Tryton By Example

-

Getting started

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Basic Functionality

Github - https://github.com/clixwise/tryton-by-example

Version of presentation: 6.0

Version of Tryton: 6.0

Verified for execution on: Windows 10 & Powershell 7

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Author: Marc Rottiers





- > 💄 Party
- Company
- > Product
- \$ Currency
- → Is Banking
- > Carrier
- > m Financial
- Inventory & Stock
- Purchases
- > 📻 Sales
- Marketing
- > (Timesheet
- > (Attendance
- > N Production
- Project
- > Commission
 - Dashboard
- > Administration

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Login & Logout User interface

Configuration Wizard Wizards to execute some administration

Navigation & Action How to access and perform Operations

Module Explaining the concept of Modules

Basic Configuration Basic Configuration

Country & Currency Installing Country & Currency modules

Party & Company & Employee Installing Party & Company & Employee modules

User Installing additional Users

Financial Installing Financial modules

User Authorization Demonstrate user privileges

Login & Logout

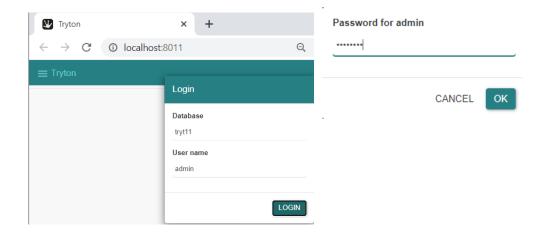
Login & Logout

We login with the previously installed configuration:

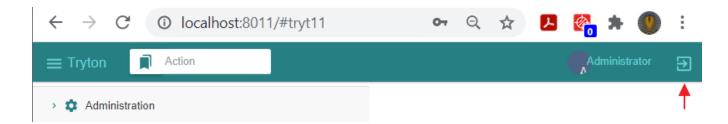
Database : « tryt11 »

- User: « admin »

Password : « Password »



We logout before we backup the database



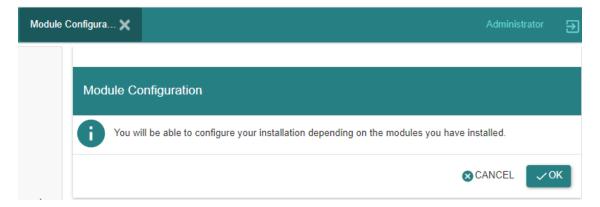
Configuration Wizard

Initial Wizard

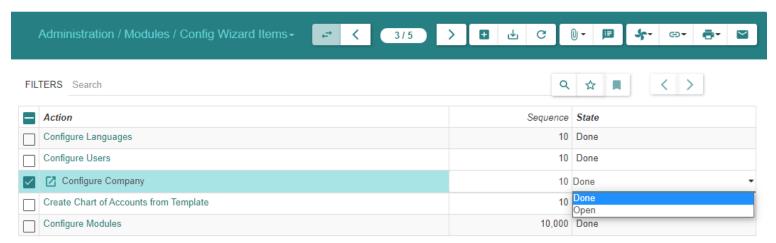
Initial Configuration Wizard

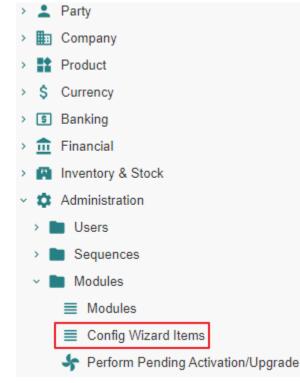
This wizard allows:

- 1. To add languages,
- To define new users and
- To activate functional modules



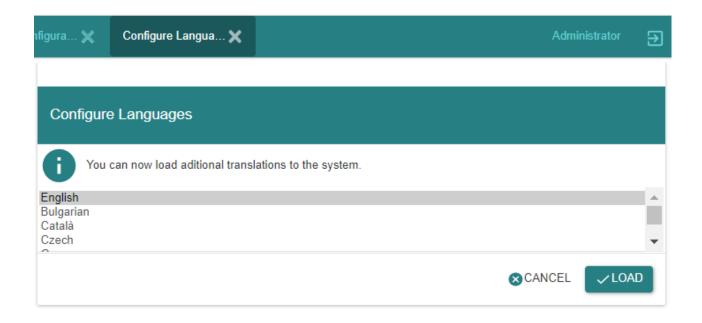
Additional wizards will be installed as more modules are added to the system.



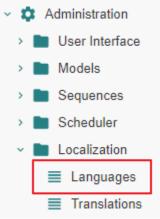


1. Adding « Languages »

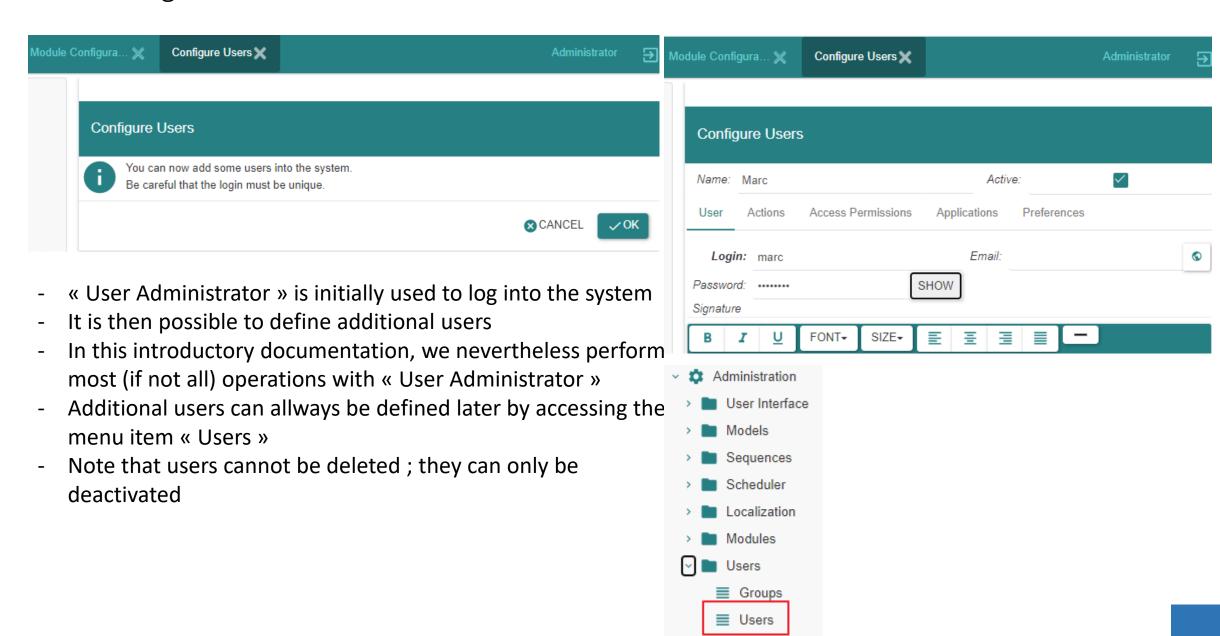
This wizard allows to define new languages



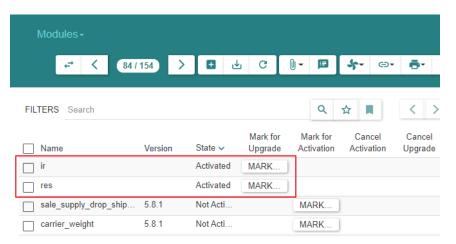
If languages must be added later on, we can also directly access the menu item « Languages »



2. Defining « Users »



3. Activating « Modules »



Initially

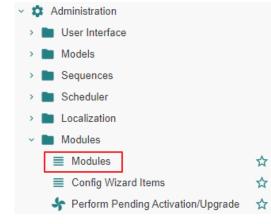
- Initially, all but two modules are activated : « ir » and « res »
- We do not activate additional modules at this stage

User Administrator

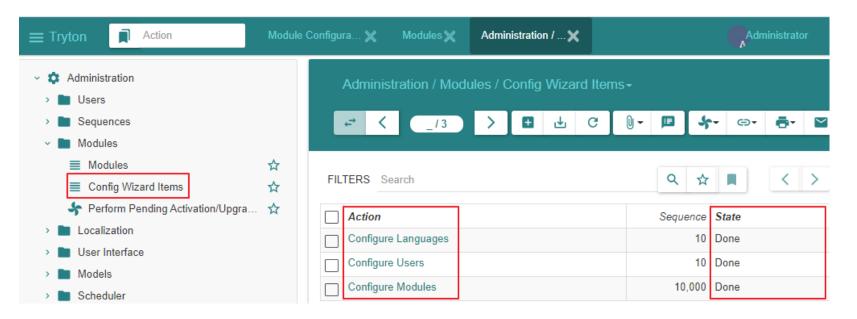
- Modules must be activated for this user to access functional subject areas s.a. « Party », « Sale », etc.
- As we progress in our understanding of the system, we will activate modules along the way.
- We do this by refering to the menu item « Modules ».

Other users

- At the end of this document, we will show how to activate access to subject areas for other users.
- We will do so thru Menu Tree Items « User Groups » or « User Roles ».



Re-executing wizards - Method 1 - Step 1



✓ ♣ Administration
 → Users
 → Sequences
 ✓ Modules
 ➡ Modules
 ➡ Config Wizard Items
 ✦ Perform Pending Activation/Upgra
 → Localization
 → User Interface
 → Models
 → Scheduler

- The Configuration Wizard Items are accessed as shown above
- If they are in state « Open », they have not been executed
- If they are in state « Done », they have been executed with or without actually performing the corresponding functionality i.e. configuring a language, a user, a module.
- In the later case, the next slide shows how to execute a Wizard Configuration Item once again.

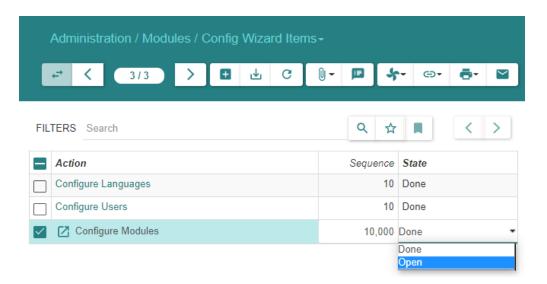
Wizards

Motivation

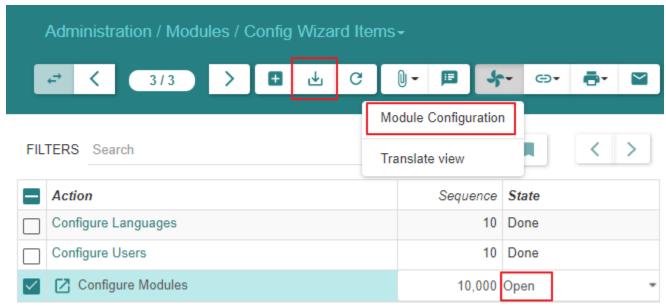
- All operations are accessible from the Menu Tree on the left of the screen
- Some of these operations can also be executed using a « Configuration Wizard »
- We provide exemples of both techniques for the latter case

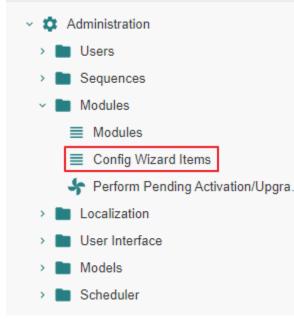
- Administration
 - Users
- Sequences
- Modules
 - Modules
 - Config Wizard Items
 - Perform Pending Activation/Upgra
- > Localization
- User Interface
- Models
- > Scheduler

Re-executing wizards - Method 1 - Step 2



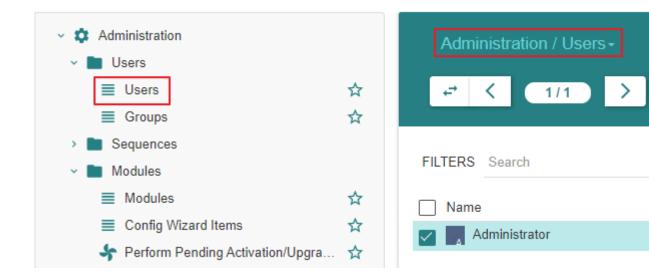
We need to reopen the wizard item in order to execute it again : in this case, we use the wizard item to « Configure Modules » once again

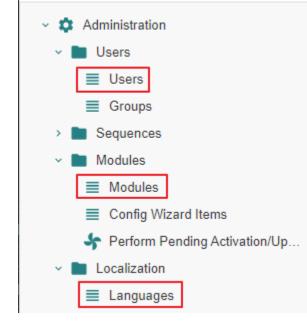




Re-executing wizards - Method 2

- Instead of repeating the execution using a wizard operation one can directly access the functional item in the Menu Tree on the left of the screen: « Users »,
 « Modules », « Languages »
- Here we access « Users » to define a new user.





Q

Login

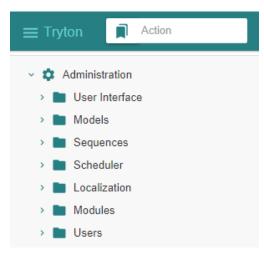
admin

Navigation & Action

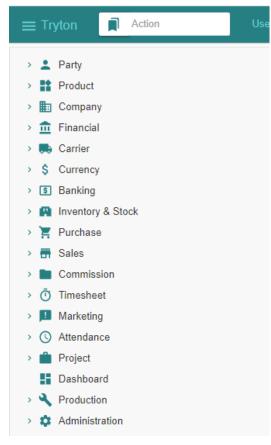
Motivation

- Before exploring the functional aspects of the system, we explain the different widgets that support navigation in the system and actions that trigger operations on items and item lists.
- Please revisit this section whilst getting acquainted with the system subject areas.

Application - Menu Tree - Triggering operations



State of Menu Tree when
Initial modules activated



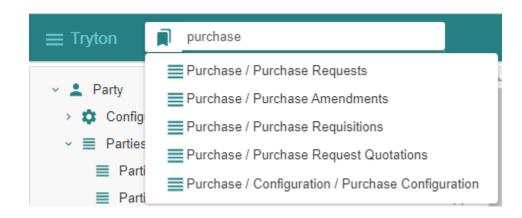
State of Menu Tree when

All modules activated

- The amplitude of the menu tree depends on which application modules have been activated (i.e. installed) for a given user. See next section.
- Application modules belong to functional subject areas that are reflected in the Menu Tree : « Party », « Product », etc.

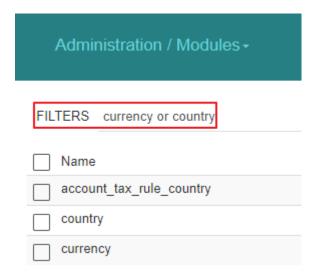
Application - Menu Tree - Search for menu item containing e.g. « Purchase »

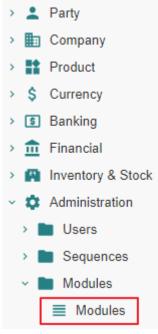
- A search mechanism exists for the tree of menu items
- Here we assume that the « Purchase » modules have been activated and search for some related functionality



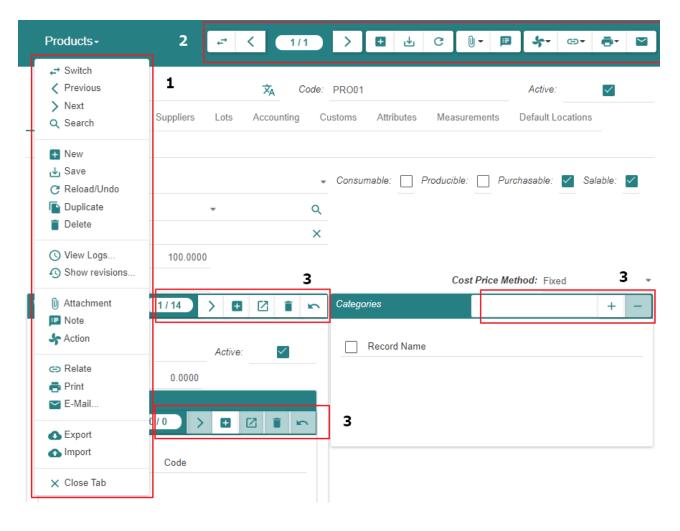
Entity - Filters

- The filters select the « Name » values
- Here an example for the list of « Modules »





Entity - Menu Bars - An overview



- Vertical menu bar displays all possible operations
- 2. Horizontal menu bar displays some entity or list operations
- 3. Horizontal menu bars display intra-entity operations

Entity - Menu Bars - Vertical Menu Bar

Parties •		
-→ Switch	1	 1 switch view from « item list » to « item »
✓ Previous	2	- 2 « item »: previous in list
> Next	3	- 3 « item » : position in list
Q Search	4	- 4 « item » : next in list
Nov	- 5	- 5 « item » : start adding
→ New → Save →	6	- 6 « item » : save
€ Reload/Undo	7	- 7 « item list » or « item » : reload / undo / refresh
Duplicate	8	- 8 « item » : duplicate
Delete	9	- 9 « item » : delete
○ View Logs	10	- 10 « item list » : perform operation that is specific of this list
Show revisions	11	- 11
0	. 12	- 12 « item » : attach one or more documents (e.g. of type docx, xlsx, etc.)
AttachmentNote	12 13	- 13 « item » : attach one of more documents (e.g. of type docx, xisx, etc.)
♣ Action -	14	
• • • • • • • • • • • • • • • • • • • •		- 14 « item » : actions that are specific of the entity
Relate -	15	- 15
🖶 Print -		- 16 « item » : print
E-Mail	17	
♠ Export -	18	- 17
♠ Import -	19	- 18
× Close Tab		- 19

Entity - Menu Bars - Horizontal Menu Bar



- 1 switch view from « item list » to « item » (*)
- 2 « individual record » : previous in list
- 3 « individual record » : position in list
- 4 « individual record » : next in list
- 5 « individual record » : start adding
- 6 « individual record » : save
- 7 « individual record » and « record list » : reload / undo / refresh
- 8
- 9
- 10 « record list » : perform operation that is specific of this list
- 11
- 12 « individual record » : print
- 13

Entity - « Item Double-Click » vs « Menu Item Navigation »

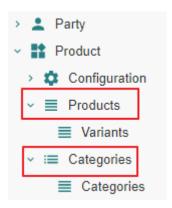
When displaying a list of items, double-click on one of them mostly generates the same result as « <- -> ».

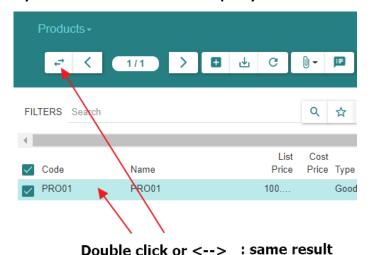
There are however exceptions whereby:

- « <- -> » displays either nothing or details about the item itself.
- « double-click » provides a « drill-down view » of objects belonging to the item

Examples

- « Chart of Accounts » <- -> : displays nothing
- « Chart of Accounts » double-click : displays the transactions for that account
- « Product Category » <- -> : displays details about the category
- « Product Category » double-click : displays the « Products » that belong to this « Category »





Categories →

C

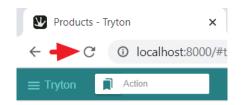
Double click: Products by Category (drill-down) <->: Properties of Category

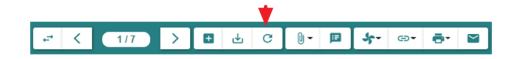
Application or Entity - Data Refresh Requirements

Sometimes it is necessary to refresh the screen using the « Browser Page Reload » button or the relevant menu item (see below).

This may happen e.g.

- In the case of « Switching » from « Item » view to « List » view. For instance, when state information in a
 « Sales Order », e.g. « Draft », has been changed in the « Item » view it might incorrectly persist in the
 « List » view though it has evolved e.g. to « Confirmed ».
- In the case of updating the « List of Product » sold by a « Supplier » then displaying the « Product » to show the « List of Suppliers »
- In the case of adding a « Product Variant » in the « List of Variants », it is necessary to refresh the « Product » itself to take the variant into account on the screen





Module

Motivation

The « Application » is implemented by « Modules » that use « Database Tables » and « Files » optionally. Modules are not *explicitly* grouped into functional subject areas.

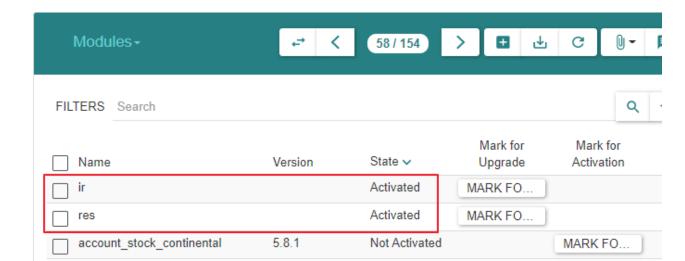
Initially, all but two modules (« ir » & « res ») are inactivated : see below.

The activation relies technically

- Either on the usage of wizards and a mutual dependency mechanism.
- Or based on their name by grouping them based on their prefix.

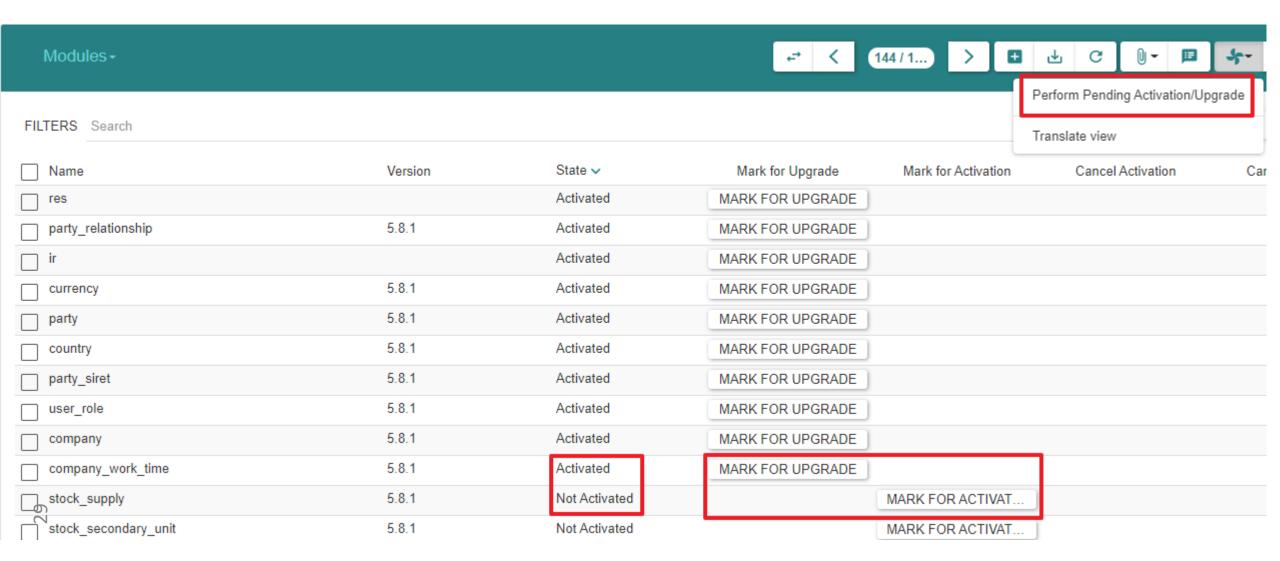
When modules are activated,

- The database tables they use are created if required.
- The menu items are added in the Tree on the left of the screen.



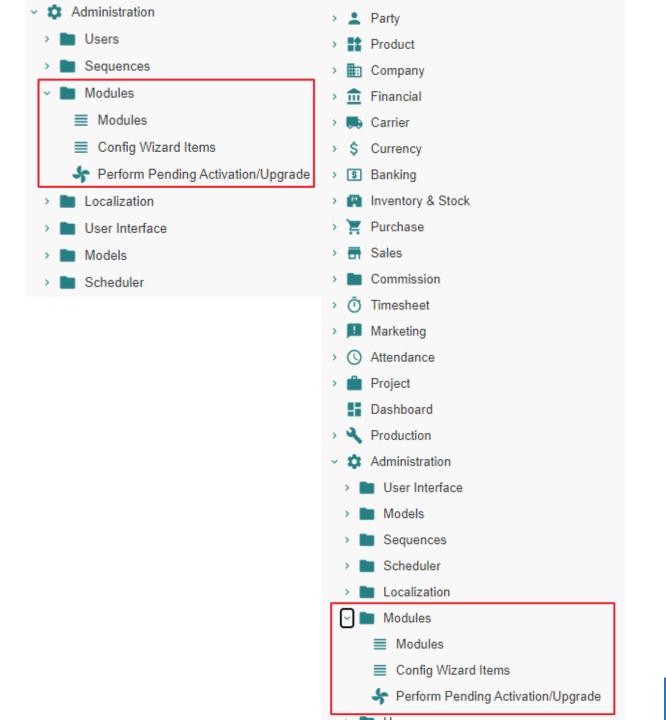
Modules

- Tryton optimizes operations by requiring activation of application modules.
- We will activate modules as we progress instead of activating all modules at once



Modules

Growing list of menu items: initial & final list of menu items as modules are being installed



Basic Configuration

Motivation

- Before examining the typical ERP transactions like « Sales », etc. we need to activate modules that support the different « basic subject areas ».
- This link refers to official documentation about a « basic configuation » : https://tryton-administration-manual.readthedocs.io/en/latest/basic_config.html

« Country » & « Currency »

> 💄 Party Dashboard > User Interface > Models Sequences > Scheduler > Localization > Modules Users Countries Shortened URLs

- Currencies
- Scheduled Rate Updates
- Administration
 - Users
 - Sequences
 - Modules
 - Localization
 - Countries
- User Interface
- Models
- Scheduler

Motivation

The TRYTON database and application contain minimal database tables and application modules.

« Countries » and « Currencies » are extensively used. Hence, it is advised to :

- 1. Activate the corresponding application modules thereby also creating the required tables in the database.
- 2. Load the tables with ISO normalised « Currency » and « Country » data

Finally, for each « Currency » of use in the « Company » operations, it is advised to :

- Set the « Rate » property to 1.0 for a « Reference Currency »; f.i. « EUR rate » = 1.0
- Set the « Rate » property to a relative value for each « Relative Currency » ; f.i. « USD rate » = 1.2
- When the « Company » operates in a single currency environment, the « 1.0 » multiplication factor is used
- When the « Company » operates in a multi-currency environment, each currency-related rate is used as multiplication factor

Documentation

https://docs.tryton.org/projects/modules-country/en/latest/

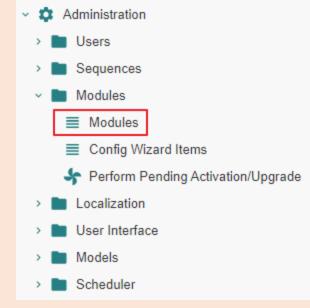
Country	Alpha-2 code \$	Alpha-3 code \$	Numeric +
Afghanistan	AF	AFG	004
Albania	AL	ALB	008
Belgium	BE	BEL	056
Congo (the Democratic Republic of the)	CD	COD	180

Documentation

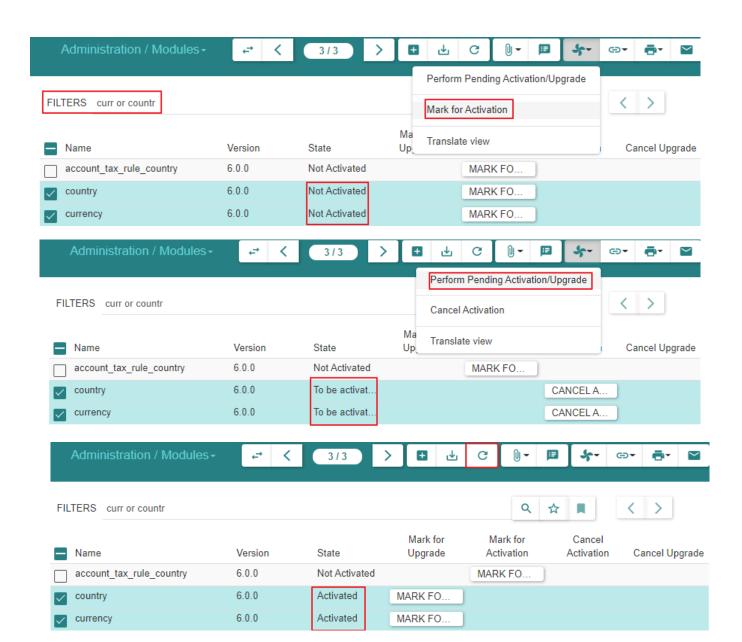
https://docs.tryton.org/projects/modules-currency/en/latest/

Country	Currency \$	Code \$	Number \$
AFGHANISTAN	Afghani	AFN	971
ALBANIA	Lek	ALL	008
CONGO (THE DEMOCRATIC REPUBLIC OF THE)	Congolese Franc	CDF	976
UNITED STATES OF AMERICA (THE)	US Dollar	USD	840
UNITED STATES OF AMERICA (THE)	US Dollar (Next day)	USN	997

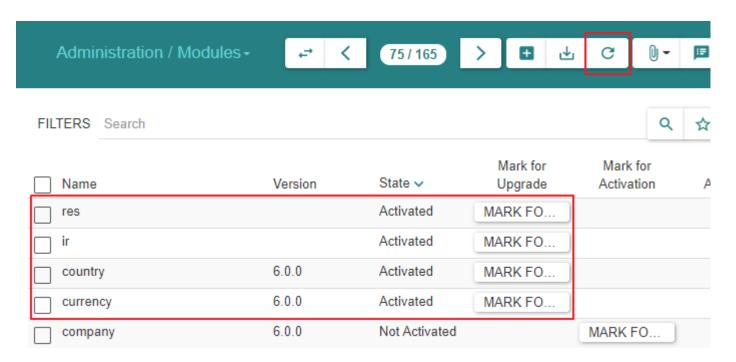




Activate « Country » & « Currency »



Activate « Country » & « Currency »



Note:

- Use TRYTON « Reload » operation to refresh and display
- « Countries » & « Currencies » appear in the Tree Menus
- When clicking « Countries or « Currency », the data panel remains empty: we need to load the database tables



Activate « Country » & « Currency »

- There are 3 additional « country » tables
- There are 4 additional « currency » tables
- All tables are still empty





▼ (Tables (79))

> == country_country

> == currency_cron

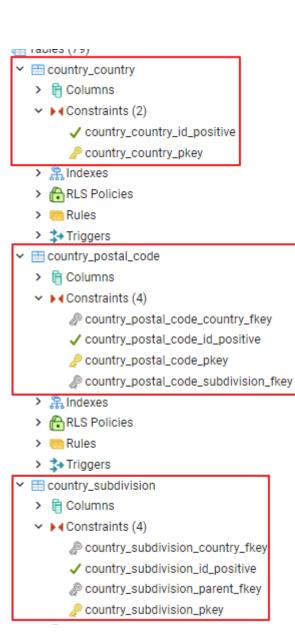
> == country_postal_code

> == country_subdivision

> == currency_currency

> == currency_currency_rate

> == currency_cron-currency_currency



Database – Loading the Tables

Scripts

Load TRYTON tables "Countries" & "Currencies"	
Tryton 6.0 - Doc 05.01 - Basic functionality.import.tryt11.countries	Fill table with ISO countries
Tryton 6.0 - Doc 05.01 - Basic functionality.import.tryt11.currencies	Fill table with ISO currencies

- [https://discuss.tryton.org/t/data-base-importing-countries-or-currencies/3811/7]
- Special credits to David Harper

« Country » - Load data

```
PS C:\Users\mrmar\docker.tryton.6.0> ./"Tryton 6.0 - Doc 05.01 - Basic functionality.import.tryt11.countries'
 . Import
/usr/lib/python3/dist-packages/werkzeug/routing.py:1431: DeprecationWarning: invalid escape sequence \s
/usr/lib/python3/dist-packages/passlib/context.py:231: DeprecationWarning: invalid escape sequence \;
 elif any(c in source for c in "\n\r\t") or not source.strip(" \t./\;:"):
/usr/lib/python3/dist-packages/passlib/context.py:2240: DeprecationWarning: invalid escape sequence \*
/usr/lib/python3/dist-packages/passlib/context.py:2323: DeprecationWarning: invalid escape sequence \*
/usr/lib/python3/dist-packages/passlib/context.py:2406: DeprecationWarning: invalid escape sequence \*
usr/lib/python3/dist-packages/ldap3/utils/ciDict.py:30: DeprecationWarning: Using or importing the ABCs from/
 class CaseInsensitiveDict(collections.MutableMapping):
usr/lib/python3/dist-packages/pyasn1/type/constraint.py:130: DeprecationWarning: invalid escape sequence \*
/usr/lib/python3/dist-packages/pyasn1/type/constraint.py:175: DeprecationWarning: invalid escape sequence \*
/usr/lib/python3/dist-packages/pyasn1/type/constraint.py:334: DeprecationWarning: invalid escape sequence \*
/usr/lib/python3/dist-packages/pyasn1/type/constraint.py:494: DeprecationWarning: invalid escape sequence \*
/usr/lib/python3/dist-packages/pyasn1/type/constraint.py:538: DeprecationWarning: invalid escape sequence \*
/usr/lib/python3/dist-packages/pyasn1/type/namedval.py:54: DeprecationWarning: invalid escape sequence \*
usr/lib/python3.7/importlib/ bootstrap.py:219: ImportWarning: can't resolve package from spec or packag
 return f(*args, **kwds)
/usr/lib/python3/dist-packages/zeep/xsd/visitor.py:428: DeprecationWarning: invalid escape sequence \[
 match = re.match('([^{[]}+)', array type)
/usr/lib/python3/dist-packages/PyPDF2/generic.py:357: DeprecationWarning: invalid escape sequence \c
 tok = b ("\c")
Update countries
Update subdivisions
```

« Country » - Load data

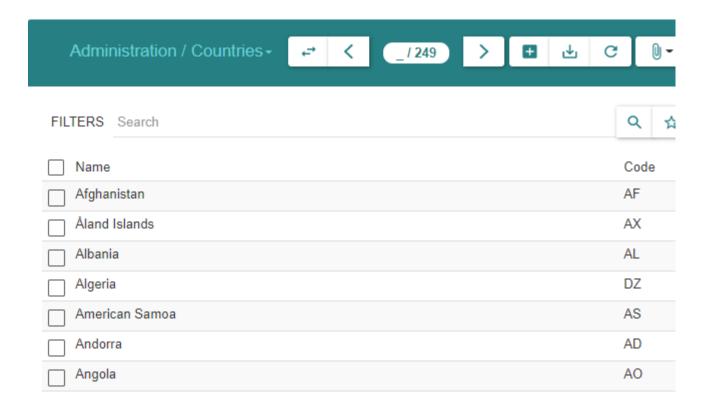
- 1 SELECT * FROM public.country_country
- 2 ORDER BY id ASC

Data	Data Output Explain Messages Notifications											
4	id [PK] integer	active boolean	code character varying (2)	code3 character varying (3)	code_numeric character varying	create_date timestamp without time zone	create_uid integer	name character varying				
1	1	true	AW	ABW	533	2021-05-10 17:16:46.342934	1	Aruba				
2	2	true	AF	AFG	004	2021-05-10 17:16:46.342934	1	Afghanistan				
3	3	true	AO	AGO	024	2021-05-10 17:16:46.342934	1	Angola				
4	4	true	AI	AIA	660	2021-05-10 17:16:46.342934	1	Anguilla				
5	5	true	AX	ALA	248	2021-05-10 17:16:46.342934	1	Åland Islands				
6	6	true	AL	ALB	008	2021-05-10 17:16:46.342934	1	Albania				
7	7	true	AD	AND	020	2021-05-10 17:16:46.342934	1	Andorra				
8	8	true	AE	ARE	784	2021-05-10 17:16:46.342934	1	United Arab Emirates				
9	9	true	AR	ARG	032	2021-05-10 17:16:46.342934	1	Argentina				
10	10	true	AM	ARM	051	2021-05-10 17:16:46.342934	1	Armenia				

- 1 SELECT * FROM public.country_subdivision
- 2 ORDER BY id ASC

Data O	utput Explain	Messages	Notifications	Votifications							
4	id [PK] integer	active boolean	code character varying	country integer	create_date timestamp without time zone	create_uid integer	name character varying	parent integer	type character varying		
1	1	true	AD-02	7	2021-05-10 17:16:48.759114	1	Canillo	[null]	parish		
2	2	true	AD-03	7	2021-05-10 17:16:48.759114	1	Encamp	[null]	parish		
3	3	true	AD-04	7	2021-05-10 17:16:48.759114	1	La Massana	[null]	parish		

« Country » - Load data





« Currency » - Load data

```
PS C:\Users\mrmar\docker.tryton.6.0> ./"Tryton 6.0 - Doc 05.01 - Basic functionality.import.tryt11.currencies
  Import
usr/lib/python3/dist-packages/werkzeug/routing.py:1431: DeprecationWarning: invalid escape sequence \s/
/usr/lib/python3/dist-packages/passlib/context.py:231: DeprecationWarning: invalid escape sequence \;
 elif any(c in source for c in "\n\r\t") or not source.strip(" \t./\;:"):
usr/lib/python3/dist-packages/passlib/context.py:2240: DeprecationWarning: invalid escape sequence \*
/usr/lib/python3/dist-packages/passlib/context.py:2323: DeprecationWarning: invalid escape sequence \*
usr/lib/python3/dist-packages/passlib/context.py:2406: DeprecationWarning: invalid escape sequence \*
usr/lib/python3/dist-packages/ldap3/utils/ciDict.py:30: DeprecationWarning: Using or importing the ABCs from
 class CaseInsensitiveDict(collections.MutableMapping):
usr/lib/python3/dist-packages/pyasn1/type/constraint.py:130: DeprecationWarning: invalid escape sequence \*
usr/lib/python3/dist-packages/pyasn1/type/constraint.py:175: DeprecationWarning: invalid escape sequence \*
usr/lib/python3/dist-packages/pyasn1/type/constraint.py:334: DeprecationWarning: invalid escape sequence \*
usr/lib/python3/dist-packages/pyasn1/type/constraint.py:494: DeprecationWarning: invalid escape sequence \*
usr/lib/python3/dist-packages/pyasn1/type/constraint.py:538: DeprecationWarning: invalid escape sequence \*
usr/lib/python3/dist-packages/pyasn1/type/namedval.py:54: DeprecationWarning: invalid escape sequence \*
usr/lib/python3.7/importlib/ bootstrap.py:219: ImportWarning: can't resolve package from  spec  or  packa
 return f(*args, **kwds)
usr/lib/python3/dist-packages/zeep/xsd/visitor.py:428: DeprecationWarning: invalid escape sequence \[
 match = re.match('([^\[]+)', array type)
/usr/lib/python3/dist-packages/PyPDF2/generic.py:357: DeprecationWarning: invalid escape sequence \c
 tok = b ("\c")
pdate currencies
```

« Currency » - Load data

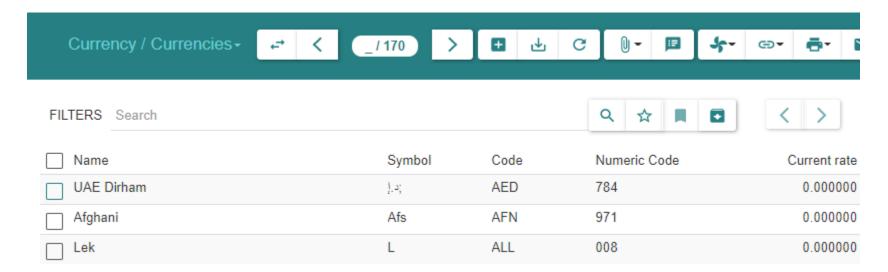
- 1 SELECT * FROM public.currency_currency
- 2 ORDER BY id ASC

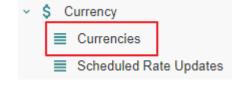
Data	Data Output Explain Messages Notifications											
4	id [PK] integer	active boolean	code character varying (3)	create_date timestamp without time zone	create_uid integer	digits integer	name character varying	numeric_code character varying (3)	rounding numeric	symbol characte		
1	1	true	AED	2021-05-10 17:15:09.702605	1	2	UAE Dirham	784	0.01	<u>ز</u> د.إ		
2	2	true	AFN	2021-05-10 17:15:09.702605	1	2	Afghani	971	0.01	Afs		
3	3	true	ALL	2021-05-10 17:15:09.702605	1	2	Lek	008	0.01	L		
4	4	true	AMD	2021-05-10 17:15:09.702605	1	2	Armenian Dram	051	0.01	AMD		
5	5	true	ANG	2021-05-10 17:15:09.702605	1	2	Netherlands Antillean	532	0.01	NAf		
6	6	true	AOA	2021-05-10 17:15:09.702605	1	2	Kwanza	973	0.01	Kz		
7	7	true	ARS	2021-05-10 17:15:09.702605	1	2	Argentine Peso	032	0.01	\$		
8	8	true	AUD	2021-05-10 17:15:09.702605	1	2	Australian Dollar	036	0.01	\$		
9	9	true	AWG	2021-05-10 17:15:09.702605	1	2	Aruban Florin	533	0.01	f		
10	10	true	AZN	2021-05-10 17:15:09.702605	1	2	Azerbaijanian Manat	944	0.01	AZN		

- 1 SELECT * FROM public.currency_currency_rate
- 2 ORDER BY id ASC

Da	Data Output Explain Messages Notifications													
4	id [PK] integer	g r	create_date timestamp without time zone	A	create_uid integer	•	currency integer	date date	ø	rate numeric	write_date timestamp without time zone	*	write_uid integer	A

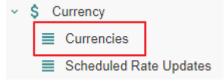
« Currency » - Load data





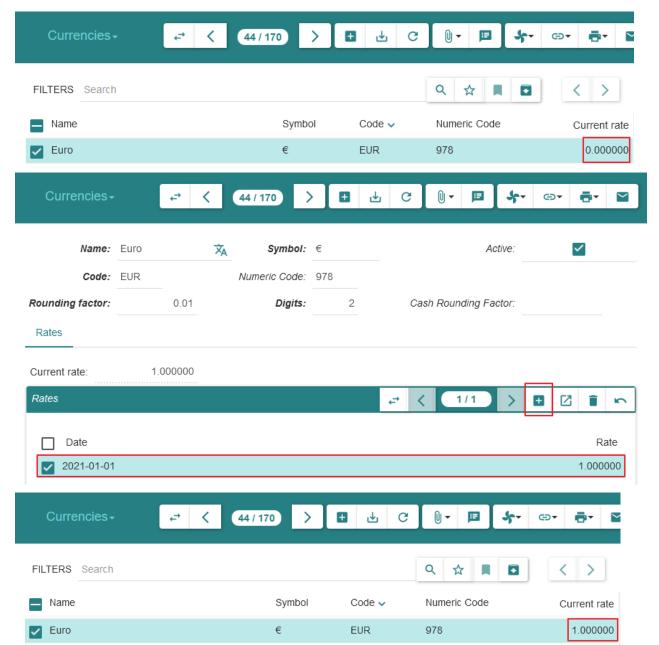
« Currency Rates »

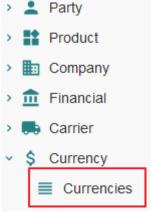
Motivation



- Multi-currency operations are supported
- In this is required, we need to define the rates for :
 - A « Reference Currency Rate »; that rate will be 1.0
 - One or more « Relative Currency Rates »; those rates will be relative to the reference rate.
- Exemple :
 - Our reference currency is EUR: its rate is 1.0
 - One or our relative currencies is USD: ist rate is 1.2 (2021)
- For each relative currency, we define as many dates as we want considering those dates are « Dates From » for the relative rate applicable from that moment onward.

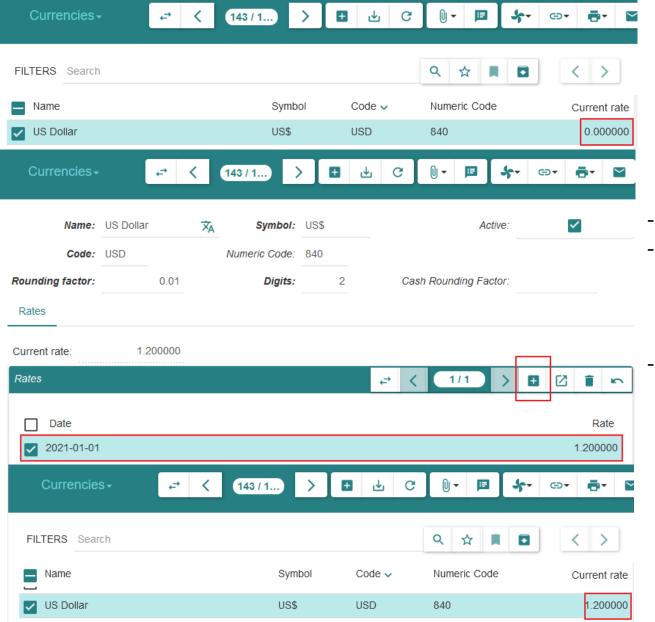
Setting a « Reference Currency Rate » as of « Date from »

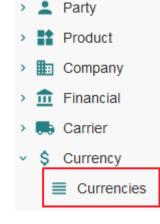




« EUR » is our « Reference Currency Rate ». Hence we set the rate at value 1.0

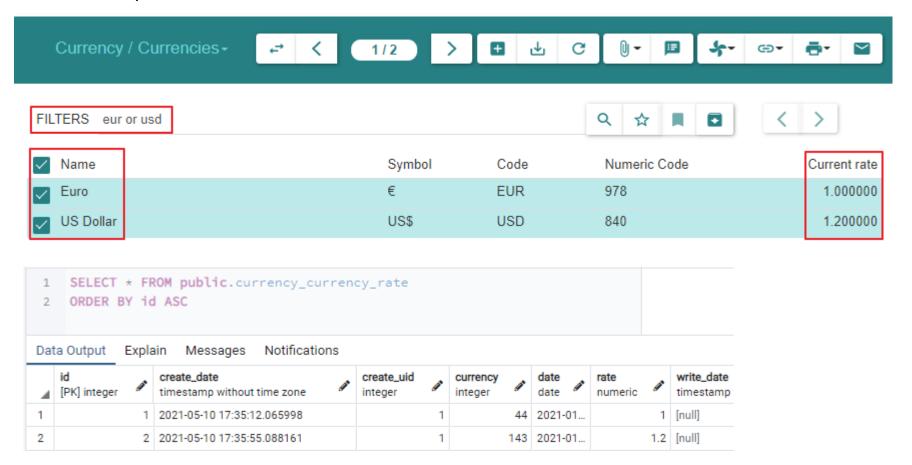
Setting « Relative Currency Rates » as of « Date from »





- « USD » is used in our « Company »
- So one of the « Relative Currency Rates » pertains to that « Currency ». Hence we set the rate at value 1.2 as of 2021-01-01 with respect to the « EUR »
- We can define additional « Relative Currency Rates »
 - For other currencies
 - For other « Date from » values

Summary

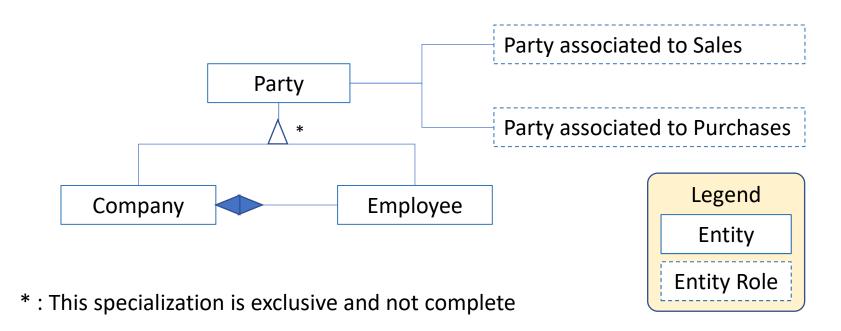


« Party » & « Company » & « Employee »

Motivation

We activate modules and create database content related to the following entities:

- 1. « Party » : an entity that represents some ERP-relevant actor
- 2. « Company »: a specialized « Party » entity
- 3. « Employee » : a specialized « Party » entity
- 4. « Parties associated to Sales »: a « Party » role (activated and installed later)
- 5. « Parties associated to Purchases » : a « Party » role (activated and installed later)



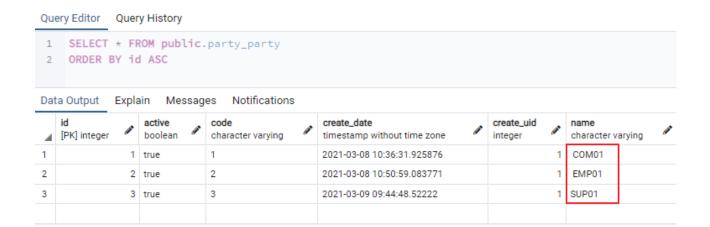
Motivation

« User » vs. « Party »

- A « User » is a user of the system with login and password.
- A « User » is not a « Party ».
- A « User » is not necessarily an « Employee » of the « Company ». F.i. he/she can be a consultant.
- The default user is « admin ».

4	id [PK] integer	name character varying	active boolean	login character varying
1	0	Root	false	root
2	1	Administrator	true	admin
3	2	Marc	true	marc

The content of the « res_user » database table with « User » entities



The content of the « party_party » database table with « Company », « Employee » and « Supplier » (installed later) entities

« Party »

Motivation

A « Party » is an entity that stands for the common properties of a speciliazed entity such as « Company », « Employee », or a role entity like « Party associated to Purchase », etc.

We activate the modules that relate to « Party ». Subsequently, we define specialized parties :

The first approach:

- First define a « Party » with the idea that it will be referenced by a specialized entity.
- Subsequently define the specialized entity (e.g. a « Company ») with reference to its « Party » parent.

The second approach:

- Define the specialized entity like « Company »
- Doing so, the system lets you create the « Party » entity on the fly

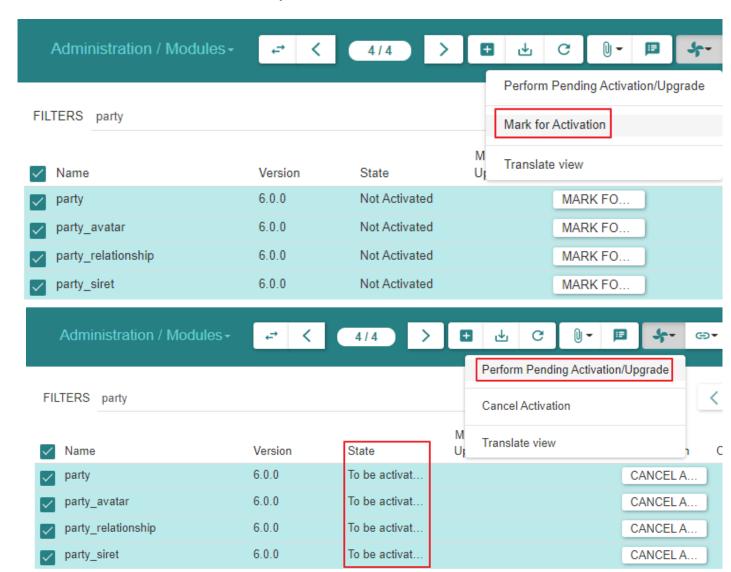
Module Activation

Documentation

[https://docs.tryton.org/en/latest/party.html#index-party]

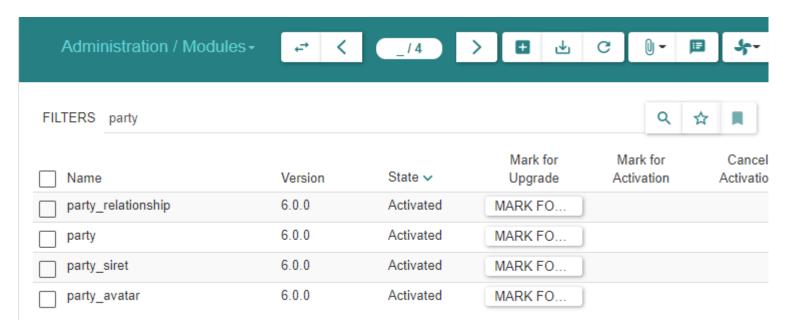
Modules - Activation

We ensure that all « Party » modules are activated



Modules - Activation

We ensure that all « Party » modules are activated



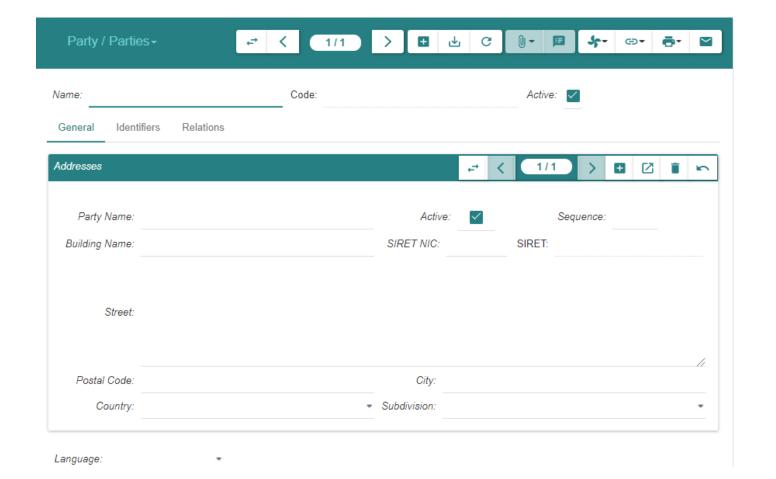
- > == party_address
- > == party_address_format
- > == party_address_subdivision_type
- > == party_category
- > \equiv party_category_rel
- > == party_configuration
- > == party_configuration_party_lang
- > == party_configuration_party_sequence
- > == party_contact_mechanism
- > == party_contact_mechanism_language
- > == party_identifier
- > == party_party
- > == party_party_lang
- > == party_relation
- > == party_relation_type

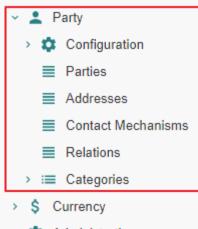
« Party » - The entity

« Party »

Allthough the « Party » modules are activated and accessible, we defer using them, after activating respectively :

- « Party Specializations » like « Company », « Employee » or
- « Party Roles » like « Parties associated with Sales or Purchases »

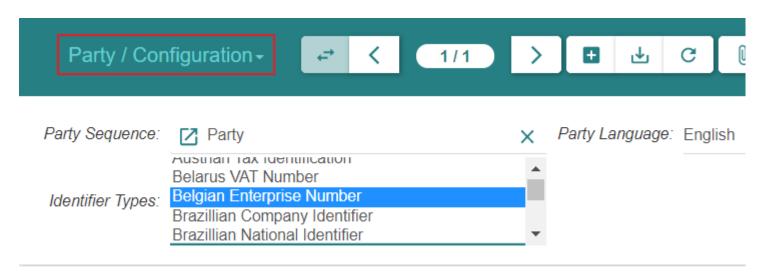




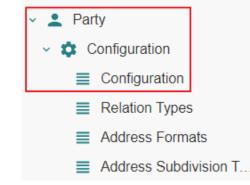
> 🏩 Administration

« Party » Configuration

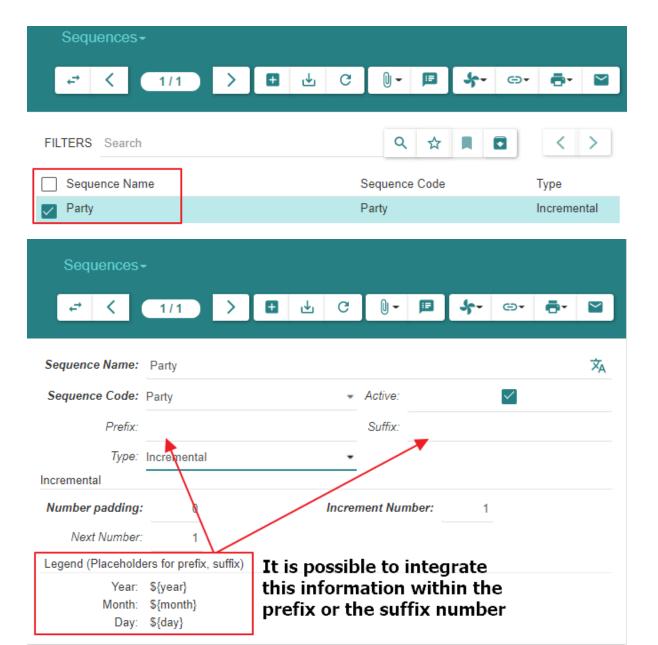
« Party » Configuration



- The Party Sequence
- The Party Identifier Type
- The Party Language



« Party » Configuration : the sequence format



Configuration Configuration Relation Types Address Formats Address Subdivision T. Party Currency Administration User Interface Models Sequences Sequences Sequences Strict Sequence Types

Party

Definition accessible thru
« Party Configuration » or
« Administration Sequences »

Creation of Parties

« Party », « Company » & « Employee »

- A « Party » is an entity.
- Its subentities are of type « Company », « Employee », etc.
- We can define these entities in two ways :

Method 1 :

- We define a « Party » « X » or « Y » by clicking on « Parties », and fill their properties
 conformant those inherited by the subentity
- Subsequently, we define :
- The « Company » « X » by referencing its corresponding « Party » « X »
- The « Employee » « Y » by referencing its corresponding « Party » « Y »

Method 2 :

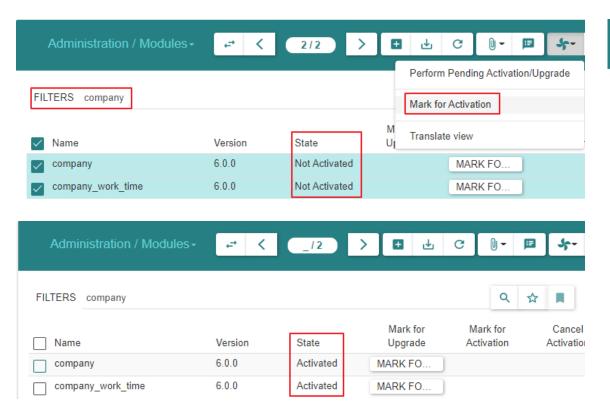
- We define the « Company » « X » by clicking on « Companies » and in doing so we create « Party » « X » in the process
- We define the « Employee » « Y » by clicking on «Employees » and in doing so we create
 « Party » « Y » in the process
- We will use Method 1 for defining a « Company » COM01
- We will use Method 2 for defining an « Employee » EMP01

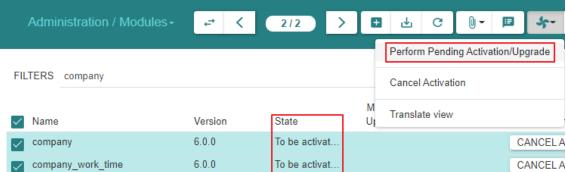


« Company »

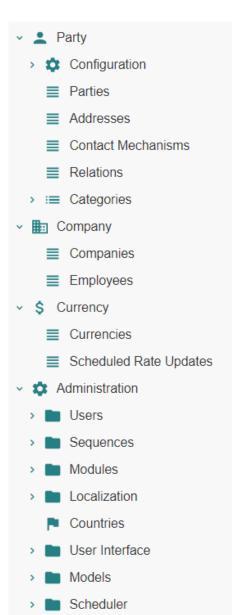
Modules - Activation

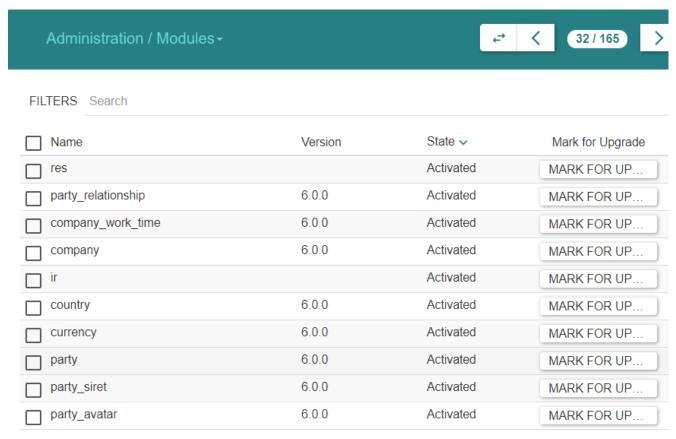
We ensure that all « Company » modules are activated





Modules - Activation - Summary State



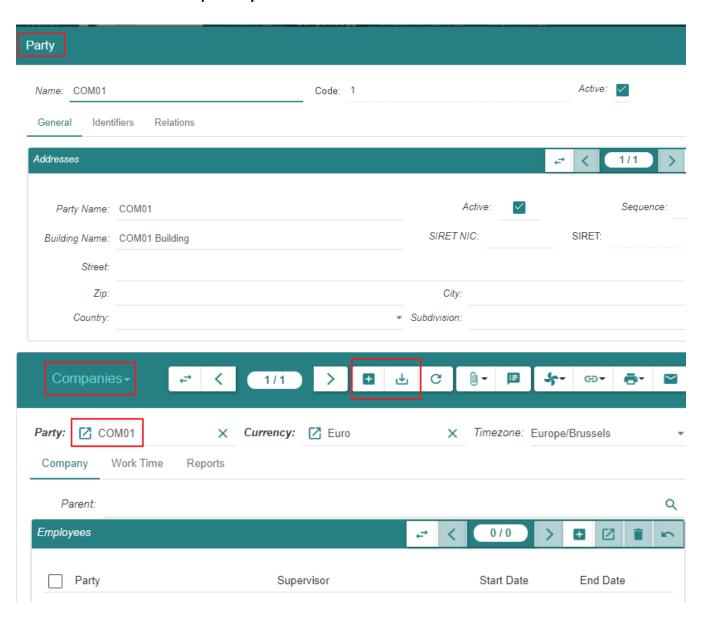


- > 💄 Party
- > **III** Company
- > \$ Currency
- Administration
- Users
- Sequences
- Modules



- Config Wizard Items
- ♣ Perform Pending Activation/Upgrade

Create « Company » COM01



Step 1Create the « Party » COM01

Step 2

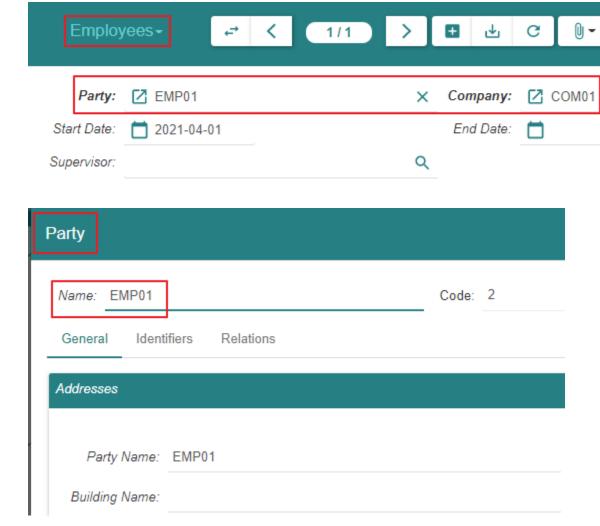
Create the « Company » subentity COM01 that references the « Party » entity COM01

« Employee »

Modules - Activation

- By activating the « Company » modules, both the « Company » and « Employee » parties are made available
- There are no « Employee » modules to activate

Creating « Employee » EMP01

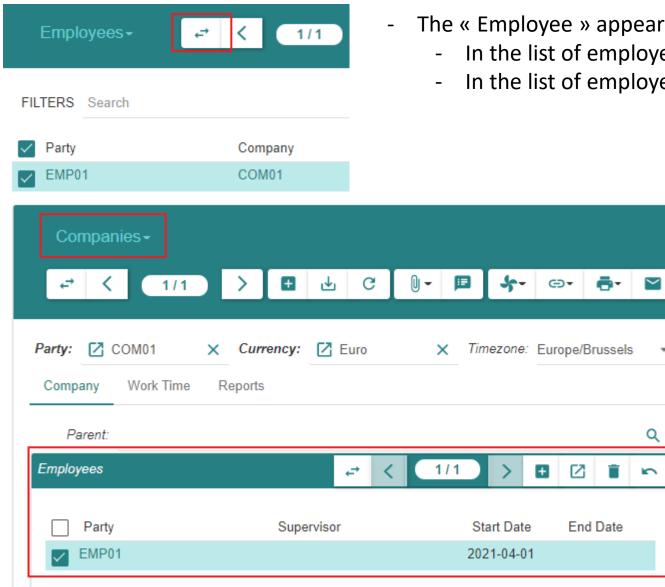




- We create « Employee » EMP01
- In the process,
 - We create its corresponding « Party » EMP01
 - We reference the existing « Company » COM01

Creating « Employee » EMP01

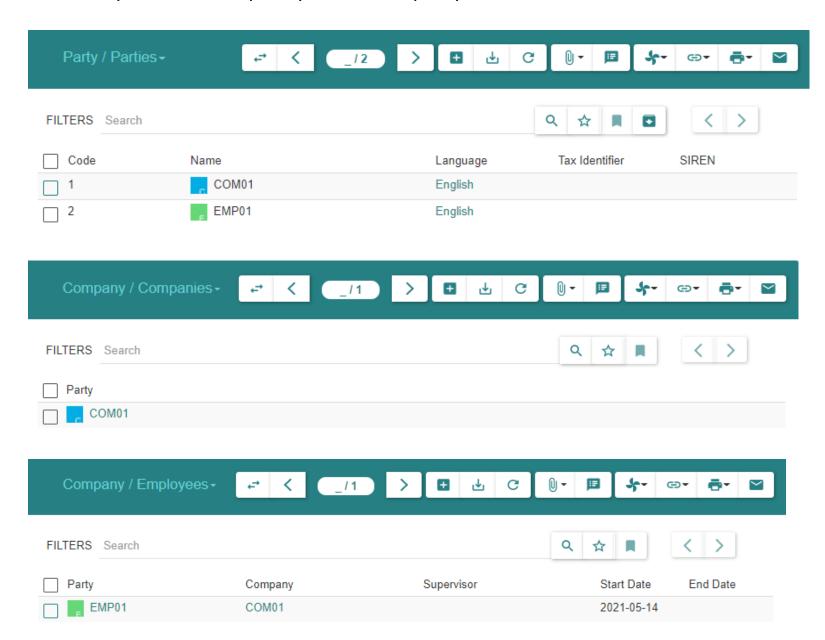
- The « Employee » appears now
 - In the list of employees
 - In the list of employees for « Company » COM01





Final State

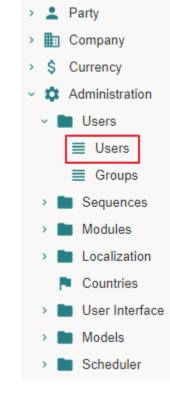
« Party », « Company », « Employee »



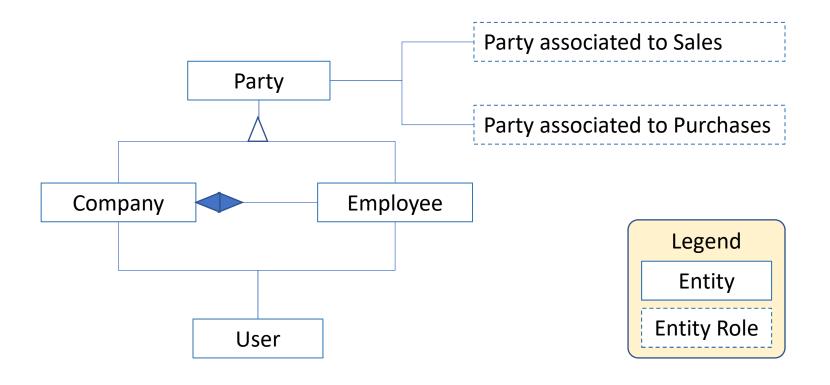
« User »

« User » - Relationship to « Employee » and « Company »

- A « Company » aggregates « Employees », not « Users »
- An « Employee » is a « Party », a « User » is not
- A « User » references all « Company » and « Employee » he/she manages
- A « User » references a « Current Company » and a « Current Employee »
- A « User » is someone who logs into the system with user id and password
- The « User » « Company » link allows installation and display of relevant company records
- For instance, the « admin » « COM01 » link will authorize the creation of a « COM01 » Chart of Accounts

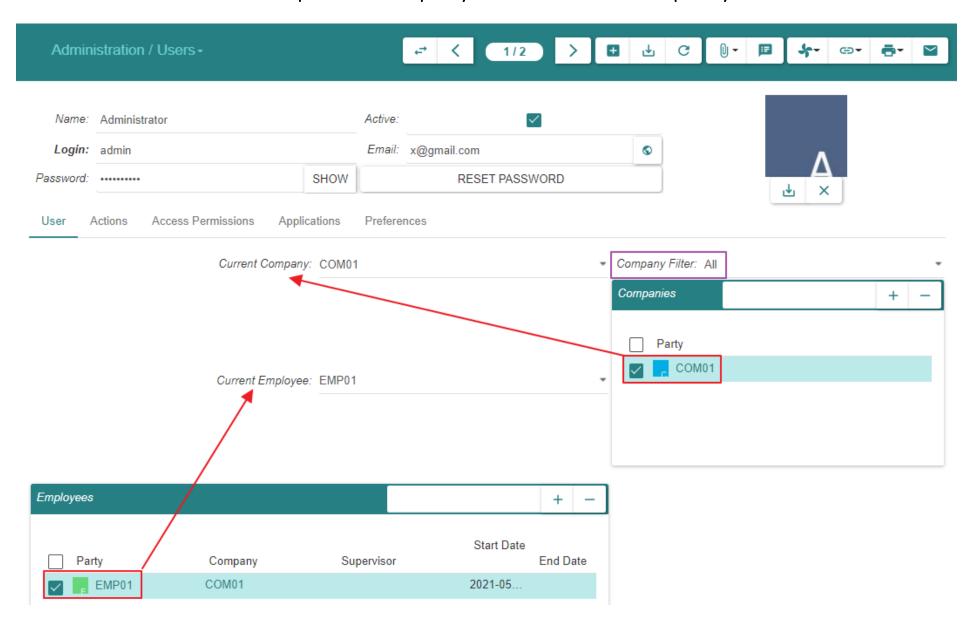


Summary



« User » Administrator

« User » - Relationship to « Employee » and « Company »



> ♣ Party
> ♣ Company
> \$ Currency

 Administration
 Users
 ■ Users
 ■ Groups

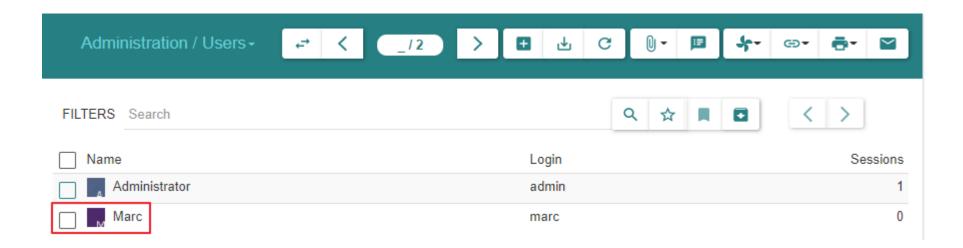
 Sequences
> Modules
> Localization
 Countries
> Models

Scheduler

« User » Marc

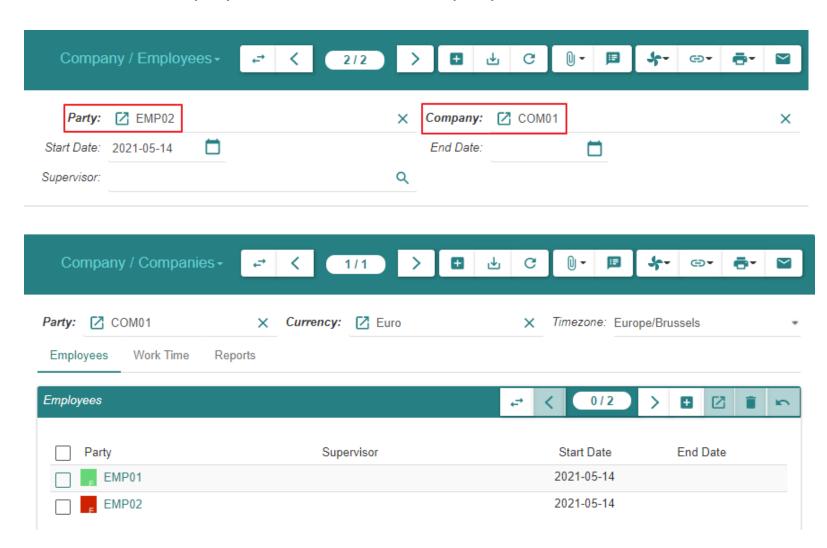
Motivation

- We initially added « User Marc » using the « Initial Configuration Wizard »
- We now define « Employee EMP02 » for « Company COM01 »
- We link « User Marc » to him/her
- We briefly login then logout to see what is permitted
- Later on, all operations will be performed in this basic introduction with « User » « Administrator »



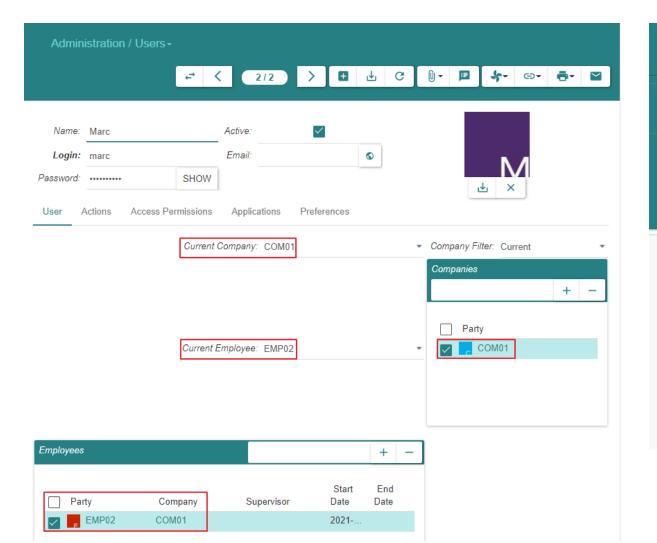
Motivation

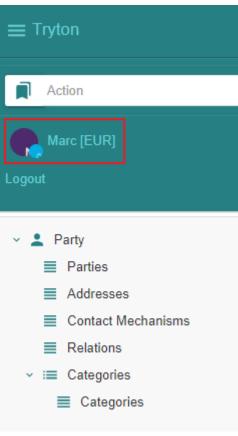
We define « Employee EMP02 » for « Company COM01 »



Motivation

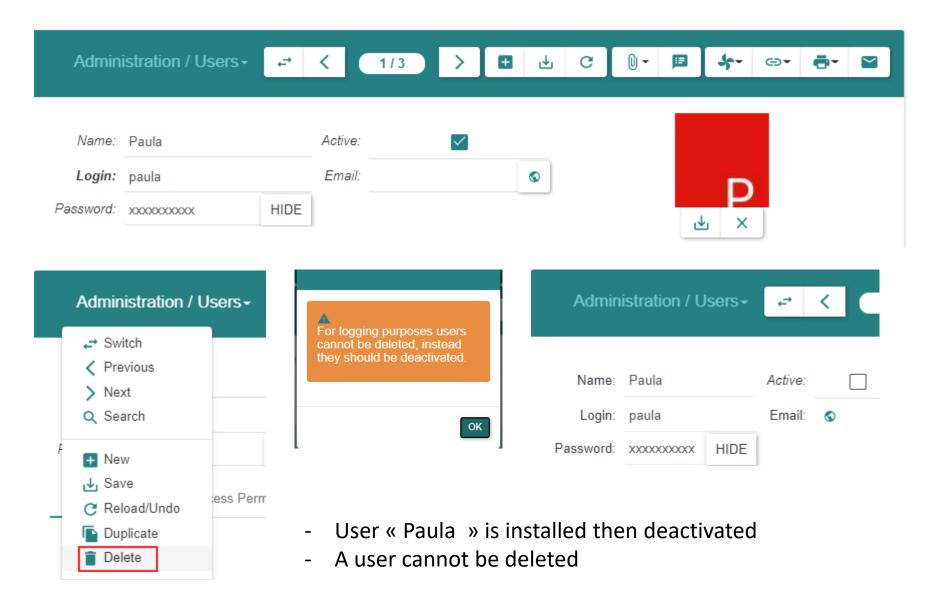
- We link « User Marc » to « Employee EMP02 » for « Company COM01 »
- We login/logout with « User Marc » to display the current privileges
- We will explain later the « User Group » and « User Role » concepts used for attributing user privileges





« User » Paula

« User Administrator » creates then deactivates « User Paula »



« Financials »

« Chart of Accounts » & « Fiscal Year and Period » & « Journal »

Chart of Account

We will install the « French » chart of accounts.

Balance Sheet Accounts

#	French	English
40	Client	Customer
41	Fournisseur	Supplier
53	Caisse	Cash

Income Statement Accounts

#	French	English
6x	Charges	Expense
7x	Revenus	Revenue

[https://tryton-administration-manual.readthedocs.io/en/latest/basic_config.html#installing-a-chart-of-accounts]
[https://tryton-administration-manual.readthedocs.io/en/latest/accounts.html]

Activating Modules

Activation

Administration / Modules -

FILTERS account or bank

~]	Name	Version	State
\checkmark	account	6.0.0	Not Activated
\checkmark	account_asset	6.0.0	Not Activated
~	account_be	6.0.0	Not Activated
~	account_cash_rounding	6.0.0	Not Activated
~	account_credit_limit	6.0.0	Not Activated
~	account_deposit	6.0.0	Not Activated
~	account_de_skr03	6.0.0	Not Activated
~	account_dunning	6.0.0	Not Activated
~	account_dunning_email	6.0.0	Not Activated
~	account_dunning_fee	6.0.0	Not Activated
~	account_dunning_letter	6.0.0	Not Activated
~	account_es	6.0.0	Not Activated
~	account_eu	6.0.0	Not Activated
~	account_fr	6.0.0	Not Activated
~	account_fr_chorus	6.0.0	Not Activated
~	account_invoice	6.0.0	Not Activated
~	account_invoice_correction	6.0.0	Not Activated
~	account_invoice_defer	6.0.0	Not Activated
~	account_invoice_history	6.0.0	Not Activated
~	account_invoice_line_standalone	6.0.0	Not Activated
~	account_invoice_secondary_unit	6.0.0	Not Activated
~	account_invoice_stock	6.0.0	Not Activated

- « Mark for Activation »
- « Perform pending activation or upgrade »

\checkmark	account_payment	6.0.0	Not Activated
\checkmark	account_payment_braintree	6.0.0	Not Activated
~	account_payment_clearing	6.0.0	Not Activated
~	account_payment_sepa	6.0.0	Not Activated
\checkmark	account_payment_sepa_cfonb	6.0.0	Not Activated
~	account_payment_stripe	6.0.0	Not Activated
~	account_product	6.0.0	Not Activated
~	account_statement	6.0.0	Not Activated
~	account_statement_aeb43	6.0.0	Not Activated
~	account_statement_coda	6.0.0	Not Activated
~	account_statement_ofx	6.0.0	Not Activated
~	account_statement_rule	6.0.0	Not Activated
\checkmark	account_stock_anglo_saxon	6.0.0	Not Activated
\checkmark	account_stock_continental	6.0.0	Not Activated
\checkmark	account_stock_landed_cost	6.0.0	Not Activated
\checkmark	account_stock_landed_cost_weight	6.0.0	Not Activated
\checkmark	account_tax_cash	6.0.0	Not Activated
~	account_tax_rule_country	6.0.0	Not Activated
\checkmark	analytic_account	6.0.0	Not Activated
~	bank	6.0.0	Not Activated

Activation & Create Chart of Accounts

Perform Pending Activation/Upgrade (account_cash_rounding, account_



Your system will be upgraded. Note that this operation may take a few minutes.

Modules to update

account statement coda: to activate account statement ofx: to activate account statement rule: to activate account stock anglo saxon: to activate account stock continental: to activate account_stock_landed_cost: to activate account stock landed cost weight: to activate account tax cash: to activate

account tax rule country: to activate

analytic_account: to activate

bank: to activate

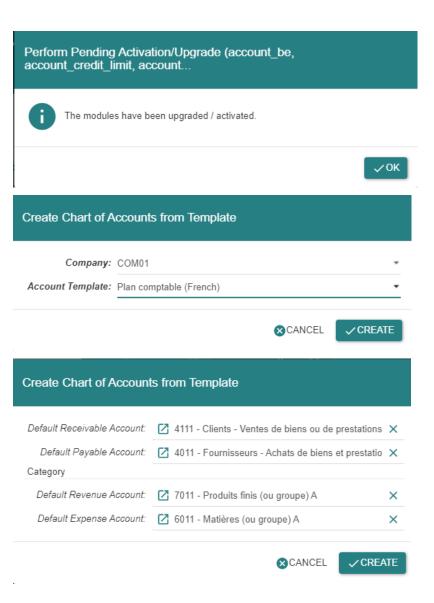
product: to activate

product_measurements: to activate

stock: to activate

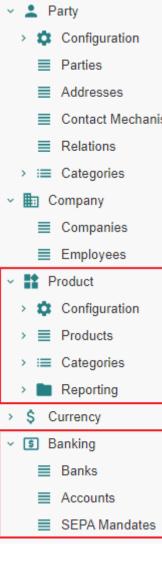
stock_shipment_measurements: to activate

Additional modules are activated



State - Menu Tree Items

There are additional Menu Items in the Menu Tree



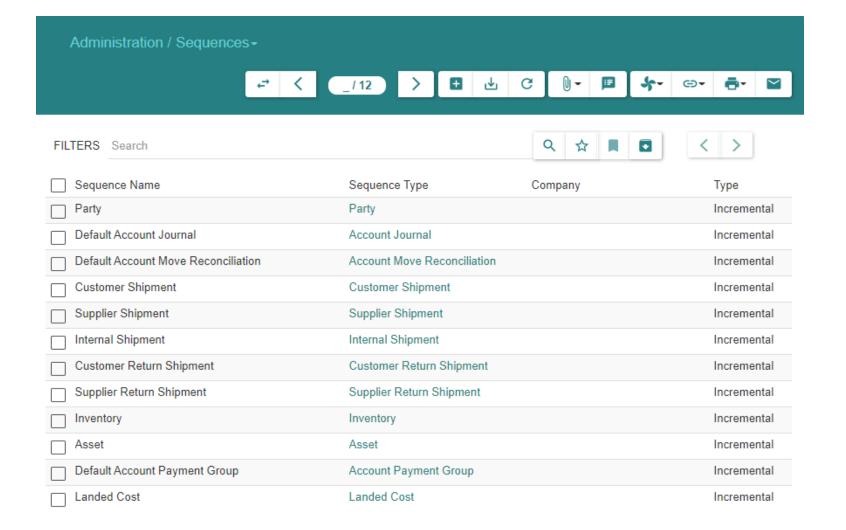
- Contact Mechanisms
- Product > \$ Currency Banking √ m Financial Configuration Invoices Payments Entries Dunnings Statements Charts Processing Assets Reporting Inventory & Stock Configuration Supplier Shipments Customer Shipments Internal Shipments ■ Locations Inventories Moves

Party

Company

State - Sequence Management Functions

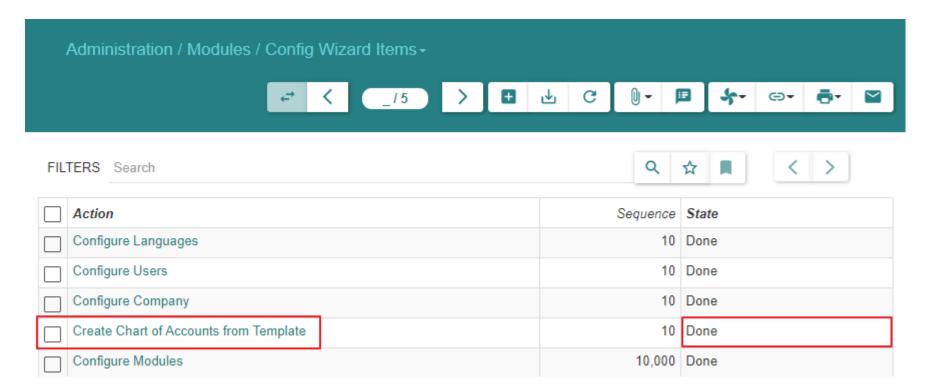
There are additional functions that allow to format the prefix or suffix of record sequences for various entities



- 2 Party
- → III Company
- > Product
- \$ Currency
- → S Banking
- > m Financial
- Inventory & Stock
- Administration
 - Users
 - Sequences
 - Sequences
 - Sequences Strict
 - Types
 - > Modules
 - > Localization
 - Countries
 - User Interface
 - Models
 - Scheduler

State - Wizards

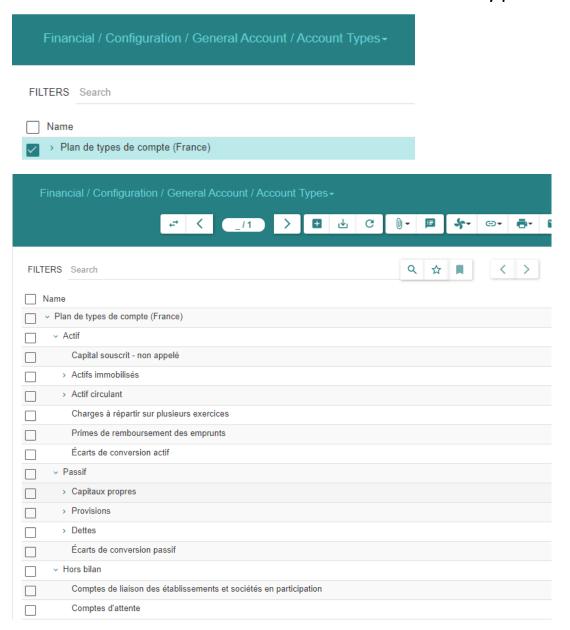
The « Create Chart of Accounts from Template » wizard Item is added in state « done »

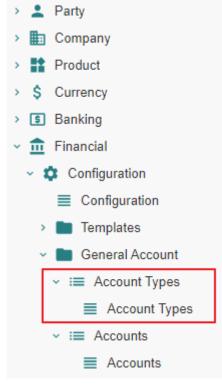


Party E Company Product \$ Currency S Banking financial Inventory & Stock Administration Users Sequences Modules Modules Config Wizard Items Perform Pending Activatio. Localization Countries User Interface Models

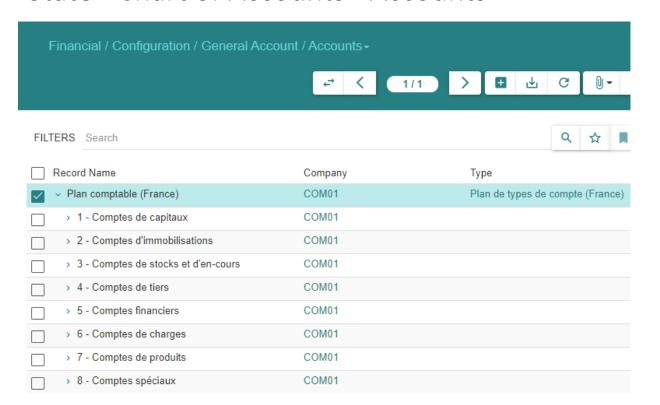
Scheduler

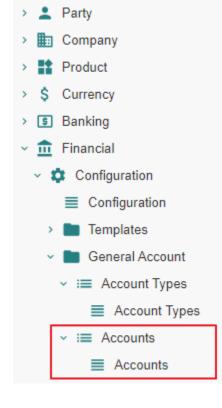
State - Chart of Accounts - Account Types

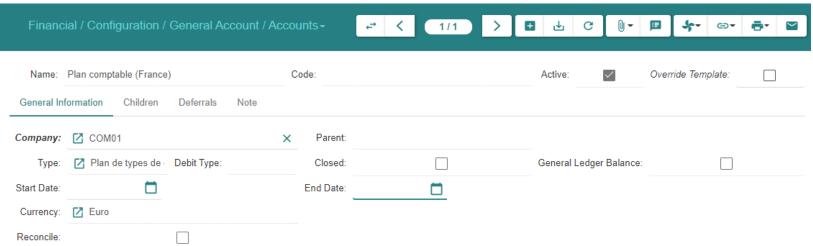




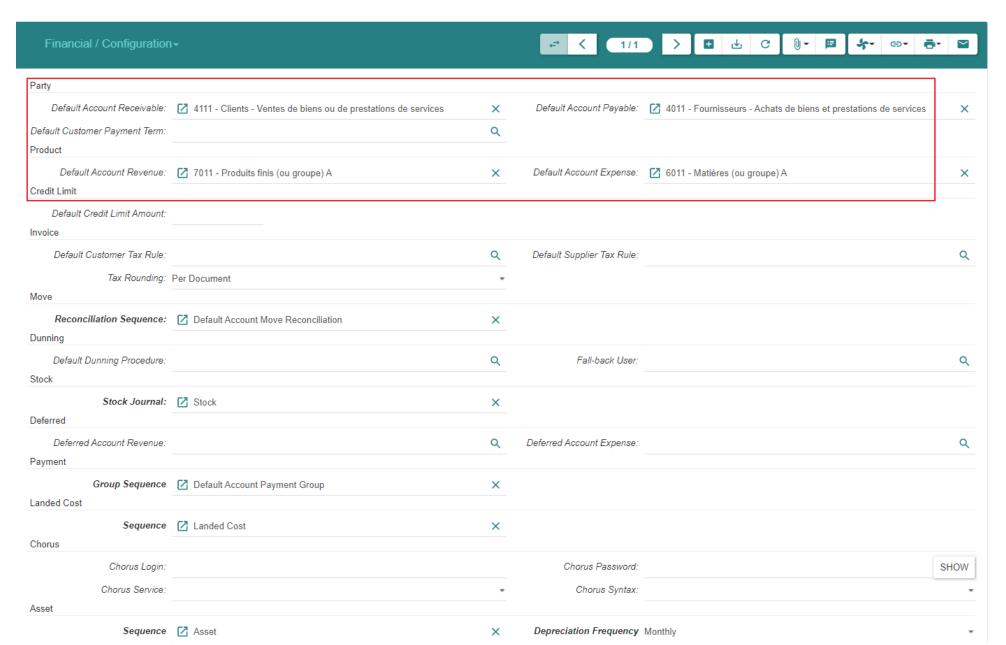
State - Chart of Accounts - Accounts

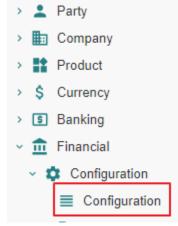






State - Configuration





Part of the « Configuration » is now defined

State - Company

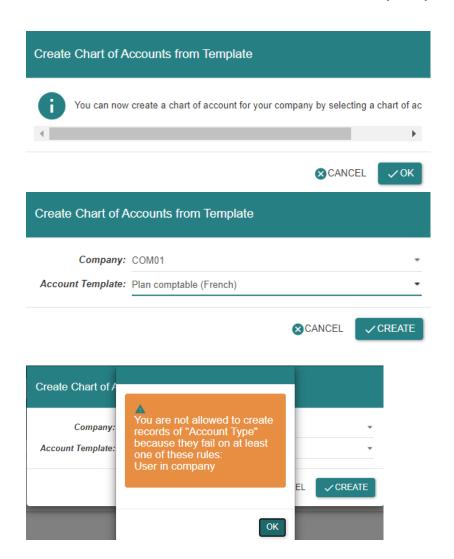
Notice:

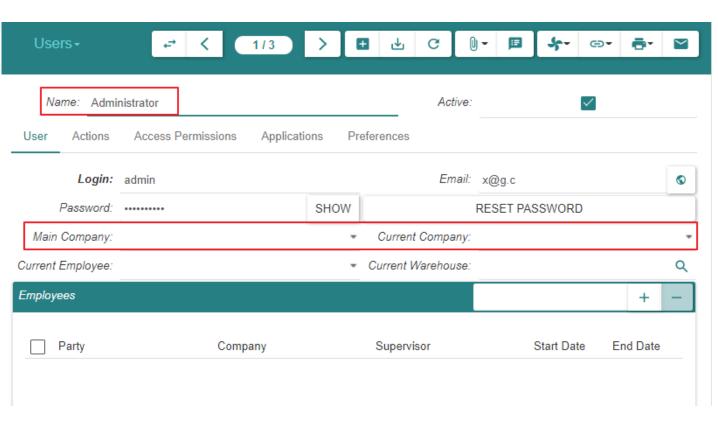
- The « Create Chart of Accounts from Template » wizard Item is « done »
- The « Company COM01 » has no « Accounting » Tab
- There are additional Menu Items in the Menu Tree

Error Case

Error case - « Administration » User not setup

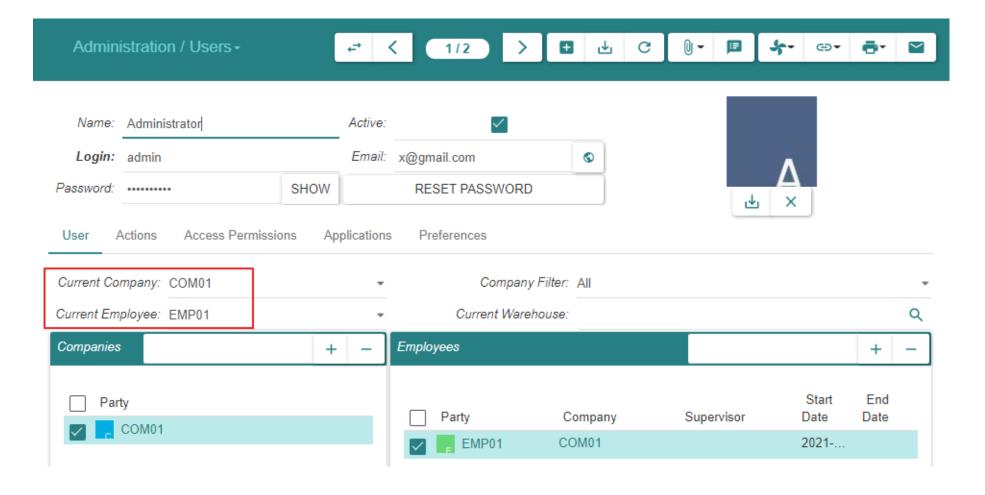
- This situation occurs when the « Administration » user is not properly set up
- The user must be linked to « Company COM01 » and « Employee EMP01 »

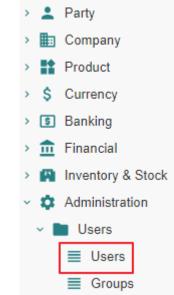




How to recover

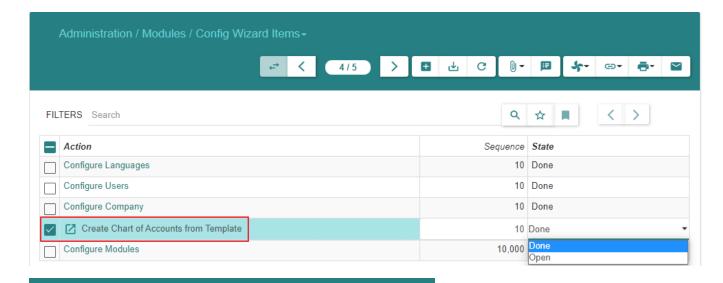
We set the link to company « COM01 » & employee « EMP01 »





How to recover - method 1

4/5 > 🛨 🕁 C

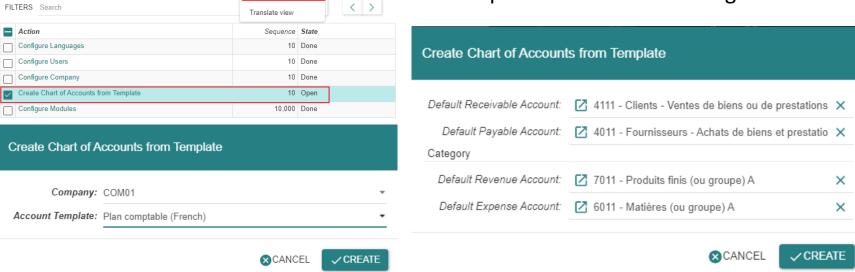


0- **5 6- 6- 2**

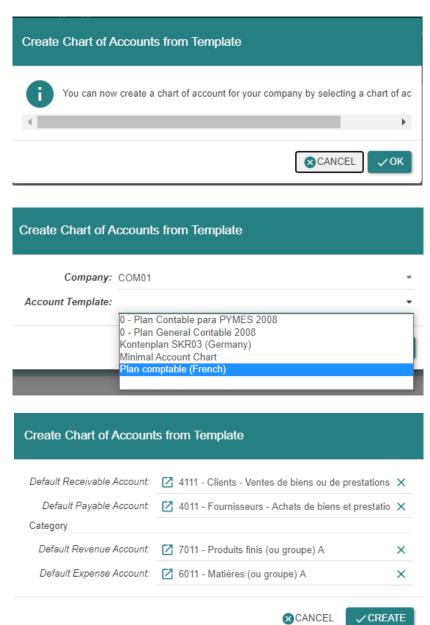
Module Configuration



- We modify the wizard state from « done » to « open »
- We perform « Module Configuration »



How to recover - method 2

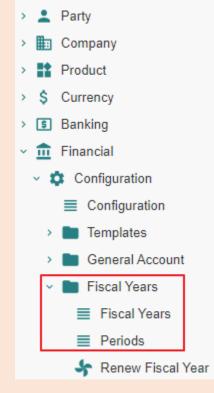


Party Company Product \$ Currency S Banking m Financial Configuration Configuration Templates Types Moves :≡ Taxes Rules reate Chart of Accounts from Template

♣ Update Chart of Accounts from Template

107

Financial - Fiscal Years & Periods



Documentation

Accounts:

[https://tryton-administration-manual.readthedocs.io/en/latest/accounts.html]

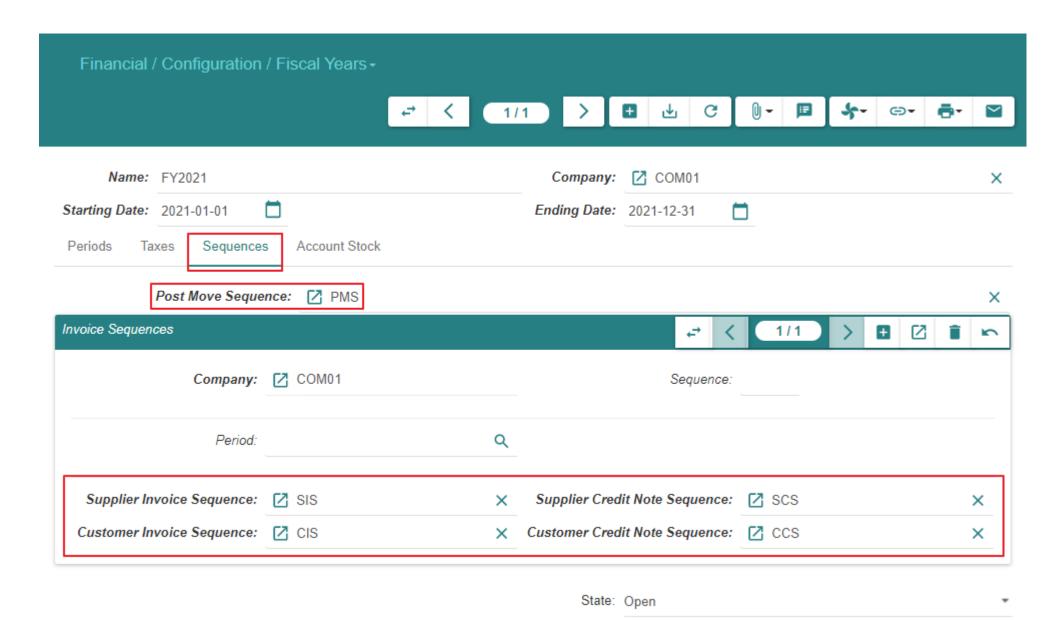
Post Move Sequence:

[https://groups.google.com/g/tryton/c/a4fobeaYn48]

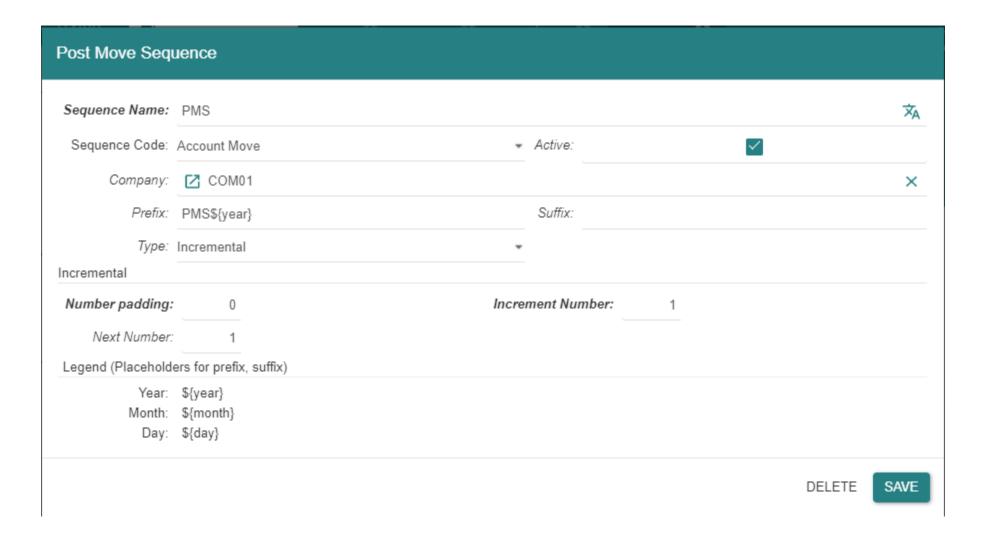
Opening a Fiscal Year :

[https://discuss.tryton.org/t/how-to-create-a-fiscalyear/2380]

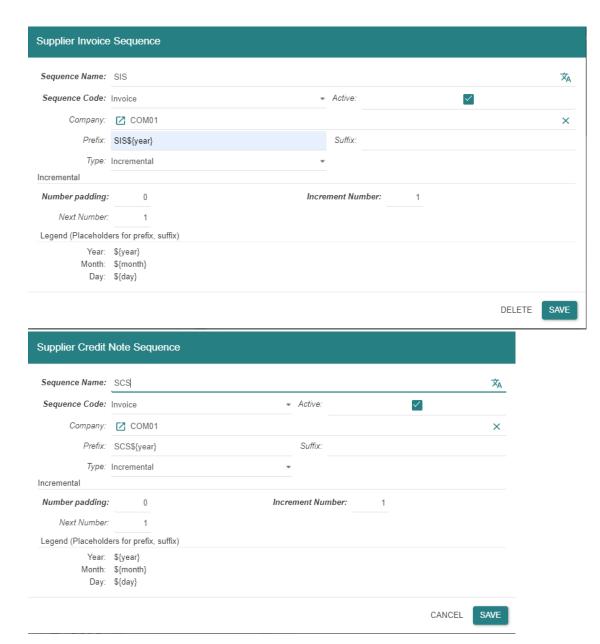
Fiscal Years - Sequences



Fiscal Years - Sequences

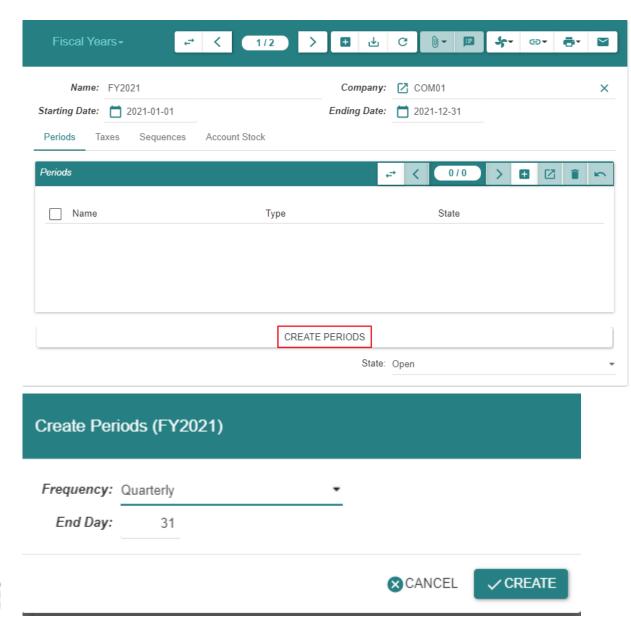


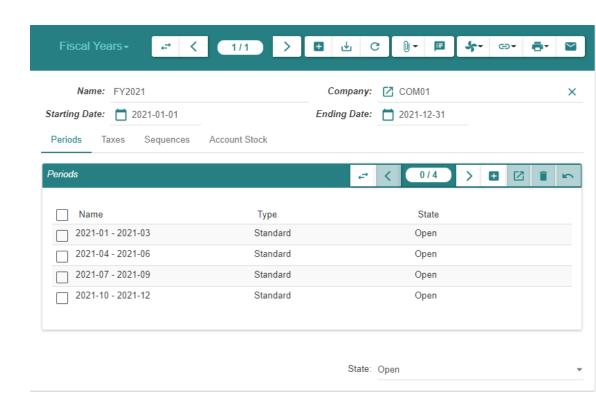
Fiscal Years - Sequences



Customer Invoice	ce Sequence				
Sequence Name:	CIS				×д
Sequence Code:	Invoice		→ Active:	✓	
Company:	COM01				×
Prefix:	CIS\${year}		Suffix:		
Type:	Incremental		*		
Number padding:	0		Increment Number: 1		
Next Number:					
	ers for prefix, suffix)				
Month:	\${year} \${month} \${day}				
Customer Credit	t Note Sequence				DELETE SAVE
Sequence Name:	ccs			ŻĄ	
Sequence Code:	Invoice	-	Active:		
Company:	☑ COM01			×	
Prefix:	CCS\${year}		Suffix:		
	Incremental	-			
Incremental					
Number padding:	0	incre	ment Number: 1		
Next Number: Legend (Placeholde	1				
Year: Month:	\${year} \${month}				
Day:	\${day}				

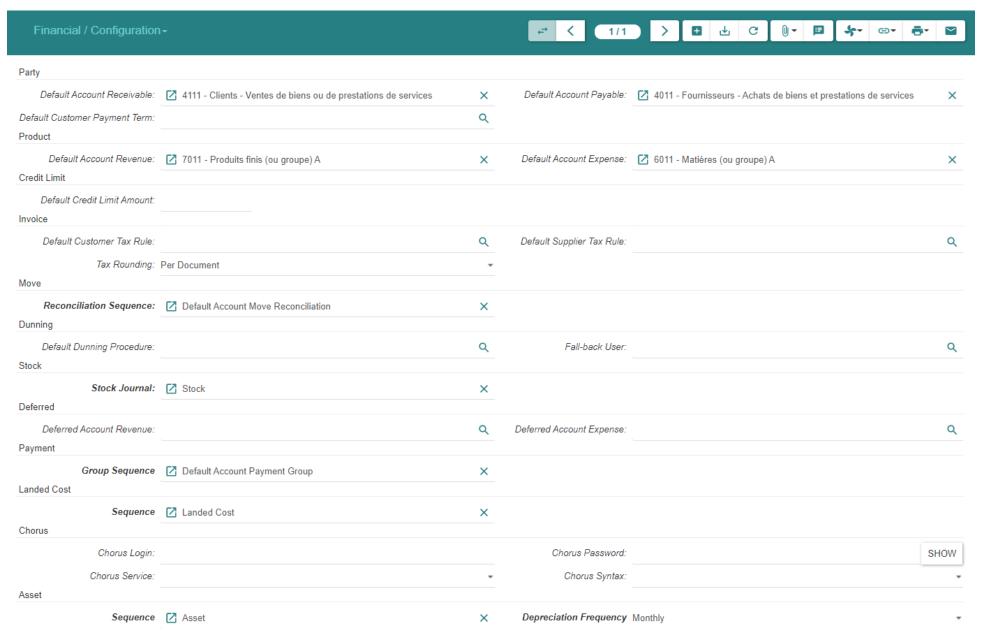
Fiscal Years - Periods

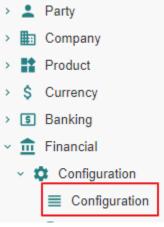




Financial - Configuration

Configuration

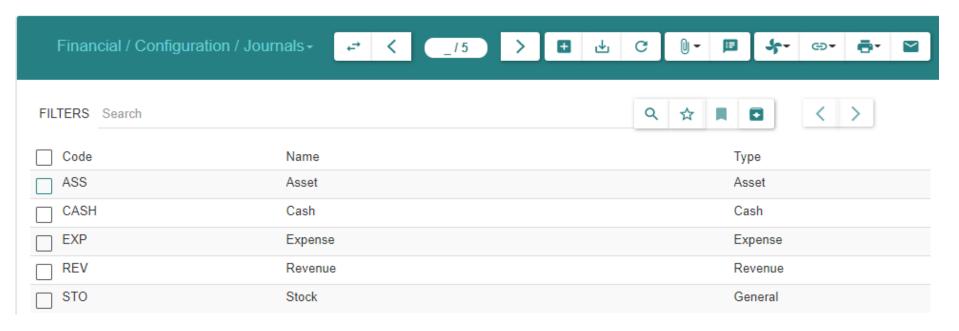




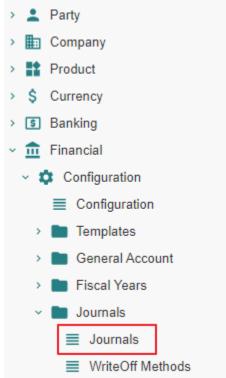
Additional parameters can be set

Financial - Journals

Journals

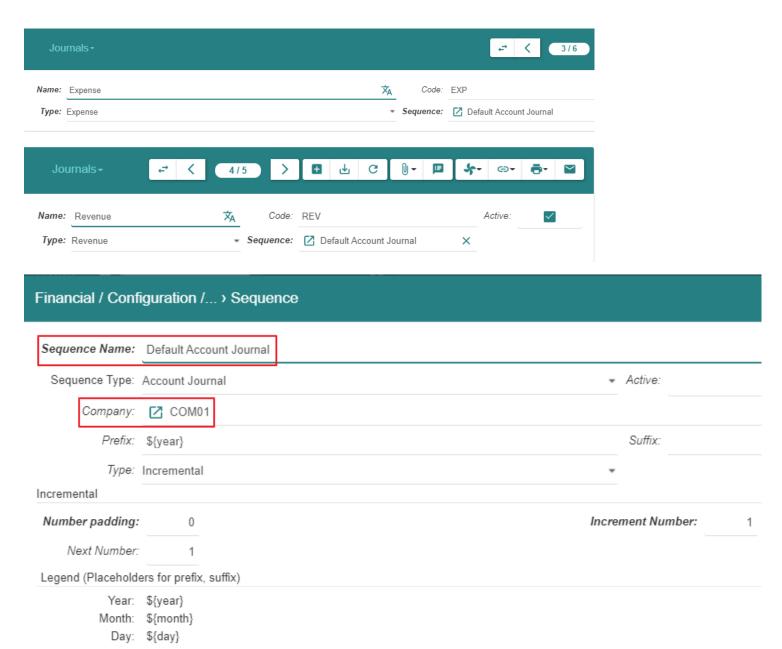




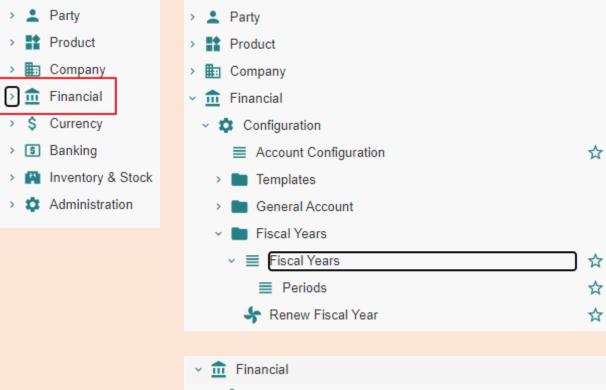


■ Invoice Payment Methods

Journals

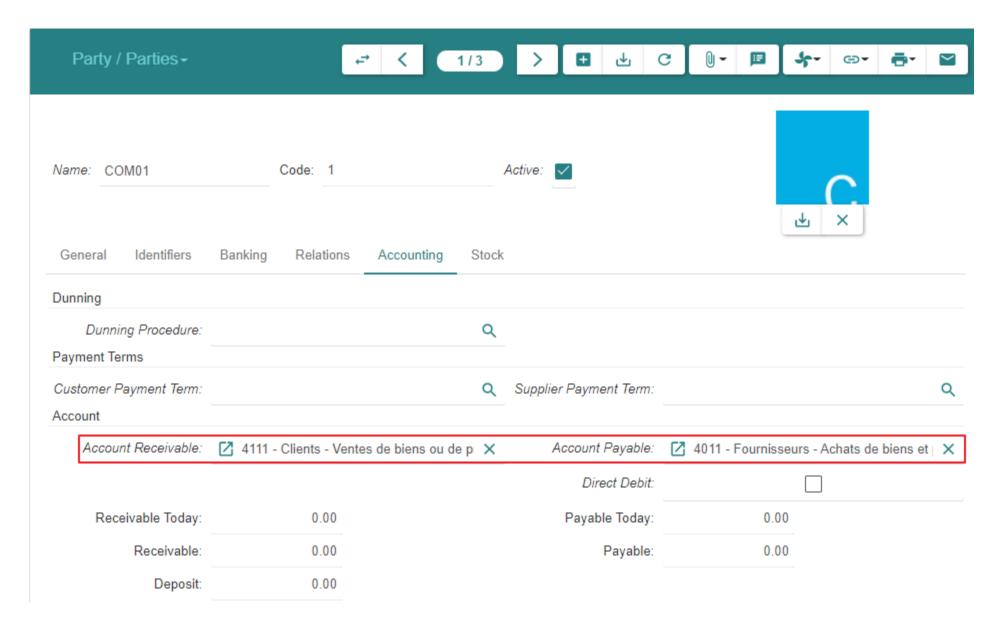








Company

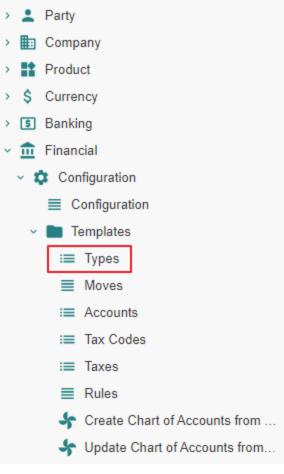


Database

Account Type Templates (1/2)

Financial / Configuration / Templates / Types-

FILTERS Search
Name
Plan General Contable Español 2008
→ Plan Contable Español para PYMES 2008
☐ → Minimal Account Type Chart
Plan de types de compte (France)
☐ ✓ Actif
Capital souscrit - non appelé
Actifs immobilisés
Actif circulant
Charges à répartir sur plusieurs exercices
Primes de remboursement des emprunts
Écarts de conversion actif
Passif
☐ → Hors bilan



Account Type Templates (2/2)

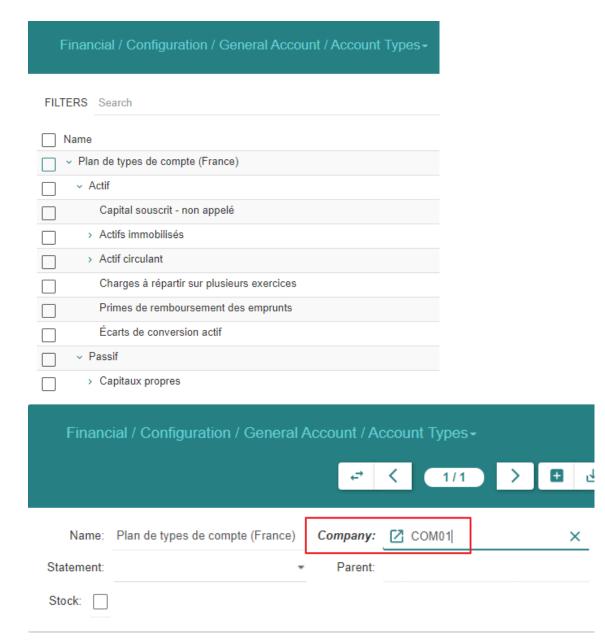
Notifications

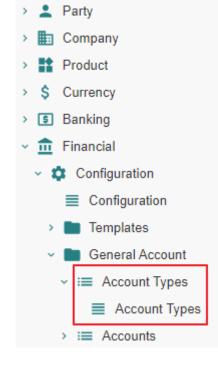
Templates are used to generate the actual « Chart of Account ». As such, there is no reference to a « Company »

•	account_account_type_template
	> 🗎 Columns
	✓ ▶ Constraints (3)
	√ account_account_type_template_id_positive
	<pre>@ account_account_type_template_parent_fkey</pre>
	<pre>@ account_account_type_template_pkey</pre>

4	id [PK] integer	assets boolean	create_date timestamp without time zone	create_uid integer	expense boolean	name character varying	parent integer	payable boolean	receivable boolean	revenue boolean	sequence integer	statement character varying	stock boolean
1	1	false	2021-03-08 11:42:32.073204	0	false	Minimal Account Type	[null]	false	false	false	10	[null]	false
2	2	true	2021-03-08 11:42:32.073204	0	false	Asset	1	false	false	false	10	balance	false
3	3	true	2021-03-08 11:42:32.073204	0	false	Current	2	false	false	false	10	balance	false
4	4	true	2021-03-08 11:42:32.073204	0	false	Cash	3	false	false	false	10	balance	false
5	5	true	2021-03-08 11:42:32.073204	0	false	Receivable	3	false	true	false	20	balance	false
6	6	true	2021-03-08 11:42:32.073204	0	false	Long-term	2	false	false	false	20	balance	false
7	7	false	2021-03-08 11:42:32.073204	0	false	Liability	1	false	false	false	20	balance	false
8	8	false	2021-03-08 11:42:32.073204	0	false	Current	7	false	false	false	10	balance	false
9	9	false	2021-03-08 11:42:32.073204	0	false	Payable	8	true	false	false	10	balance	false
10	10	false	2021-03-08 11:42:32.073204	0	false	Tax	8	false	false	false	20	balance	false
11	11	false	2021-03-08 11:42:32.073204	0	false	Long-term	7	false	false	false	20	balance	false
12	12	false	2021-03-08 11:42:32.073204	0	false	Equity	1	false	false	false	30	balance	false
13	13	false	2021-03-08 11:42:32.073204	0	false	Income	12	false	false	false	40	income	false
14	14	false	2021-03-08 11:42:32.073204	0	false	Revenue	13	false	false	true	10	income	false
15	15	false	2021-03-08 11:42:32.073204	0	true	Expense	13	false	false	false	20	income	false
16) 16	false	2021-03-08 11:42:32.073204	0	false	Off-Balance	1	false	false	false	60	off-balance	false
17		false	2021-03-08 11:42:51.929697	0	false	Kontentypenplan SKR0	[null]	false	false	false	10	[null]	false
18	18	false	2021-03-08 11:42:51.929697	0	false	Aktiva	17	false	false	false	10	balance	false

Account Types (1/2)

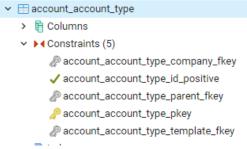




The « Account Type » contains a reference to the « Company ».

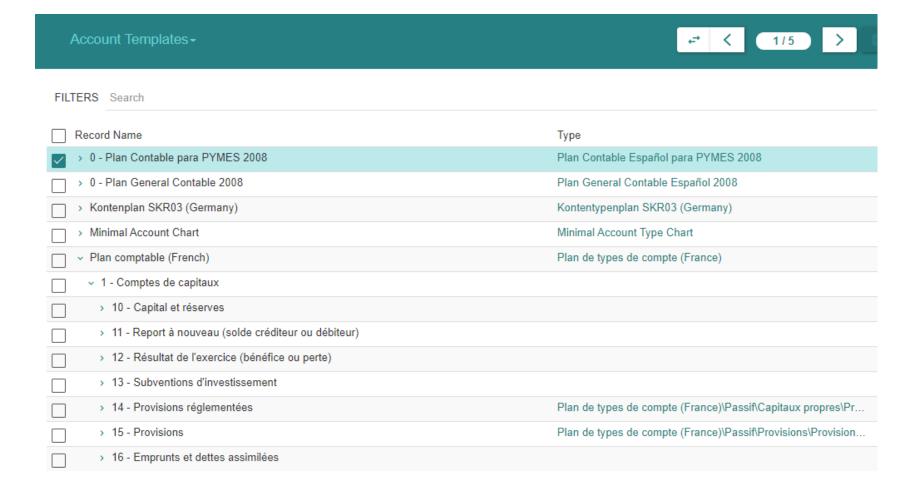
This contrasts with the « Account Type Template » which does not

Account Types (2/2)



Data 0	Data Output Explain Messages Notifications													
4	id [PK] integer	assets boolean	company integer	create_date timestamp without time zone	create_uid integer	r .	expense boolean	name character varying	parent integer	payable boolean	receivable boolean	revenue boolean	sequence integer	statement character varying
1	1	false	1	2021-03-08 16:49:00.218444	1	1 1	false	Plan de types de comp	[null]	false	false	false	10	[null]
2	2	true	1	2021-03-08 16:49:00.218444	1	1 1	false	Actif	1	false	false	false	10	balance
3	3	false	1	2021-03-08 16:49:00.218444	1	1 1	false	Passif	1	false	false	false	20	balance
4	4	false	1	2021-03-08 16:49:00.218444	1	1 1	false	Hors bilan	1	false	false	false	30	off-balance
5	5	true	1	2021-03-08 16:49:00.218444	•	1 1	false	Capital souscrit - non a	2	false	false	false	10	balance
6	6	true	1	2021-03-08 16:49:00.218444	1	1 1	false	Actifs immobilisés	2	false	false	false	20	balance
7	7	true	1	2021-03-08 16:49:00.218444	1	1 1	false	Actif circulant	2	false	false	false	30	balance
8	8	true	1	2021-03-08 16:49:00.218444	1	1 1	false	Charges à répartir sur	2	false	false	false	40	balance
9	9	true	1	2021-03-08 16:49:00.218444	1	1 1	false	Primes de rembourse	2	false	false	false	50	balance
10	10	true	1	2021-03-08 16:49:00.218444	•	1 1	false	Écarts de conversion a	2	false	false	false	60	balance
11	11	false	1	2021-03-08 16:49:00.218444	1	1 1	false	Capitaux propres	3	false	false	false	10	balance

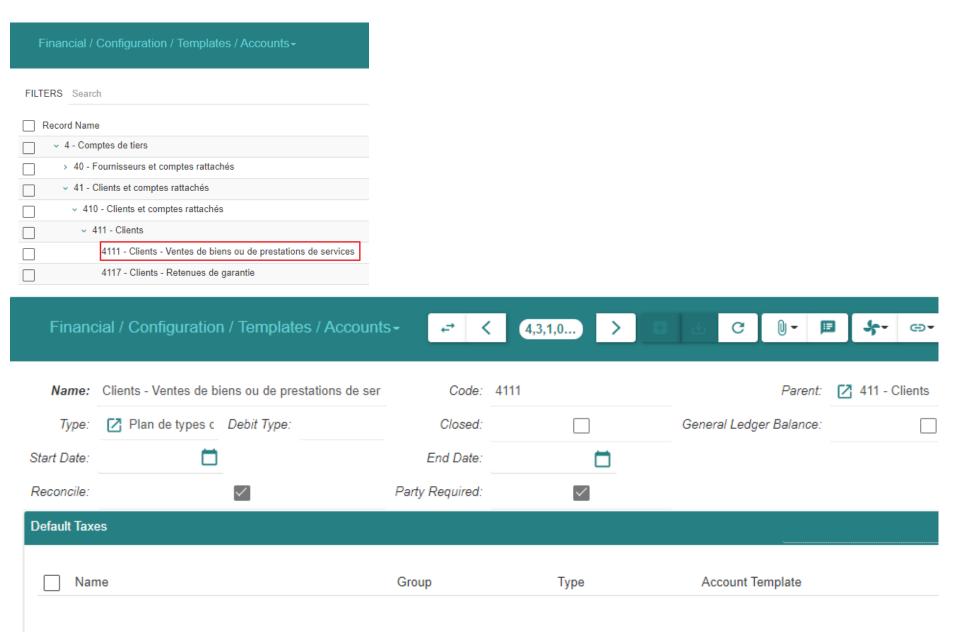
Account Templates (1/3)

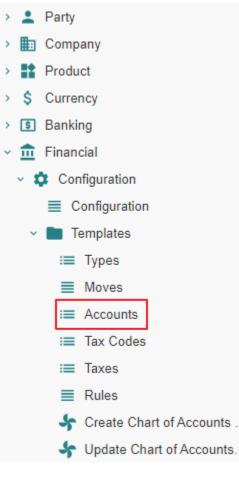


Party Company Product Currency Banking √ m Financial Configuration Configuration Templates Moves Accounts :≡ Taxes Rules Create Chart of Accounts .

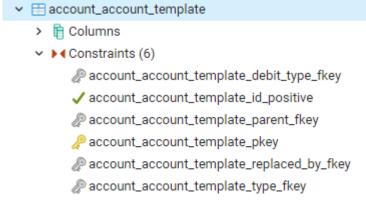
Update Chart of Accounts.

Account Templates (2/3)



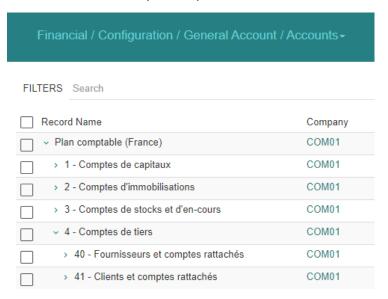


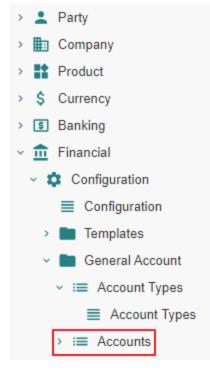
Account Templates (3/3) - Note

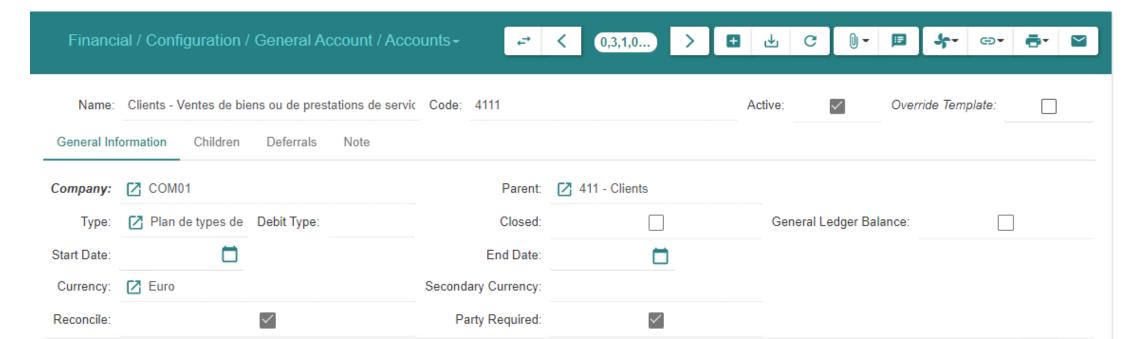


Data O	utput Explain	Messages	Notifications						
4	id [PK] integer	closed boolean	code character varying	create_date timestamp without time zone	create_uid integer	debit_type integer	end_date date	general_ledger_balance boolean	name character varying
1	1	true	[null]	2021-03-08 11:42:32.073204	0	[null]	[null]	false	Minimal Account Chart
2	2	false	[null]	2021-03-08 11:42:32.073204	0	[null]	[null]	false	Main Receivable
3	3	false	[null]	2021-03-08 11:42:32.073204	0	[null]	[null]	false	Main Payable
4	4	false	[null]	2021-03-08 11:42:32.073204	0	[null]	[null]	false	Main Revenue

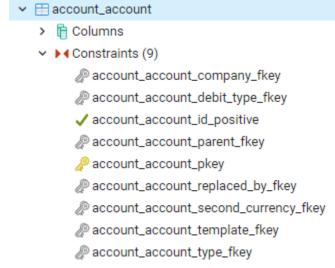
Accounts (1/2)







Accounts (2/2)



Query Editor Query History Scratch I 1 SELECT * FROM public.account_account

2 ORDER BY id ASC

Data Ou	tput Explain	Messages	Notifications										
	id [PK] integer	closed boolean	code character varying	company integer	template integer	t time zone	create_uid integer	debit_type integer	end_date date	general_ledger_balance boolean	left integer	name character varying	note text
1	1	false	[null]	1	1175	f0.218444	1	[null]	[null]	false	1	Plan comptable (French)	[null]
2	2	false	1	1	1176	^f 0.218444	1	[null]	[null]	false	2	Comptes de capitaux	[null]
3	3	false	2	1	1325	^f 0.218444	1	[null]	[null]	false	300	Comptes d'immobilisat	[null]
4	4	false	3	1	1689	^f 0.218444	1	[null]	[null]	false	1028	Comptes de stocks et	[null]
5	5	false	4	1	1781	^f 0.218444	1	[null]	[null]	false	1212	Comptes de tiers	[null]
6	6	false	5	1	1945	^f 0.218444	1	[null]	[null]	false	1540	Comptes financiers	[null]
7	7	false	6	1	1998	^f 0.218444	1	[null]	[null]	false	1646	Comptes de charges	[null]

Problem with closed accounts

[https://discuss.tryton.org/t/value-for-field-account-is-not-valid/3106/9]

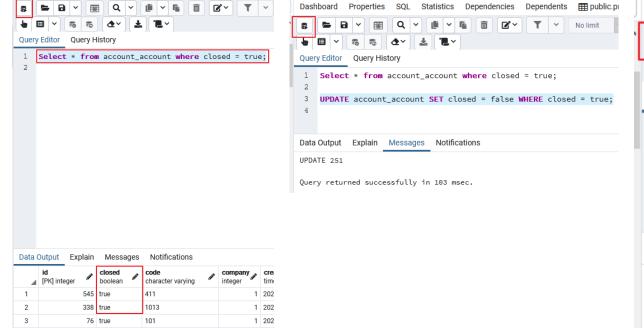
Select * from account account where closed = true; UPDATE account account SET closed = false WHERE closed = true;

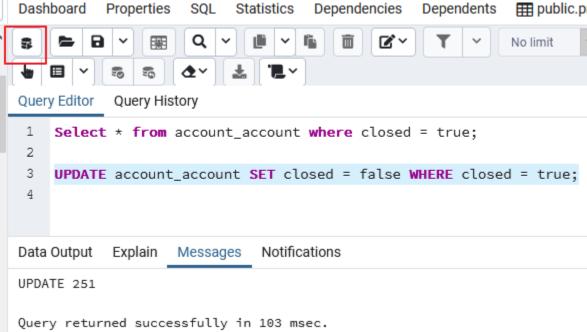


Marc

I hit the same problem with the « French » chart of account whilst creating a Sales Order. What I did:

- Run the query « Select * from account account where closed = true; » in « Postgres / pgadmin4 »
- This query confirmed that 252 accounts were « closed »
- · I did not bother to find out which one
- Run the query « UPDATE account account SET closed = false WHERE closed = true; »
- That solved the problem: I could advance the Sales Order to « Process » Suggestion: whilst processing the sales order, to have the error message display one such account encountered in this state up until there are no more in that state.

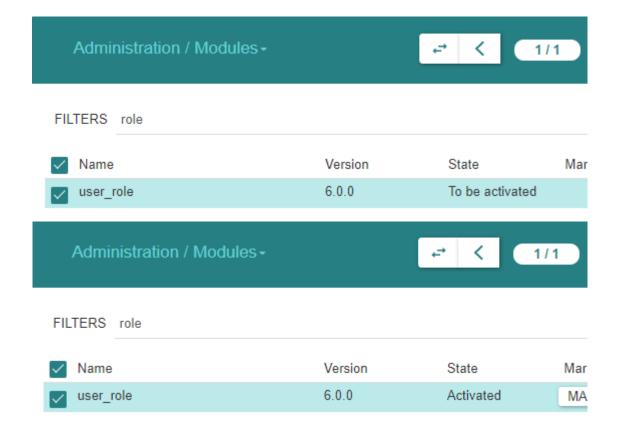


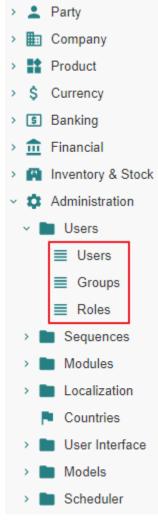


User Authorizations

Motivation

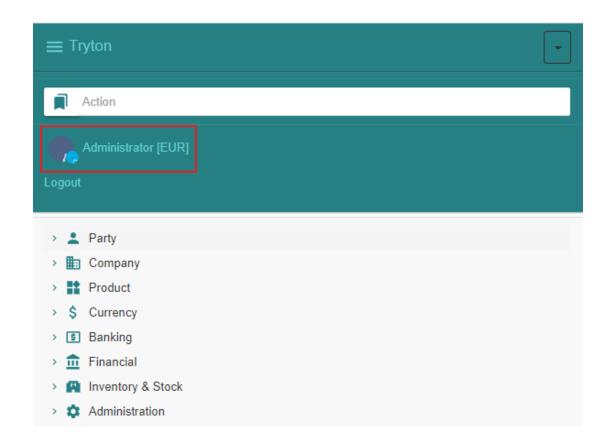
- We experiment in changing user authorizations with respect to accessing subject areas in the application
- The « User Administrator » can tailor this by exercising
 « User Groups » and « User Roles »
- We activate module « user_role »

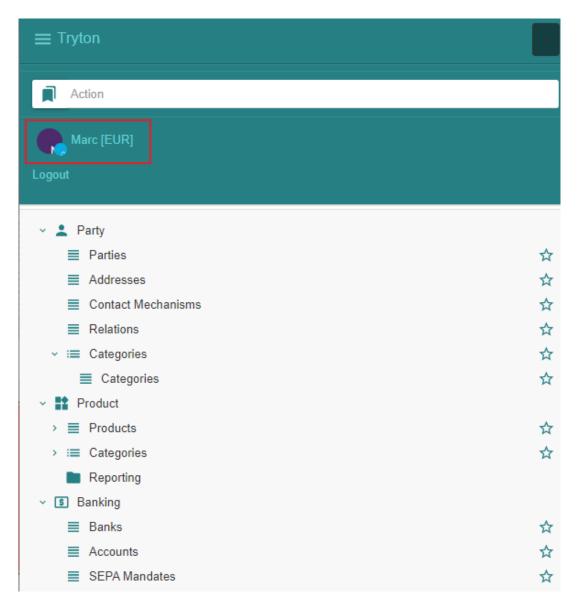




User Capabilities - State Ante

State - User Capabilities





User Groups - Modify

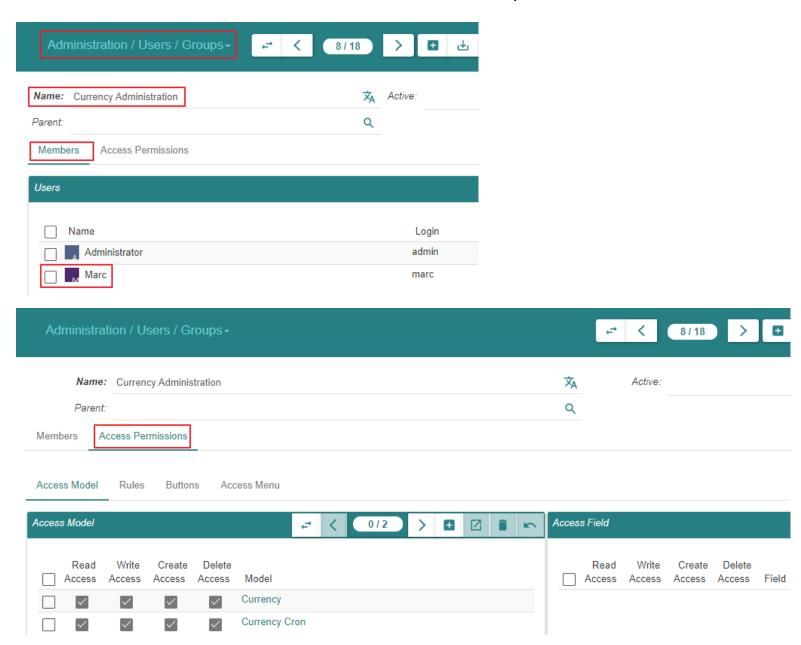
List of « User Groups »

Linking the « User » and the « Group » is possible in two ways :

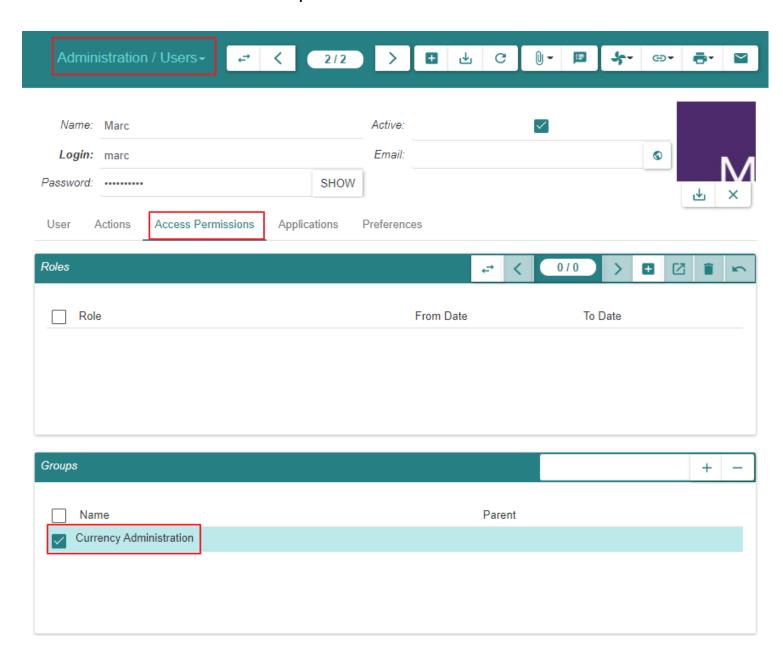
- Method 1: displaying the choosen group then linking the user to it
- Method 2: displaying the choosen user then linking the group to it

Party Administration / Users / Groups -Company Product Currency FILTERS Search Banking Name m Financial Account Inventory & Stock Account Administration Administration Users Account Credit Limit Users Administration Groups Analytic Administration Roles Bank Administration Sequences Company Administration Modules Currency Administration Localization Dunning Countries Employee Administration User Interface Party Administration Models Scheduler Payment Payment Approval Product Administration Statement Stock Stock Administration Stock Force Assignment

Attach « User Marc » to a « User Group » - Method 1



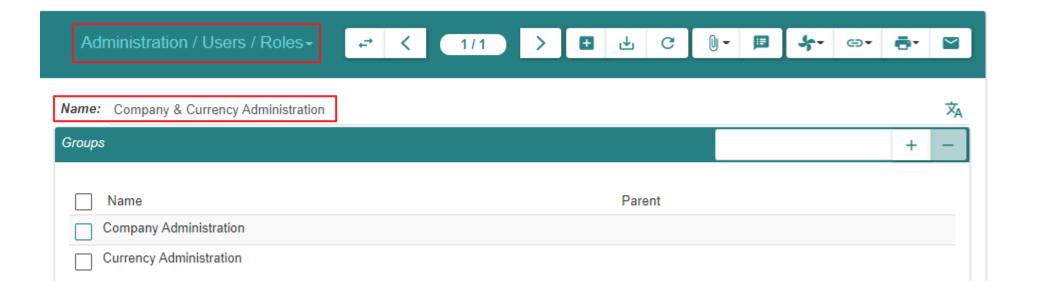
Attach a « User Group » to « User Marc » - Method 2



User Roles - Modify

« User Roles »

We define a « Role » that aggregates two « Groups »

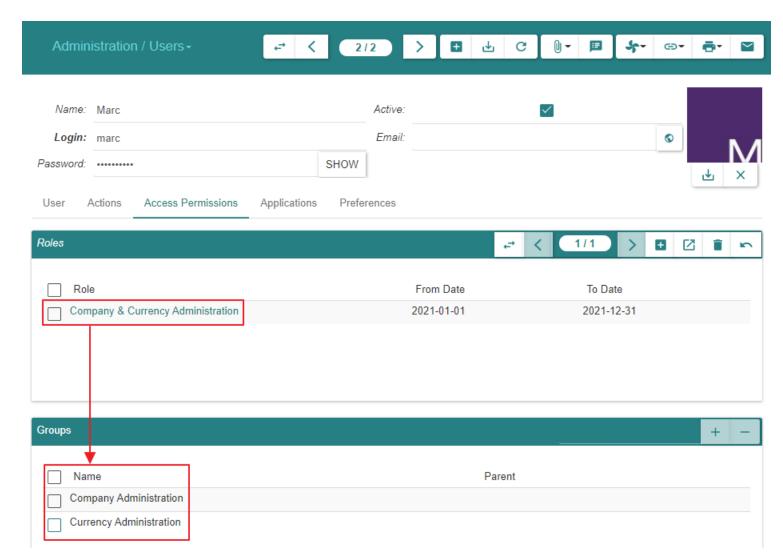


Party ➡ Product \$ Currency > S Banking financial Inventory & Stock Administration Users Users ■ Groups Roles Sequences Modules > Localization Countries User Interface > Models

> Scheduler

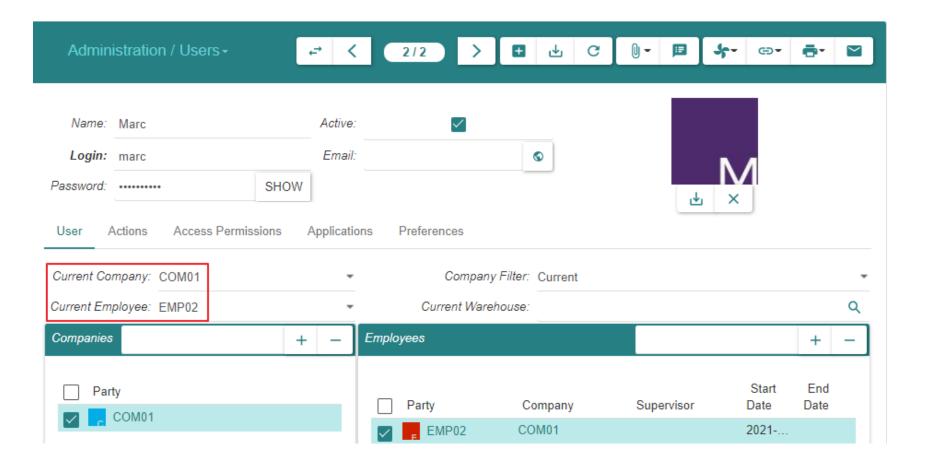
Attach « User Marc » to a « User Role » 1/2

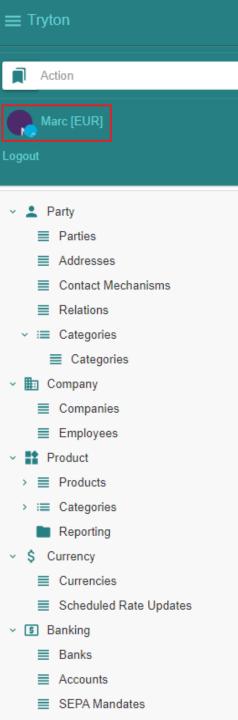
- Once a « Role » is defined, it can be referenced by a « User »
- Attaching a « Role » also allows to restrain the « from » and « to » dates



Attach « User Marc » to a « User Role » 2/2

We must also ensure that « User Marc » has a link to « Company COM01 » so as to access those records

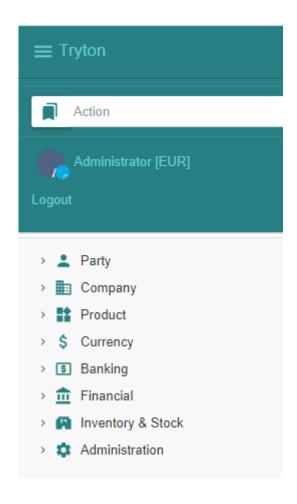




User Capabilities - State Post

State - User Capabilities

« User Administrator »



« User Marc »

