



**Currency Exchange Rate Service –  
Hungarian National Bank**

Business Central Hungarian Localization

HRP Europe Kft.



# Content

<b>Content</b> .....	2
<b>1 Exchange rate service</b> .....	2
<b>2 Settings</b> .....	3
2.1 Currency Exchange Rate Service set up .....	3
2.2 Job Queue - Set Up Entries .....	5
<b>3 Using Currency Exchange Rate Service</b> .....	8
3.1 Start exchange rate service .....	8
3.2 More features .....	9

## 1 Exchange rate service

This document provides detailed insight into the functionality of Currency Exchange Rate Services in the Microsoft Dynamics 365 Business Central Hungarian Localization Package.

Currency Exchange Rate Service localization provides opportunity to companies automatically download and use daily exchange rates published by the MNB in their foreign exchange transactions.

## 2 Settings

To ensure the correct functioning and integration of the Currency Exchange Rate Service, user must set up the Currency Exchange Rate Services.

### 2.1 To Set up a Currency Exchange Rate Service

The following steps to set up the Currency Exchange Rate Services:

1. Click in the search box and type: **Currency Exchange Rate Services**
2. After the menu item appears, click on the feature
3. Press **New** button to create a new **Currency Exchange Rate Service** card
4. Enter the **Currency Exchange Rate Service Code** and **Description**, for example: MNB and MNB Exchange Rate Service
5. In the **Service URL** box, type <http://www.mnb.hu/arfolyamok.asmx>
6. Activates the **Log Web Requests** field to audit any errors
7. Activate **Hungarian MNB Service** field

CURRENCY EXCH. RATE SERVICE

MNB · MNB Exchange Rate Service

Preview Job Queue Entry More options

**General**

Code ..... MNB Enabled .....

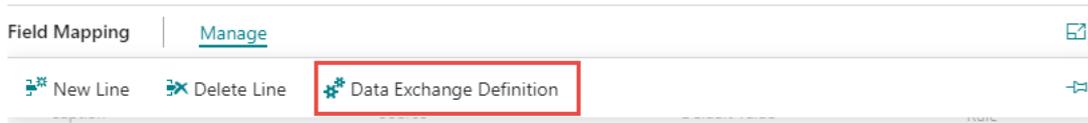
Description ..... MNB Exchange Rate Service ShowEnableWarning .....

**Service**

Service URL ..... <http://www.mnb.hu/arfolyamok.asmx> Terms of Service .....

Service Provider .....  Log Web Requests .....  Hungarian MNB Service .....

8. On the **Field Mapping** FastTab, click the **Manage** tab, and then click **Data Exchange Definition** item



- On the **Data Exchange Definition** tab, set the **42020087 - HUNLOC MNB Read/Write Mgt** codeunit in the **Reading/Writing Codeunit** section

EDIT - DATA EXCHANGE DEFINITION - CURRENCY0001

**General**

Code	CURRENCY0001	FILE TYPE: VARIABLE/FIXED
Name	MNB	File Encoding: WINDOWS
File Type	Xml	Column Separator: Comma
Type	Generic Import	Custom Column Separator
Data Handling Codeunit	0	TYPE: IMPORT
Validation Codeunit	0	Header Lines: 0
<b>Reading/Writing Codeunit</b>	<b>42020087</b>	Header Tag
Reading/Writing XMLport	0	Footer Tag
Ext. Data Handling Codeunit	0	
User Feedback Codeunit	0	

- On the **Line Definitions** FastTab, in the row with **CURREXCHANGE**, enter **THE MNBExchangeRates** in the **Data Line Tag** column.

Line Definitions | Manage

Line Type	Code	Name	Column Count	Data Line Tag	Namespace	Parent Code
→ Detail	CURREXCHANGE	Parent Node for Currency Code	0	MNBExchangeRates		

- On the **Column Definitions** FastTab set data in **Name**, **Data Type** and **Path** column as on the next screenshot:

Column Definitions | Manage

Column No.	Name	Data Type	Data Format	Data Formatting Culture	Length	Description	Path	Negative Sign Identifier	Constant	Text Pad. Req.	Pad Character	Just
10000	Currency	Text			0		Currency					Rigl
20000	Date	Date			0		Date					Rigl
30000	Exchange Rate	Decimal			0		Exchange Rate					Rigl
40000	Unit	Text			0		Unit					Rigl

- On the **Line Definitions** FastTab, click the **Manage** tab, and then click **Field Mapping**

Line Definitions | Manage

New Line Delete Line **Field Mapping**

Line Type	Code	Name	Column Count	Data Line Tag	Namespace	Parent Code
→ Detail	CURREXCHANGE	Parent Node for Currency Code	0	MNBExchangeRates		

- On the **Field Mapping** page set the **Table ID** field to **330**

14. Enter the value of the **Mapping Codeunit**, which is **1280 - Map Currency Exchange Rate**

15. On the **Exchange Rate** line, in the **Transformation Rule** column, set the following value:  
**DK\_DECIMAL\_FORMAT** to make the exchange rate appear in the correct format

FIELD MAPPING ✓ SAVED

CURRENCY0001 · CURREXCHANGE · 330

---

**General**

Table ID ..... 330      Pre-Mapping Codeunit ..... 0

Use as Intermediate Table .....       **Mapping Codeunit ..... 1280**

Name ..... Mapping for Currency Exchange      Post-Mapping Codeunit ..... 0

---

Field Mapping | Manage ✎

Column No. ↑	Column Caption	Field ID ↑	Field Caption	Optional	Transformation Rule	Overwrite Value
10000	Currency	1	Currency Code	<input type="checkbox"/>		<input type="checkbox"/>
20000	Date	2	Starting Date	<input type="checkbox"/>		<input type="checkbox"/>
30000	Exchange Rate	6	Relational Exch. Rate Amount	<input type="checkbox"/>	DK_DECIMAL_FORMAT	<input type="checkbox"/>
40000	Unit	3	Exchange Rate Amount	<input type="checkbox"/>		<input type="checkbox"/>

16. On the created **Currency Exchange Rate Service** card, on the **Field Mapping** FastTab, fields are filled automatically based on the settings above:

Field Mapping | Manage ✎

Caption	Source	Default Value	Transformation Rule
→ <b>Parent Node for Currency Code</b>	MNBExchangeRates		
Currency Code	Currency		
Starting Date	Date		
Exchange Rate Amount	Unit		
Relational Exch. Rate Amount	Exchange Rate		

17. Activate the Currency Exchange Rate Service that you created, click to **Enabled**.

CURRENCY EXCH. RATE SERVICE | WORK DATE: 2020. 03. 17. ✓ SAVED

MNB · MNB Exchange Rate Service

Preview | Job Queue Entry | More options

---

**General**

Code ..... MNB      **Enabled .....**

Description ..... MNB Exchange Rate Service      ShowEnableWarning ..... You must disable the service before you can make changes.

## 2.2 Job Queue - Set Up Entries

The user can use **Job Queue Entry** function to set the constant, recurring operation of the **Currency Exchange Rate Service**.

The following steps to set up the Job Queue Entry:

1. Click in the search box and type: **Currency Exchange Rate Service**
2. After the menu item appears, click on the feature
3. Select the Currency Exchange Rate Service that you want to use

#### 4. Click **Job Queue Entry** item on the ribbon

CURRENCY EXCH. RATE SERVICE | WORK DATE: 2020. 03. 17.

### MNB · MNB Exchange Rate Service

Preview Job Queue Entry More options

---

**General**

User must **Set On Hold** the **Job Queue Entry** card to edit. After that step user can modify the card.

JOB QUEUE ENTRY CARD | WORK DATE: 2020. 03. 17. ✎ + 🗑 ✓ SAVED 📄 ↻

Codeunit · 1281 · Update Currency Exchange Rates

✖ To edit the job queue entry, you must first choose the Set On Hold action. Set On Hold

Process Report Actions Navigate Fewer options

---

**General** Show less

Object Type to Run ..... Codeunit User ID ..... BUD46-DEV1\BERTALAN.KOCSIS

Before a user set up and customize recurring operation of the Job Queue Entry for the Currency Exchange Rate Service. User must set up the **Object to run**:

1. Set **Codeunit** type to **Object Type to Run**
2. Set **1281 – Update Currency Exchange Rate** object to **Object ID to Run**
3. The name of the **Object Caption to Run** is automatically filled in

JOB QUEUE ENTRY CARD | WORK DATE: 2020. 03. 17. ✎ +

### Codeunit · 1281 · Update Currency Exchange Rates

Process Report Actions Navigate Fewer options

#### General

Object Type to Run .....	Codeunit
Object ID to Run .....	1281 ...
Object Caption to Run .....	Update Currency Exchange Rates
Description .....	
Parameter String .....	
Job Queue Category Code .....	

### Additional optional settings:

**Maximum No. of Attempts to Run.:** If the **Job Queue Entry** card ran into an error, this value shows how many

times try to run it again.

**Last Ready State:** Displays the time when a user set the status of the **Job Queue Entry** to **Ready**.

**Earliest Start Date/Time:** User can set the next start time of the **Job Queue Entry**. The value changes depending on what a user sets on the **Recurrence** FastTab, but it can manually overwrite.

**Expiration date/date:** User can set the **Job Queue Entry** expiration date.

**Recurring Job:** User cannot change its value. If on the **Recurrence** FastTab is set a repeat e.g. **Run on Mondays** field and the **Starting Time** is selected that field will be checked automatically.

**Run on Mondays/Tuesdays.../Sundays:** You can set by activating a field to run the **Job Queue Entry** these days.

**Next Run Date Formula:** You can specify the **Job Queue Entry** run date with a formula e.g. 2D → That means the exchange rate service is queried every two days. To define the formula, you can use abbreviations for date used in BC.

**Starting time:** You can specify the earliest time the **Job Queue Entry** runs on days.

**Ending time:** You can specify the latest time the **Job Queue Entry** runs on days.

**No. of Minutes between Runs:** You can specify how many minutes to run between the Starting and Ending times the **Job Queue Entry**.

**Inactivity timeout period:** If the **Job Queue Entry** status is **On Hold**, that field specifies how many minutes to restart and change the status to **Ready**.

JOB QUEUE ENTRY CARD | WORK DATE: 2020. 03. 17. ✓ SAVED

Codeunit · 1281 · Update Currency Exchange Rates

Process Report | Actions Navigate Fewer options

---

**General** Show less

Object Type to Run	Codeunit	User ID	BUD46-DEV1\BERTALAN.KOCSIS
Object ID to Run	1281	Maximum No. of Attempts to Run	3
Object Caption to Run	Update Currency Exchange Rates	Last Ready State	2020. 03. 18. 11:08
Description		Earliest Start Date/Time	2020. 03. 19. 10:57
Parameter String		Expiration Date/Time	
Job Queue Category Code		Status	On Hold

---

**Recurrence**

Recurring Job	<input type="checkbox"/>	Next Run Date Formula	
Run on Mondays	<input checked="" type="checkbox"/>	Starting Time	8:00:00
Run on Tuesdays	<input checked="" type="checkbox"/>	Ending Time	
Run on Wednesdays	<input checked="" type="checkbox"/>	No. of Minutes between Runs	1440
Run on Thursdays	<input checked="" type="checkbox"/>	Inactivity Timeout Period	0
Run on Fridays	<input checked="" type="checkbox"/>		
Run on Saturdays	<input checked="" type="checkbox"/>		
Run on Sundays	<input checked="" type="checkbox"/>		

**User ID:** This field shows us who was the last user to edit the Values on the **Job Queue Entry** card. After a user

set the **Job Queue Entry**, the ID of the user is displayed.

**Status:** This field displays the status of the **Job Queue Entry**

- **Ready:** **Job Queue Entry** has been set up and is currently running.
- **Error:** An error occurred while running the **Job Queue Entry**.
- **On Hold:** **Job Queue Entry** is not running now.

## 3 Using Currency Exchange Rate Service

### 3.1 Start exchange rate service

After settings have been set up and user set up the **Job Queue Entry** run time, you can start run the **Currency Exchange Rate Service**.

1. Click in the search box and type: **Currency Exchange Rate Services**
2. After the menu item appears, click on the feature
3. Select the exchange rate service that you want to use
4. Activate **Enabled**
5. Click **Job Queue Entry** item on the ribbon
6. Click the **Actions** tab and Job Queue item and set → **Set Tatus to Ready**

The Currency Exchange Rate Service will run.

JOB QUEUE ENTRY CARD | WORK DATE: 2020. 03. 17.   

Codeunit · 1281 · Update Currency Exchange Rates

Process Report **Actions** Navigate Fewer options

 Job Queue ▾	Codeunit	User ID
 Set Status to Ready	1281 ...	Maximum No. of Attempts to
 Set On Hold	Update Currency Exchange Rates	Last Ready State
 Show Error		Earliest Start Date/Time
 Restart		Expiration Date/Time
Parameter String		Status
Job Queue Category Code		

## 3.2 More features

### Job queue journal entries

If the **Job Queue Entry** is set up for the Currency Exchange Rate Service, a **Job Queue Log Entry** is created. You can view this by:

1. Click in the search box and type: **Job Queue Log Entries**
2. After the menu item appears, click on the feature

JOB QUEUE LOG ENTRIES

Status	User ID	Description	Object Type to Run	Object ID to Run	Object Caption to Run	Parameter String	Start Date/Time	Duration	Error Message
Success	BUD46-DEV1\BERTALAN.KOCSIS		Codeunit	1281	Update Currency Exchange Rates		2020. 03. 18. 10:57	1 second 900 ...	-

### Preview

**Preview** allows the user to view the latest exchange rates.

1. Click in the search box and type: **Currency Exchange Rate Services**
2. After the menu item appears, click on the feature
3. Select a **Currency Exchange Rate Service** that you want to use
4. Click **Preview** on the ribbon

CURRENCY EXCH. RATE SERVICE

MNB · MNB Exchange Rate Service

Preview Job Queue Entry Actions Fewer options

**General**

Code	MNB	Enabled	<input checked="" type="checkbox"/>
Description	MNB Exchange Rate Service	ShowEnableWarning	<input type="checkbox"/>

**Service**

Service URL	http://www.mnb.hu/arfolyamok.asmx	Terms of Service	<input type="checkbox"/>
		Log Web Requests	<input checked="" type="checkbox"/>
		Hungarian MNB Service	<input checked="" type="checkbox"/>
Service Provider			

5. User can view latest exchange rates

CURRENCY EXCHANGE RATES

✓ SAVED

Starting Date ↑	Currency Code ↑	Relational Currency Code	Exchange Rate Amount	VAT Exchange Rate	Relational Exch. Rate Amount	Adjustment Exch. Rate Amount	Re Adj Ri
2020. 03. 18.	AUD		1,0	189,69	189,69	1,0	
2020. 03. 18.	BGN		1,0	179,03	179,03	1,0	
2020. 03. 18.	BRL		1,0	63,55	63,55	1,0	
2020. 03. 18.	CAD		1,0	222,62	222,62	1,0	
2020. 03. 18.	CHF		1,0	331,96	331,96	1,0	
2020. 03. 18.	CZK		1,0	12,89	12,89	1,0	
2020. 03. 18.	DKK		1,0	46,86	46,86	1,0	
2020. 03. 18.	EUR		1,0	350,17	350,17	1,0	

## Show error and restart

If an error occurs when running the **Job Queue Entry** and thus you cannot download exchange rates via the MNB webservice, you can display the whole error message by using **Show Error** function.

1. Click in the search box and type: **Currency Exchange Rate Services**
2. After the menu item appears, click on the feature.
3. Select a **Currency Exchange Rate Service** that you want to use
4. Click **Job Queue Entry** item on the ribbon
5. Click the **Actions** tab after **Job Queue** item and **Show Error**

JOB QUEUE ENTRY CARD

### Codeunit · 1281 · Update Currency Exchange Rates

✕ To edit the job queue entry, you must first choose the Set On Hold action. [Set On Hold](#)

---

Process | Report | **Actions** | Navigate | Fewer options

- Job Queue** ▾
- Set Status to Ready
- Set On Hold
- Show Error**
- Restart

Description .....

Parameter String .....

**Restart** allows to the user to restart the **Job Queue Entry**

1. Click the **Actions** tab after **Job Queue** item and **Restart**