



ECMS | Reference data (Refresher training session) Deutsche Bundesbank

Frankfurt am Main, May 2024 (Update 20.06.2024)

ECMS | Reference data

Title	ECMS Reference data (Counterparties)	
Objectives	 Topic-based training on specific aspects of the ECMS application: Participants are familiar with and understand the role and rights concept of the ECMS. Participants know which roles, rights and reference data are to be assigned to commercial banks. 	
Content	 ECMS Reference data ECMS Roles and rights – 20 minutes ECMS Reference data – 70 minutes Q&A – 30 minutes 	
Target group	For counterparties that work directly with roles, rights and reference data in the ECMS (for example, in the user roles "counterparty party administrator" or "counterparty (U2A) general reference data").	
Prior knowledge	All participants should have completed the basic ECMS basic training module as well as the "Access & GUI" training module.	
General framework	 Virtual training course (online)/hosted via WebEx 120 minutes/maximum 500 participants/in German 	

Training materials

- We will provide you with the following training materials for this event:
 # Presentation slides # ECMS video(s).
- For data protection reasons, the training course will **NOT** be recorded.

Q&A

- Please feel free to ask questions or add to the discussion as we go along. A separate Q&A session will also be held at the end of each training course.
- If you have any questions or wish to say something, please use the chat function.

Training feedback

- When you were invited to this event, you were sent a link to a standardised and anonymised feedback form.
- Once the event has ended, please take a few moments to fill out the form and give us honest feedback on this training course. Thank you!

1. ECMS | Roles & rights

(basic concept, parties, party creation, user roles)

2. ECMS | Reference data (business roles, users, accounts, pools, marketable assets, settlement possibilities and T2S relocation, interfaces, generic data)

1. Roles and rights

Basic concept (parties)

Each legal entity interacting with the ECMS is defined as an ECMS party. Each party belongs to one of the following party types:

ECMS party	Legal entity	
ECMS operator	The party operating the ECMS (4CB).	
NCB	National central banks of the Eurosystem.	
ECMS entity	 ECMS entities may have one or more of the following business roles: counterparty central securities depository (CSD) triparty agent (TPA) cash correspondent banking group manager creditor non-euro area CB 	

- The ECMS operator's responsibilities include creating the parties for central banks and assiging business roles to CSDs and TPAs on behalf of the NCBs.
- The NCBs are responsible for creating their counterparties and assigning business roles to the ECMS entities counterparty, cash correspondent and non-euro area CB.
- The counterparties are responsible for creating and managing their own users/roles/groups, for example.

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1. Roles and rights introductory slide

Basic concept (user roles)

- An ECMS role is a set of privileges (rights) granting the holder of that role the ability to trigger an ECMS user function. These user roles are predefined in the ECMS. In the ECMS, privileges are assigned exclusively via roles; it is not possible to assign privileges directly.
- Each system user* is assigned at least one of these predefined user roles. The resulting rights concern business functions that the user can perform in either "read-only" or "execution" mode.
- For each NCB, the ECMS operator assigns the role of administrator to a system user it has created.
 This administrator can create additional system users and give these their own rights via the predefined U2A and A2A roles for NCBs.
- The NCB administrator also creates at least one system user in the ECMS in the role of administrator for each (monetary policy) counterparty. This administrator can create additional system users for their organisation and give these their own rights via the predefined U2A and A2A roles for counterparties.

^{*} As a general rule, system users can be:

For U2A communication ==> an employee, e.g. of a counterparty or an NCB

For A2A communication ==> an application, e.g. of a counterparty or an NCB

1. Roles and rights

Basic concept (2-eyes/4-eyes mode)

- You can use the ECMS in 2-eyes mode or 4-eyes mode depending on how the access rights are set up. The 2-eyes mode and the 4-eyes mode apply to input screens and to any kind of deletion processes. If you are a 4-eyes mode user, your actions have to be confirmed by a second user in order to be processed.
- Each U2A user must be assigned either the "2-eyes" or the "4-eyes" role. From then onwards, the assigned privilege applies for all roles with execution rights.

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1. Roles and rights

User roles (counterparties)

Role (user)	Description (simplified)	Variant	
Counterparty (U2A) Party Administrator	Creates and manages their own users/roles/groups	Read only/execution	
Counterparty (U2A) General Reference Data	Overview of reference data constellation for counterparty's data scope (e.g. party, accounts, settlement possibilities, etc.)	Read only	
Counterparty (U2A) Marketable (De)Mobilisation Asset	Monitors and manages the counterparty's (de)mobilisation instructions for marketable assets	Read only/execution	
Counterparty (U2A) Open Market Operations	Monitors the counterparty's open market operations	Read only	
Counterparty (U2A) Standing Facilities	Manages or monitors the counterparty's marginal lending ("on request" and "automatic") Read only/exe		
Counterparty (U2A) Credit Line	Sets up and manages the counterparty's own maximum credit line Read only/exec		
Counterparty (U2A) Pool Position Management			
Overall, more than 20 different ECMS user roles are defined for counterparties			

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Source: ECMS access rights matrix

If you have any questions or wish to say something, please use the chat function.

 ECMS | Roles and rights (basic concept, parties, party creation, user roles)

2. ECMS | Reference data

(business roles, users, accounts, pools, marketable assets, settlement possibilities and T2S relocation, interfaces, generic data)

2. Reference data Overview



Where?

- Reference Data module
- Collateral and credit module for displaying pools



How?

- Reference data can be created, displayed and edited
- Some reference data can only be created/processed by the NCBs, e.g. ECMS parties



What?

- Creation, maintenance and displaying of reference data:
 - ECMS parties, business roles and users
 - Accounts and pools
 - Marketable assets
 - Settlement possibilities and T2S relocation
 - Counterparty-specific reference data
 - Generic reference data
 - Interfaces
 - NCB business parameters

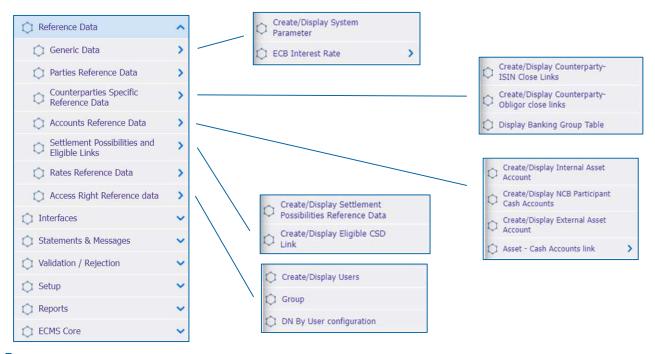


Special functions

Certain data (e.g. account numbers of MCAs and T2S DCAs) are compared against the Common Reference Data Management (CRDM)

Main menu Reference Data module

 Main menu Reference Data module ("MegaCommon")



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Source: ECMS EAC 2 April 2024

Menu bar Reference Data module

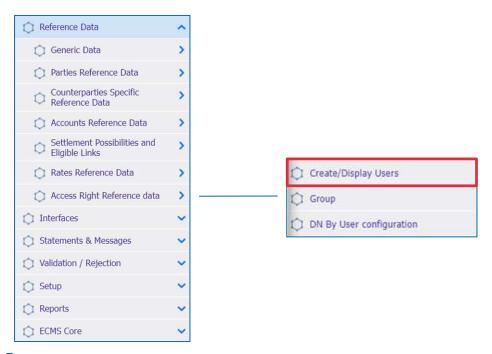
Module	Main menu	Description
Reference data	Reference data	 Reference data on counterparties, creation of internal and external accounts (cash, securities, credit claims), establishment of settlement possibilities and eligible links, user and access rights administration, parameters for US-QuSt
	Interfaces	 Overview of interfaces with Eurosystem services (including marketable assets, price information, exchange rates), data transfer to T2S and triparty agents
	Statements & Messages	 Access to safe custody account statements and transaction lists
	Validation/rejection	 Confirmation/rejection of instructions (4-eyes mode)
	Setup	Message subscription setup, file channel configuration
	Reports	Reports from the Reference Data module
	ECMS Core	Access to other modules

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Source: ECMS EAC 2 April 2024

Creating users (1/7)

 Main menu Reference Data module ("MegaCommon")



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Creating users (2/7)

- The ECMS allows NCB users and counterparties to manage the system users as well as to assign predefined roles and/or groups to these users.
- Each system user defined in the ECMS must be:
 - a human user, i.e. an employee using the ECMS U2A via GUI;

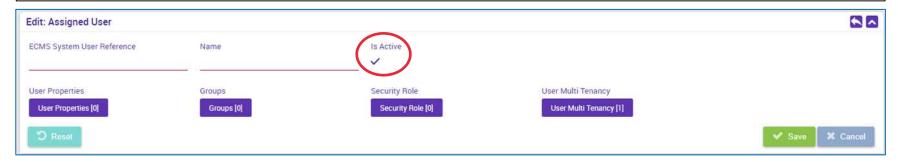
or

- an application, i.e. a software component interacting with the ECMS in A2A mode.
- Authorisation, i.e. the user's right to perform a specific function in the ECMS, is based on the user's privileges (embedded in their predefined roles), which are stored in the ECMS reference data (user, group, role).

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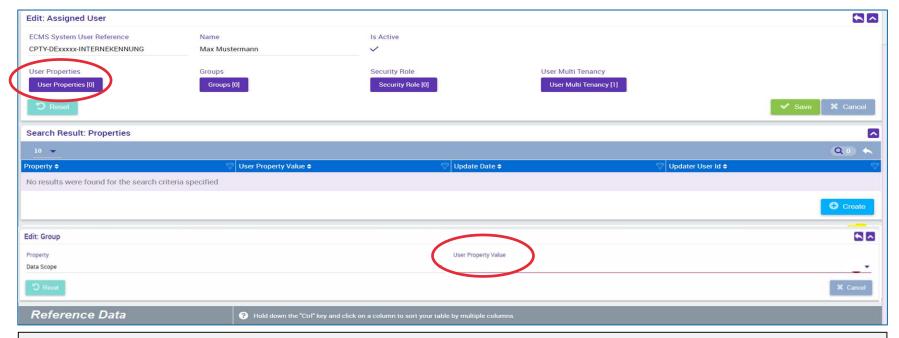
Creating users (3/7)

- "Create/Display Users" screen for creating a user
- Reference Data >> Reference Data >> Access Rights Reference Data >> Create/Display Users >> click "Create"
- Complete the mandatory entry fields on this screen such as the "ECMS System User Reference" and the full "First and last name" of the new user.
- Please observe the naming conventions for system user references and the naming conventions for DNs. For more details, see https://www.bundesbank.de/resource/blob/926672/9d6897678ccba8e5080cda86b2967416/mL/form-guide-information-sheet-ecsm-production-environment-data.pdf
 - U2A DN SWIFT example: CN=john-smith, OU=esmig1, O=abcdxxyy, O=swift and
 - U2A DN SIA Colt example: CN=john-smith, OU=U2A, O=12345, DC=sianet, DC=sia, DC=eu
- Tick "Is Active" if not already ticked



Source: ECMS EAC 4 April 2024

Creating users (4/7)

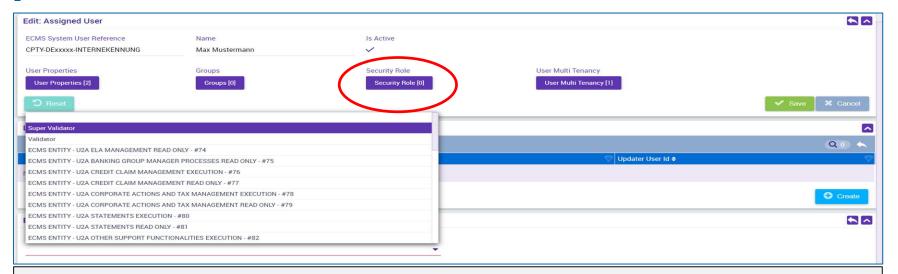


- In the next step, add the "Data Scope" information under "User Properties" as well as your institution's RIAD code in the mandatory field "User Property Value"
- Save your entry by clicking on the small "back button" on the right-hand side (highlighted in yellow)

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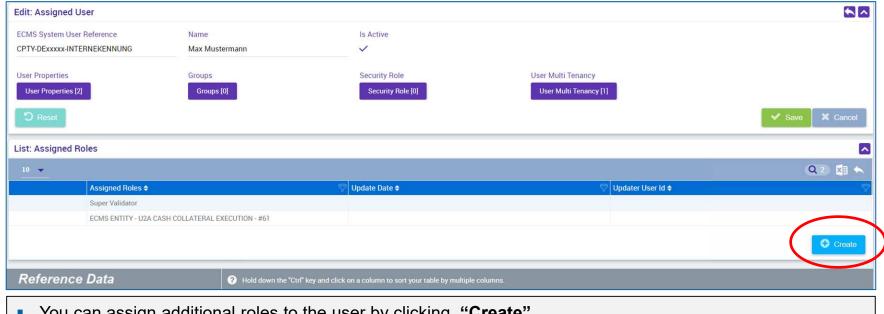
Source: ECMS EAC 4 April 2024

Creating users (5/7)



- User roles are assigned by selecting the "Security Role"
- Please note that you must assign at least one business role and either the "Validator" role for the 4-eyes principle or the "Super Validator" role for the 2-eyes principle. You will be informed as soon as the 4-eyes principle can be tested.
- Use the "back button" key to save your selection and then click "Save"

Creating users (6/7)



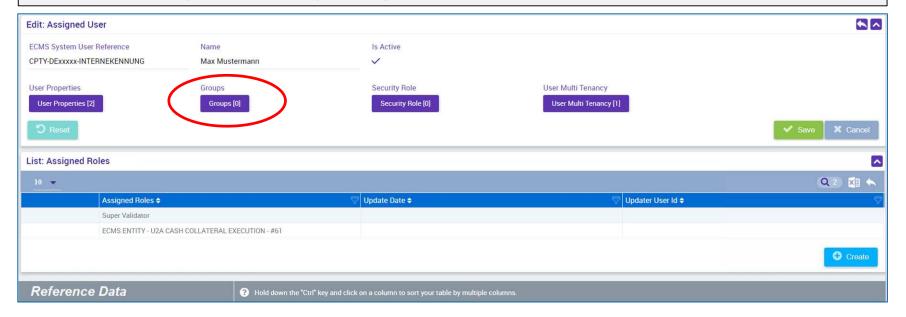
You can assign additional roles to the user by clicking "Create".

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Source: ECMS EAC 4 April 2024

Creating users (7/7)

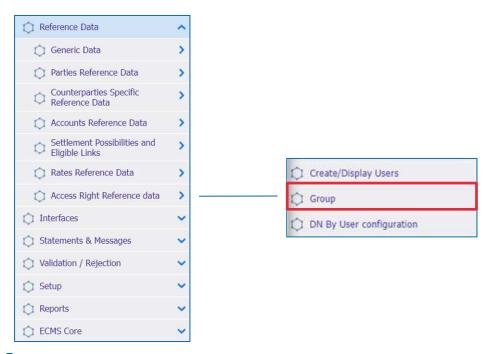
- Optionally, by selecting "Groups", you can add a user to an existing group of users so that they
 can be allocated the corresponding roles.
- You can confirm your selection by clicking "Save".



Source: EAC 7 May 2024

Creating groups (1/2)

 Main menu Reference Data module ("MegaCommon")

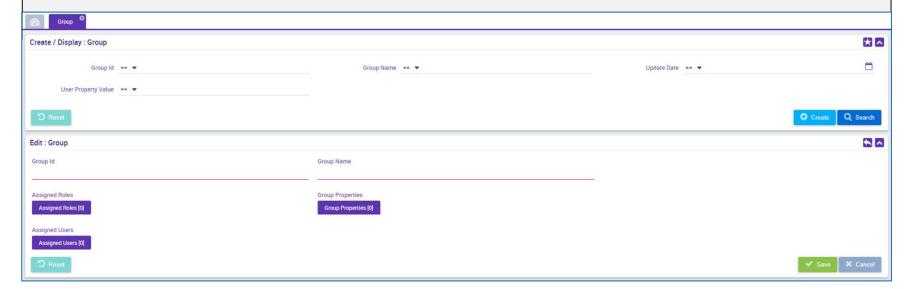


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Source: ECMS EAC 7 May 2024

Creating groups (2/2)

- "Create/Display Group" screen for creating groups
- Reference Data >> Reference Data >> Access Rights Reference Data >> Create/Display Group >> click "Create"
- Enter the "Group ID" and the desired "Group Name" (the desired roles can be assigned per user group and new users can be assigned to the respective user group)



Source: EAC 7 May 2024

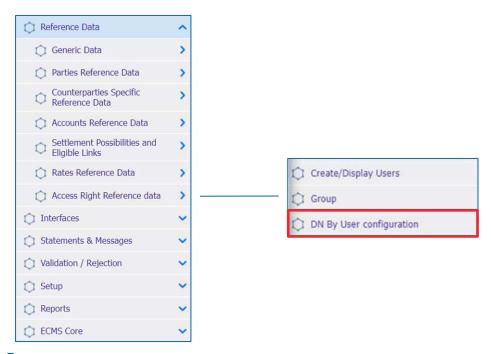
Linking to distinguished names (DNs) (1/3)

- Before mid-March 2024, it was not technically possible to connect one ECMS user to multiple (DNs = certificates) in the ECMS. Change request (CR) 0084 remedied this restriction.
- All users were set up with a single DN (U2A and A2A users) in the ECMS UTEST/Pre-Prod environment.
- Since the go-ahead by the Bundesbank, institutions that will use multiple DNs have to subsequently record these DNs themselves in the ECMS.
- Please note that you need to first complete the adjustments in UTEST before adding multiple DNs to users in the ECMS Prod environment.

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Linking to distinguished names (DNs) (2/3)

 Main menu Reference Data module ("MegaCommon")

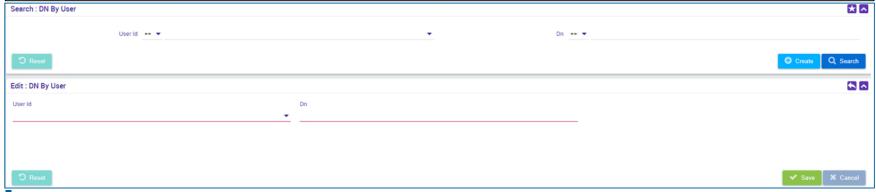


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Source: ECMS EAC 7 May 2024

Linking to distinguished names (DNs) (3/3)

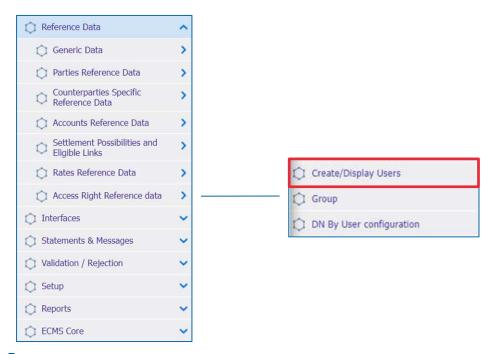
- Once a user has been created in ECMS, one or several DNs must be assigned to them. It is not possible to use the
 user without taking this step.
- "DN By User configuration" screen for linking an ECMS user to one or multiple distinguished names (DNs)
- Reference Data >> Reference Data >> Access Rights Reference Data >> DN By User configuration >> click "Create"
- For "User ID", enter the user's "ECMS system user reference" or select it from the drop-down menu. In the "DN" field, enter the appropriate DN for the user in the ECMS.
- If you want to link a user to multiple DNs, repeat these steps.



Source: EAC 4 April 2024

Viewing/editing/deleting users (1/4)

 Main menu Reference Data module ("MegaCommon")

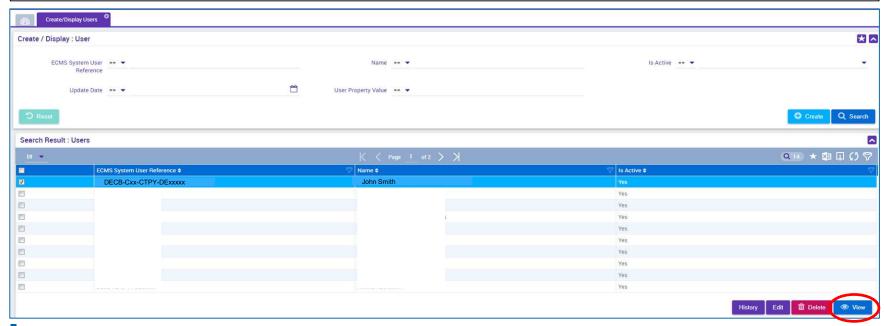


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Source: ECMS EAC 2 April 2023

Viewing created users (2/4)

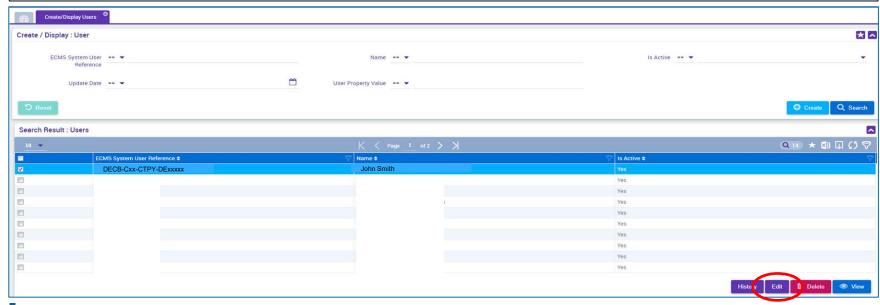
- "Create/Display Users" screen for displaying users that have already been created in the ECMS
- Reference Data >> Reference Data >> Access Rights Reference Data >> Create/Display Users >> click "Search" >> select the user to be edited >> click "View"



Source: EAC 4 April 2024

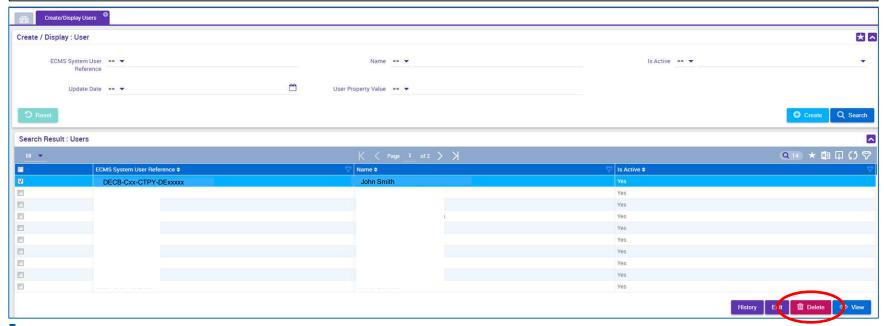
Editing created users (3/4)

- "Create/Display Users" screen for editing users that have already been created in the ECMS (e.g. to allocate additional roles to users)
- Reference Data >> Reference Data >> Access Rights Reference Data >> Create/Display Users >> click "Search" >> select the user to be edited >> click "Edit"



Deleting users (4/4)

- "Create/Display Users" screen for deleting users in the ECMS
- Reference Data >> Reference Data >> Access Rights Reference Data >> Create/Display Users >> click "Search" >> select the user to be deleted >> click "Delete"



Creating accounts (ECMS account types)

Internal asset account

- Used by counterparties and NCBs to bookkeep collateral positions.
- Accounts are opened and managed directly in the ECMS.

ECMS counterparty asset account

ECMS cross NCB asset account

ECMS non-euro area CB asset account

ECMS NCB asset account

External asset account

- Opened in the books of central securities depositories (CSDs) and in T2S for the settlement of marketable asset instructions.
- Configuration takes place within the FCMS reference data.

ECMS cross NCB asset account (mirror)

T2S securities account for regular collateral

T2S securities account for triparty collateral

T2S securities account for intraday auto-collateral

External cash account

- Operated by external systems such as CLM for the settlement of cash operations and the provision of intraday liquidity.
- Configuration takes place in the ECMS reference data.

CLM main cash account

T2S dedicated cash account

Non-euro cash account

CLM CB account

Contingency cash account

CB contingency cash account

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Source: ECMS UDFS v1.3.3, pp. 46 ff.

Creating accounts

- The NCBs are solely responsible for the setup and maintenance of account reference data in their field of competence.
- To this end, the ECMS relies on the directories of T2S securities accounts, T2S DCAs (dedicated cash accounts) and of MCAs operated in CLM (Central Liquidity Management main cash accounts) received from CDRM (Common Reference Data Management).
- The internal and external asset accounts in the ECMS must be linked to the cash accounts (via the NCBs, maximum of one linkage possible) in order to settle payments resulting from corporate actions on securities mobilised as collateral.
- The owner of an ECMS counterparty asset account is a counterparty, and the account servicer is its NCB, acting as the refinancing central bank.
- The ECMS counterparty asset accounts are used to hold the counterparty's collateral positions, either in order to pledge marketable assets or credit claims managed in the ECMS as collateral.
- The ECMS counterparty asset account makes it possible to identify the legal technique used to mobilise the collateral (pledge for collateralised loan or repo for transfer of ownership; only one type of collateral permissible).
- Each counterparty may have as many ECMS counterparty asset accounts as it requires to segregate its collateral.

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Source: ECMS UDFS v1.3.3, pp. 46 ff.

Displaying accounts (1/2)

 Main menu Reference Data module ("MegaCommon")



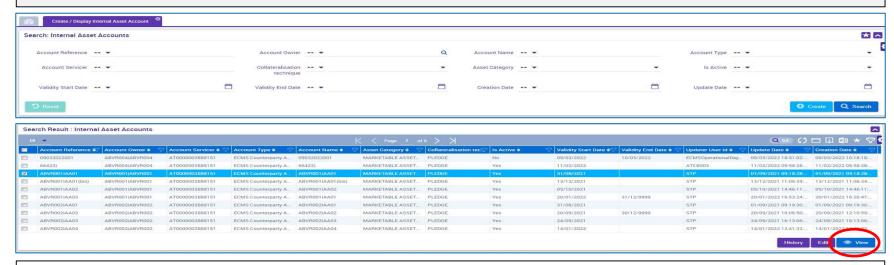


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Source: ECMS EAC 2 April 2023

Displaying accounts (2/2)

- Search and list screens for internal asset accounts*
- Reference Data >> Reference Data >> Accounts Reference Data >> Create/Display Internal Asset
 Account >> click "Search"



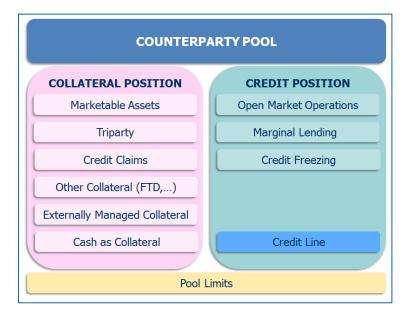
- * External asset accounts and NCB participant cash accounts can be displayed in the same way:
 - >> External Asset Account >> Create/Display External Asset Accounts
 - >> NCB Participant Cash Account Create/Display

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Source: ECMS UHB CTPY v1.1, pp. 58 ff.

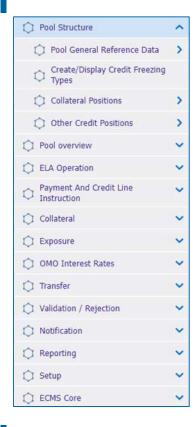
Info on creating pools

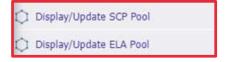
- The ECMS uses collateral pooling, enabling a counterparty to make collateral available without assigning it to a specific operation.
- Pool configuration aims at defining, for a counterparty, where the collateral is mobilised to cover certain authorised types of credit operations.
- The collateral is reflected in the collateral position of the pool, while the covered credit operations are reflected in the pool's credit positions.
- A counterparty may hold more than one pool.



 Each NCB is responsible for setting up the ECMS pools and eligible monetary policy operations of its counterparties, and also has access to a consolidated overview of its counterparties' ECMS pools in the ECMS.

Displaying pools (1/2)

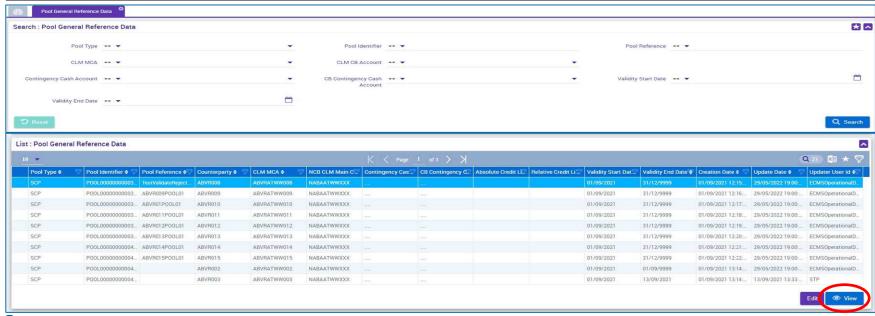




 Switch to the main menu module "Collateral and Credit" to display a counterparty pool.

Displaying pools (2/2)

- Search and list screens for pools can be found in the main menu module "Collateral and Credit".
- Collateral and Credit >> Pool Structure >> Pool General Reference Data >> Display/Update SCP (SCP = Single Collateral Pool)
 Pool or Display/Update ELA (ELA = Emergency Liquidity Assistance) Pool >> click "Search" (after entering search criteria, if
 applicable)



Monitoring marketable assets

- The ECMS manages reference data on marketable assets that can be used as collateral. This information
 is used to calculate the collateral value.
- The responsible NCB determines the eligibility of an asset.
- The ECMS uses the list of eligible assets from the Eligible Assets Database (Collateral and Counterparties Database/Eligible Assets (C2D/EA)), which is consolidated, updated and published by the ECB on a daily basis.

The reference data contained in the ECMS comprise:

- a list of marketable assets received from the EA database that are eligible to be used in the ECMS and their master data;
- a list of prices and accrued interest factors that must be applied when calculating the collateral value;
- a list of pool factors that must be applied when calculating the collateral value;
- a list of close links between a counterparty and an asset.

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Source: UDFS v1.3.3. p. 75.

Displaying close links (1/3)

- The ECMS saves a list of close links in its reference data.
- This list contains:
 - first, the marketable assets that a counterparty cannot mobilise due to a close link,
 - and, second, the assets that a counterparty can mobilise.
- The list of close links between the counterparty and the marketable assets is created by the ECMS with the aid of the Register of Institutions and Affiliates Database (RIAD).
- The ECMS operator monitors the generation of close links between counterparties and eligible assets by looking at incoming RIAD flows.

Displaying close links (2/3)

 Main menu Reference Data module ("MegaCommon")

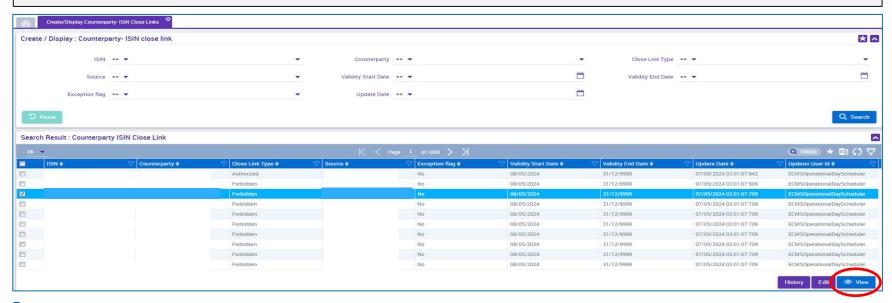


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Source: ECMS EAC 2 April 2024

Displaying close links (3/3)

- "Search Result: Counterparty ISIN Close Link" screen displays the close links of an asset
- Reference Data >> Counterparties Specific Reference Data >> Create/Display Counterparty ISIN Close Links >> click "Search"



Source: EAC 7 May 2024

Settlement possibilities & T2S relocation (1/3)

- The ECMS maintains reference data to determine the settlement possibility of the mobilisation instructions of marketable assets and to determine whether the respective settlement possibility is eligible or not.
- For this purpose, the ECMS uses:

List of eligible links between CSDs

- Eligible securities can be mobilised for Eurosystem credit operations by using eligible links between eligible securities settlement systems (SSSs).
- There are two types of link: direct and relayed links.
- The ECMS operator is responsible for maintaining this list of eligible links (which is updated by the ECB and is available on its website).

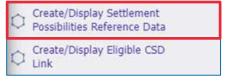
List of settlement possibilities

- The NCBs create the settlement possibilites of their counterparties in the ECMS.
 No action is expected from counterparties here.
- Counterparties have the option of managing their settlement possibilities via the relevant CSD on the central bank side.
- The settlement possibilities entered are used to route funds from the counterparty's safe custody account via the selected "CSD of the T2S securities account for regular collateral" to the relevant "domestic" or CCBM depository.
- Settlement possibilities in the ECMS are not comparable to the familiar delivery channels in the Collateral Management Access Portal (CAP).

Settlement possibilities & T2S relocation (2/3)

 Main menu Reference Data module ("MegaCommon")



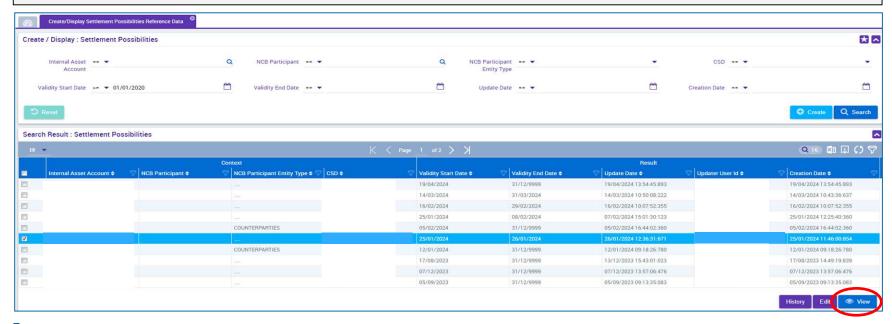


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Source: ECMS EAC 2 April 2023

Settlement possibilities & T2S relocation (3/3)

- Search and list screens of the reference data for settlement possibilities
- Reference Data >> Settlement Possibilities and Eligible Links >> Create/Display Settlement Possibilities >> click "Search"



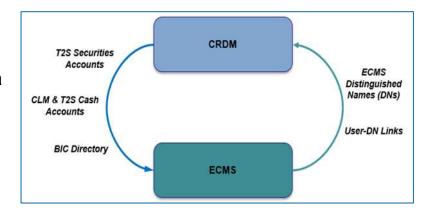
Source: ECMS EAC 29 April 2024

Info on interfaces/CEPH

- The Common Eurosystem Pricing Hub (CEPH) interface provides the ECMS with a unique price
 per marketable asset per business day that is used by all Eurosystem central banks to value
 marketable assets submitted as collateral in Eurosystem credit operations.
- The CEPH interface is used to compile the prices for marketable assets in the ECMS reference data.
- There is an automatic reconciliation for cross-checking purposes based on three different areas:
 - received price for marketable assets not available in the ECMS reference data;
 - price variations for all eligible assets;
 - missing prices for available marketable assets.

Info on interfaces/CRDM

- The Common Reference Data Management (CRDM) system manages the data that are shared by various Eurosystem common components in a single location.
- The ECMS shares the information shown in the adjacent chart. This creates added value for the system as it ensures complete consistency of data across all platforms; it protects users from manual errors and ensures error correction processes for the platforms in the event of a consistency error.
- In the event of discrepancies, the ECMS operator and the NCB user are notified.



2. Reference data Generic data

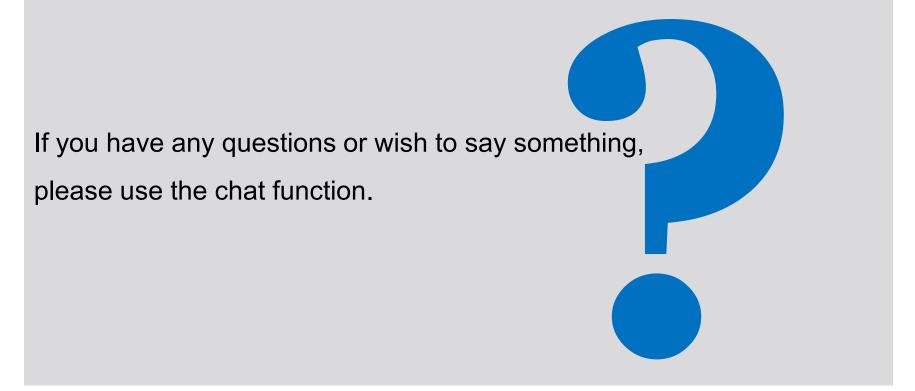
 The reference data for the ECMS contain various generic code lists which are used internally by the system.

- These code lists are managed by the ECMS operator and can be viewed by NCBs and counterparties for consultation purposes only.
- The following code lists can be displayed:
 - system parameters;
 - ECB interest rate.
- Other "generic" data, i.e. data that can only be changed by the ECMS operator, are:
 - ECB calendar;
 - exchange rate.
- Screens (see Annex)

Important documents

Public information

- User creation in ECMS
- Form guide and information sheet for the ECMS production environment
- Training videos on reference data (in German only)
- Leitfaden für die Kundentestphase (Kapitel 2) (Guidelines for customer testing phase (Chapter 2) in German only)
- <u>ECMS access rights matrix (05/2024)</u> (Excel document listing all possible counterparty rights; select relevant option on ECB website)
- ECMS User Handbook Counterparties (v1.1, 03/2023)
- U2A and A2A roles in the ECMS (07/2023)



- When you were invited to this event, you were sent a link to a standardised and anonymised feedback form.
- The feedback form contains 11 questions with a multi-level response scale. It should take a maximum of five minutes to complete.
- Once the event has ended, please take a few moments to fill out the form and give us honest feedback on this training course. Thank you!

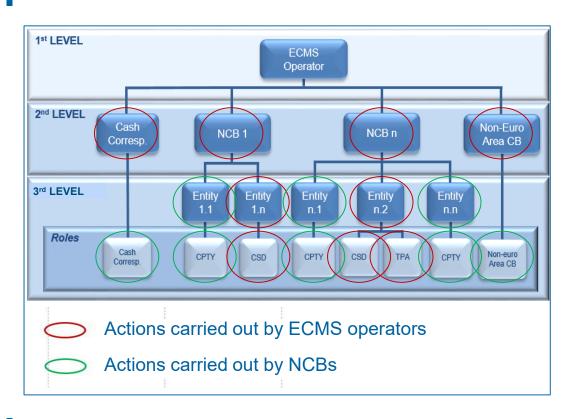




ECMS | Reference data

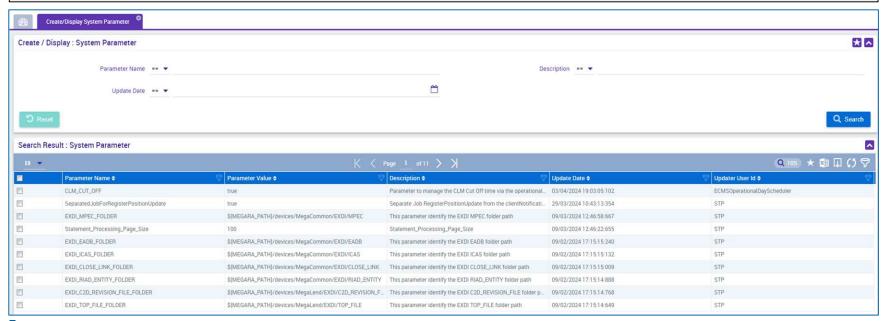
- Basic concept: creating parties
- Generic data/system parameters
- Generic data/ECB interest rate

Basic concept: creating parties



Generic data/system parameters

- "Search Result: System Parameter" screen for setting system parameters
- Reference Data >> Reference Data >> Generic Data >> Create/Display System Parameter >> click "Search"

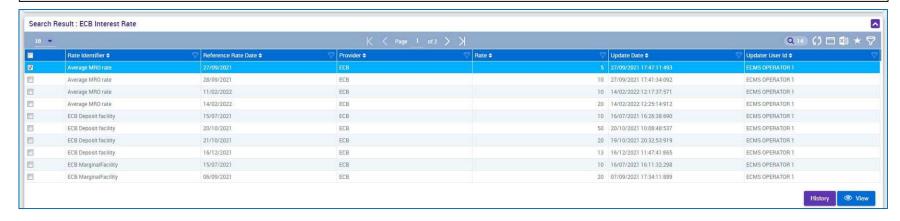


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Source: ECMS EAC 4 April 2024

Generic data/ECB interest rate

- "Search Result: ECB Interest Rate" screen for displaying a list of ECB interest rates in descending order by update date
- Reference Data >> Reference Data >> Generic Data >> ECB Interest Rate >> ECB Interest Rate
 Create/Display >> click "Search"



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Source: ECMS UHB CTPY v1.1, pp. 115 ff.