Wave 1	20.1
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	2022 Wave 1	20.1
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	2022 Wave 1	20.1

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.



TI-Common and TI-Lifecycle Base are no longer “Excluded” and are, as of release 20.1, visible also in Extension Management



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	IEMPlanning	AJM planning functions
		IEMTransport	Transport and deliveries
		IEMAssembly	Assembly orders
		IEMVisual	Visual planning, (currently not available)
		IEMTasks	Resource Mgt tasks
		IEMTime	Resource Mgt timecards
		IEMExpense	Resource Mgt expense claims

		IEMLeave	Resource Mgt leave mgt
Premium	IEM Advanced	IEMManufacturing	Manufacturing integration
		IEMService	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

IEM20.0 for Microsoft Dynamics 365 Business Central 20.0 is a **major release**. This release introduces the following modifications to align with the Microsoft standard:

1. [Allow the sell-to and bill-to customers to be different for jobs](#)

Sell-to customer is added to the IEM Job Cards and the Create Job wizard has been modified accordingly.

Additionally, the Your Reference, External Document No., Payment Terms Code, and Payment Method Code fields are added to jobs and will be respected when you create invoices. When required, the Payment Method Code and Payment Terms Code fields can be added to the IEM Job Cards. These fields have no relation to the IEM Invoicing Method field

2. [Set default dimensions on locations](#)

Default dimensions on locations will be added to the Job – and Job Task dimension sets.

3. [Support inventory pick and warehouse pick operations for jobs](#)

Warehouse integration in Feature Management has been **blocked**. The IEM warehouse integration is more detailed as it is based on the Job Task, instead of the Job, and besides that supports warehouse shipments for planning lines with the application type Delivery. IEM warehouse integration also support a Consume to Job bin on the Location card to align with production and assembly consumption. Finally, IEM Warehouse integration also allows for a directed put-away and pick warehouse.

8. Fixes / Small improvements Summary

For the Microsoft updates please check [Microsoft docs](#)

ID	Title	Support Case
151709	Corrected Job currency errors, divide by 0 and wrong conversion	CS00222152
151749	Missing fields job specific on IEM item template	CS00222153

9. Upgrading and updating

This page explains about: [Upgrading to Dynamics 365 Business Central 2022 Release Wave 1](#)

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.

When upgrading to version **20.1** you must first uninstall and unpublish the apps with the old names:

```
$apps = "_Exclude_TI-Common,IEM Application,Application,_Exclude_TI-Lifecycle Base,IEM Lifecycle,IEM Extended Application,IEM Advanced Application"
```

Next modify the PowerShell script to the new names and sequence for the apps:

```
$apps = "IEM Application,Application,TI-Common,IEM Extended Application,IEM Advanced Application,TI-Lifecycle Base,IEM Lifecycle"
```

Note that TI-Common has now a dependency on the IEM Application and no longer on the System app

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\200\Service\CustomSettings.config" file:

```
<add key="EnableProfileCacheSynchronization" value="false" />
<add key="AllowSessionCallSuspendWhenWriteTransactionStarted" value="True" />
<add key="CompileBusinessApplicationAtStartup" value="False" />
```

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\200\Service\CustomSettings.config" file: (see also 10.1):

```
<add key="UseSimplifiedFilters" value="False" />
<add key="DisableWriteInsideTryFunctions" value="False" />
<add key="ExtendedSecurityTokenLifetime" value="0" />
```

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

10.4 You cannot enable inventory and warehouse picks from Jobs

This Feature Update is planned for Update 22 (Q2 2023) however it conflicts with the IEM warehouse integration and for that reason an error will be shown when trying to enable it in Feature Management. Also note the upgrade instructions in chapter 9.