

SQL Integration flows - Update user

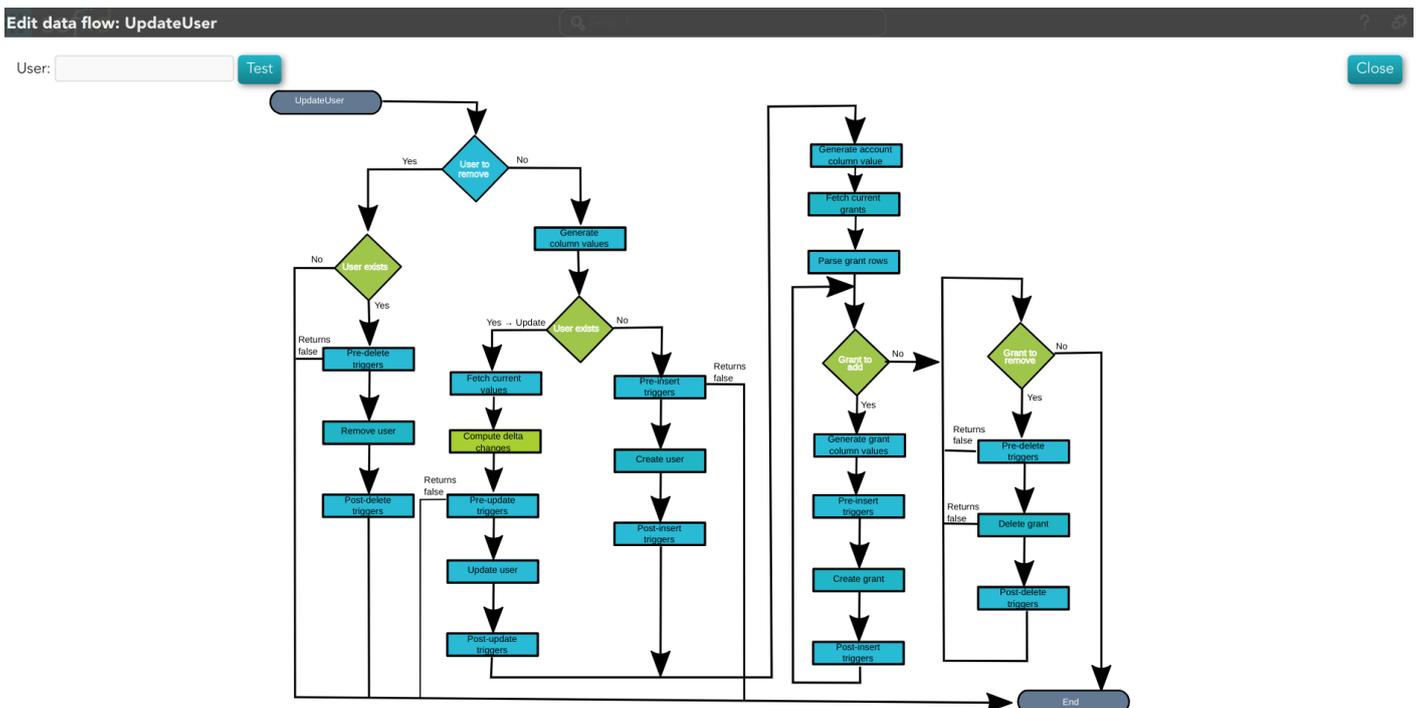
Update user

Introduction

Soffid provides a workflow to create, modify, and delete a user in the final system. One can see the steps of the process in the following diagram.

This process only applies to account type single users.

Diagram



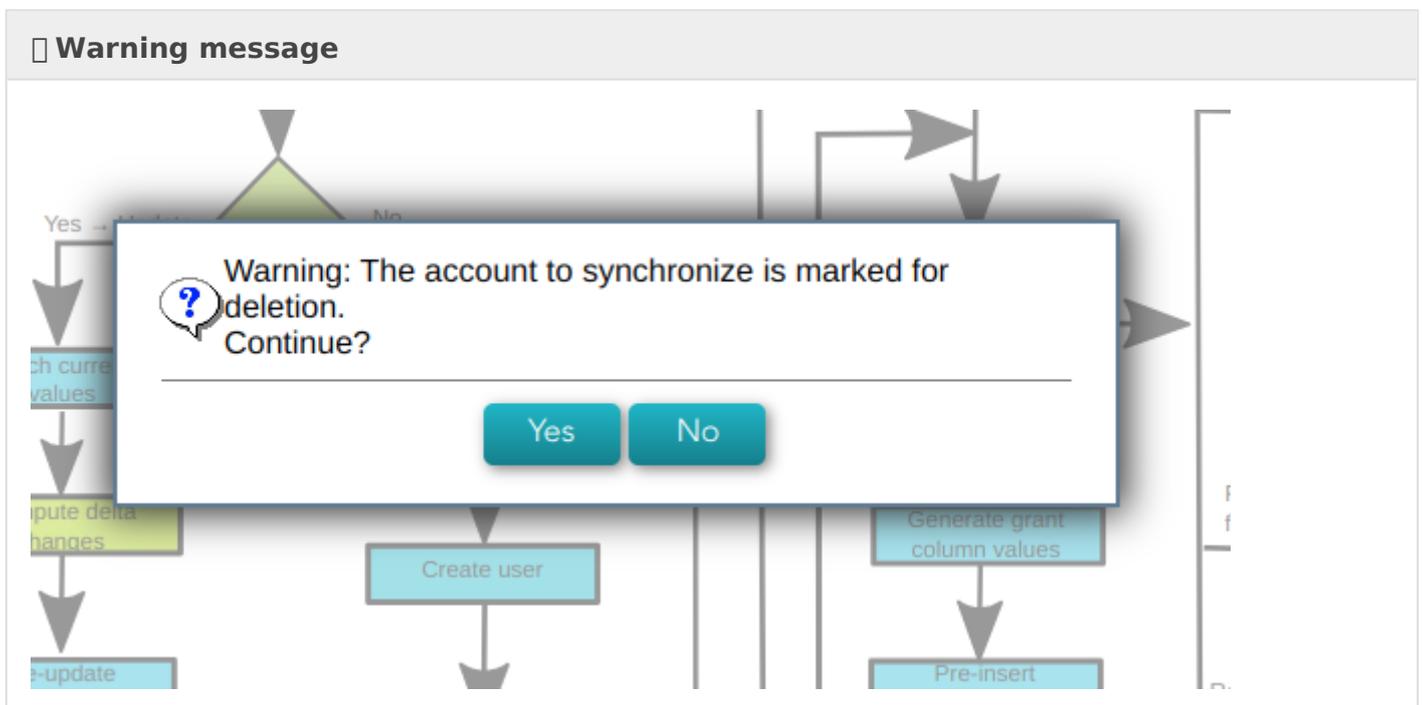
Step by Step

In this document, we will explain the process that Soffid performs to modify a user for the SQL connector.

1. Initial step

First of all, Soffid checks if the user exists in Soffid and then checks the operation to perform, update or delete.

1.1. If the **user does not exist in Soffid**, then Soffid asks to delete the user in the target System.



1.1.1. Yes: If the answer is Yes, the process follows through the Yes branch, [3. Delete branch].

1.1.2. No: If the answer is No, the process finishes [10. End].

1.2. If the **user exists in Soffid**, the process continues through [2. User to remove?]. to check if the

2. User to remove?

By clicking on the User to remove? step,...

You can configure all the properties related to the user object for this step.

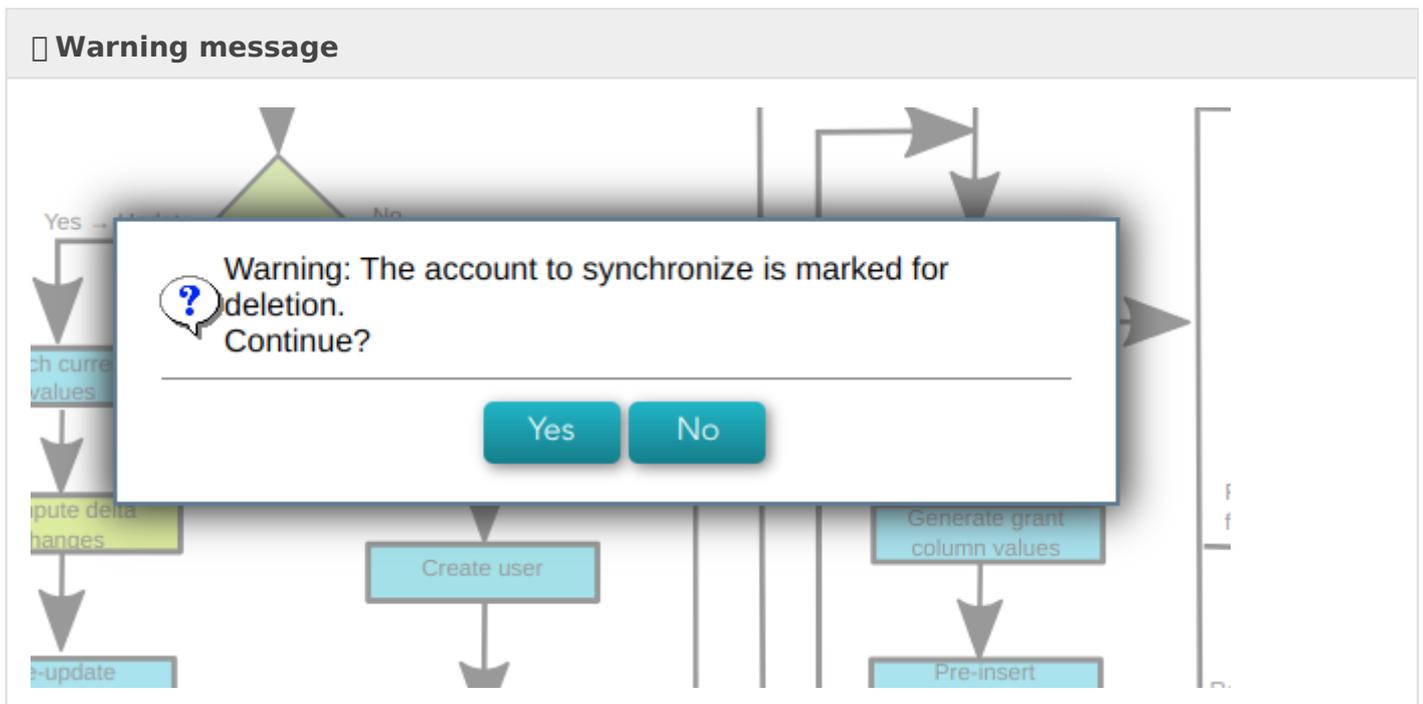
MappingProperties

System objects +

USERS based on user -

Property	Value	
createDisabledAccounts	false	+

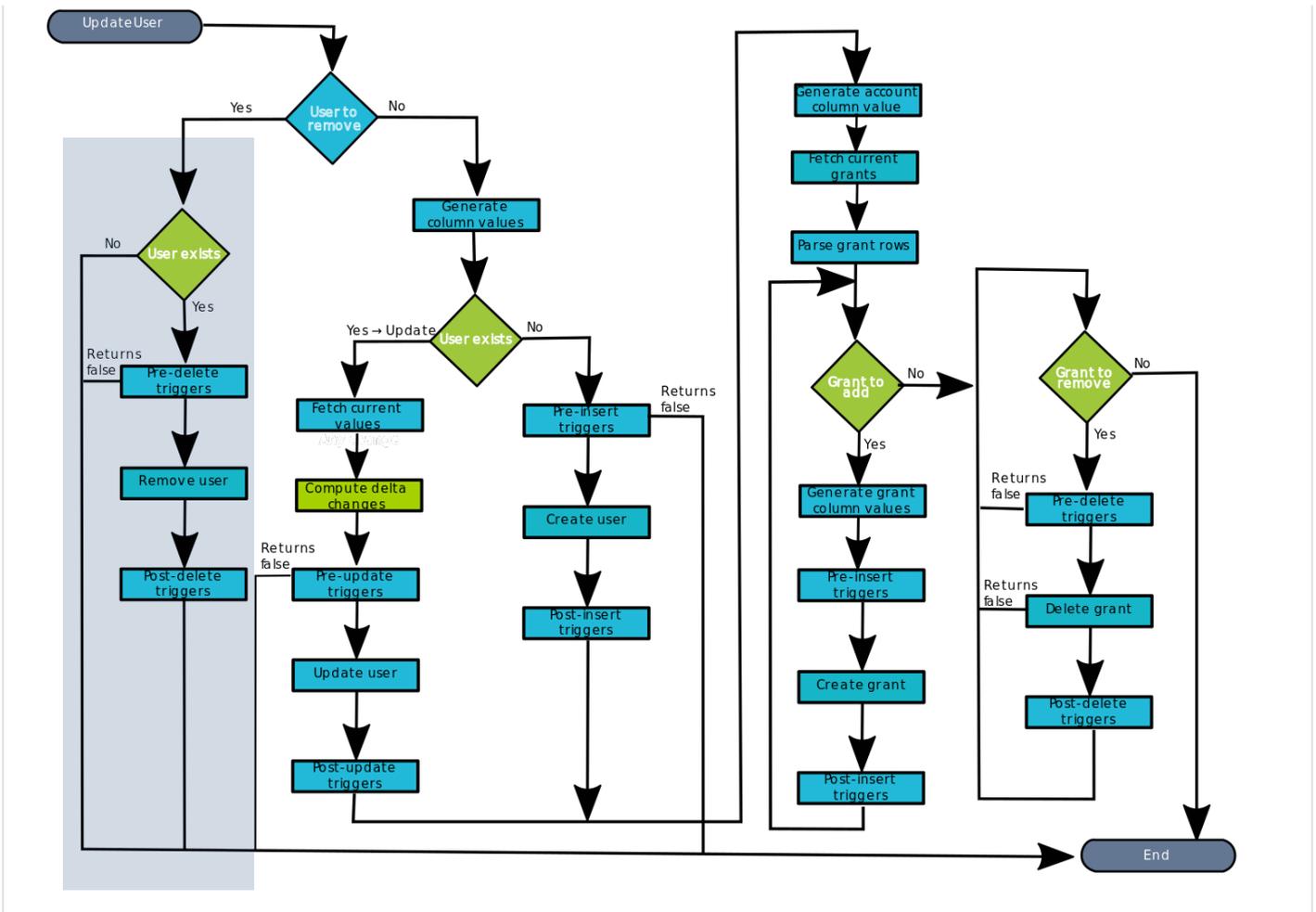
2.1. If the user is **marked for Deletion**, Soffid will ask for user consent to continue with the process or to cancel it. If the answer is Yes, the process follows through the Yes branch, [\[3. Delete branch\]](#).



2.2. If the user is **marked for Update**, it continues with the flow following through the No branch, [\[4. Insert or Update branch\]](#).

3. Delete branch

Diagram



3.1. When the operation to perform is to delete a user, first of all, Soffid has to check if the user exists in the target system. To do this, Soffid executes the **property check** of the User object. This property executes the SQL command to check if the user exists or not.

By clicking on the User exists? step,...

You can configure all the properties related to the user object for this step.

MappingProperties

System objects

USERS based on user

Property	Value
check	SELECT ID FROM USERS WHERE USER=USER

3.1.1. If the **user does not exist**, there are no actions to perform in the target system, so the process finishes [10. End].

3.1.2. If the **user exists**, the flow continues executing the **pre-delete triggers** if there is anyone configured. More than one script can be configured. These scripts are executed just before the main action, user delete, and the result (true or false) determines if the main

action will be performed or not.

3.1.2.1. False: if the result is false for one or more of these triggers, the process finishes [\[10. End\]](#).

3.1.2.2.True: if the result is true for all of these triggers, Soffid continues to the next step.

By clicking on the Pre-delete triggers step,...

You can configure all the pre-delete triggers related to the user object for this step.

Output triggers

System objects

USERS based on user

Trigger	Script		+
preDelete	userName = source("userName");		-
preDelete	attributes = service.getJeeService().findUserAttributes(userName);		-
	return true;		-

3.1.3. Soffid removes the user. To do that, Soffid executes the **property delete** of the User object.

By clicking on the Remove user step,...

You can configure the properties related to the user object for this step.

MappingProperties

System objects

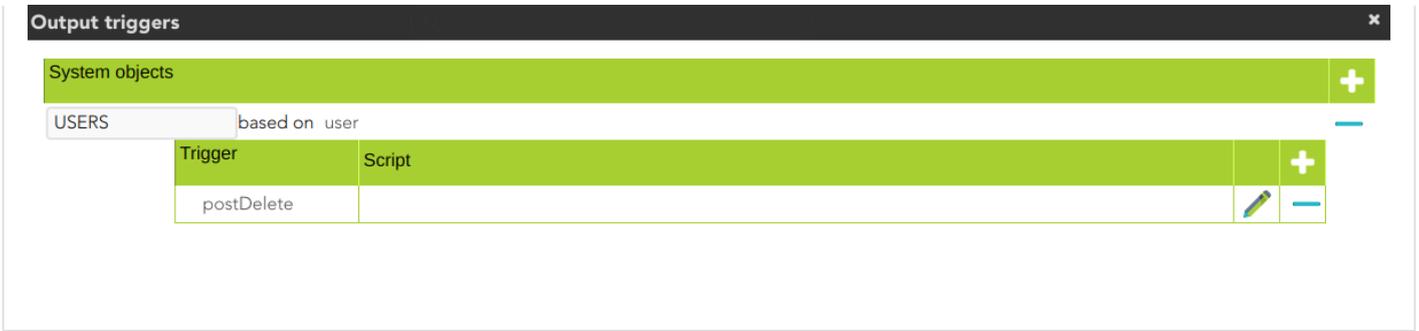
USERS based on user

Property	Value	+
delete	DELETE FROM USERS WHERE USER=:USER	-

3.1.3. Then Soffid executes the **post-delete triggers** if any. These triggers can be used to perform a specific action just after performing the remove user operation on the target object.

By clicking on the Post-delete triggers step,...

You can configure the post-delete triggers related to the user object for this step.



3.1.3. Then the process finishes [\[10. End\]](#).

4. Insert or Update branch

4.1. When the operation to perform is to update a user, first of all, Soffid **generates the columns values**. That is, Soffid calculates the values of the columns from the original values of Soffid.

By clicking on the generate column values step,...

You can configure the attributes related to the user object for this step.

System attribute	Direction	Soffid attribute
PASS	←	password
MAIL	←	shortName==null ? attributes{"MAIL"} : shortName + "@" + mailDomain
USER	←	accountName
LAST_NAME	←	lastName
FIRST_NAME	←	firstName
PRIMARY_G	←	primaryGroup

4.2. Then Soffid asks if the **user exists** in the target system to decide the action to execute, this action can be an update or an insert. Soffid executes the **property check** of the User object.

4.2.1. If the **user does not exist** in the target system, the process continues through [\[5. Insert user branch\]](#).

4.2.2. If the **user exists** in the target system, the process continues through [\[6. Update user branch\]](#).

By clicking on the User exists? step,...

You can configure the properties related to the user object for this step.

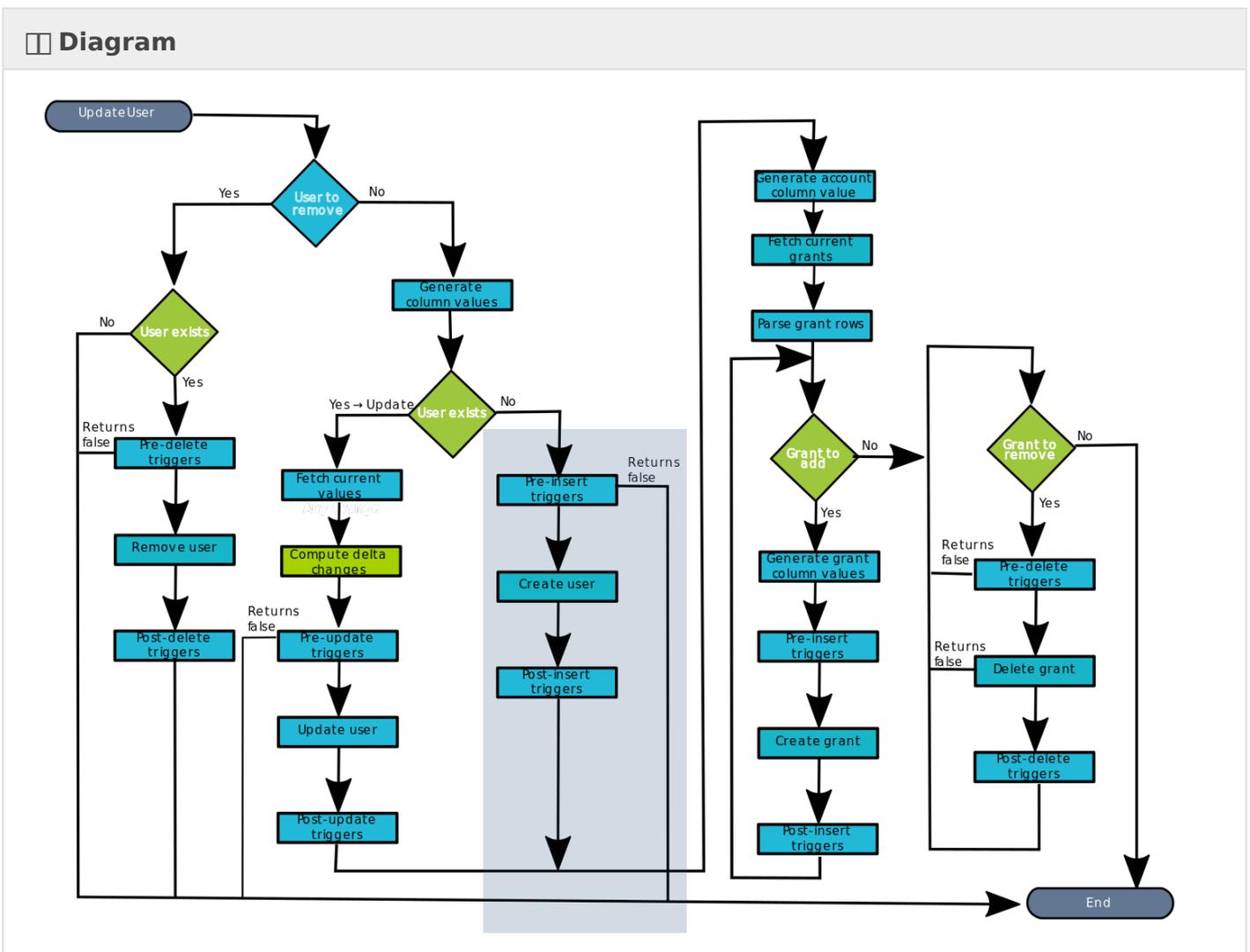
MappingProperties x

System objects +

USERS based on user -

Property	Value	+
check	SELECT ID FROM USERS WHERE USER=USER	-

5. Insert user branch



5.1. Soffid executes the **pre-insert triggers** if there is anyone configured. More than one script can be configured. These scripts are executed just before the main action, user create, and the result (true or false) determines if the main action will be performed or not.

5.1.1. False: if the response is false for one or more of these triggers, the process finishes **[10. End]** and the user is not created.

5.1.2. True: if the response is true for all of these triggers, Soffid continues to the next step.

5.2. Soffid **creates the user.** To do that, Soffid executes the **property insert** of the User object.

By clicking on the Create user step,...

You can configure the properties related to the user object for this step.

MappingProperties

System objects +

USERS based on user -

Property	Value	+
insert	INSERT INTO USERS VALUES (:USER, :FIRST_NAME, :LAST_NAME, :MAIL, :PRIMARY_G)	-

5.3. Then Soffid executes **post-insert triggers** if any. These triggers can be used to perform a specific action just after performing the create user operation on the target object.

By clicking on the Post-insert triggers step,...

You can configure the Post-insert triggers related to the user object for this step.

Output triggers

System objects +

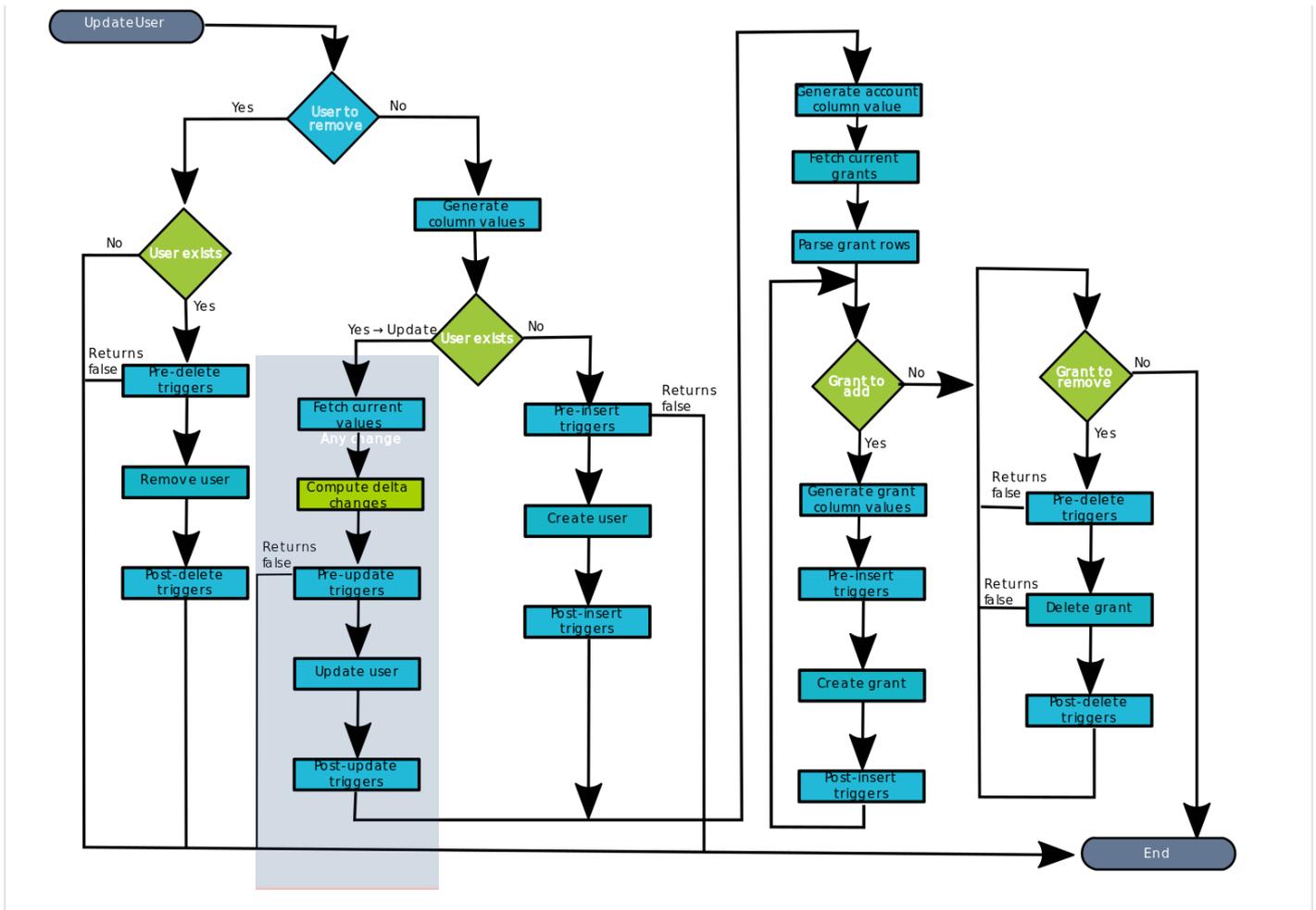
USERS based on user -

Trigger	Script	+
postInsert		-

5.4. Then the process continues through [\[7. Grants\]](#).

6. Update user branch

Diagram



6.1. Soffid **fetches the current values** of the user. Soffid executes the **property selectByAccountName** of the **User** object.

&&TODO&& IMAGEN

6.2. Then **compute delta changes**, if the property Synchronization method selected is Full Synchronization, then Soffid has to keep the columns values of the last update. If there was any change in the target system:

- There is no conflict, then Soffid only updates the values of the attributes that have changed in Soffid.
- There is conflict, Soffid values prevail over the target system values, so, Soffid updates all the attributes that have changed in Soffid.

&&TODO&& IMAGEN

6.3. And finally execute the **pre-update triggers** if there is anyone configured. More than one script can be configured. These scripts are executed just before the main action, user update, and the result (true or false) determines if the main action will be performed or not.

6.3.1. False: if the response is false for one or more of these triggers, the process finishes **[10. End]** and the user is not updated

6.3.2. True: if the response is true for all of these triggers, Soffid continues to the next step.

By clicking on the Pre-update triggers step,...

You can configure the Pre-update triggers related to the user object for this step.

Output triggers

System objects

USERS based on user

Trigger	Script		
preUpdate	userName = source("userName"); attributes = serviceLocator.getUserService().findUserAttributes(userName);		

6.4. Soffid **updates the user.** To do that, Soffid executes the **property update** of the **or User** object.

By clicking on the update user step,...

You can configure the properties related to the user object for this step.

MappingProperties

System objects

USERS based on user

Property	Value		
update	UPDATE USERS SET FIRST_NAME=:FIRST_NAME, LAST_NAME=:LAST_NAME, MAIL=:MAIL, PRIMARY_G=:PRIMARY_G WHERE USER=:USER		

6.5. Then Soffid executes the **post-update triggers** if any. These triggers can be used to perform a specific action just after performing the update user operation on the target object.

By clicking on the Post-update triggers step,...

You can configure the Post-update triggers related to the user object for this step.

Output triggers

System objects

USERS based on user

Trigger	Script		
postUpdate	company = attributes.get("language"); if (company.equals("French")) return false;		
postUpdate	userName = source("userName"); attributes = serviceLocator.getUserService().findUserAttributes(userName); company = attributes.get("language"); if (company.equals("French")) return false;		

6.6. Then the process continues through [\[7. Grants\]](#).

7. Grants

At this point, soffid runs the actions relative to the grants

7.1. Once the process arrives at this step, Soffid **generates account column values**. That is, Soffid creates a dummy object with only the account name, this object will be used later.

By clicking on the generates account columns values step,...

You can configure the attribute mappings related to the grant object for this step.

Attribute mappings

System objects

USER_ROLES based on grant

System attribute	Direction	Soffid attribute
ROLE	←	grantedRole
USER	←	ownerUser

Test

7.2. Then, Soffid **fetches the current grants** for the user. Soffid executes the **property selectByAccount** of the grant object with the values of the previous step

By clicking on the fetch current grants step,...

You can configure the properties related to the grant object for this step.

MappingProperties

System objects

USER_ROLES based on grant

Property	Value
selectByAccount	SELECT * FROM USER_ROLES WHERE USER=:USER

7.3. Finally, Soffid **parses grant rows**, that is Soffid makes the mappings defined

By clicking on the parse grant rows step,...

You can configure the attribute mappings related to the grant object for this step.

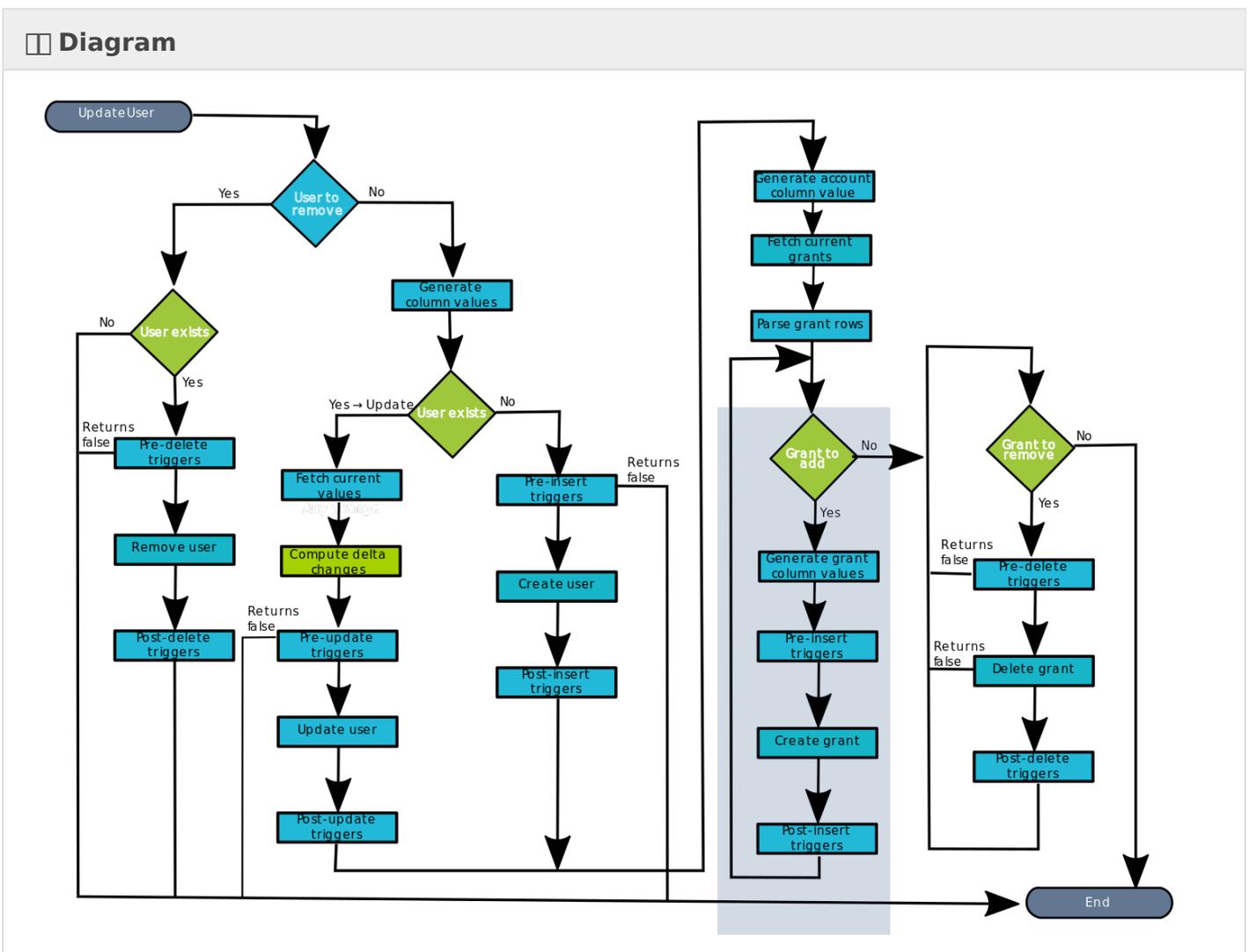
Attribute mappings			
System objects			
USER_ROLES	based on	grant	
System attribute		Direction	Soffid attribute
ROLE		→	grantedRole
USER		→	ownerUser

Test

7.3. Then the process continues through [8. Grant to add].

8. Grant to add

This is a loop while there are grants to add. This grants list comes from the previous step [7. Grants].



8.1. If there are **No** grants to add, the process goes to [9. Grant to Remove].

8.2. **Yes**, there are grants to add:

8.2.1. Soffid generates grant column values and Soffid checks if the grant exists in the target system, Soffid executes the **property check** of the grant object.

By clicking on the generate grant column values step,...

You can configure the attribute mappings related to the grant object for this step.

Attribute mappings

System objects

USER_ROLES based on grant

System attribute	Direction	Soffid attribute
ROLE	←	grantedRole
USER	←	ownerUser

Test

8.2.2. Soffid executes the pre-insert triggers if there is anyone configured. More than one script can be configured. These scripts are executed just before the main action, a grant create, and the result (true or false) determines if the main action will be performed or not.

8.2.2.1. False: if the response is false for one or more of these triggers, the process goes to [\[8. Grant to add\]](#) and the grant is not created.

8.2.2.2. True: if the response is true for all of these triggers, Soffid continues to the next step.

By clicking on the Pre-insert triggers step,...

You can configure the Pre-insert triggers related to the grant object for this step.

Output triggers

System objects

USER_ROLES based on grant

Trigger	Script
preInsert	if (grantedRole.equals("admin")) return true; else return false;
preInsert	grantedRole = source["grantedRole"]; if (grantedRole.equals("admin")) return true;

8.2.3. If the result of the triggers is true, then Soffid creates the grant. To do that, Soffid executes the **property insert** of the grant object.

By clicking on the create grant step,...

You can configure the properties related to the grant object for this step.

MappingProperties

System objects +

USER_ROLES based on grant

Property	Value	+
insert	INSERT INTO USER_ROLES (USERNAME, ROLNAME) VALUES (:USERNAME, :ROLNAME)	-

8.2.4. Then Soffid executes the **post-insert triggers** if any. These triggers can be used to perform a specific action just after performing the create grant operation on the target object.

By clicking on the Post-insert triggers column values step,...

You can configure the Post-Update related to the grant object for this step.

Output triggers

System objects +

USER_ROLES based on grant

Trigger	Script	+
postInsert	grantedRole = source("grantedRole"); if (grantedRole.equals("asdfa")) return true;	-

8.2.5. Then the process continues through [\[8. Grant to add\]](#).

9. Grant to remove

Diagram

Output triggers

System objects +

USER_ROLES based on grant

Trigger	Script			
preDelete	<code>if (grantedRole.equals("admin")) return true; else return false;</code>			+

9.2.2. If the result of the triggers is true, then Soffid **deletes the grant**. To do that, Soffid executes the **property delete** of the grant object. This operation can return a true or false result.

9.2.2.1. False: the delete action could not be performed and the process check for another grant [\[9. Grant to remove\]](#).

9.2.2.2. True: the delete action could be performed properly. Soffid continues to the next step.

By clicking on the delete grant step,...

You can configure the properties related to the grant object for this step.

MappingProperties

System objects +

USER_ROLES based on grant

Property	Value	
delete	<code>DELETE FROM USER_ROLES WHERE ROLE=:ROLE AND USER=:USER</code>	+

9.2.3. Then Soffid executes the **post-delete triggers** if any. These triggers can be used to perform a specific action just after performing the delete grant operation on the target object.

By clicking on the post-delete trigger step,...

You can configure the Post-delete triggers related to the grant object for this step.

Output triggers

System objects +

USER_ROLES based on grant

Trigger	Script			
postDelete	<code>grantedRole = source("grantedRole"); if (grantedRole.equals("admin")) return true;</code>			+

9.2.4. Then the process continues through [\[9. Grant to remove\]](#).

10. End

The process finishes and the log is displayed, and you can download it by clicking the *Download* button.

Log detail

Test log

Status: **Success**

Test log

Filter

8/16/22, 2:59:43 PM	INFO	Starting SQL Agent agent on SQLMariaDB-2
8/16/22, 2:59:43 PM	INFO	Registering driver com.mysql.jdbc.Driver
8/16/22, 2:59:43 PM	INFO	Error registering driver: java.lang.ClassNotFoundException: com.mysql.jdbc.Driver
8/16/22, 2:59:43 PM	INFO	Executing SELECT ID FROM USERS WHERE USER=?
8/16/22, 2:59:43 PM	INFO	Param: bob [class java.lang.String]
8/16/22, 2:59:43 PM	INFO	Getting rows
8/16/22, 2:59:43 PM	INFO	Got rows size = 1
8/16/22, 2:59:43 PM	INFO	Got row
8/16/22, 2:59:43 PM	INFO	Rows number = 1
8/16/22, 2:59:43 PM	INFO	Object already exists
8/16/22, 2:59:43 PM	INFO	Exists
8/16/22, 2:59:43 PM	INFO	Executing SELECT * FROM USERS WHERE USER=?
8/16/22, 2:59:43 PM	INFO	Param: bob
8/16/22, 2:59:43 PM	INFO	Returned 1 rows
8/16/22, 2:59:43 PM	INFO	Updating object

Total rows: 42

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