# **Reference Data Management 2204**

## for SAP Master Data Governance

## **Object Documentation**

**Exchange Rates** 





## Content

1	Int	troduct	ion	3
	1.1	Exch	ange Rates in General	3
	1.2	Exch	ange Rates in Itego RDM	4
	1.2	2.1	General Functionality	4
		1.2.1.1	Mass Processing (Upload)	4
		1.2.1.2	Change & Create Requests	5
		1.2.1.3	Datafeed	5
		1.2.1.4	Distribution to Other Systems	5
	1.2	2.2	Relevant Tables	6
	1.2	2.3	Available Attributes in MDG RDM	7
	1.2	2.4	Available Change Request Types	8
2	M	aintena	nce via Datafeed	9
	2.1	The	Datafeed Process	9
	2.2	Impo	orting Exchange Rates	10
	2.3	Proc	essing the Imported Data	14
	2.4	Аррі	oving and Editing the Change Requests	20
	2.4	4.1	Issue-Free Request	21
	2.4	4.2	Issue-Request	23
	2.5	Crea	ting a Job (Batch Report)	25
	2.6	Addi	tional Infos	35
	2.6	6.1	Import Types	35
		2.6.1.1	Variant 1	35
		2.6.1.2	Variant 2	35
	2.6	6.2	Validation	35
3	M	anual N	laintenance	37
	3.1	Crea	ting an Exchange Rate	38
	3.2	Editi	ng an Exchange Rate	42
	3.3	File (	Jpload for Exchange Rates	46
	3.4	File I	Download for Exchange Rates	52



## **1** Introduction

## 1.1 Exchange Rates in General

The general concept of exchange rates is fairly easy to grasp. An exchange rate simply determines, how many units of a currency you can buy with a given amount of another currency. If, for example, the exchange rate between EUR and USD is currently 1,09 then 1.00 EUR can buy you 1.09 USD.



This example, however, may be a bit oversimplified, as in the real world we have to deal with several ways of specifying exchange rates. The most important ones are:

**Quotation:** There are two different quotations for exchange rates. In a direct quotation, the domestic currency forms the base, meaning that the value of the foreign currency is defined in units of the domestic currency. As a European citizen, the direct exchange rate for EUR/USD would be e.g. 0.91. In an indirect quotation, this definition is swapped, and the value of the domestic currency is defined in units of the foreign currency. In the same example, the exchange rate for EUR/USD is now 1.09. Note that direct and indirect rates can be easily converted by calculating  $\frac{1}{\text{rate}}$ . This comes in handy later on.

**Bid & Ask:** There are two different values for each exchange rate. The example-currency pair (in this case indirect) is often quoted like this: EUR/USD 1.090-1.094. In this case, the former price represents the Bid price. It is the price at which other instances are willing to buy the currency. The latter price, however, represents the Ask price. It is the price at which other instances are willing to sell the currency.

#### Other important types:

- Real Exchange Rate (RER): considers the purchasing power of a currency
- Fixed or Floating Rate: determines if the exchange rate is fixed or flexible
- Currency Peg: indicator if one currency is pegged to another

Basically, every exchange rate system nowadays is floating, meaning the rates are subject to change. This makes exchange rates a unique kind of Reference Data, as Reference Data is (usually) alternated rarely. Therefore, anyone who is in demand of accurate exchange rates will need to update them on a regular (daily) basis. This is, where providers such as the ECB, Thomson Reuters, Bloomberg, Telerate or the SAP itself come into play. These instances publish updates for exchange rates frequently.



## 1.2 Exchange Rates in Itego RDM

## 1.2.1 General Functionality

The following image gives an overview over the four main functionalities of the Exchange Rates object.

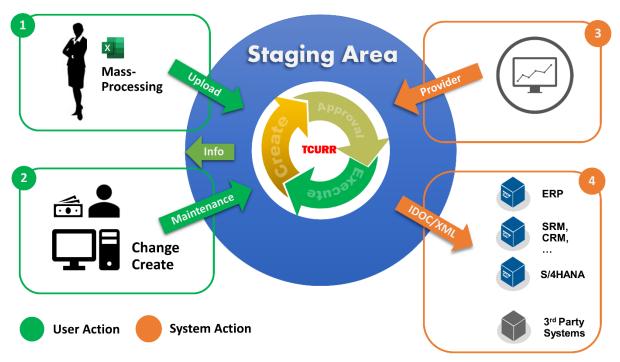


Figure 2: Functional Overview Itego RDM – Exchange Rates

Itego RDM provides four main functionalities, which all allow for maintenance, import or export of Exchange Rates within the MDG RDM tables (view section 1.2.2). The data, which is main-tained through these functionalities, always passes through the Local Staging Area (LSA), and is activated according to the workflow, that is determined for each Rate (workflow explained in section 1.2.4).

An overview of the four functionalities is provided with the following headings.

## 1.2.1.1 Mass Processing (Upload)

Mass processing allows the user to create or change multiple Exchange Rates at once. In this case, the data is transferred via either a .txt or a .csv file. The upload application can be configured according to the file structure the file uses. Mass processing comes in handy when attempting to load big amounts of data into the system at once, e.g. for the initial load when configuring RDM. Application explained in section 3.3.



### 1.2.1.2 Change & Create Requests

Change and create requests within MDG RDM are used frequently. MDG RDM allows for a consistent management for all relevant tables, that are used to maintain Exchange Rates. Application explained in sections 3.1 (create) and 3.2 (change).

#### 1.2.1.3 Datafeed

Datafeed refers to the process of importing Exchange Rates from external sources, such as the ECB via the Datafeed interface. Itego RDM provides a special report that works with every data provider for Exchange Rates. The report validates the imported Exchange Rates and creates one or two change requests, depending on your choices of the import type (view section 2.6.1). Application explained in section 2.

### 1.2.1.4 Distribution to Other Systems

MDG RDM also allows for an export/distribution of Exchange Rates to other systems, SAP or non-SAP. Within SAP systems (especially ERP), this distribution works via so-called "intermediate documents" (IDocs). Data, which is transferred to third party systems, is usually exported as a .csv or .txt file, following a preconfigured file structure.



## 1.2.2 Relevant Tables

The following image names all the relevant tables for maintaining exchange rates and shows the relationships between them. An explanation of each table is listed below.

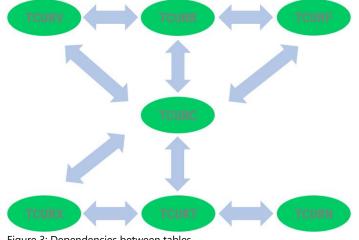


Figure 3: Dependencies between tables

**TCURV** - Exchange rate types for currency translation: The exchange rate type is used to store exchange rates for different purposes on the same date in the system. (e.g. bid, ask, average rate)

**TCURR** – Exchange rates: The exchange rate relations for the currency conversion are only displayed here (ASK=ask, BID=bid, MID=average rate)

**TCURF** – Ratio for exchange Rate: The exchange rate relation for currency conversion is defined per exchange rate type and per currency pair. You can define a different exchange rate type for special currency pairs

TCURC - Currency Codes: You need entries in the currency table for all currencies that occur in your business transactions

TCURX – Decimal places of the currencies: Currencies can have a different number of decimal places

**TCURT** – Descriptions of Currency Codes: Long -and short text which describes the Currency Code closer

**TCURN** – Quotations: For each currency pair, the exchange rate is set in direct quotation or indirect quotation. The indirect quotation indicates the exchange rate how many foreign currency units correspond to one domestic currency unit (euro). In the so-called direct quotation, however, the exchange rate indicates how much a foreign currency unit is worth in €.



## 1.2.3 Available Attributes in MDG RDM

Itego RDM includes the following attributes to properly maintain Exchange Rates:

Attribute	Description		
Exchange Rate (Type)	Exchange Rate (Type)		
Currency (from)	Currency value from		
Currency (to)	Currency value to		
Valid from	Valid from		
Alt. exch.rate type	Alternative Exchange Rate type		
Alt.e/r type valid fr.	Alternative e/r type valid from		
Exchange Rate	Exchange Rate		
Quotation type	Quotation type		
Ratio (from)	Ratio (from)		
Ratio (to)	Ratio (to)		

Special attention should be paid to the attributes Exchange Rate (Type) & Currency (from/to) and their options. Available currencies are the ones you maintained in the Currency Object in RDM. Available Exchange Rate Types are delivered by SAP. The standard-set is listed below.

Exchange Rate (Type)	Usage, Description			
100*	Reference value = group value			
1001	Current exchange rate			
1002	Average exchange rate			
1003	Historical exchange rate			
1004	Current exch. rate prior year			
200*	Reference value = group value			
2001	Current exchange rate			
2002	Average exchange rate			
2003	Historical exchange rate			
2004	Current exch. rate prior year			
В	Standard translation at bk.selling rate			
EURO	EMU regulation, fixed exchange rates			
EURX	EMU regulation, variable exchange rates			
G	Standard translation at bank buying rate			
1	Intrastat exchange rate type			
М	Standard translation at average rate			
MCA	Multi Currency Account			
Р	Standard translation for cost planning			



## 1.2.4 Available Change Request Types

Relevant standard change request types are:

CR Type	Description	Properties, Comments	
ICR1S01 Create Exchange Rate and activate		Create, 1-step	
ICR1S02 Process Exchange Rate and activate		Change, 1-step	
ICR2S01 Create Exchange Rate with approval		Create, 2-step	
ICR2S02 Process Exchange Rate with approval		Change, 2-step	
ICR3S01	Create Exchange Rate with proc. and appr	Create, 3-step	
ICR3S02 Process Exchange Rate with proc and appr		Change, 3-step	

Message Type (IDoc): /ITR/CUR\_EXRA

These change request types above are provided for every object in RDM. More information about them can be found in the Functional Documentation of RDM. Therefore, they are of no greater interest for this documentation. However, Itego provides three more change request types, which are made for use in the data import process of Exchange Rates (explained in section 2).

- 1. **CR for direct update:** With this change request, the data it contains is distributed automatically to all eight relevant tables. It is used for releasing all the issue-free import data as quickly and efficiently as possible, without it having to pass through the RDM MDG workflow.
- 2. CR for normal checks: This change request is also used to store all the data which contains no issues. Unlike CR 1 however, this change request passes through the MDG RDM workflow before being released. It instructs the user to simply check on the data and then release the request.
- **3. CR for error processing:** This change request is used to store all the data which failed the validation after a data import. It has to pass through the 3-step MDG RDM workflow, meaning, that it needs to be approved by both a data specialist and a data steward before being released. In the approval process, the change request instructs the user(s) to check and modify the data before releasing it.

As you may have noticed, the change requests 1 and 2 are both made for processing data, which passed validation on the first attempt. This implies, that for a Datafeed process, you will have to decide, whether you want to use CR 1 or CR 2 in said process. For a guide on how to do so, and a brief overview of each CRs advantages and disadvantages, please view section 2.6.1.



## 2 Maintenance via Datafeed

## 2.1 The Datafeed Process

Itego Reference Data Management (RDM) for SAP MDM provides a standardized solution to manage the entire table environment consistently and in a single process. The main part of the process itself can be described by the image below.

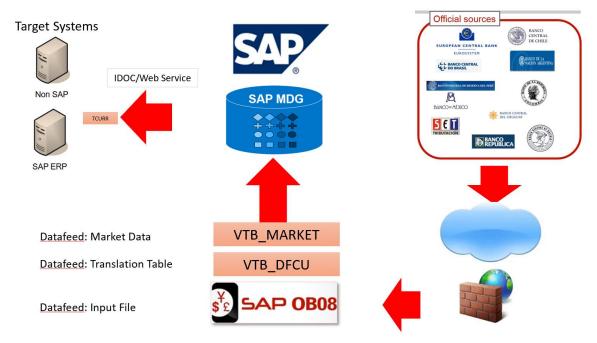


Figure 4: The data import process

**1 – Importing Exchange Rates:** The user first gets to choose between a source from which the exchange rates should be imported (e.g. ECB, Thomson Reuters, Bloomberg, Telerate, Sap, etc.). These exchange rates are then delivered by a provider. Available providers are FINISS, Infoaval, Opentrade, Reuters, ReutersWeb and Telerate. Each provider usually collects data from several of the above-mentioned sources and imports it into the tables VTB\_MARKET and (for translation purposes) VTB\_DFCU.

**2 – Validating:** In the second step, the user runs a report which is implemented in the common job-network. The report itself runs a validation of the Exchange Rates in the VTB\_MARKET table. It also creates one to three (depending on the configuration) change requests to activate the rates. If an exchange rate carries issues that require further evaluation (e.g. extreme deviation, suspicious date or time, etc.), it is automatically added to the "ERROR" change request. If an Exchange Rate carries no issues, it can either be activated directly, without passing through MDG RDM, or be put in a separate "issue-free" change request.

**3 – Editing:** In the third step, the user gets to edit the rates which raised an issue in the validation in MDG and (depending on step 2) approve the issue-free Rates. The Exchange Rates will then be distributed to the corresponding tables.



In addition to this import procedure, Itego RDM – as always – offers a standard workflow solution for the governance of Exchange Rates. Via the overview page in RDM, the user is able to manually create or alternate Exchange Rates. The available change request types can include up to three instances, which are: Requester, Data Specialist, Data Steward. The scheme below shows, how these roles are used for change requests.

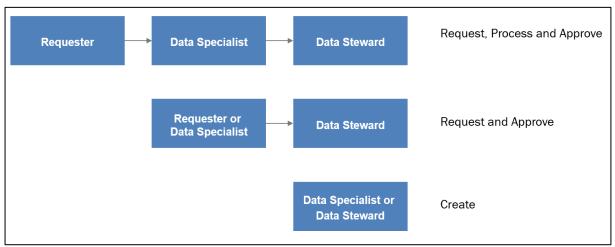


Figure 5: Workflow variants in RDM

## 2.2 Importing Exchange Rates

Please note that a prerequisite of starting an import is, that *all* rates are contained in the customizing of the datafeed interface. If this is not the case, the entire interface is unable to run. Contact your provider for further details about the imported rates.

To start the entire process, the user has to log into the SAP GUI and execute the transaction TBD4.



The "Datafeed: Request Current Market Data" program will pop up, allowing you to make the following selections:



Datafeed: Request Current Marke	et Data	
😔 📑 i		
Market Data Class		
Currencies	Exchange Rat	ate Volatilities
Securities	Security Price	ce Volatilities
Interest Rates	Interest Rate	e Volatilities
Indexes	Index Volatilit	
Forex Swap Rates	General Volat	atilities
Commodities (Daily Basis)	Commodities	s (Time Basis)
Market Data Selection	-1	
1st Key Definition		
2nd Key Definition		
Instrument Property		
For Volatilities: Term		
Datafeed		
Name		
Request Mode	<ul> <li>Synchronou</li> </ul>	OTransactional (Asynchronous)
Output Control		
✓Output List of Results	<ul> <li>All</li> </ul>	O Errors O Correct Results
✓Save Market Data in System Permanently If	Defined in Custom	mizing
Layout		

The "Market Data Class" Group lets you choose between the types of market data that you want to import. For importing Exchange Rates, we will have to check the "Currencies" box.

Market Data Class					
	Exchange Rate Volatilities				
Securities	Security Price Volatilities				
Interest Rates	Interest Rate Volatilities				
Indexes	Index Volatilities				
Forex Swap Rates	General Volatilities				
Commodities (Daily Basis)	Commodities (Time Basis)				

The "Market Data Selection" Group can be left blank

In the "Datafeed" Group, you need to choose the provider of the actual data. In our case, we are going to use provider FINISS. When applying this documentation, you will have to choose the provider, which is accessible to you. It can be found via F4-help.

Data Pro         Source Description           FINISS         F         FINISS Interface           Infoaval         F         F
Infoaval F
Opentrade F Opentrade Interface
Reuters F Reuters SSL Interface
ReutersWeb F Reuters Web Interface
Telerate F DJ/Bridge Rate Feed Engine

The import mode needs to be set to "Synchronous"



Datafeed		
Name	FINISS	
Request Mode	Synchronou	Transactional (Asynchronous)

For the last group, "Output Control", you will have to pay attention to the "Save Market Data in System Permanently If Defined in Customizing" checkbox, which needs to be unchecked.

Output Control			
✓Output List of Results	All	OErrors	Ocorrect Results
Save Market Data in System Permanently	y If Defined in C	Customizing	
Layout			

This leaves us with a filled-out transaction which can be executed:

Datafeed: Request Current	Market Data
😌 🖪 🚺	
Market Data Class	
Currencies	Exchange Rate Volatilities
Securities	Security Price Volatilities
Interest Rates	Interest Rate Volatilities
Indexes	Index Volatilities
Forex Swap Rates	General Volatilities
Commodities (Daily Basis)	Commodities (Time Basis)
Market Data Selection 1st Key Definition 2nd Key Definition Instrument Property For Volatilities: Term Datafeed	
Name	FINISS
Request Mode	Synchronou     Orransactional (Asynchronous)
Request Mode	
Output Control	
✓Output List of Results	All Cerrors Correct Results
Save Market Data in System Perman	nently If Defined in Customizing
Layout	

TBD4 will then import and pre-validate the Exchange Rates. If the program detects any issues with a Rate, a message window such as the following is going to pop up. It is going to show you how many issues it detected.

SAP			
⊕ [	• 🔁		
D	atafeed	: Display messages	×
Тур	Ite	Message text LTxt	
	001	Refresh incomplete 2	^
			~
	9 🕜	) 62 Technical Information 🕅 ┥ 🕨 🦄 📮 💽 Current display variant 🖶 Print 🚹 🍂 📚 🌒 🌒 🚺 🔺 0 📕 0 🚺 Help 🤅	3



When taking a look at this message, you can either hit **?** for more information on the issue, or hit **Gatechnical Information** for technical data of the message itself.

Afterwards, you can confirm by pressing 🕜 and a table containing all the imported data will be shown:

	x	= R R ( <b>*</b> (*	Choose Save	F 🗈 ⊳ 🔲	i Selections	<u>6</u>			
lkt data - 29	.05.2020, 05:29		User: BACK			2			
	lass: 01 Curren		Data source: FINI						
arket data d	mass: of curren		Data source: Fini						
From curr. Refresh Ug	To-Curren dateFlag Status			Time Value	·	"Fr" ratio To	factor .	Indir.Quot Cur	UoM Put/C
🗖 AMD	EUR	М	28.05.2020	22:30:00 0,001	88 AMD	1	1	Х	
AMD	USD	М	28.05.2020	22:30:00 0,002	07 AMD	1	1	Х	
AUD	EUR 99	M Rate not conta	ined in datafeed resp	00:00:00 onse		1	1		
DKL	LOK	Pi		22:30:00 0,170	96 BRL	1	1	Х	
EUR	AMD	М	28.05.2020	22:30:00 532,9	8000 USD	1	1		
X EUR	RON	М	28.05.2020	22:30:00 4,843	50 USD	1	1		
RON	EUR	EURX	28.05.2020	22:30:00 0,200	46 RON	1	1	х	
RON	EUR	М	28.05.2020	22:30:00 0,200	46 RON	1	1	Х	
RON	USD	М	28.05.2020	22:30:00 0,227	44 RON	1	1	х	
USD X	AMD	М	28.05.2020	22:30:00 483,8	2000 USD	1	1		
USD	BRL	М	28.05.2020	22:30:00 5,310	00 USD	1	1		
USD	RON	М	28.05.2020	22:30:00 4,396	80 USD	1	1		
ransfer Stat	istics		Successful Wa	rnings H	rror				
arket data d	lass: 01 Curren	cies	11	0	1				
verall			11	0	1				

You can now view the data of the Exchange Rate that failed the validation (and the ones who passed). According to this table, the pair AUD/EUR raises an issue, meaning, it will be put into a separate change request.

By pressing in the menu bar, you can delete selected entries (not advised)

By pressing 🔳 or 🔄 you can extract the table into an Excel-spreadsheet or other file

By using [ Choose Save you can manage the table layouts

The table VTB\_MARKET (and VTB\_DFCU) now contains the imported data. If you want to doublecheck this, you can execute transaction SE16N and enter the table VTB\_MARKET or VTB\_DFCU:

SAP Easy Access	
SE16N	<b>~ «  </b>
SAP Easy Access	



General Table Disp	blay			
😔 Background	Number of Entries	🗊 🗊 🗟 🔒 🖶 All Entries		
Table	VTB_MARKET			
Text table		No texts		
Layout				
Maximum no. of hits	500	Maintain entries		
Selection Criteria				
Fld name	O Fr.Value	To value	More	Output
	<b>*</b>			

Hit Execute 🚯

## You can now view the updated VTB\_MARKET table:

3	ż													
Searc	h in Table		VTB_MARKET	Dat	Datafeed: Market data									
Numb	er of hits		17											
Runtime 0		Max	kimum	no. of hits	500	]								
9	ATHMY	Σ.Σ.		7	Details									
Clas	sKey Key Rate typ	De Data Prov.	Add. key Meta class Cla	ass Key Key	Status	ID Message	Refresh Up	dateFlag Supplier (	Con ID ConCountry Date	Time	Value	Currency	"Fr" ratio To	o-facto
01	AMD EUR M	FINISS				0			28.05.3	020 22:30:0	0.00188	AMD	1	1
01	AMD USD M	FINISS				0	X		28.05.3	020 22:30:0	0.00207	AMD	1	1
01	AUD EUR M	FINISS			99	0 Rate not cont	X			00:00:0	0		1	1
01	BRL EUR M	FINISS				0			28.05.3	020 22:30:0	0.17096	BRL	1	1
01	CAD PLN EURX	Infoaval			E	0 Maintain tran	X		13.03.3	020 19:05:0	2.83124	CAD	1	1
01	EUR AFN EURX	Infoaval				0	X		13.03.3	020 19:05:0	84.50840	EUR	1	1
01	EUR AMD M	FINISS				0	X		28.05.3	020 22:30:0	532.98000	USD	1	1
01	EUR AMD M	FINISS			W	0 Abw 2 % Lim	X		28.05.3	020 22:30:0	532.98000	USD	1	1
01	EUR RON M	FINISS				0			28.05.3	020 22:30:0	4.84350	USD	1	1
01	RON EUR EURX	FINISS				0			28.05.3	020 22:30:0	0.20646	RON	1	1
01	RON EUR M	FINISS				0			28.05.3	020 22:30:0	0.20646	RON	1	1
01	RON USD M	FINISS				0			28.05.3	020 22:30:0	0.22744	RON	1	1
01	USD AMD M	FINISS				0	X		28.05.3		483.82000		1	1
01	USD AMD M	FINISS			W	0 Abw 1- % Li	Х		22.05.3	020 22:30:0	481.64000	USD	1	1
01	USD BRL M	FINISS				0				020 22:30:0		USD	1	1
01	USD EUR EURX	Infoaval				0	X			020 19:05:0		USD	1	1
01	USD RON M	FINISS				0			28.05.3	020 22:30:0	4.39680	USD	1	1

## 2.3 Processing the Imported Data

To process the imported data, you need to run the special report for this case.

Open transaction SE38 and run the report / ITR/CUR\_EXRA\_ MASS\_LOAD:



SAP Easy Access			
SE38	~ « 🖫		
SAP Easy Access			
ABAP Editor: Initial Sci	reen		
👍 🗡 🔂 📢 🏭 🚺	$\overline{\mathbb{I}}$ $\square$ $A_{B}^{\bullet}$ $\textcircled{Debugging}$	🕀 With Variant	[total: Variants
Program /ITR/CUR	EXRA MASS_LOAD	Create	
Subobjects			
Source Code			
○ Variants			
OAttributes			
ODocumentation			
OText elements			
රිට Display	Change		

The following window should pop up (date will vary):

ection of objects							
change Rate type	×	*		to			
urrency (from)	[X]	*		to			
urrency (to)	[X]	*		to			
alue date		29.05	.2020	to	29.05	5.2020	
ata provider							
ions							
ions							

The program itself consists out of six tabs, which allow you to configure the validation process and the creation of the change requests.

In Tab Page 1, you get to choose, which Rates you want to have processed. This determination is set by five categories: Exchange Rate (Type); Currency (from); Currency (to); Date; Provider. If you want to process all the Exchange Rates you previously imported in step 2.2, a simple \* is going to select everything. After this selection was made, you will have to choose, if the VTB\_MARKET table is to be deleted after the processing. In this case, we are going to let the table remain as it is.



:								
ab page 1 Tab page 2 Tab pa	age 3 Anzeige	e VTB MA	RKET	Verschiedenes	Staging			
election of objects								
Exchange Rate type	[X]	*		to				
Currency (from)	[×]	*		to				
Currency (to)	[×]	*		to				
Value date		28.05	.2020	to	28	.05	.2020	
Data provider		FINISS						
Intions								
ptions Delete VTB_MARKET?								

#### You can then select the second tab:

page 1 Tab page 2 Tab pa	age 3 Anzeige VTB MARKET			
CR-Typen		CR-Notizen		
ICR1SL1	CR-Typ (DIRECT)	TCURR is directly updated.	Notiz (DIRECT)	
ICR3SL1	CR-Typ (OK)	Please check the data and release CR!	Notiz (OK)	
ICR3SL1	CR-Typ (ERROR)	Please correct error entries!	Notiz (ERROR)	
CR-Langtexte CR for direct TCURR update	Bezeichnung (DIRECT)	_		
	Bezeichnung (DIRECT) Bezeichnung (OK)			
CR for normal checks				

Tab page 2 lets you set three options, all regarding the change requests which are created after the valuation. /ITR/CUR\_EXRA\_MASS\_LOAD differentiates between three types of Exchange Rates in VBT\_MARKET.

The first type (DIRECT) includes objects which passed the validation and are flagged as "direct activation" in VTB\_MARKET. Objects will be activated in the relevant tables in MDG without even passing through the MDG RDM workflow.

The second type (0K) includes objects which passed the validation and are not flagged as "direct activation". All the objects are collected in a change request which has to be approved in the MDG RDM workflow.

The third type (ERROR) includes objects which did not pass the validation. All objects are collected in a change request which has to be edited and approved in the MDG RDM workflow. Please refer to section 2.6.1 for more info about this classification.



For now, you can leave the requests like this:

CR-Typen	
ICR1SL1	CR-Typ (DIRECT)
ICR3SL1	CR-Typ (OK)
ICR3SL1	CR-Typ (ERROR)

The other two groups let you configure the description and the long text for the corresponding change request. We are going to use the standard configuration:

CR-Notizen	
TCURR is directly updated.	Notiz (DIRECT)
Please check the data and release CR!	Notiz (OK)
Please correct error entries!	Notiz (ERROR)

R-Langtexte	
CR for direct TCURR update	Bezeichnung (DIRECT)
CR for normal checks	Bezeichnung (OK)
CR for error processing	Bezeichnung (ERROR)

You can then select Tab page 3. It lets you double-check the data that will pass through MDG RDM (namely the VTB\_MARKET-Data after the validation).

SAP																
Ð																
Tab r	age 1	Tab	page	2 Tal	b page 3 Anz	eiae VTB	MARKET	Verschie	denes	s Sta	ging					
	-			_	·	-		Terberne	uerree	5 54	9"'9					
Q	÷ :	= H	14	Σ	▲ <sup>∑</sup> ∕Σ₄' 🖶 🖨	à 🗈 🎞	<u>i</u>									
Re	corc	ls se	elect	ted :	000000	12										
Clien	t Class	s Key	Key	Rate T	ype Data Pro	Add. key	Meta clas	Class Key	Key	Stat	ID Warning/error message		Refres	Update flag	Supplier	Con II
100	01	AMD	EUR	М	FINISS						0					
100		AMD			FINISS						0		х			
100	01	BRL	EUR	м	FINISS						0					
100	01	EUR	AMD	м	FINISS						0		Х			
100	01	EUR	AMD	м	FINISS					W	0 Abw 2 % Limit 1 % Letzter Kurs	520,81000 Letztes Datum 27.05.202	Х			
100	01	EUR	RON	M	FINISS						0					
100	01	RON	EUR	EURX	FINISS						0					
100	01	RON	EUR	м	FINISS						0					
100	01	RON	USD	M	FINISS						0					
100	01	USD	AMD	М	FINISS						0		х			
$\langle \rangle$																

On Tab page 4, you can check the VTB\_MARKET table as it is right now (before the validation)



SAP													
Ð													
Tab pa	ge 1	1 Tab page 2 Ta	b page 3	Anzeige V	TB MARKET	Verschie	denes	Stagir	ng				
9	- 13	ΞΗΆΥ.Σ		( i 🔁 🖥	1 1 <b>1</b> 1								
Rec	ord	ds selected	: 00000	012									
RCI. (	Class	sKey Key Rate ty	e Data Prov	. Add. key	Meta class C	Class Key Ke	y Stati	is ID Wa	arning/error message	Refresh	UpdateFlag	Supplier	Con I
100 0	01	AMD EUR M	FINISS					0					
100 0	01	AMD USD M	FINISS					0		Х			
100 0	01	BRL EUR M	FINISS					0					
100 0	01	EUR AMD M	FINISS					0		Х			
100 0	01	EUR AMD M	FINISS				W	0 Ab	w 2 % Limit 1 % Letzter Kurs 520,81000 Letztes Datum 27.05.2020	Х			
100 0	01	EUR RON M	FINISS					0					
100 0	01	RON EUR EURX	FINISS					0					
100 0	01	RON EUR M	FINISS					0					
	01	RON USD M	FINISS					0					
100 0		USD AMD M	FINISS					0		Х			

Tab page 5 contains shortcuts to helpful (but not necessary) transactions throughout the datafeed process

SAP								
Ð								
Tab page 1 T	ab page 2	Tab page 3	Anzeige	VTB MARKET	Verschiedenes	Staging	]	
Kurse					Sonstiges			
(₽ OB08				Ð	Show Ger	nericIdoc		
(₽) TBD4						🕀 NW	BC	
	🕁 Marktda	ten-IMG				🕞 RDM	IMG	

- **OB08**: Shows the current Exchange Rates in the system
- TBD4: Releases imported Exchange Rates into the market data buffer (view section 2.2)
- Market Data-IMG: Displays the IMG for Market Data
- Show GenericIdoc: after defining filter criteria in this transaction, you can view the IDocs which are used to distribute the Exchange Rates between/to the tables
- NWBC: Opens the Net Weaver Business Client
- RDM-IMG: opens the IMG for RDM

Tab page 5 (staging) lets you check all the (in)active data in MDG



AP													
₽													
Tab page	1 Tal	b page 2 Tab pag	ae 3 Anze	eige VTB MARKET Ve	erschiedenes	Staging							
			-		_								
		<b>Ι</b>											
Reco	rds s	selected : 00	000042	21									
Curr from	mCurr t	o Valid from ExRT	Approv. B	y Approved A	t Approved By	AltE ValidFrom	Exch. Rate (	Quotation Ratio	Ratio	Changed On	Changed By	Created Or	Created By
AED	EUR	01.01.2001 EURX	BACKF	28.05.2020 10:48:23	Felix Back		/3,48000 2	2 1	1		2	6.03.2020 14:16:24	HOEWLERD
AED	JPY	01.01.2001 M	SCORYG	28.05.2020 23:39:51	Gerhard Scory		31,18700 1	L 1	1		2	6.03.2020 14:16:24	HOEWLERD
AED	KWD	01.01.2001 M	SCORYG	28.05.2020 23:39:51	Gerhard Scory		0,07761 1	L 1	1	23.04.2020 13:59:24	HOEWLERD 2	6.03.2020 14:16:24	HOEWLERD
AED	USD	01.01.2001 M	SCORYG	28.05.2020 23:39:51	Gerhard Scory		/3,68000 2	2 1	1		2	6.03.2020 14:16:24	HOEWLERD
AFN	ARS	31.12.1999 I	BACKF	11.05.2020 11:48:53	Felix Back		/0,30000	0	0		1	1.05.2020 09:33:06	BACKF
AMD	EUR	27.05.2020 M	SCORYG	28.05.2020 23:39:51	Gerhard Scory		/0,00188 2	2 1	1	28.05.2020 08:43:46	BACKF 2	8.05.2020 08:15:56	BACKF
	EUR	26.05.2020 M	SCORYG	28.05.2020 23:39:51	Gerhard Scory		/0,00189 2	2 1	1		2	7.05.2020 05:50:00	BACKF
AMD	FUR	25.05.2020 M	SCORYG	28.05.2020 23:39:51	Gerhard Scory		/0,00190 2	2 1	1		2	6.05.2020 13:20:13	BACKF
AMD	LOIL						/0,00190 2	2 1	1	26.05.2020 07:23:27	SCORVE 2	3.05.2020 16:08:00	SCODVE
	EUR	22.05.2020 M	SCORYG	28.05.2020 23:39:51	Gerhard Scory		/0,00190 2		-	20.03.2020 07.23.27	SCORT 2	5.05.2020 10.00.00	SCORTF

After having checked all the tabs, you can press 😝 to execute the report, a window similar to this should pop up:

SAP			
( <del>;</del>			
Tab page 1         Tab page 2         Tab page	e 3 Anzeige VTB MARKET	Verschiedenes Staging	
Selection of objects			
Exchange Rate type	× *	to	
Currency (from)	× *	to	
Currency (to)	× *	to 1 to 28.05.2020	
Value date	28.05.202	to 28.05.2020	
Data provider	FINISS		
Options Delete VTB_MARKET?			
	🖶 🛱 🔁 🎛 🚺 🧵		
Records selected : 0000	00009		
🕄 Change Key Key Rate type Dat	ta Prov. Date Time	Value Indir.Quot	
5746 ERRO EUR AMD M FIN	NISS 20200528 22300	532.98000	
	NISS 20200528 223000		
	NISS 20200528 223000		
	NISS 20200528 223000		
	NISS 20200528 22300		
	NISS 20200528 223000		
	NISS 20200528 22300		
	NISS 20200528 223000 NISS 20200528 223000		
JIH MANU USU KUN MI FIN	133 20200526 223000	J 4.3000	

The two change requests have been created and now need approval in the next step

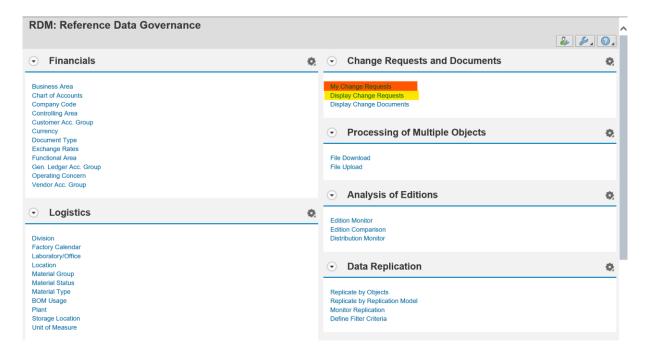


## 2.4 Approving and Editing the Change Requests

This process is started by opening the Net Weaver Business Client. This can be done by executing transaction NWBC:



You will be shown a page that looks similar to the one below. You can access the created change requests by clicking on "Display Change Requests" (yellow) under "Change Requests and Documents). Alternatively, if it was your user who ran the /ITR/CUR\_EXRA\_ MASS\_LOAD report, you can also click on "My Change Requests" (orange).



You will be shown a page similar to the one below. It contains two change requests which both need approval. As labeled, the yellow-marked change request contains all the Exchange Rates which passed the validation on the first attempt and do not need to be checked on again. The orange-marked change request contains all the Rates which raised an issue in the validation and need to be checked again.



isplay Change	Requests				
int Preview	New Selection				
hange Requests					
/iew: [Standard View]	Print Version Export      Work	kflow Log			
Change Request	Description	Status	Changed On	Changed By	Туре
5747	CR for normal checks FINISS	To be Processed	29.05.2020	Felix Back	Load Curr ExRt, process and activate
5746	CR for error processing FINISS	To be Processed	29.05.2020	Felix Back	Load Curr ExRt, process and activate

#### 2.4.1 Issue-Free Request

In the first step, we are going to approve the issue-free change request. In order to do this, we are going to click on the change request number (5747). You will be shown the overview tab of the change request

Toocos onung	ge Request						
Save Finalize Processing Send for Revision Close Read Only Print Preview Check Run Validation Validation Log Related Services							
Change Request 5747	Type Load Co	Irr ExRt, process and activate Status To be Processed					
Overview	Changes No	tes Attachments					
General Data							
		You are the processor of the change request					
	* Description:	CR for normal checks FINISS Due Date:	1				
	Priority:	v					
	Created On:	29.05.2020 09:03:23 Created By:	Felix Back				
	Changed On:	29.05.2020 09:03:55 Changed By:	Felix Back				
	Finalized On:	Finalized By:					
Notes / Attachments							
		1 note(s) exist(s)					
	Attachments:	1 attachment(s) exist(s)					
Objects							
Entity Type	Number						
Exchange Rate (Type)		8					

You can view the other tabs which contain more information about the change request. The "Changes" tab shows a table, containing all the changes that the request will make.



Overview	Notes Attachments					
w Objects of Entity T	ype: Exchange Rate (Type) v					
	ype): Objects to Be Changed					
rint Version Expo	Single Processing Mass Change	Add Row J Delete Row(s)	Display Changes			
Curr from	Description	Curr to	Description	Valid from	ExRT	Changed
AMD	Armenian Dram	EUR	European Euro	28.05.2020	м	1
BRL	Brazilian Real	EUR	European Euro	28.05.2020	м	$\checkmark$
EUR	European Euro	RON	Romanian Leu	28.05.2020	м	$\checkmark$
RON	Romanian Leu	EUR	European Euro	28.05.2020	EURX	1
RON	Romanian Leu	EUR	European Euro	28.05.2020	м	1
RON	Romanian Leu	USD	United States Dollar	28.05.2020	м	$\checkmark$
USD	United States Dollar	BRL	Brazilian Real	28.05.2020	м	$\checkmark$
USD	United States Dollar	RON	Romanian Leu	28.05.2020	м	$\checkmark$

#### The "Notes" tab shows, notes that have been added to the request:

Overview	Changes	Notes	Attachments
Note:			
29.05.2020 09:03:			
Please check the	data and release	CR!	

The "Attachments" tab by standard contains a plain text file which lists the details of the change request as a simple text. In our case, it looks like this:

0528 223000 0.00188 X 0528 223000 0.17096 X
)528 223000 0.17096 X
223000 4.84350
223000 0.20646 X
223000 0.20646 X
0528 223000 0.22744 X
223000 5.31000
(

After having checked everything, you can click on	Run Validation
---	----------------

Finalize Processing

and then

AMD / EUR / M / 20200528 Dev 10.538 % Limit 1 % Last rate /0,20000 Last dat e 27.05.2020.

You have finalized the processing of change request 5747

Close the page



In this case the role of the Data Steward is operated by the same user. In a real scenario, this distribution would be split between two or more different users. To approve the change request, you have to click on the same request in the menu again:

isplay Change	Requests New Selection				
Change Requests					
View: [Standard View]	V Print Version Export Work	flow Log			
Change Request	Description	Status	Changed On	Changed By	Туре
5747	CR for normal checks FINISS	To be approved	29.05.2020	Felix Back	Load Curr ExRt, process and activate
5746	CR for error processing FINISS	To be Processed	29.05.2020	Felix Back	Load Curr ExRt, process and activate

As you have already checked the changes, you can directly click on Approve in the menu bar without validating again. The Exchange Rates are then activated in all necessary tables. In a two-user-scenario, you could alternate the change request again or send it for revision.

AMD / EUR / M / 20200528 Dev 10.538 % Limit 1 % Last rate /0,20000 Last dat e 27.05.2020.
 You have approved change request 5747

#### 2.4.2 Issue-Request

Approving the Issue containing request works the same way as for the issue-free change request (described in section 2.4.1)

The change request OVP is structured the same way as the request in 2.4.1. The only difference is, that the "Changes" tab shows the Exchange Rates which contain issues and have to be checked.

Process Change Re	quest						
Save Finalize Processing Se	nd for Revision Close Read Only F	Print Preview Check Ru	n Validation Log	Related Services			
Change Request 5746 Type Load Curr ExRt, process and activate Status To be Processed							
Overview Changes Notes Attachments							
Show Objects of Entity Type: Exchange Rate (Type)							
Print Version       Export       Single Processing       Mass Change       Add Row       Delete Row(s)       Display Changes							
Curr from	Description	Curr to	Description	Valid from			
EUR	European Euro	AMD	Armenian Dram	28.05.2020			



After confirming the Exchange Rates, you have to the same steps as above again: Run Validation $\rightarrow$	release the change request by performing Finalize Processing
the same steps as above again. Run vandation 7	Finalize Processing
You have finalized the processing of change request 57	46
Then open the change request again and click on	Approve
Vou have approved change request 5746	

The imported Exchange Rates are now distributed to all relevant tables.



## 2.5 Creating a Job (Batch Report)

The import process shown in the previous sections 2.1 - 2.3 (not including section 2.4) forms the foundation of the Exchange Rate object in RDM. As the intended use of this process is an automated, daily import, Itego provides a batch version of the report /ITR/CUR\_EXRA\_ MASS\_LOAD: /ITR/CUR\_EXRA\_ MASS\_LOAD\_BTCH.

In conjunction with the job functionalities of the SAP system, this solution forms a powerful tool for automatically importing Exchange Rates while still being able to process them through the MDG-RDM workflow.

The following section explains how to set up an automated import, using the example of data provided by the ECB.

To get started, execute transaction SA38, enter the program /ITR/CUR\_EXRA\_MASS\_LOAD \_BTCH and press execute ④

SAP Easy Access		
SA38	~ « 🔚	
ABAP: Program Exe	ecution	
😔 😔 With variant	📑 Overview of variants	Background
Program /ITR/C	UR EXRA MASS LOAD BTCH	

The batch report is structured similar to the online report described in section 2.3. Therefore, the guide below focuses on the creation of variants and jobs, rather than the report itself.

	Rate			
2 📑				
election				
VTB_MARKET				
EZB				
send TCURR				
VTB_MARKET-Selection EZB Parameters	Sent Exchange Rates			
	Sent Exchange Rates			
Object Selection		to		
Object Selection Currency Type	× *	to		<u>2</u>
Object Selection Currency Type To Currenxy	× *	to		
Object Selection Currency Type To Currenxy To Curreny	× * × *	to to	03.07.2020	
Object Selection Currency Type To Currenxy	× *	to	03.07.2020	



For the creation of the job, you will need to create two variants in the report. One of them will import the data from the ECB, and one of them will process the data and create the change requests.

For the first variant, select the "EZB" checkbox under "Selection" and open the EZB tab:

Selection				
VTB_MARKET				
✓ EZB				
send TCURR				
VTB_MARKET-Selection EZB Par	rameters Se	nt Exchange Rates		
General Data				
Date in Source		03.07.2020	 	
Prefix in VTB_MARKET		RDM-EZB		
Valid the following day				
Commence Trans		EURX		
Currency Type From currency	[X]	*		
To Currency	N.	EUR		
Variance in percent		10		
•				
Data Source				
Data Source				
RFC-Destination				

For the "Date in Source" field, leave the current date.

General Data	
Date in Source	02.07.2020
Prefix in VTB_MARKET	RDM-EZB
Valid the following day	

In the selection below, you can specify, which Exchange Rates you want to import. The EZB only provides Exchange Rates for EUR.

The "Variance in percent" field lets you enter a numeric value between 0 and 100. This number specifies, from which deviation of the previous day the validation raises a warning

Currency Type	EURX
From currency	*
To Currency	EUR
Variance in percent	20

#### For the "RFC-Destination", you have to enter "EZBRFC"

Data Source		
RFC-Destination	EZBRFC	
O Local Workstation		



This leaves us with a filled-out tab/transaction, which can be saved as a variant.

atch-Report for RDM-Exchar	igeRate	
€ 🖪		
election		
✓ EZB		
send TCURR		
VTB_MARKET-Selection EZB Paramete	rs Sent Exchange Rates	
General Data		
Date in Source	07.07.2020	
Prefix in VTB_MARKET	RDM-EZB	
Valid the following day		
Currency Type	EURX	
From currency	× *	
To Currency	EUR	
Variance in percent	20	
Data Source		
RFC-Destination	EZBRFC	1
O Local Workstation		

To create a variant, press Goto  $\rightarrow$  Variants  $\rightarrow$  Save as variant in the menu bar (or hit Ctrl+S):

🔄 Program Edit	<u>G</u> oto System <u>H</u> elp				_
	<u>V</u> ariants	•	<u>G</u> et	Shift+F5	
	User Variables		Displ <u>a</u> y		<b>.</b>
Batch-Report fc	Selection Screen <u>H</u> elp	Shift+F6	<u>D</u> elete		
	<u>B</u> ack	F3	<u>S</u> ave as Variant	Ctrl+S	
			, ,		

Enter a name and description for the variant and press on save Variant Attributes 🗹 « 📙 © 🔗 😢 🖶 🛝 🎝 🕻 🖡 Variant Attributes 💉 Use Screen Assignment i Variant Name Demo 1 Description EZB Rates import all Only for Background Processing Protect Variant Only Display in Catalog System Variant (Automatic Transport) 🚊 🚍 🚹 🖶 🚼 Technical name



The variant has now been saved.

To create the second of the two variants, navigate back to the VTB\_MARKET-Selection and select the VTB\_MARKET checkbox under "Selection".

> [ 💼					
lection					
EZB					
send TCURR					
_					
IB MARKET-Selection E2B	Parameters Ser	nt Exchange Rates			
/TB_MARKET-Selection EZB F	Parameters Ser	nt Exchange Rates			
Dbject Selection	Parameters Ser	nt Exchange Rates			
	Parameters Ser	nt Exchange Rates	to		Ľ
Dbject Selection			to to		
Dbject Selection Currency Type	X	*			
Dbject Selection Currency Type To Currenxy	[×]	*	to	07.07.2020	

In our case, we need to match the Object Selection settings with the ones we made in the EZB tab, and then select RDM-EZB as the data provider:

Batch-Report for RDM-Exchange	Rate	
(†) 🔁		
Selection           VTB_MARKET           EZB           send TCURR		
VTB_MARKET-Selection EZB Parameters Object Selection	Sent Exchange Rates	
Currency Type To Currenxy	EURX EURX 07.07.2020	to  to  to  to  07.07.2020
Data Provider	RDM-EZB	

This selection needs to be saved as the second variant (same procedure as above).



•								*				
			2 🖸 🦷	<b>2 M M</b>	111	) 🎝 💭	<b>?</b>	<b>\$</b>				
Variant Attributes												
🖋 Use Screen Assignment	i											
Variant Name Demo 2												
Description EZB proc	ess rates	5				Screen Assi	gnment					
Only for Background Proce	ssing				1	Created	Selection	Screen				-
Protect Variant						✓	1000					^
Only Display in Catalog						<b>V</b>	1010					*
System Variant (Automatic		ort)										
🚊 \Xi 🚹 🖶 🛟 Technical na	ame											
Objects for selection screen												
Selection Screen Field name	Туре	Protect fiel	d Hide field H	lide field 'TO	Save field with	out values Swi	tch GPA off	Required field	Selection v	variable Opti	on Name of	f Variable (Input Only Using I
1.000 VTB_MARKET	Р											
1.000 EZB	Р											
1.000 send TCURR	Ρ											
1.010 Currency Type	S											
1.010 To Currenxy	S											
1.010 To Curreny	S											
1.010 Date of Value Da												
1.010 Data Provider	P											

🥑 Variant DEMO 2 saved

After having configured the two variants, you can close the report and move on to the creation of a background job. For the sake of simplicity, this tutorial will use the job wizard.

To start the job wizard, execute transaction SM36



Press on Job Wizard:

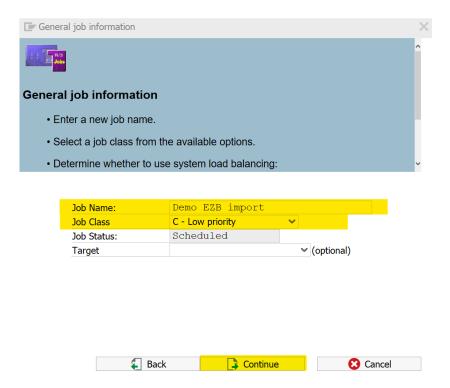
Start condition	🚔 Step	🖍 Job selection	🔽 Own jobs	🎾 Job wizard	Standard jobs
General Data					
Job Name					
Job Class	С				
Status	Scheduled				
Target			Spool I	List Recipient	



#### The following window pops up. You can press on continue:



On the "General job information" page, you simply have to define a name for the job, and a priority:





As the report /ITR/CUR\_EXRA\_MASS\_LOAD\_BTCH is an ABAP-program, you need to select "ABAP program step" on the upcoming page:

ABAP program step     External command as a step     External program as a step		
	▲ Job View	
E Back	Continue	😢 Cancel

On the upcoming page, you have to enter the name of the batch-report and the name of the first (!) variant:

ABAP Program Name	/ITR/CUR_EXRA_MASS_LOAD_BTCH
Variant:	DEMO 1
Execution language:	EN
	🖶 Print Parameters
	Spool list recipients

Afterwards, select the "Add additional steps" checkbox and continue:

<mark>√ Add</mark> additional step:	s (optional)	
Back	Continue	× Cancel



Again, select the "ABAP Program" option:

, ,		
ABAP program step     External command as a step     External program as a step		
	🔊 Job View	
🗧 Back	Continue	😢 Cancel

Then enter the name of the batch-report (/ITR/CUR\_EXRA\_MASS\_LOAD\_BTCH) and the name of the second(!) variant and continue twice:

ABAP Program Name	-	EXRA_MASS_LOAD_BTCH
Variant:	DEMO 2	
Execution language:	EN	
		Spool list recipients

For your job to run periodically at a fixed time of the day, select "Date/time" on the upcoming page:

з а раніснаї моткоамір а порір
OImmediately
Date/time
O After job
O After event
OAt operation mode switch
OStart on workday
ODo not release job
📩 Job View
🗧 Back 💽 Continue 😢 Cancel



Select a date and a time for "Scheduled start", to define the day (and time) on which the job will be executed for the first time. Then tick the "Period" checkbox:

Scheduled start     1712     C       Latest start     1712     1712	08.07.2020 ↔ 13:30:00 ↔	
Periodic jobs ✓Period	Restriction	i
🗧 Back	Continue	😢 Cancel

Select the periodicity for the job:

O Hourly Daily		
OWeekly		
Monthly		
None of the above		
🗧 Back	🔓 Continue	🔀 Cancel

Job has been created:



💽 Set job	×
R/3 Jabe	^
You have successfully finished defining the following job:	
Job name : DEMO EZB IMPORT Job class : C - Low priority Target server : Step(s) defined : 1./ITR/CUR_EXRA_MASS_LOAD_BTCH2./ITR/CUR_EXRA_MASS_ Start condition : Start at date/time:08.07.202013:30:00	Ļ
To finalize this process and actually create the job in the system, choose <b>Done</b> .	
To revise the job definition, choose <b>Back</b> .	
To cancel the entire process, choose <i>Cancel</i> .	
	~
E Back Complete S Cancel	

Job DEMO EZB IMPORT saved with status: Released



## 2.6 Additional Infos

### 2.6.1 Import Types

There are two options of processing the exchange rates which have been imported via Datafeed. With RDM, you get to choose between to options of how RDM deals with the imported rates.

### 2.6.1.1 Variant 1

Variant 1 allows for a direct activation of the Exchange Rates which passed the validation on the first attempt. The report /ITR/CUR\_EXRA\_MASS\_LOAD checks the VTB\_MARKET table if the user selected the direct activation in transaction TBD4. If the corresponding field in VTB\_MARKET is checked as true, the report does not create a change request. Instead, it automatically activates the Exchange Rates in the corresponding tables. The data does not run through MDG in any way, which allows a fast and unbureaucratic activation. The Exchange Rates which do not pass the first validation are still being loaded in a change request. This variant can be selected by unticking the "Save Market Data in System Permanently If Defined in Customizing" checkbox in transaction TBD4.

#### 2.6.1.2 Variant 2

Variant 2 creates two change requests. One of them is – as always – a container for the Exchange Rates which failed the first validation and have to be approved through MDG RDM. The second request, however, collects all the Rates which passed the validation. This change request is then also passed through MDG RDM. The user gets to choose, if it is to be activated automatically, or if it needs a Data Specialists approval first. This may make the process a bit slower but also allows the operator to accurately monitor every kind of data that is activated and not just the objects that failed the first validation. This variant can be selected by ticking the "Save Market Data in System Permanently If Defined in Customizing" checkbox in transaction TBD4 and is again executed by report /ITR/CUR\_EXRA\_MASS\_LOAD.

#### 2.6.2 Validation

Before an Exchange Rate is ready to be activated in MDG RDM and the corresponding tables, it needs to be validated first. Depending on the chosen import type (view section 2.6.1), an imported Exchange Rate can run through up to three validations before being activated. This ensures a high-level consistency amongst all rates and also ensures that no incorrect data makes its way into MDG RDM and the tables. The Validation is executed by the "Z-Report". The steps it performs to validate the Exchange Rates are listed below.

- 1. Sorting of the Exchange Rates (by Currency (from) / Currency (to) / Exra Type)
- 2. Deletion of the previous Exchange Rates
- 3. Checking the percentage deviation



- 4. Checking if price date is equal to import date
- 5. Checking if the Exchange Rate type is correct
- 6. Checking if the correct ratios are being used
- 7. Checking if the requested values in the translation table VTB\_DFCU (customizing) are available in the Datafeed interface (provider)
- 8. Checking if the quotation of the Exchange Rate matches the one in table TCURN.



# 3 Manual Maintenance

Due to the high frequency of changes and the sheer number of Rates there is, manually governing Exchange Rates is not the main focus of the Exchange Rate object. However, Itego, as always, provides the possibility to manually create, change and load data via the RDM workflow.

Unlike the other objects in RDM, manually edited objects do not have to be manually released through the Staging Area (transaction /ITR/STAGING). Instead, this is done automatically to ensure a high consistency through all relevant tables.

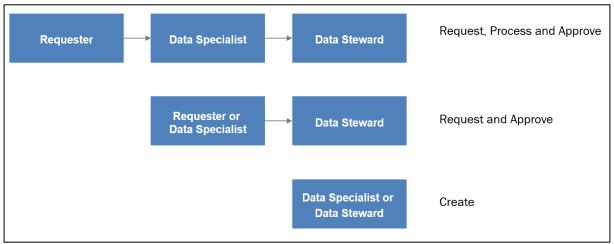


Figure 5: Workflow variants in RDM



# 3.1 Creating an Exchange Rate

To create a new Exchange Rate, start in the NWBC main menu. For the sake of simplicity, this guide shows a one-step process.

RDM: Reference Data Governance	[	ê, <i>(</i> , <sub>1</sub> )
<ul> <li>✓ Financials</li> </ul>		¢.
Business Area Chart of Accounts Company Code Controlling Area	My Change Requests Display Change Requests Display Change Documents	
Customer Acc. Group Currency Document Type	Processing of Multiple Objects	¢.
Exchange Rates Functional Area Gen. Ledger Acc. Group Operating Concern	File Download File Upload	
Vendor Acc. Group	<ul> <li>Analysis of Editions</li> </ul>	¢.
<ul> <li>Logistics</li> </ul>	Edition Monitor	
Division Factory Calendar	Edition Comparison Distribution Monitor	
Laboratory/Office Location Material Group	Data Replication	Φ.
Material Status Material Tune	Banlinsta hu Ohiante	

Under "Financials" click on "Exchange Rates". After pressing on "Search" on the following page, it will look like this:

	e Rates					<b>e</b>
Search Method:		~				
Search Criteria Saved Search	ches:	~ ₪				0
Exchange Rate (Type) 🗸	is 🗸		ď	00		
Currency (from) 🗸	is 👻		ß	$\odot$		
Currency (to) 🗸	is 👻		ے ا	$\oplus  $		
/alid from 👻	is 👻			••		
Exchange Rate 🗸	is 👻			00		
Ratio (from) 🗸	is 🗸			00		
Ratio (to) 🗸	is 🗸			00		
Quotation type 🗸 🗸 🗸	is 🗸		ل	00		
Search Clear Entries Reset to Default	Sav	ve Search As:				
		s Replicate				III 2.
New Copy Mass Change C	hange Documents Replication Statu		Created By	Exch Rate	Currency (from)	🚇 🐊
New Copy Mass Change C		Replicate Created On 26.03.2020 15:16:24	Created By HOEWLERD	Exch Rate /3.48000	Currency (from)	Ratio(fr
New Copy Mass Change C Pendin ExRt Valid from	hange Documents Replication Statu	Created On			AED	Ratio(fr
New Copy Mass Change C Pendin ExRt Valid from EURX 01.01.2001	hange Documents Replication Statu	Created On 26.03.2020 15:16:24	HOEWLERD	/3,48000	AED	Ratio(fr
New         Copy         Mass Change         C           Pendin         ExRt         Valid from         EURX         01.01.2001           M         01.01.2001         M         01.01.2001         01.01.2001	hange Documents Replication Statu	Created On 26.03.2020 15:16:24 26.03.2020 15:16:24	HOEWLERD	/3,48000 31,18700	AED AED AED	Ratio(fr
Pendin         ExRt         Valid from           EURX         01.01.2001           M         01.01.2001           M         01.01.2001	hange Documents Replication Statu	Created On 26.03.2020 15:16:24 26.03.2020 15:16:24 26.03.2020 15:16:24	HOEWLERD HOEWLERD HOEWLERD	/3,48000 31,18700 0,07761	AED AED AED AED	Ratio(fr
New         Copy         Mass Change         C           Pendin         ExRt         Valid from         EURX         01.01.2001           M         01.01.2001         M         01.01.2001           M         01.01.2001         M         01.01.2001           M         01.01.2001         M         01.01.2001	hange Documents Replication Statu	Created On 26.03.2020 15:16:24 26.03.2020 15:16:24 26.03.2020 15:16:24 26.03.2020 15:16:24	HOEWLERD HOEWLERD HOEWLERD HOEWLERD	/3,48000 31,18700 0,07761 /3,68000	AED AED AED AED AFN	Ratio(fr



Press on reaction and choose the one-step create request in the pop-up window



A page similar to the one below will open up

Process Object with MDG					
Save Submit 🗘 Check					🔄 Undo 🛛 🖘 🖉
Change Request	idit				
General Notes Attachments					
General Data		Process Dat	a		
Change Request ID:	5876		Status:	Changes to Be Executed	
* Description:			Current Workitem:	New Change Request	
Priority:		~	Created On/By:	10.06.2020 14:29:47	Felix Back
Due Date:		1			
Reason:		~			
Audit Information					
Created On:			Created By:		
Changed On:			Changed By:		
Approved At:			Approved By:		
• Currency Exchange Rates	S Edit				
* Exchange Rate (Type):					
* valid from:	1				
* From Currency:	ii G	idirect quot exch rate:		Ratio (from):	0
* To Currency:		Direct quot exch rate:		Ratio (to):	0

Under the "General Data" section, you can add info to the so-called "change request header", including a description, priority for the change request, a due date and a reason. In addition to this, the "Notes" tab lets you add a text to the change request, the "Attachments" tab allows a file to be attached to the request. Fill out these fields according to the workflow standards in your company.



Change Request	it		
General Notes Attachments			
General Data		Process Data	
Change Request ID:	5876	Status:	Changes to Be Executed
* Description:	Demo Creation	Current Workitem:	New Change Request
Priority:	~	Created On/By:	10.06.2020 14:29:47 Felix Back
Due Date:	1		
Reason:	~		

The "Audit Information" section can be ignored for now, as it will only become relevant once the object has already been created.

In the "Currency Exchange Rates" section you are going to enter the actual data, which the object, that will be created, is going to contain. Here is an example:

Currency Exchange Rate	S 🖉 Edit			
* Exchange Rate (Type): * valid from:	M 10.06.2020			
* From Currency: * To Currency:	EUR 🗗	Indirect quot exch rate: Direct quot exch rate:	0,62000	Ratio (from): 1 Ratio (to): 1

The last section, "Attachments", allows for metadata (files or links) to be attached to the object. Unlike the attachments of the change request header, the metadata is attached to the actual object, meaning, it is also visible after the object has been created. To attach a file/link, simply click on the second seco

<ul> <li>At</li> </ul>	tachments	S Edit 1 Delete C File C Link								
C Action	5	Туре	Title	Size	Added By	Language	Comment	Link		
Û		<b>B</b>	The Australian Dollar	1 KB	Felix Back	EN	Infos about Australia's cum			
Û		8	The European Euro	1 KB	Felix Back	EN	Infos about Europe's currer			

After being done, you can press on "Check" in the top left corner to check, if the data in your change request is valid. If that is the case, you can submit the change request by pressing on "Submit" in the top left corner:



Process Object with MDG			🕼 Undo 🛛 🔐 🚱 🖉
<ul> <li>Change Request</li> </ul>	Edit		
General Notes Attachments			
General Data		Process Data	
Change Request ID:	5876	Status:	Changes to Be Executed
* Description:	Demo Creation	Current Workitem:	New Change Request
Priority:	×	Created On/By:	10.06.2020 14:29:47 Felix Back
Due Date:	1		
Reason:	×		
Audit Information  Audit Information  Created On: Changed On: Approved At:		Created By: Changed By: Approved By:	
<ul> <li>Currency Exchange Rate</li> </ul>	S / Edit		
* Exchange Rate (Type):	M		
* valid from:	10.06.2020		
* From Currency:	EUR Dindirect of	uot exch rate:	Ratio (from): 1
* To Currency:	AUD Direct of	uot exch rate: 0,62000	Ratio (to): 1
Attachments     Zedit	1 Delete File Link		

A message such as this one pops up:

Process Object with MDG	
Save Cancel Change Documents	Workflow Log
No errors found	
You have submitted change request 5876	

The Exchange Rate has now been created



### 3.2 Editing an Exchange Rate

The process of editing an Exchange Rate will be demonstrated using the Exchange Rate, created in section 3.1.

On the NWBC launchpad click on "Exchange Rates" under "Financials":

RDM: Reference Data Governance		â 🎤 📀
<ul> <li>Financials</li> </ul>	Change Requests and Documents	¢.
Business Area Chart of Accounts Company Code Controlling Area	My Change Requests Display Change Requests Display Change Documents	
Customer Acc. Group Currency Document Type	Processing of Multiple Objects	¢.
Exchange Rates Functional Area Gen. Ledger Acc. Group Operating Concern	File Download File Upload	
Vendor Acc. Group	<ul> <li>Analysis of Editions</li> </ul>	¢.
<ul> <li>Logistics</li> </ul>	Edition Monitor	
Division Factory Calendar	Edition Comparison Distribution Monitor	
Laboratory/Office Location Material Group	<ul> <li>Data Replication</li> </ul>	¢.
Material Status Material Tune	Ranliesta hu Ohiaste	

On the upcoming page, you can search for the Exchange Rate that you want to edit. This is done by simply pressing on Search . In addition to this, you can simplify the search by using the provided filters (as done below).

										ê~ 4
<ul> <li>Search Criteria</li> </ul>	Saved Searc	ches:		~ 1	i i					0
Exchange Rate (Type)	~	is	~	М			C 🕒	Θ		
Currency (from)	~	is	~	EUR			- C 🕒	0		
Currency (to)	~	is	~	AUD			- D 🕒	0		
Valid from	~	is	~	10.06.2020			$\odot$	0		
Exchange Rate	~	is	~				$\odot$	0		
Ratio (from)	~	is	~				$\bigcirc$	0		
Ratio (to)	~	is	~				$\bigcirc$	0		
Quotation type	~	is	~				c) 🕄	0		
Search Clear Entries Res	et to Default		Sa	Maximun	n Number c	f Results	100			
New Copy Mas	Change Cl	hange Document	s Replication Stat	us Replicate						<b>P</b>
Pe E Valid from	n Cu	rrency (from)	Currency (to)	Exch Rate	Rat	R	Changed On	Created On	Created By	Quotation
M 10.06.20	20 EU		AUD	0,62000	1	1		10.06.2020 15	BACKF	



After pressing on the Exchange Rate, you want to edit, the overview page of the object pops up, on which you have to press on

Save	Object with MDG										🗊 Undo 🛛 🥅 F	Redo 🏻 🚑 🛓
<ul> <li>Audit</li> </ul>	t Information											
Audit Info	rmation											
	Created On:	10.06.2020 15:	26:47				Created By:	BACKF		Felix Back		
	Changed On:						Changed By:					
	Approved At:	10.06.2020 15	26:48				Approved By:	BACKF		Felix Back		
Curre	ency Exchange Rate	_	dit									
- Curre	Ency Exchange Rate Exchange Rate (Type): valid from:	M 10.06.2020	dit <mark>e</mark>									
Curre	Exchange Rate (Type):	м	an		Indirect quot 6	exch rate:			Ratio (from):	1		
-) Curre	Exchange Rate (Type): valid from:	M 10.06.2020	an		Indirect quot e Direct quot e				Ratio (from): Ratio (to):			
	Exchange Rate (Type): valid from: From Currency: To Currency:	M 10.06.2020 EUR AUD	of File									
Attac	Exchange Rate (Type): valid from: From Currency: To Currency: chments	M 10.06.2020 EUR AUD	) File			exch rate: 0,62000			Ratio (to):			
	Exchange Rate (Type): valid from: From Currency: To Currency: chments	M 10.06.2020 EUR AUD		Size 1 KB			Language EN		Ratio (to):		Link	

Choose the workflow process, you wish to work with and press on "OK". (This documentation follows the 1-step process)

Lis	ailable Change Request Types 🔲 🗙
	Change Request Type Description
	Process Curr ExRt and activate
	Process Curr ExRt with approval
	Process Curr ExRt with proc. and appr.
	OK Cancel

For an in-depth explanation on the segments on the upcoming page, view the explanation of the create-request page in section 3.1.

Provide a Description (or additional infos, according to the workflow standard in your company) of the change request.



Change Request	Change Request						
General Notes Attachments							
General Data		Process Data					
Change Request ID:	5879	Status:	Changes to Be Executed				
* Description:	Updating Rate	Current Workitem:	New Change Request				
Priority:	~	Created On/By:	12.06.2020 09:01:27 Felix Bac				
Due Date:	1						
Reason:	×						

The "Currency Exchange Rates" section only allows for changes of the actual rate, not of the Currencies or the "valid-from/to" date. This decision has been made based on the fact, that changing either one of those fields would technically create a new entry in the relevant tables for Exchange Rates. This, however, would conflict with the original purpose of this function: "Change".

Changes in this case:

*Exchange Rate (Type): M *valid from: 10.06.2020	
* From Currency:     EUR     Indirect quot exch rate:     Ratio (from):       * To Currency:     AUD     Direct quot exch rate:     0,62000     Ratio (to):	1
Attachments     Zedt     Delete     File     Clink	
$\downarrow$	
Currency Exchange Rates	
* Exchange Rate (Type): M * valid from: 10.06.2020	
* From Currency:     EUR     Indirect quot exch rate:     Ratio (from):       * To Currency:     AUD     Direct quot exch rate:     0.72000	1

If you wish, you can provide additional metadata to the object (explained in section 3.1):

<ul> <li>Attachments</li> </ul>	/ Edit 👘 Delete	File Link					
C Actions	Туре	Title	Size	Added By	Language	Comment	Link
1		The Australian Dollar	1 KB	Felix Back	EN	Infos about Australia's	
Û	3	The European Euro	1 KB	Felix Back	EN	Infos about Europe's c	



٠	Attachments	Celt Delete C File C Link						
								2
۳b	Actions	Туре	Title	Size	Added By	Language	Comment	Link
	<b>Û</b>		The Australian Dollar	1 KB	Felix Back	EN	Infos about Australia's curre	
	1		The European Euro	1 KB	Felix Back	EN	Infos about Europe's currer	
	<b>û</b>	ධ	Exchange Rates - Wikipedia		Felix Back	EN	Infos about Exchange Rate	https://en.wikipedia.org/

After being done, you can press on "Check" in the top left corner to check, if the data in your change request is valid. If that is the case, you can submit the change request by pressing on "Submit" in the top left corner:

Process Object with MDG	Check			🗐 Undo 🛛 🖓 Redo 🛛 🧞 🖉
<ul> <li>Change Request</li> </ul>	Edit			
General Notes Attachments				
General Data		Process Data		
Change Request ID:	5879	Status:	Changes to Be Executed	
* Description:	Updating Rate	Current Workitem:	New Change Request	
Priority:	×	Created On/By:	12.06.2020 09:01:27	Felix Back
Due Date:	1			
Reason:	×			
Audit Information				
Created On:	10.06.2020 15:26:47	Created By:	BACKF Felix Bac	k
Changed On:		Changed By:		
Approved At:	10.06.2020 15:26:48	Approved By:	BACKF Felix Bac	k
• Currency Exchange Rate	PS Edit			
* Exchange Rate (Type):	М			
* valid from:	10.06.2020			
* From Currency:	EUR Indirect of	quot exch rate:	Ratio (from):	1
* To Currency:		uot exch rate: 0,72000	Ratio (to):	1

Process Object with MDG					
Save	🔀 Cancel	Φ	Check	Change Documents	Workflow Log
<ul> <li>No errors found</li> <li>You have submitted change request 5879</li> </ul>					
	Submitted onding	je requ	51 007 5		

The Exchange Rate has now been updated in all relevant tables.



# 3.3 File Upload for Exchange Rates

A file upload comes in handy when attempting to create or edit multiple Exchange Rates at once.

Prerequisite for a file upload is a file, which contains the Exchange Rates, you want to upload, listed according to the file structure that you are going to use. The file used in this documentation has the following content:

file_upload	12.06.2020 10:38	Textdokument	1 KB
<pre>* Download * Data Model: I1 * Entity Type: CUR_EXRA * Variant: FB_EXRA * User: BACKF * Date: 20200612 / Time: * Selection: * USMD_ENT_CRTD_BY EQ   E *CUR_EXRA;CUR1FROM;CUR2TC</pre>	BACKF	E;NOTATION;RATIO_FR	RATIO_TO
M;AUD;NZD;11.05.2020;0,90 M;BRL;EUR;28.05.2020;/0,1 1004;BSD;BWP;01.01.2020;/ 2003;EUR;AUD;01.02.2020;0 B;EUR;AUD;06.05.1999;0,50 M;EUR;BOB;03.06.2020;/8,60 M;EUR;GBP;08.05.2020;0,90 M;EUR;HKD;04.06.2020;/8,60 M;EUR;JPY;08.05.2020;0,10 M;EUR;RON;28.05.2020;4,84	7096;2;1;1; 100,00000;;0;0; 0,30000;;0;0; 57200;;0;0; 57200;;1;1; 58300;;0;0; 0000;;1;1;		

To initiate the file upload, click on "File Upload" under "Processing of Multiple Objects" on the NWBC Launchpad:



RDM: Reference Data Governance	
• Financials	<ul> <li>Change Requests and Documents</li> </ul>
Business Area Chart of Accounts Company Code Controlling Area	My Change Requests Display Change Requests Display Change Documents
Customer Acc. Group Currency Document Type	<ul> <li>Processing of Multiple Objects</li> </ul>
Exchange Rates Functional Area Gen. Ledger Acc. Group Operating Concern	File Download File Upload
Vendor Acc. Group	<ul> <li>Analysis of Editions</li> </ul>
Logistics  Division Factory Calendar	Edition Monitor     Edition Comparison     Distribution Monitor
Laboratory/Office Location Material Group	• Data Replication
Material Status Material Type BOM Usage Plant Storage Location Unit of Measure	Replicate by Objects Replicate by Replication Model Monitor Replication Define Filter Criteria

The file upload application will open up:

File Upload: Step 1 (Determine Entity Type)					
Previous     Next      Execute Up	Change Model	Save Variant Delete Variant			
Determine Entity Type	2 Define File Structure	3 Determine Upload Settings	4		
General Settings * Entity Type:		v			
* Type of Transfer: * Edition:	Attributes	v			
Variant Variant:	ď				

It is advised to use a variant for the upload process. The variant has to contain the file structure which is used by the file, you are going to upload.

If you created a variant, simply enter its name into the "Variant" field.

If you haven't created a variant yet, follow this procedure: For "Entity Type" use "Exchange Rate (Type)", for "Type of Transfer" use "Attributes". The "Edition" field will disappear.



File Upload: Step 1 (Determine Entity Type)            Previous          Next >       Execute Upload         Change Model       Save Variant         Delete Variant					
Determine Entity Type	2     3       Define File Structure     Determine Upload Settings       Check and Execute	-1			
General Settings * Entity Type: * Type of Transfer: Variant Variant:					

Click on Next >

Use the file structure of your variant or create a new structure by using the Add / Remove buttons. The file structure has to match the one, your document uses

File	File Upload: Step 2 (Define File Structure)			
< Pre	evious Next > Execute Upload Save Variar	Delete Variant		
<b>    -</b>	Determine Entity Type Define File Structur	re Determine Upload Settings Check and Execute		
Av	ailable	Selected		
Ē	Entity Type / Attribute	Entity Type / Attribute		
	Alt. exch.rate type	▼ Header		
	Alt.e/r type valid fr.	<ul> <li>Data Row</li> </ul>		
	Approved At	Exchange Rate (Type)		
	Approved By	Currency (from)		
	Approved By	Currency (to)		
		Valid from		
		Exchange Rate		
		Add > Quotation type		
		Ratio (from)		
		Ratio (to)		

Click on Next >



Fill out the fields as shown. Pay attention to the "File Name" field, in which you need to provide the path of the file, you are going to upload. It is advised to use the "Load File" button:

File Upload: Step 3 (Determine Upload Settings)				
Previous Next > Execute Up	load Save Variant Delete Variant			
Determine Entity Type	2     3     4     4       Define File Structure     Determine Upload Settings     Check and Execute			
Upload Settings				
* Upload Mode:	Overwrite or Add Records			
* Conversion:	Execute Conversion			
File Store				
* File System:	Presentation Server			
* File Name:	C:\fakepath\file_upload 1 Load File			
File Format				
* Separator:	Semicolon			
Comment Row:	*			

Click on Next >

Starting on the upcoming popup, you get two options on how to process the file, you are going to upload.

Select or Create Change Request					
Change Request:		~			
		0			
	Create Change Request Transfer	Cancel			

 If the file, you are going to upload, is imported directly from a provider, you can use the F4-Help on the "Change Request" field, and choose the provider. With this method, RDM will validate the uploaded data and keep them in a change request in the regular workflow.

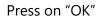
Select or Create Change Request				
Change Request:	CR for error processing FINISS (5815)	~		
	CR for error processing Infoaval (5759)			
	CR for error processing FINISS (5815)			
	CR for normal checks FINISS (5847)			
	CR for normal checks RDM-EZB (5856)			
	CR for normal checks RDM-EZB (5868)			
	CR for normal checks RDM-EZB (5893)	cel		



Press on "Transfer"

If the file, you are going to upload, contains 3<sup>rd</sup> party data or doesn't need to be vali Create Change Request dated, you can click on to create a standard change request (1, 2, or 3-step). Note that a standard change request does *not* include a validation of the imported data.

Create Cha	nge Request		$\square \times$
* Type:	Load Curr ExRt and activate	~	
* Description:	Exra Demo Load		
Priority:	~		
Due Date:	1		
Reason:	~		
Note:			
		OK	Cancel



After having executed one of the above steps, you are directed to step 4, which (in the table at the bottom) allows you to review the data, you are going to upload.

You also get the chance to save a variant for future file uploads by pressing on Save Variant .

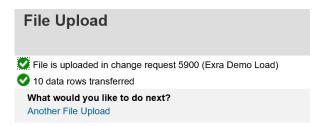


Previous Next >	Execute Upload	Save Variant Delet	e Variant					
Determine Entity		2 le Structure	3 Determine Upload Set	tings Check and	-			
eneral Settings	ntity Type: Exchange	Rate (Type)						
Jpload Settings	naty rype. Exchange	Rate (Type)						
	ad Mode: Overwrite	or Add Records						
	onversion: Execute C							
	File Store: Presentation File Name: C:\fakepati							
	Separator: Semicolon							
Comr	ment Row: *							
Data								
	~							
	Currency (from)	Currency (to)	Valid from	Exchange Rate	Quotation type	Ratio (from)	Ratio (to)	Row Number
Show: All Rows Exchange Rate (Type)		Currency (to)	Valid from 11.05.2020	Exchange Rate 0,90000	Quotation type	Ratio (from) 0	Ratio (to) 0	Row Number
Show: All Rows Exchange Rate (Type) M	Currency (from)				Quotation type			
Show: All Rows Exchange Rate (Type) M M	Currency (from) AUD	NZD	11.05.2020	0,90000		0	0	11
Show: All Rows Exchange Rate (Type) M 1004	Currency (from) AUD BRL	NZD	11.05.2020 28.05.2020	0,90000 /0,17096		0	0	11 12
Show: All Rows Exchange Rate (Type)	Currency (from) AUD BRL BSD	NZD EUR BWP	11.05.2020 28.05.2020 01.01.2020	0,90000 /0,17096 /100,00000		0 1 0	0 1 0	11 12 13
Show: All Rows Exchange Rate (Type) M M 1004 2003 B	Currency (from) AUD BRL BSD EUR	NZD EUR BWP AUD	11.05.2020 28.05.2020 01.01.2020 01.02.2020	0,90000 /0,17096 /100,00000 0,30000		0 1 0 0 0	0 1 0 0	11 12 13 14
Show: All Rows Exchange Rate (Type) M M 1004 2003 B M	Currency (from) AUD BRL BSD EUR EUR	NZD EUR BWP AUD AUD	11.05.2020 28.05.2020 01.01.2020 01.02.2020 06.05.1999	0,90000 /0,17096 /100,00000 0,30000 0,50000		0 1 0 0 0 0	0 1 0 0 0 0	11 12 13 14 15
Show: All Rows Exchange Rate (Type) M M 1004 2003 B M M M	Currency (from) AUD BRL BSD EUR EUR EUR EUR	NZD EUR BWP AUD AUD BOB	11.05.2020           28.05.2020           01.01.2020           01.02.2020           06.05.1999           03.06.2020	0,90000 /0,17096 /100,00000 0,30000 0,50000 /8,67200		0 1 0 0 0 0 0	0 1 0 0 0 0 0	11 12 13 14 15 16
M M 1004 2003	Currency (from) AUD BRL BSD EUR EUR EUR EUR	NZD EUR BWP AUD AUD BOB GBP	11.05.2020           28.05.2020           01.01.2020           01.02.2020           06.05.1999           03.06.2020           08.05.2020	0,90000 /0,17096 /100,00000 0,30000 0,50000 /8,67200 0,90000		0 1 0 0 0 0 0 1	0 1 0 0 0 0 0 0 1	11 12 13 14 15 16 17

After having reviewed the data, you can press on

Execute Upload to u

to upload.



If you chose a direct approval change request in the second upload variant above, the file upload is finished.

If you chose a 2 or 3-step change request in the second upload variant above, you need to approve and/or process the change request according to the standard-workflow of Itego RDM.

If you chose any of the change requests in the first upload variant above, you need to validate and approve the change requests as described in section 2.4.



# 3.4 File Download for Exchange Rates

To start a file download, start on the NWBC launchpad and select "File Download" under "Processing of Multiple Objects"

RDM: Reference Data Governance		
• Financials	⊙ Change Requests and Documents	ری ری بھ پ
Business Area Chart of Accounts Company Code Controlling Area	My Change Requests Display Change Requests Display Change Documents	
Customer Acc. Group Currency Document Type	Processing of Multiple Objects	Ø,
Exchange Rates Functional Area Gen. Ledger Acc. Group Operating Concern	File Download File Upload	
Vendor Acc. Group	<ul> <li>Analysis of Editions</li> </ul>	Q.
Logistics	Edition Monitor Edition Comparison Distribution Monitor	
Laboratory/Office Location Material Group	<ul> <li>Data Replication</li> </ul>	Q.
Material Status Material Type BOM Usage Plant Storage Location Unit of Measure	Replicate by Objects Replicate by Replication Model Monitor Replication Define Filter Criteria	

In the process, you have to take five steps in order to end up with a downloaded file. When clicking on "File Download", you start in step 1.

You have to enter the object, you want to download (Exchange Rate (Type)) in the "Entity Type" field.

File Download: Step 1 (Determine Entity Type)			
Previous     Next      Execute Do	wnload Change Model Save Variant Delete Variant		
Determine Entity Type	2     3     4       Define Selection     Define File Structure     Determine Download Sett		
General Settings			
* Entity Type:	Exchange Rate (Type)		
* Type of Transfer:	Attributes		
<b>Variant</b> Variant:	<b>一</b> 一		
Click on Next >			



The second step lets you determine, which Exchange Rates you want to include into the file. You can filter or sort by any attribute of the Exchange Rates. As there is no "right or wrong" for filtering, the image below should simply be considered as an example.

File Download: Step 2 (Define Selection)				
Kext >         Execute Download         Save Variant         Delete Variant				
Determine Entity Type	Defin	2 3 ne Selection Define File Structure	4     6       Determine Download Settings     Check and Execute	
Jownload Active Data Only				
Selection				
Currency (from):			то	\$
Currency (to):			То	<b>\$</b>
Valid from:			То	\$
Exchange Rate (Type):	$\diamond$		то	\$
Approved By:	$\diamond$	Ē	то	\$
Approved By:	$\diamond$		То	\$
Alt.exch.ratety:	$\diamond$	- C	то	\$
Ex.rate valid from:	$\diamond$	1	To	\$
Quotation:	$\diamond$	- D	то	\$
Changed By:	$\diamond$	L L L L L L L L L L L L L L L L L L L	то	\$
Created By:	$\diamond$	- D	то	\$

Click on Next >

The third steps lets you configure the file structure (namely, the order, in which the attributes for each object are going to be listed in the file). You can do this, by clicking on an object on the left side, and moving it to the right side. It is important to have clicked on "Data Row" on the right side while doing this. Again, there is no right or wrong to this step, so the image below should just be considered as an example. Be sure to save the file structure for further usage.

Fil	File Download: Step 3 (Define File Structure)				
< Pr	evious Next > Execute E	Download Save Va	riant Delete Variant		
<b>I</b> Þ	1 Determine Entity Type	2 Define Selection	3 Define File Structur	4 5 4	
Av	ailable		S	Selected	
Ē	Entity Type / Attribute		1	Entity Type / Attribute	
	Alt. exch.rate type			▼ Header	
	Alt.e/r type valid fr.			▼ Data Row	
	Approved At			Exchange Rate (Type)	
	Approved By			Currency (from)	
	Approved By			Currency (to)	
	Changed By			Exchange Rate	
	Changed On			Quotation type	
	Created By		Add >	Valid from	
	Created On		< Remove	Ratio (from)	
			4 Noniove	Ratio (to)	



Click on Next >

In step 4, you can configure the download settings, and the format, the file is going to use. The download settings should be left as they are. The file format adjustments allow you to set the separator and the comment-sign to any valid string.

File Download: Step 4 (Determine Download Settings)					
< Previ	ous Next > Execute Do	wnload	Delete Variant		
<b>I</b> ♦—	1 Determine Entity Type	2 Define Selection	3 Define File Structure	4 Determine Download Settings	5 H
Down	load Settings				
	* Download Method:	Complete Download	~		
	* Conversion:	Execute Conversion	~		
File Fo	ormat				
	* Separator:	Semicolon 🗸			
	* Comment Row:	*			

If you are planning on doing a file download, similar to this one, again, it is recommended to use the Save Variant button to create a variant. This variant will save all the settings from the previously taken steps for you to use again. It can be chosen in step 1. If the download is only done once, skip this step.

Save Variant		
* Variant:	DEMO_EXRA	
Name:	Up/Download Exchange Rates	
	Save Variant Cancel	

Click on Next >

Step 5 is simply a confirmation page, on which you can double-check the download settings.



File Download: Step 5 (Check and Execute)				
Previous Next      Execute D	ownload Save Variant Delete Variant			
Determine Entity Type	2     3     4     5     -       Define Selection     Define File Structure     Determine Download Settings     Check and Execute			
	Exchange Rate (Type)			
Selection Currency (from):	EUR			
Conversion:	Complete Download Execute Conversion Semicolon			
If everything is correct,	press on Execute Download to execute the download.			

File Download				
<ul><li>✓</li></ul>	49 data rows transferred			
Sile is ready for download	1			
What would you like to d	o next?			
Display File				
Save File				
Another File Download				

By clicking on "Display File", you can display the file, and by "Save File", you can save it to any directory, you wish.

The file download is now completed.