Getting started with BatchColumn®

Use Case 1: Simulation of solvents mixture separation

Software & Services In Process Simulation

We guide You to efficiency

ProSim

Introduction

This document presents the different steps to follow in order to simulate a batch distillation using BatchColumn software.
This presentation is based on an example of separation of the following solvents mixture: methanol / acetone / dichloromethane / diacetone alcohol. This example is available on ProSim website (www.prosim.net) or in the BatchColumn example directory.

The summary of this Getting Started is:

Part 1 – Description of the example

Part 2 – General points on the software interface

Part 3 – Description of the different simulation steps

Part 1

- Description of the example:
  - Objective of the distillation
  - Compounds and thermodynamic model
  - Description of the equipment
  - Operating scenario

Objective of the distillation

The boiler is loaded with a solvent mixture including methanol (19.45 wt%), acetone (21.96 wt%), dichloromethane (56.29 wt%) and diacetone alcohol (2.3 wt%). The initial load is 6090 kg.

The objective is to simulate the recovering of:

- Dichloromethane with a purity of 95 wt%
- Acetone with a purity of 90 wt%
- Methanol with a purity of 98 wt%

Compounds and thermodynamic model

The compounds involved in this distillation are:

-Methanol

-Acetone

-Dichloromethane

-Diacetone alcohol

The thermodynamic model selected is NRTL.

The binary interaction parameters of the methanol – acetone binary are automatically loaded. For a better accuracy, they should be replaced by those of the table below. There are also the other binaries to fill in. The binary interaction parameters, expressed in cal/mol.

Methanol-Acetone	-12.37	290.51	0.3085
Methanol-Dichloromethane	74.14	1517.35	0.4830
Acetone-Dichloromethane	-725.20	641.70	0.35
Acetone-Diacetone alcohol	2127.96	-1624.17	0.2908

Description of the equipment

Four tanks are connected to the condenser for distillation recovery: tank 1, tank 2, tank 3, tank 4.

The column characteristics are:

- 32 theoretical plates (including boiler and condenser)
- Liquid holdups are 15 l for the condenser and 2.5 l per tray
- The heat duty is assumed to be constant at 500 000 kcal/hr
- The condenser is an ideal total condenser.

Operating mode

The column head pressure is 100 mmHg. Pressure drop is 10 mmHg.
Dichloromethane recovery

Step 1: Filling-up the column. Initial load temperature is 0°C

Step 2: Distillate to tank 1 with a reflux ratio = 2

Final event: 2000 kg of product in tank 1

Step 3: Distillate to tank 1 with a reflux ratio = 5

Final event: 2800 kg of product in tank 1

Step 4: Infinite reflux

Final event: time duration = 30 minutes

Step 5: Distillate to tank 1 with a reflux ratio = 5

Final event: dichloromethane weight fraction in tank 1 < 0.96

Step 6: Infinite reflux

Final event: time duration = 30 minutes

Step 7: Distillate to tank 1 with a reflux ratio = 5

Final event: dichloromethane weight fraction in tank 1 < 0.95

Operating mode

Intermediate cut

Step 8: Distillate to tank 2 with a reflux ratio = 5

Final event: acetone weight fraction in distillate > 0.96

Acetone recovery

Step 9: Distillate to tank 3 with a reflux ratio = 5

Final event: 800 kg of product in tank 3

Step 10: Infinite reflux

Final event: time duration = 30 minutes

Step 11: Distillate to tank 3 with a reflux ratio = 5

Final event: acetone weight fraction in tank 3 < 0.90

Methanol recovery

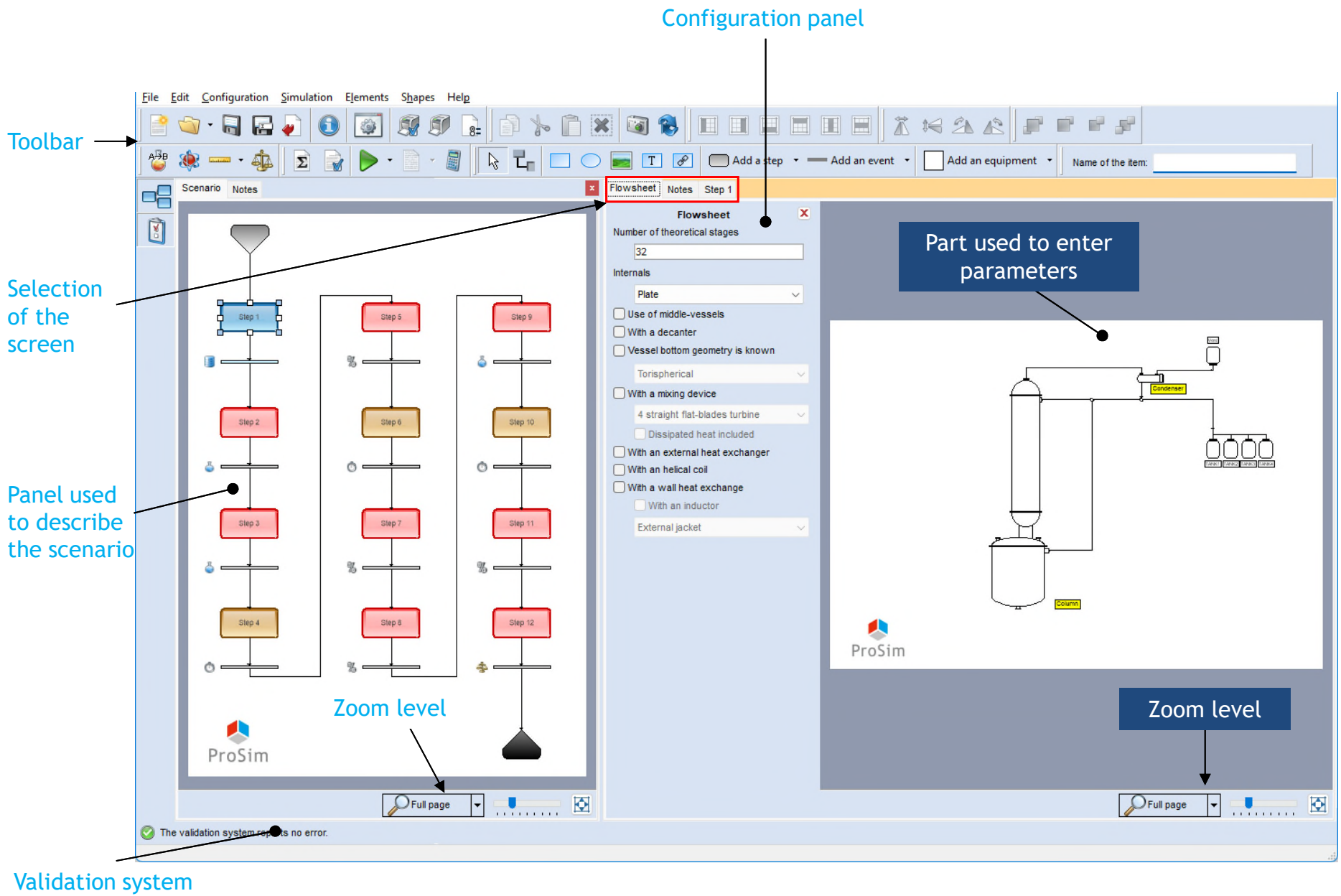
Step 12: Distillate to tank 4 with a reflux ratio = 2

Final event: residual load in the boiler < 150 kg

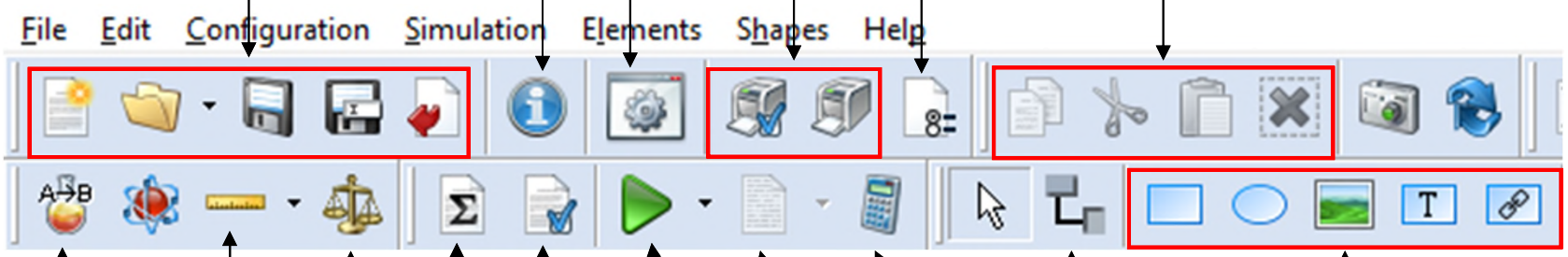
Part 2

- General points on the software interface:
  - The main window
  - Using the toolbar
  - Choosing the unit system
  - Creating a new simulation file

The main window



Using the toolbar



Preferences of the software

Print and print setup

Sheet properties

Copy, cut, paste, delete an item

Management
(new, open, save, save as, close)

Synopsis

Compounds, Thermodynamics and Chemical reactions

Units
(input data and results)

Unit conversion tool

Numerical parameters

Report parameters

Run a simulation

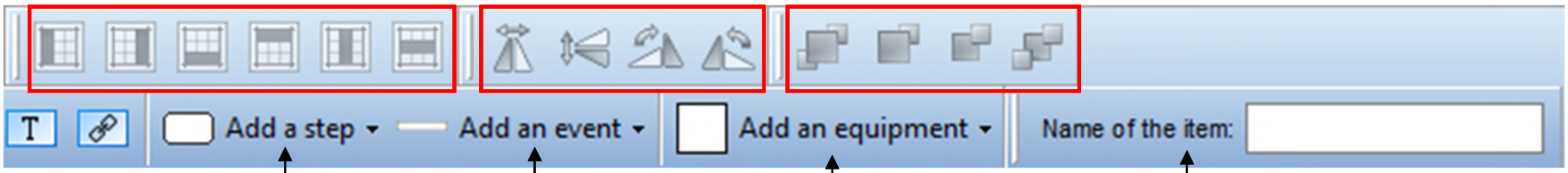
Results of the last simulation

Calculator

Connection of steps, events

Graphical objects
(forms, pictures, texts, links)

Using the toolbar



Elements orientation (return, mirror…)

Elements position (align, center…)

Elements layout (background, front)

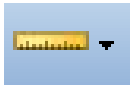
Selection and adding of an operating step

Adding an event to stop a step or the filling

Adding an equipment (feeds, tanks)

Renaming of an item

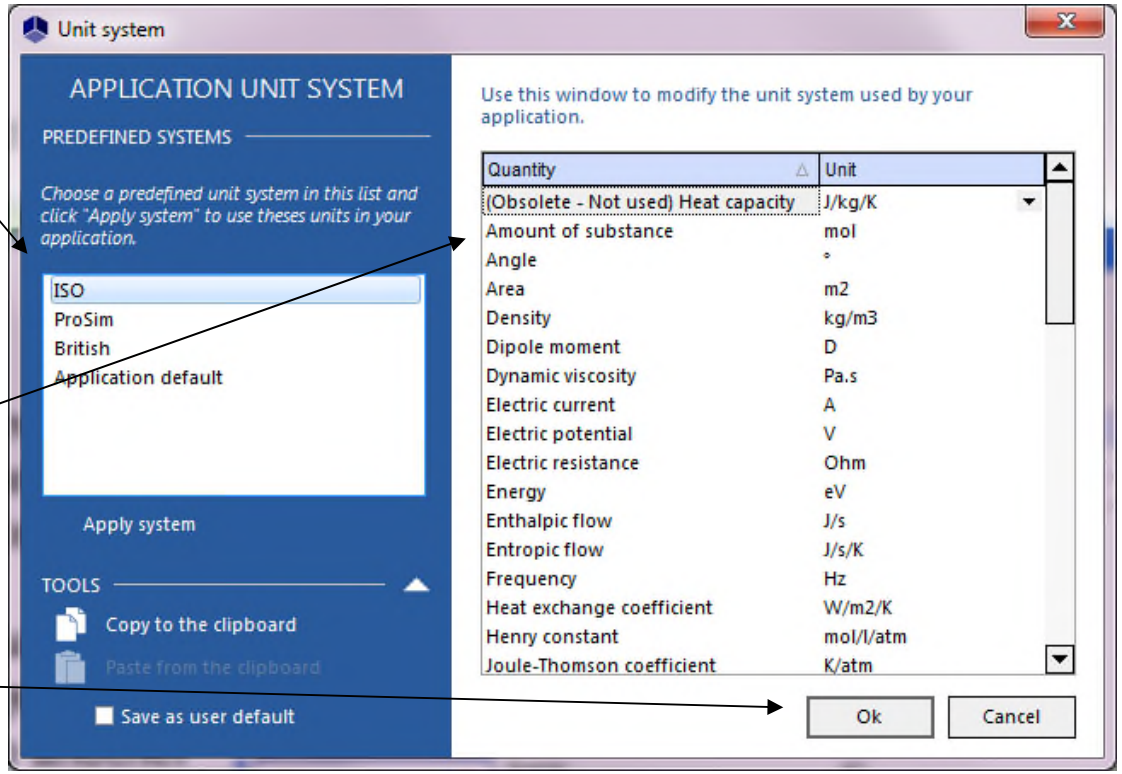
Choosing the unit system



1- Select the predefined system “ISO” and click on “Apply system”

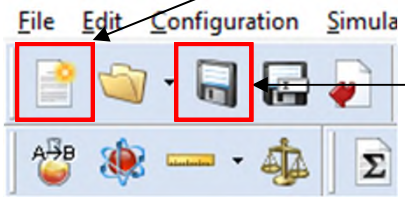
2- For a given quantity you can change the default unit to another one by clicking on its name

3- Click on “OK” to validate



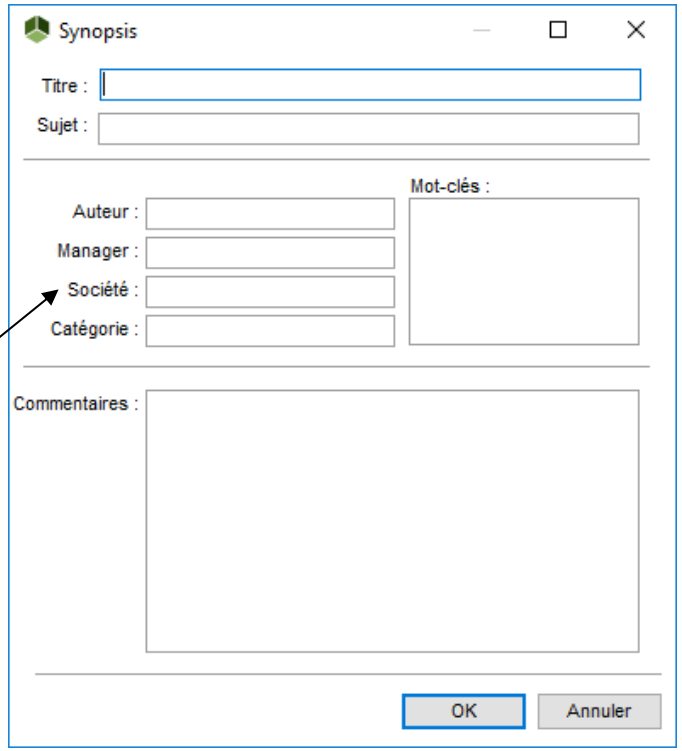
Creating a new simulation file

1- Click on “Create a new document” icon



2- Save the file

3 – Fill the form of the synopsis (optional)



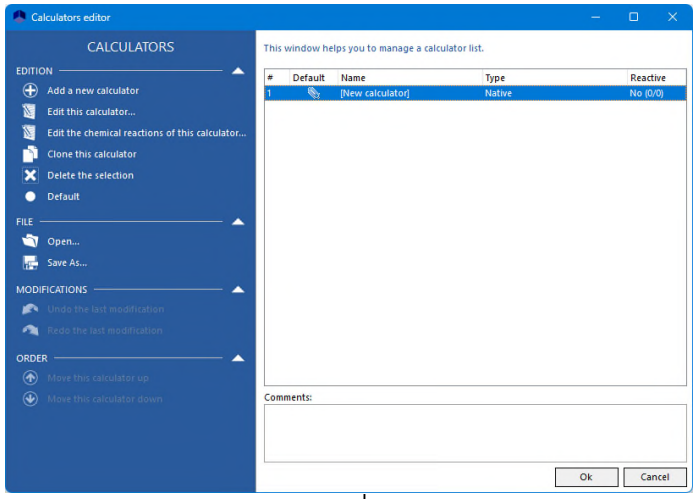
Part 3

Description of the different simulation steps

- 1: Selecting the compounds
- 2: Selecting the thermodynamic model
- 3: Describing the chemical reactions
- 4: Describing the distillation system
- 5: Describing the operating steps
- 6: Running the simulation
- 7: Reviewing the simulation results

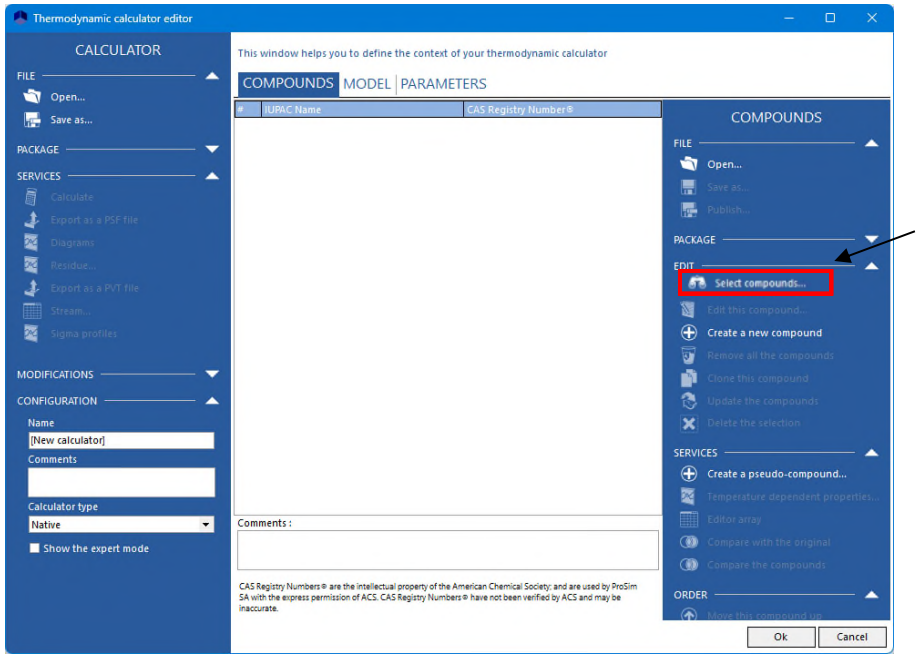
1-Selecting the compounds

1- Click on the “Thermodynamics and compounds” icon



2- Double click on the calculator.

A calculator allows you to define a list of compounds and a thermodynamic model

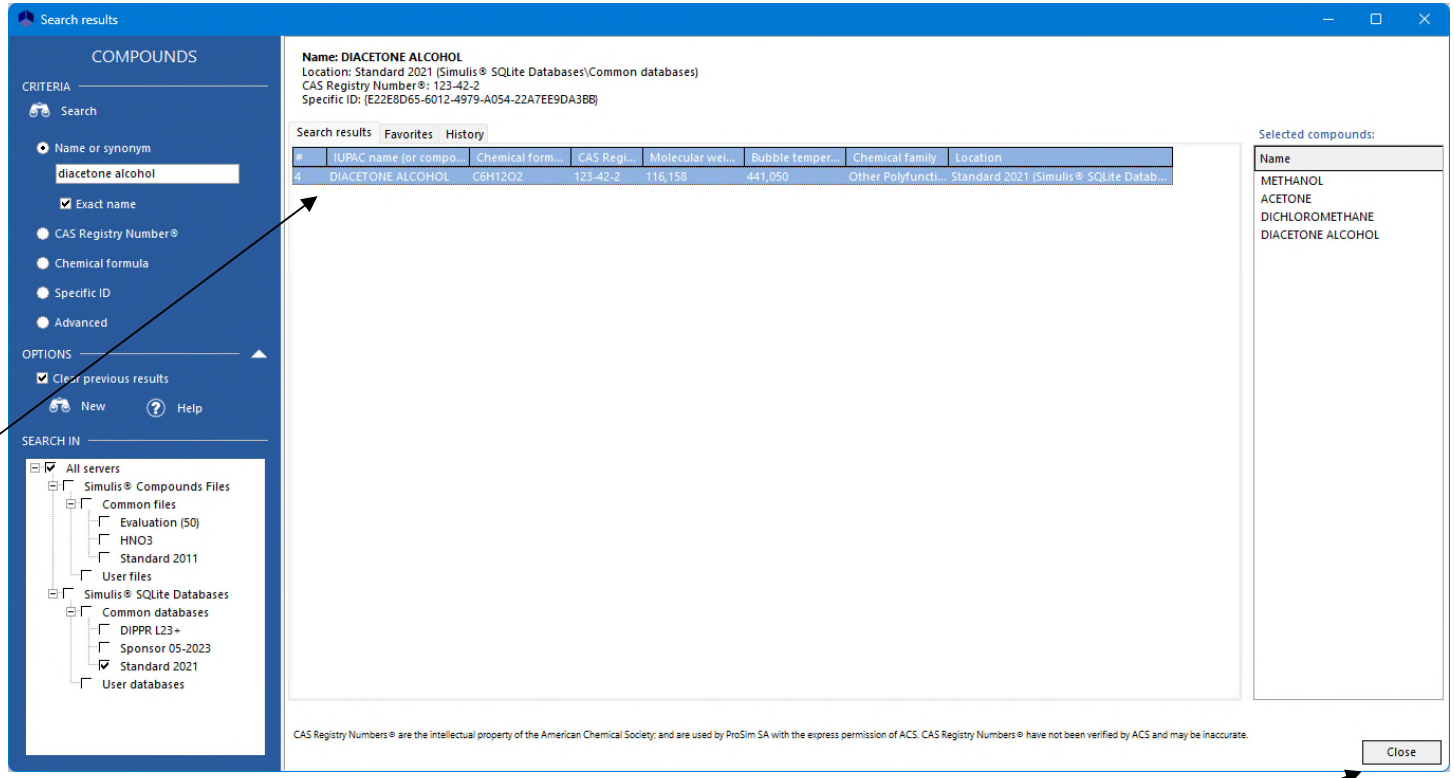


3- Click on “Import compounds”

1-Selecting the compounds

4- Search each compound by name

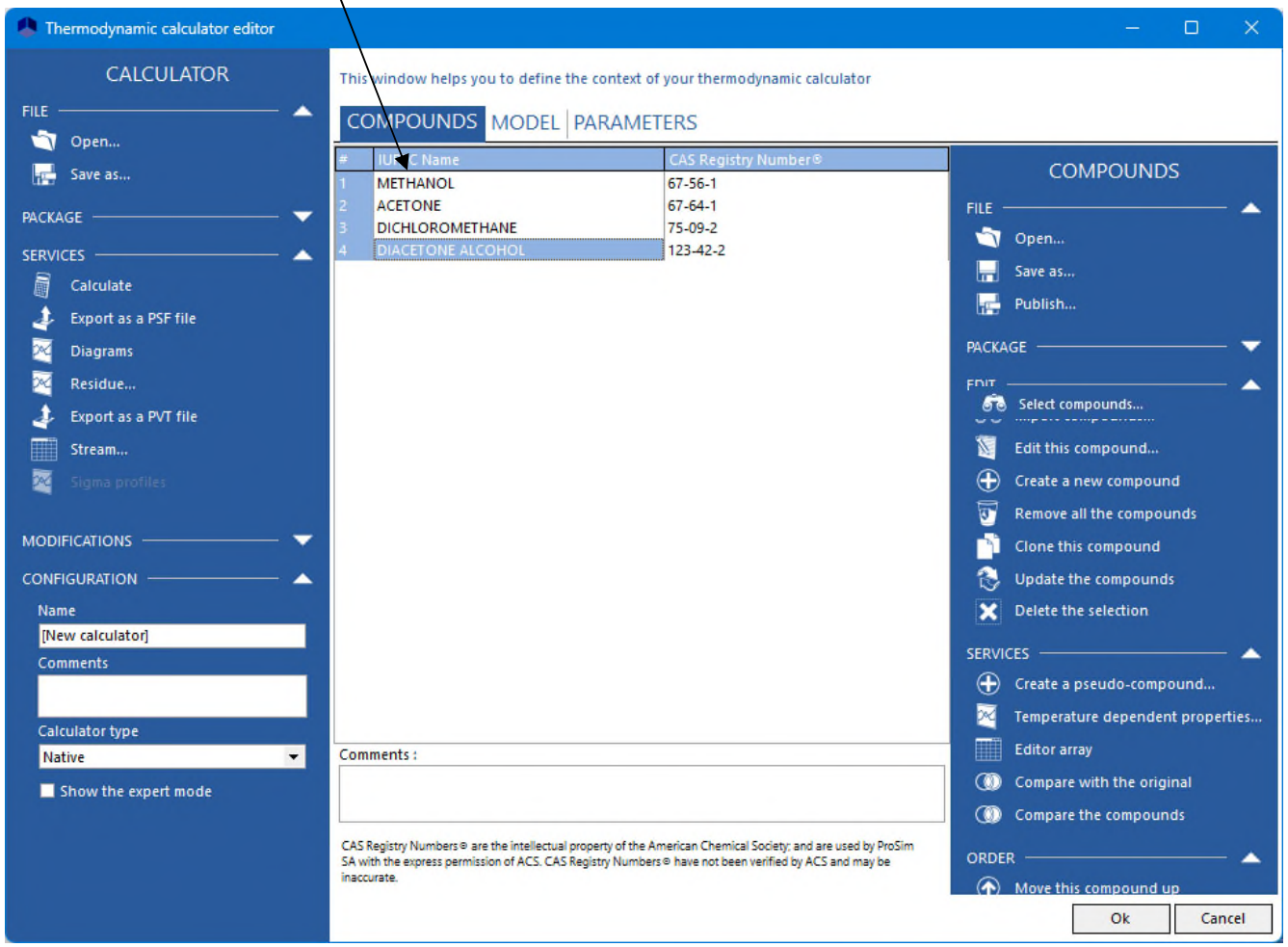
5- Double click on a compound to add it to the list of selected compounds



6- Click on “close” when the 4 compounds have been selected

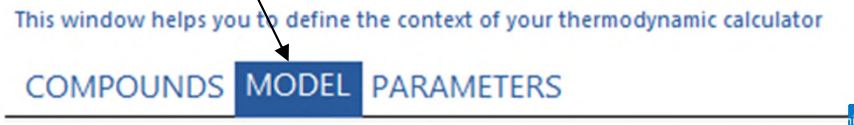
1-Selecting the compounds

7- The compounds imported from the database are listed here.

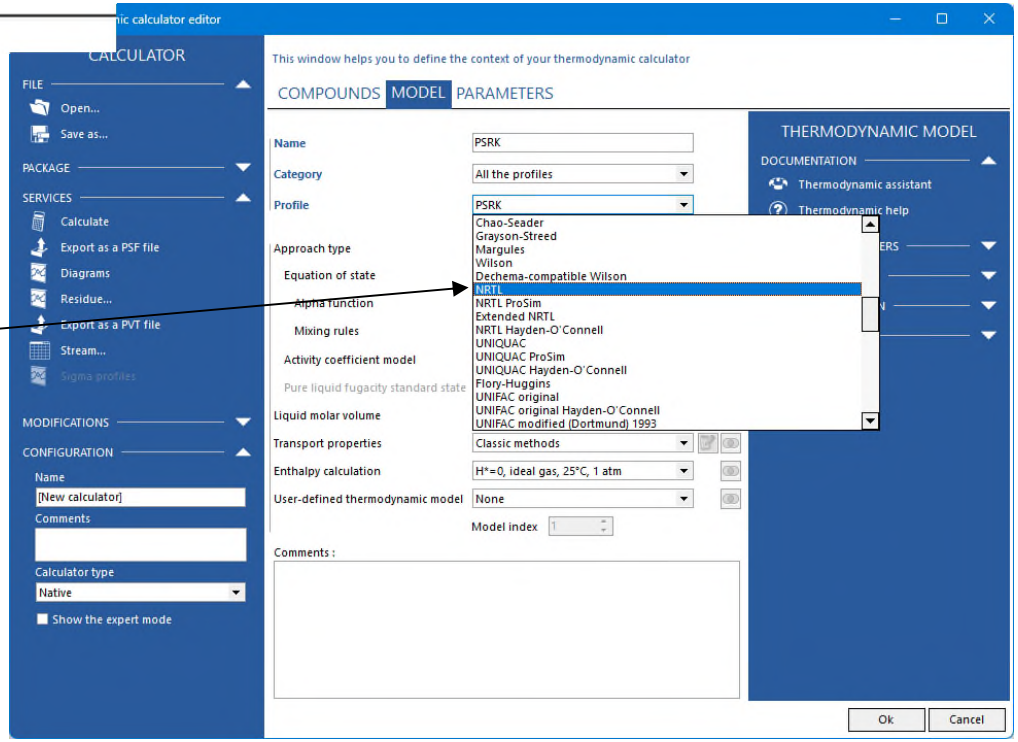


2-Selecting the thermodynamic model

1- Click on the “Model” tab to open the thermodynamic models configuration window.



2- All thermodynamic models available are listed here. Use the scroll bar to go through the complete list. Select NRTL as the model to be used in this example.

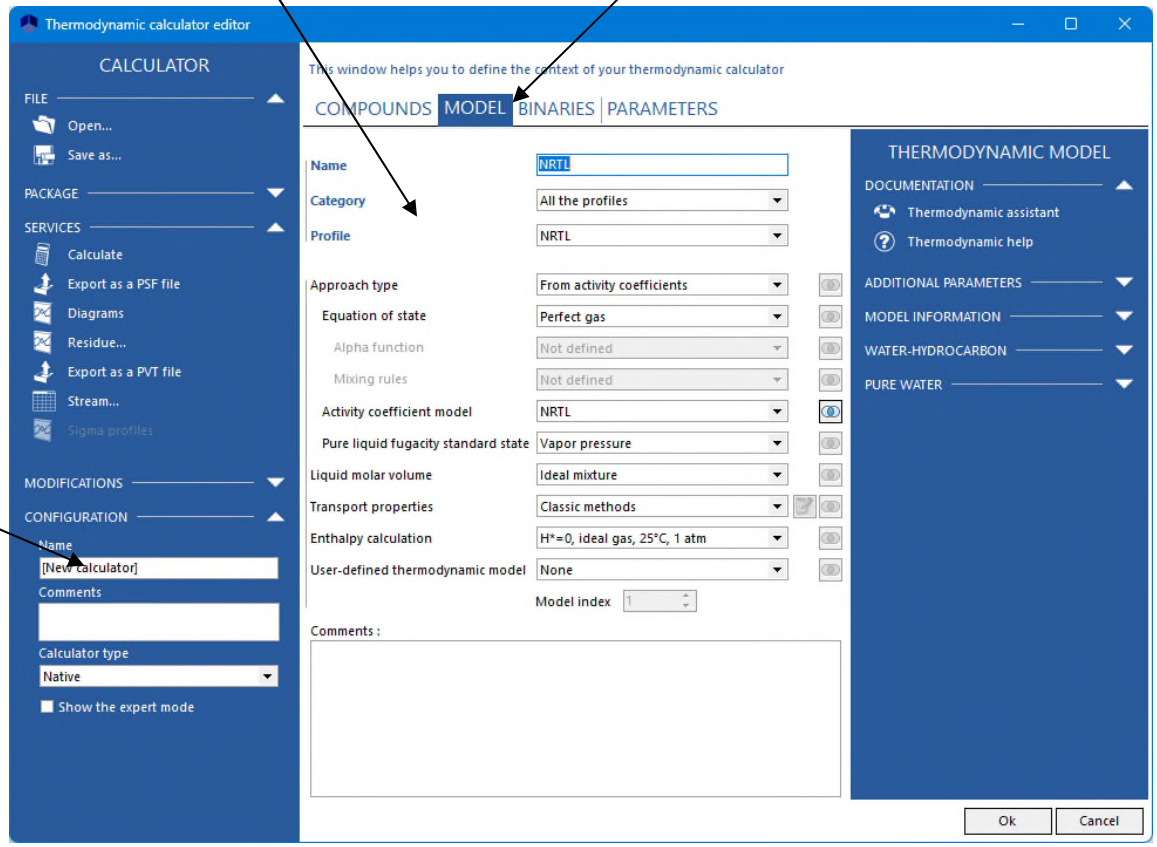


2-Selecting the thermodynamic model

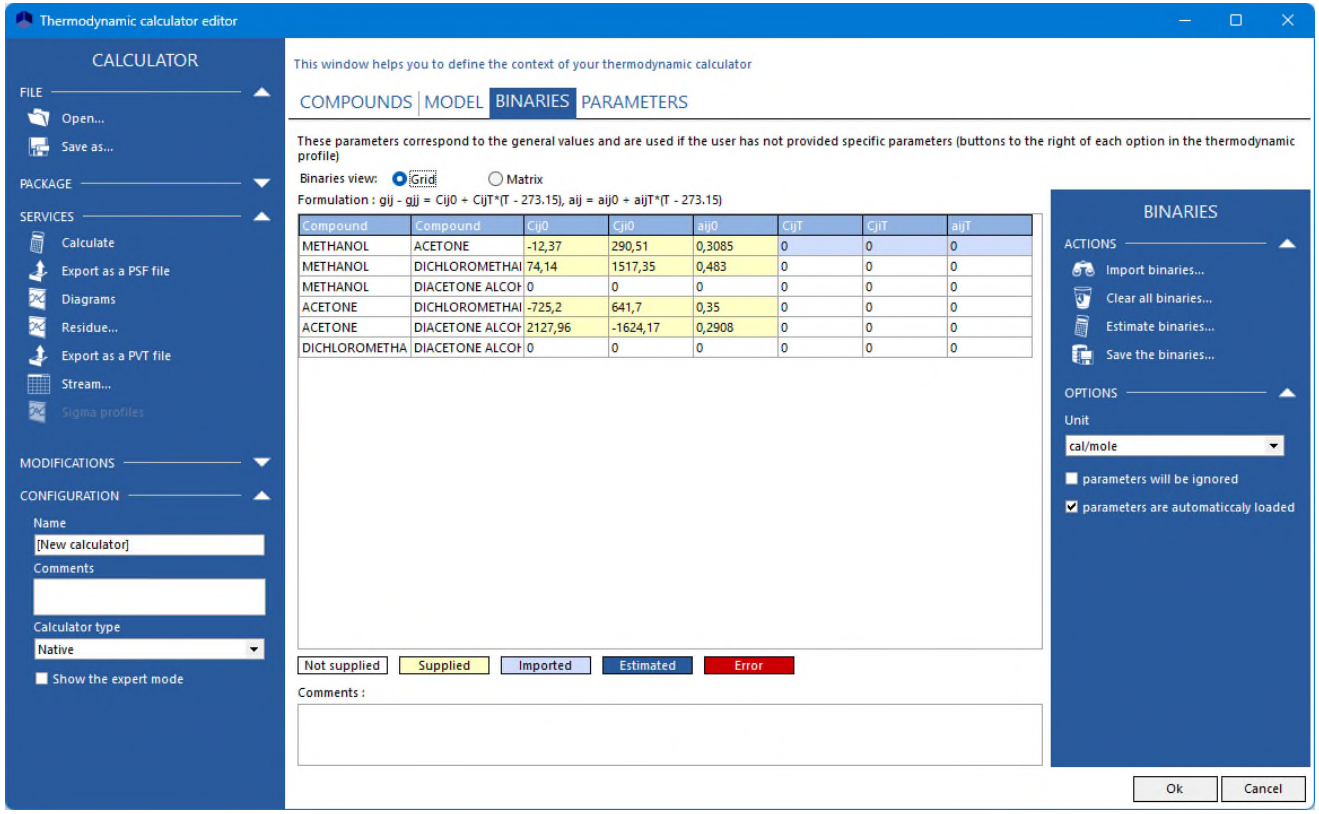
The NRTL thermodynamic profile is automatically displayed

4- Click on the “Binaries” tab to access the binary interaction parameters of the NRTL model

3- Enter a name for your calculator (optional)



2-Selecting the thermodynamic model



5- You can enter your binary interaction parameters.

Click on “OK” at the bottom to exit the thermodynamic calculator

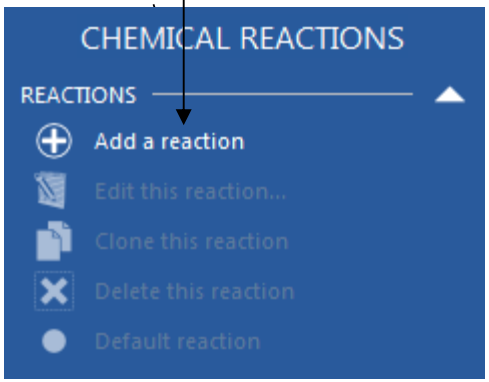
For more information about the compounds selection and the configuration of the thermodynamic profile, please consult “Getting started with Simulis Thermodynamics” documents.

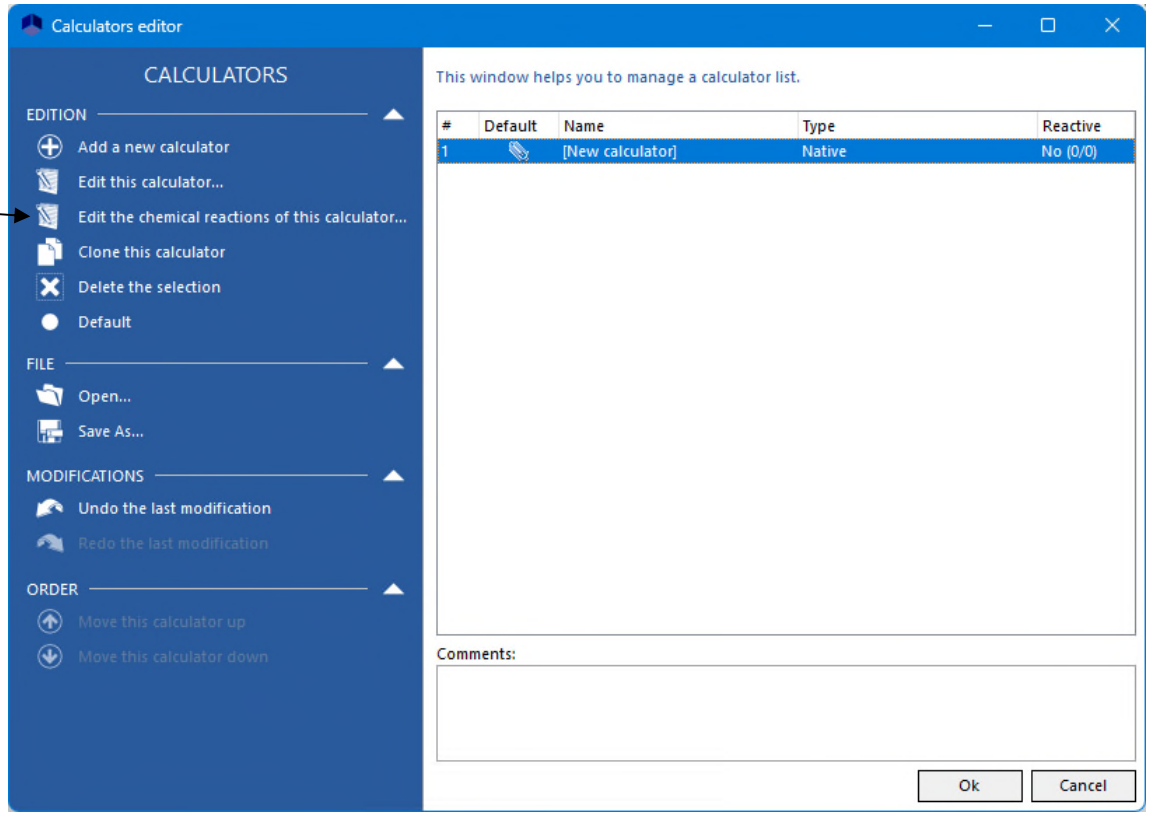
3-Describing the chemical reactions

There is no chemical reaction involved in this example. But if it is the case, they can be described as follows.

1- Click on “Edit the chemical reactions…” to open the chemical reactions editor

2- Select “Add a reaction”

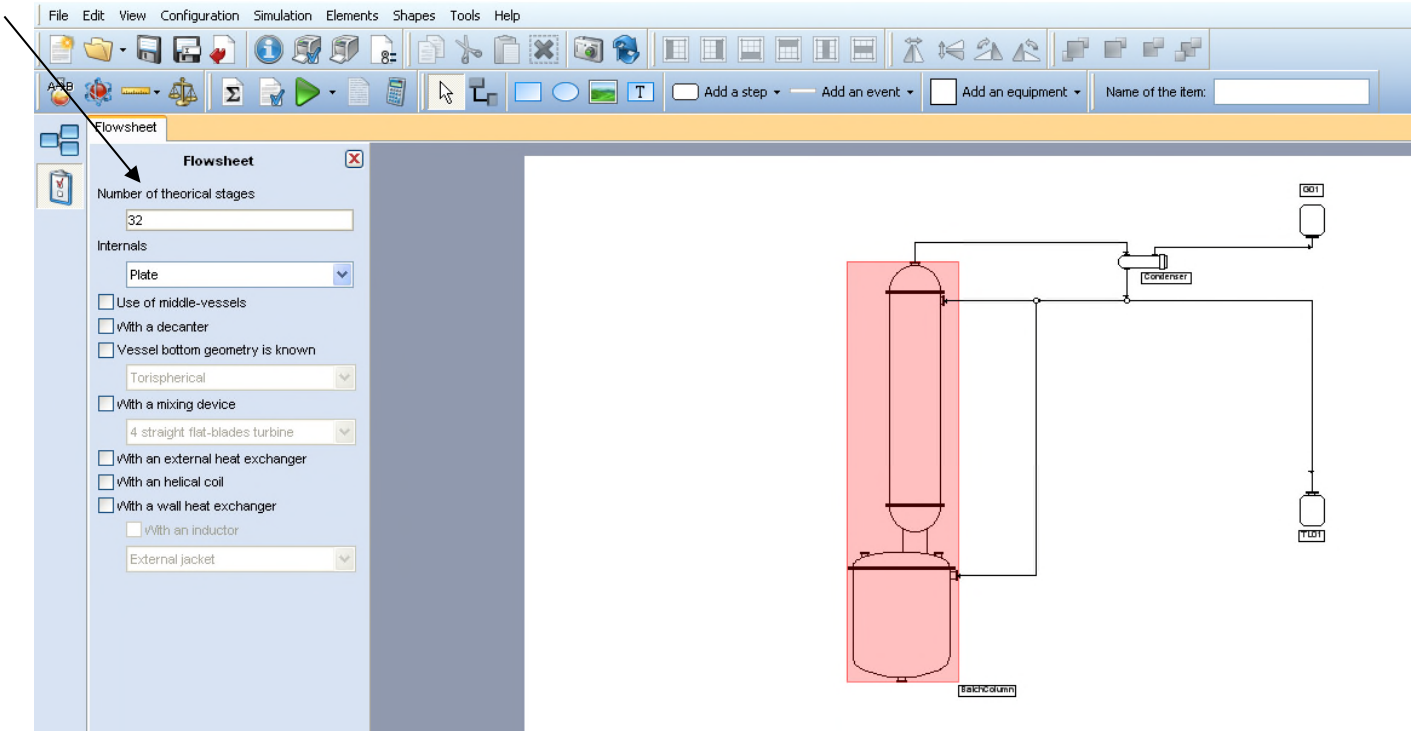




4-Describing the distillation system

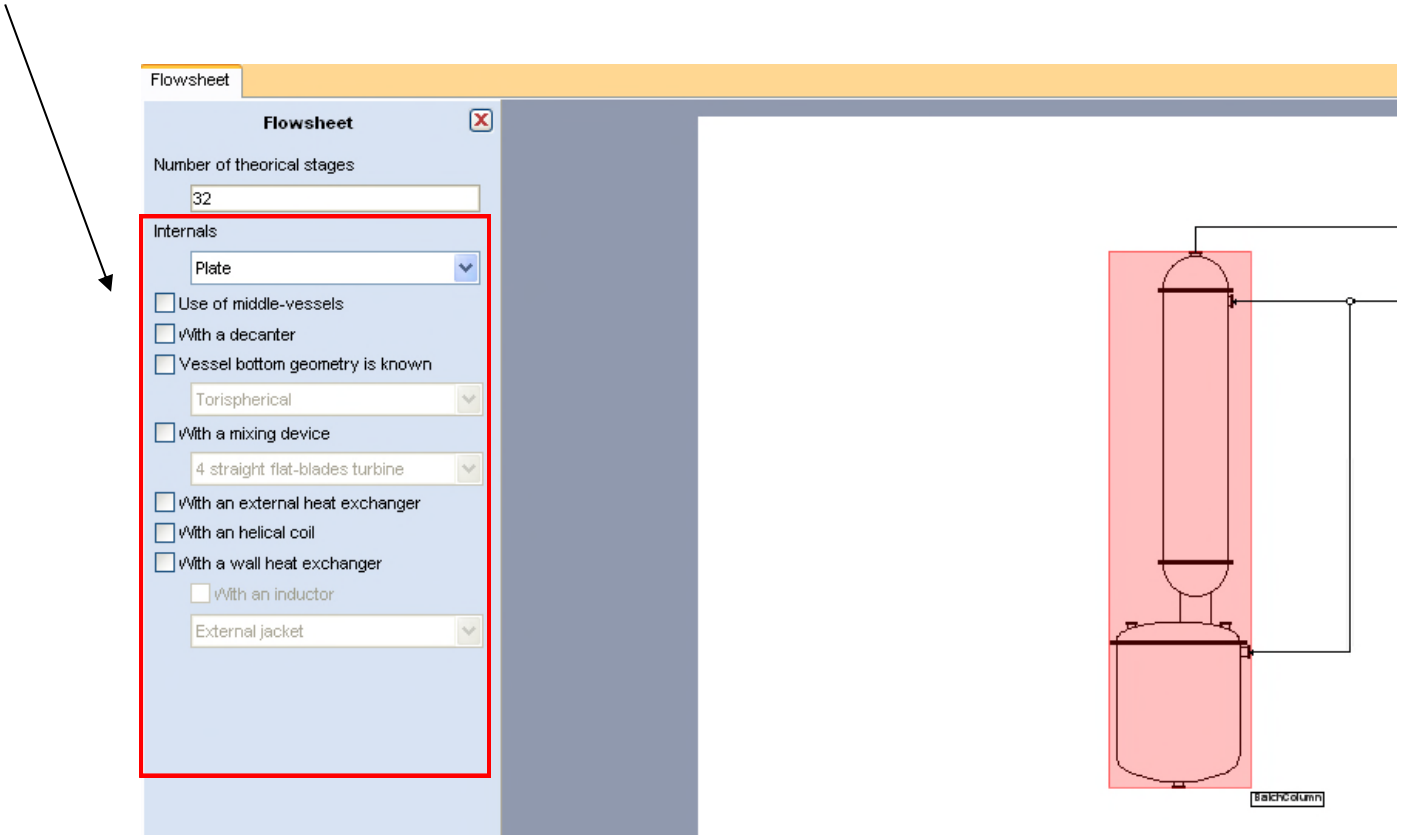
The main flowsheet window allows to display the distillation system (inlet and outlet storages, boiler, column and condensing system) and directly access the different configuration windows.

1- Enter the number of theoretical stages



4-Describing the distillation system

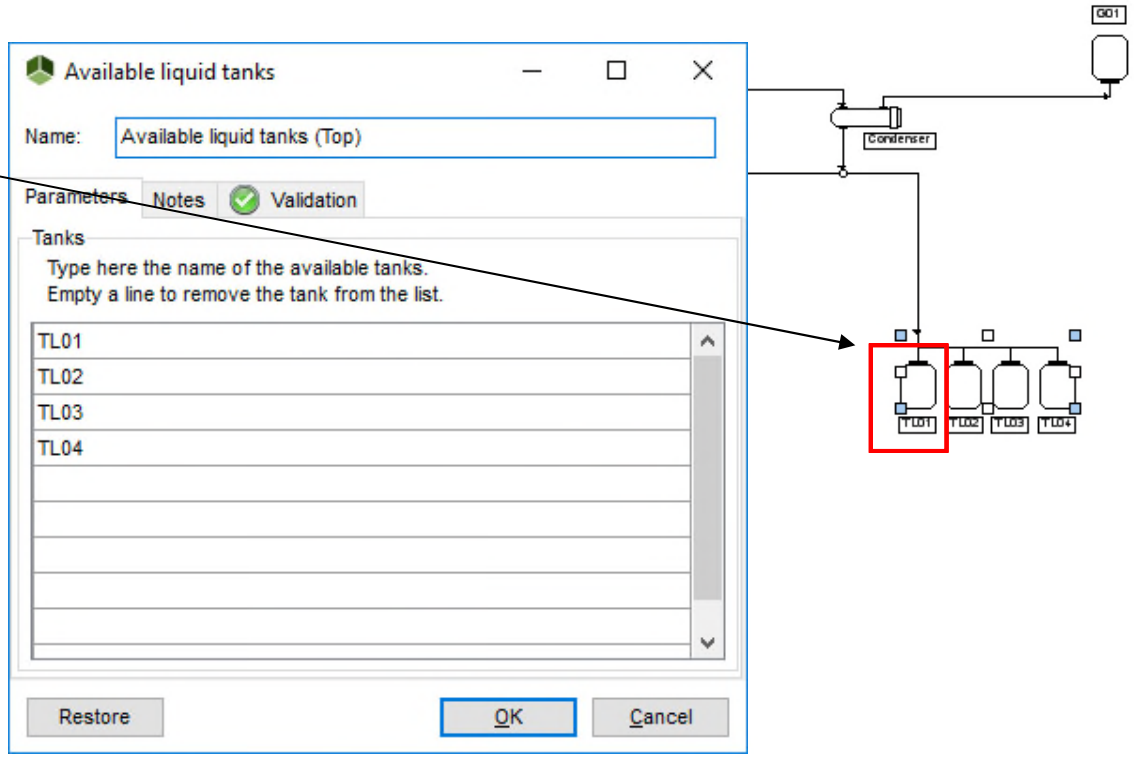
2- Select the main items of the column:



4-Describing the distillation system

4.1- Liquid tanks

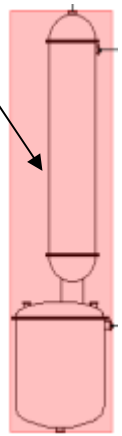
1- Double click on the first liquid tank to open the configuration window and add the other tanks TL02, TL03, TL04



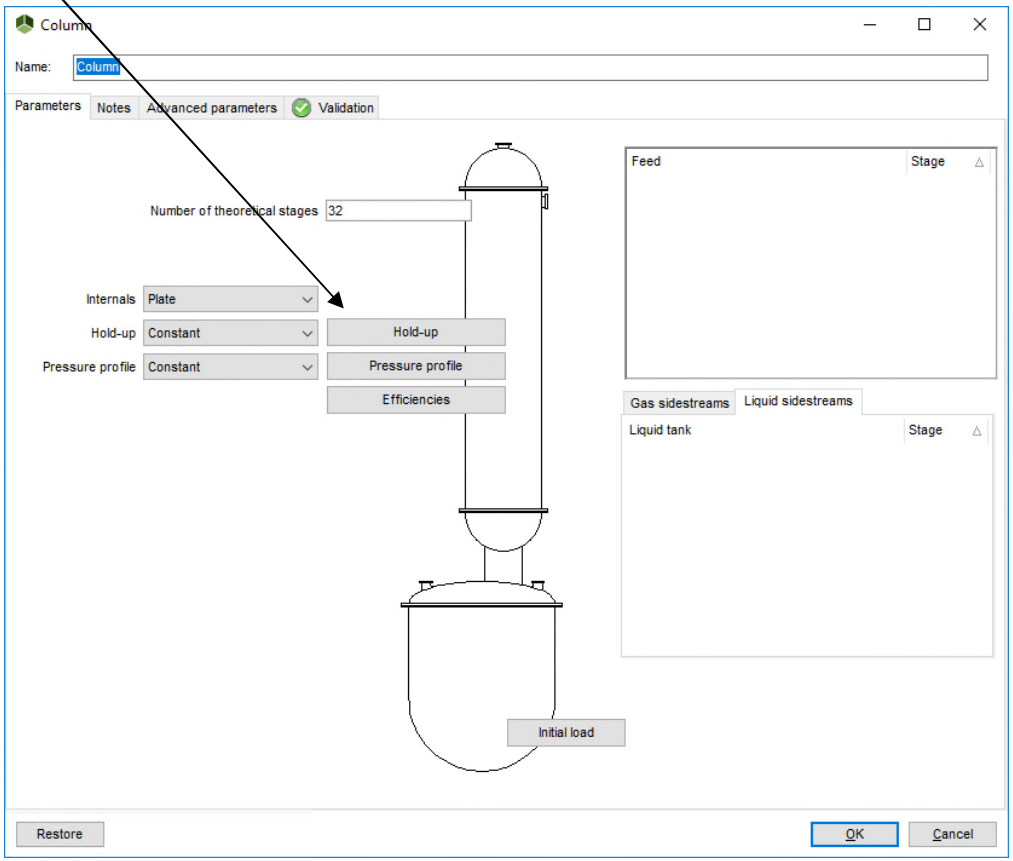
4-Describing the distillation system

4.2- Column

1 – Double click on the column icon



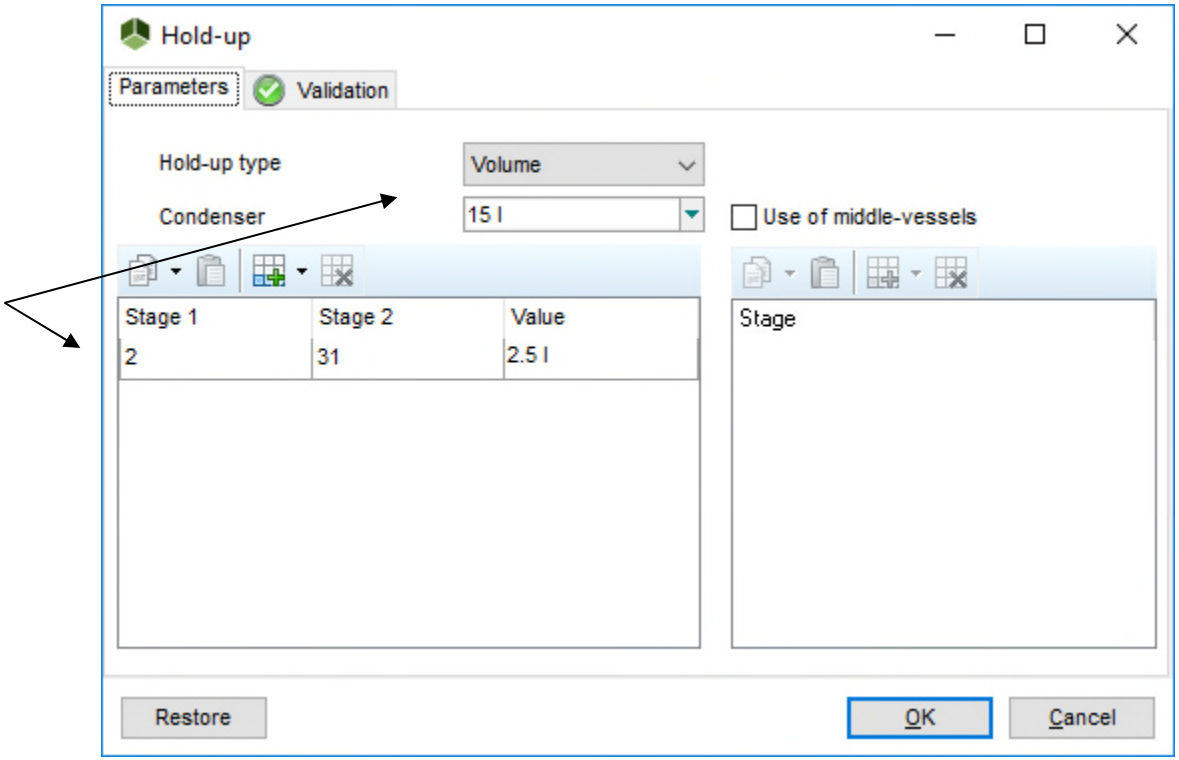
2 – Click on “Hold-up”



4-Describing the distillation system

4.2- Column

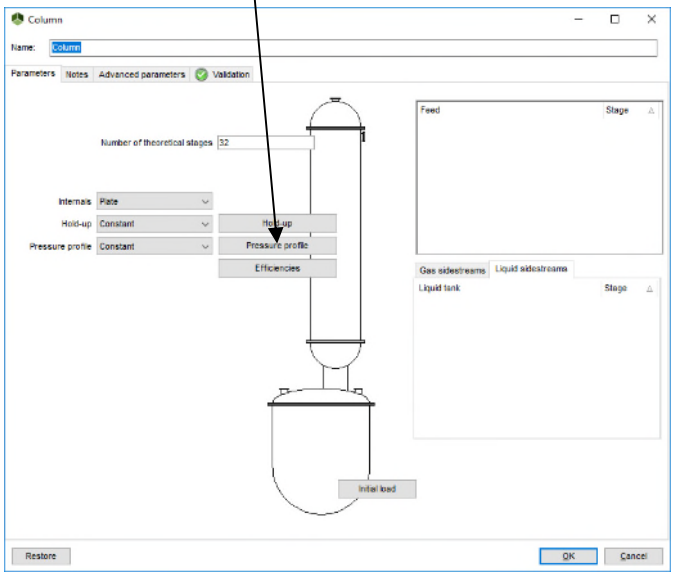
Enter hold-up for the condenser and the stages (hold-up per stage)



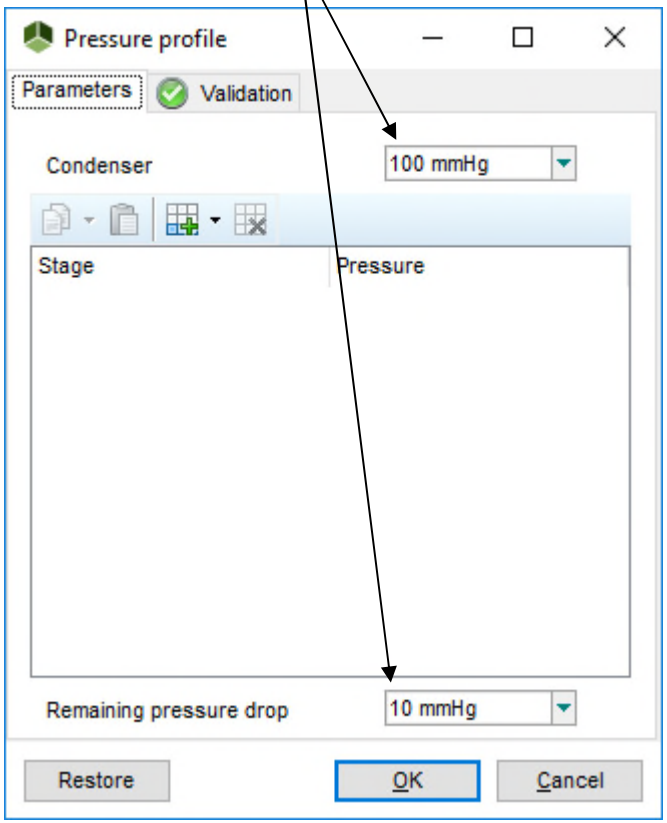
4-Describing the distillation system

4.2- Column

Click on “Pressure profile”



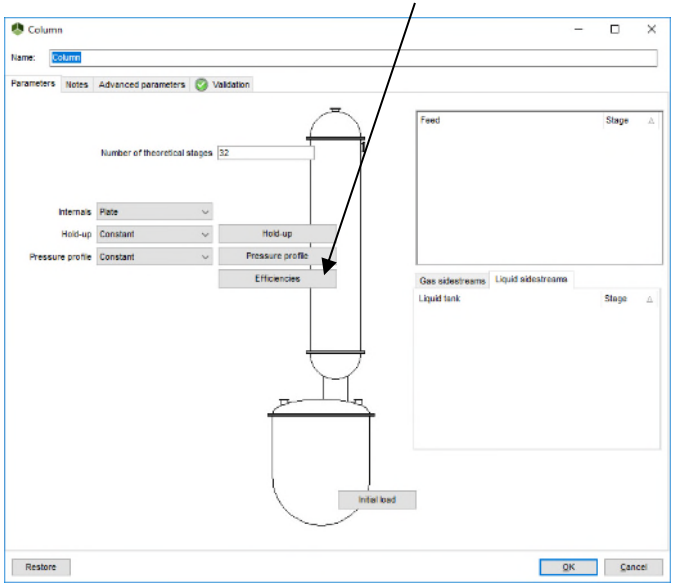
Enter the condenser pressure and the pressure drop

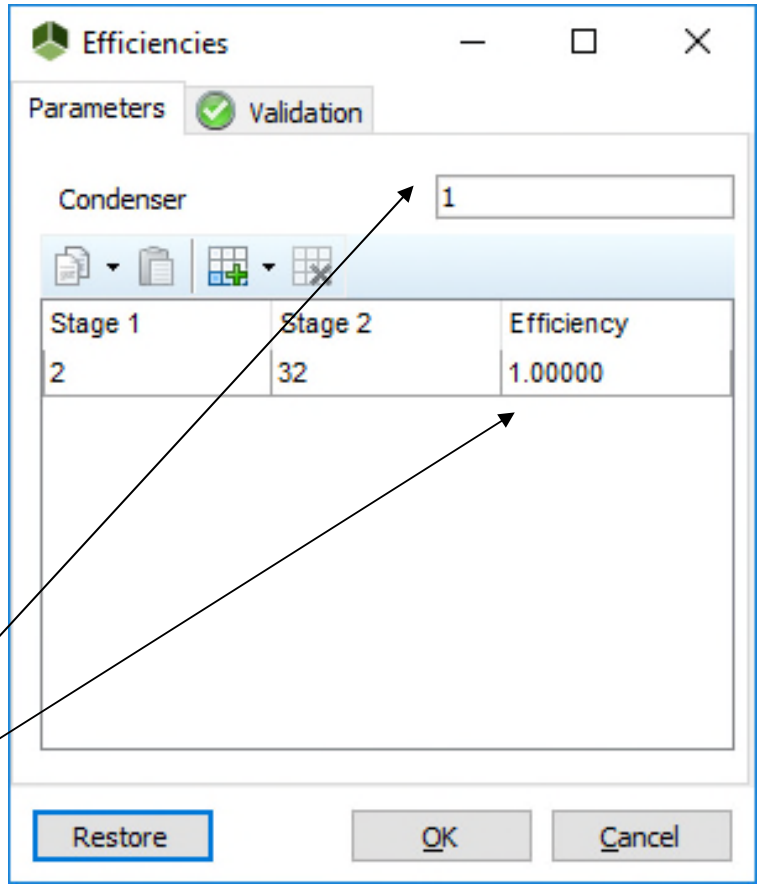


4-Describing the distillation system

4.2- Column

Click on “Efficiencies”



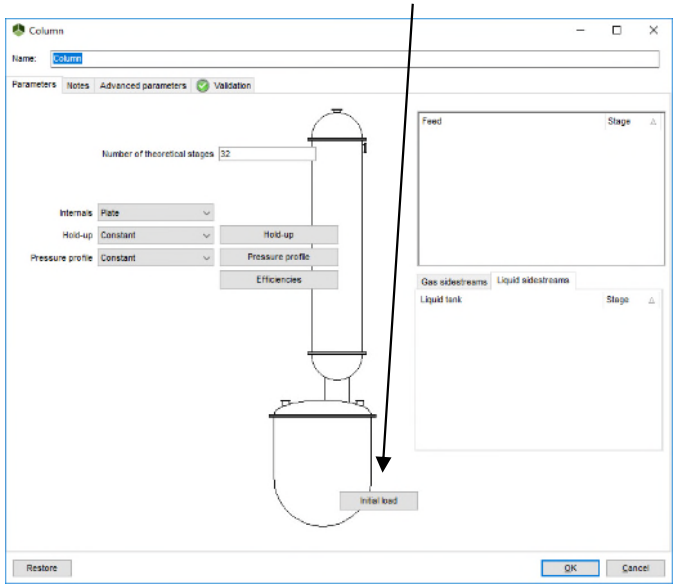


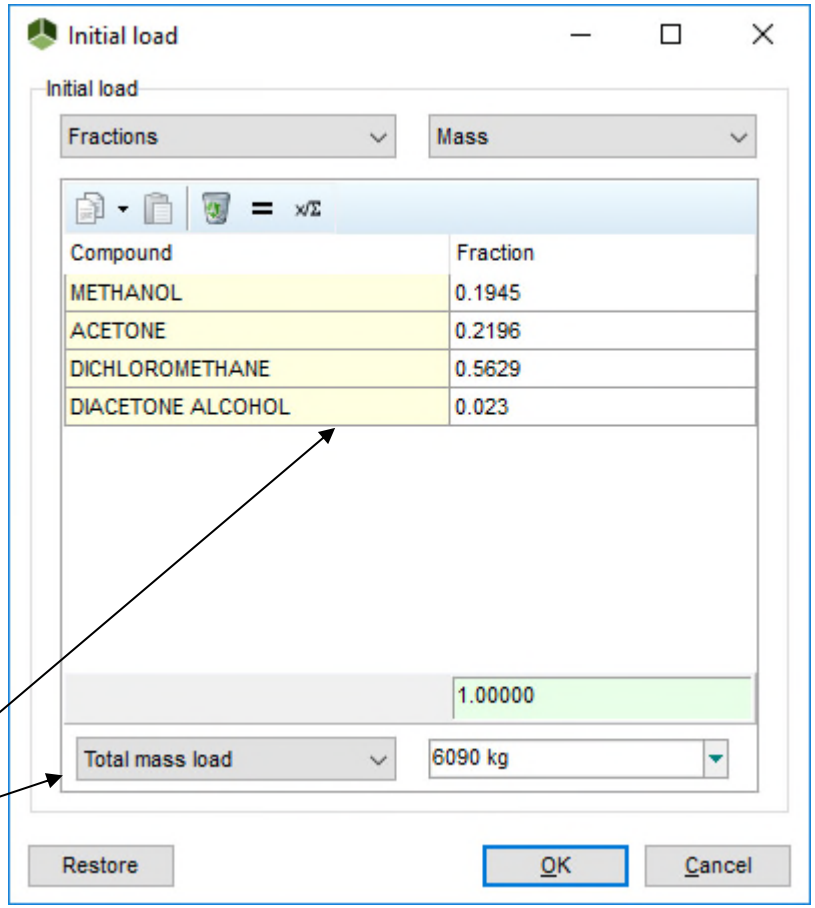
Condenser and plate efficiencies are set to 1
(Warning: in any case, the boiler efficiency should be kept equal to 1)

4-Describing the distillation system

4.2- Column

Click on “Initial load”

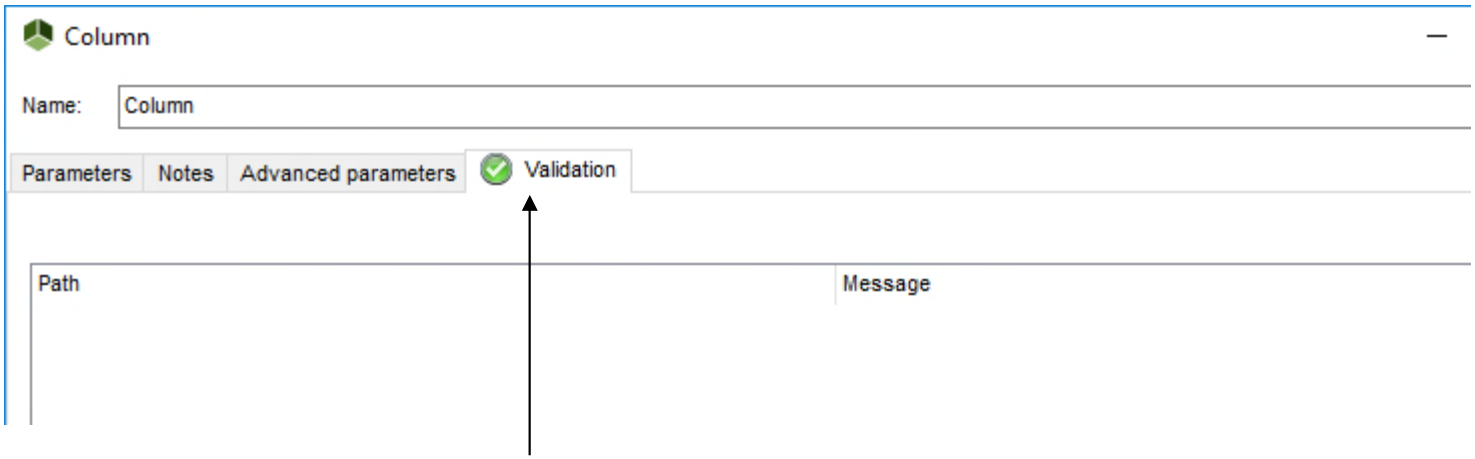




Enter composition and mass of the initial load

4-Describing the distillation system

4.2- Column

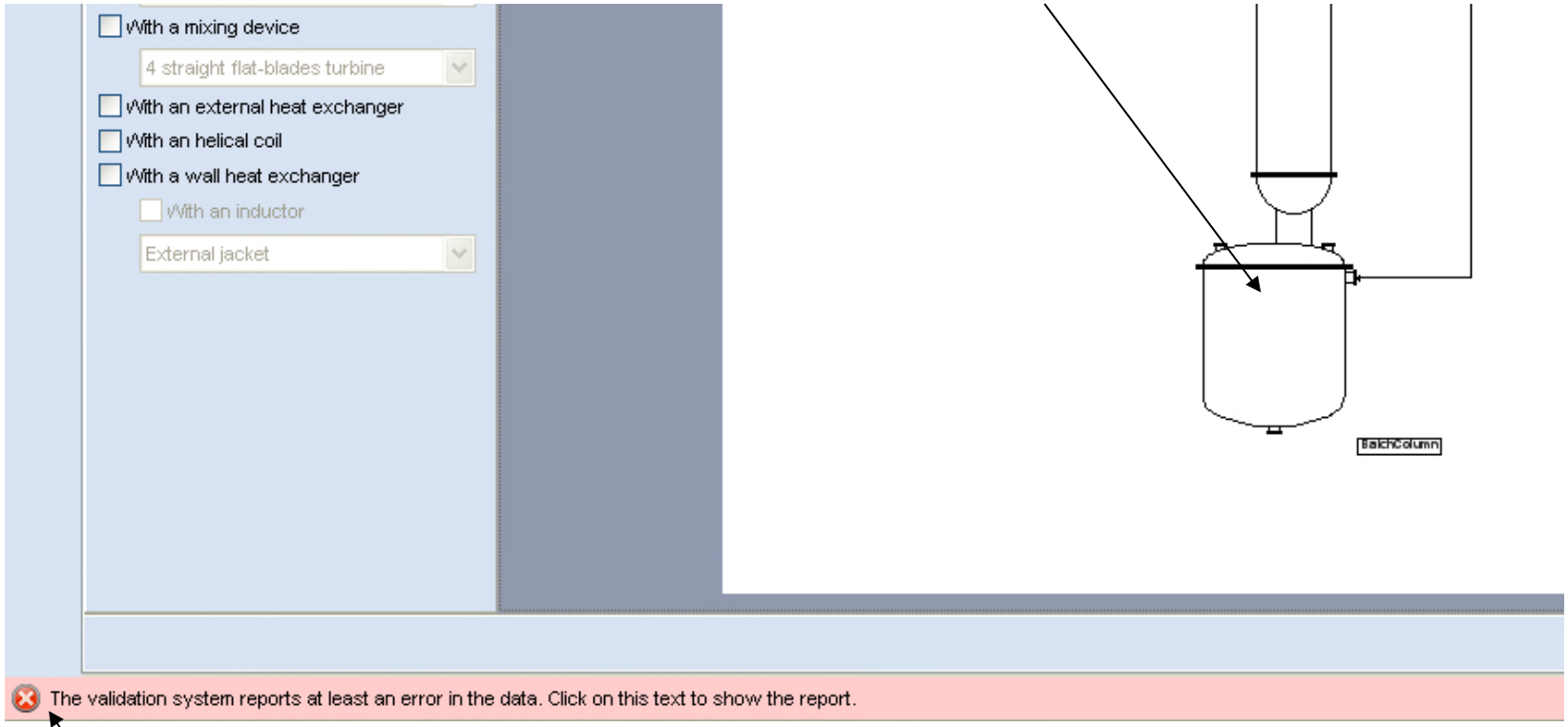


Select the validation tab.
This tab displays the warning and error messages. If the input data is correctly provided, this tab should be empty and the distillation icon should not be highlighted anymore.

4-Describing the distillation system

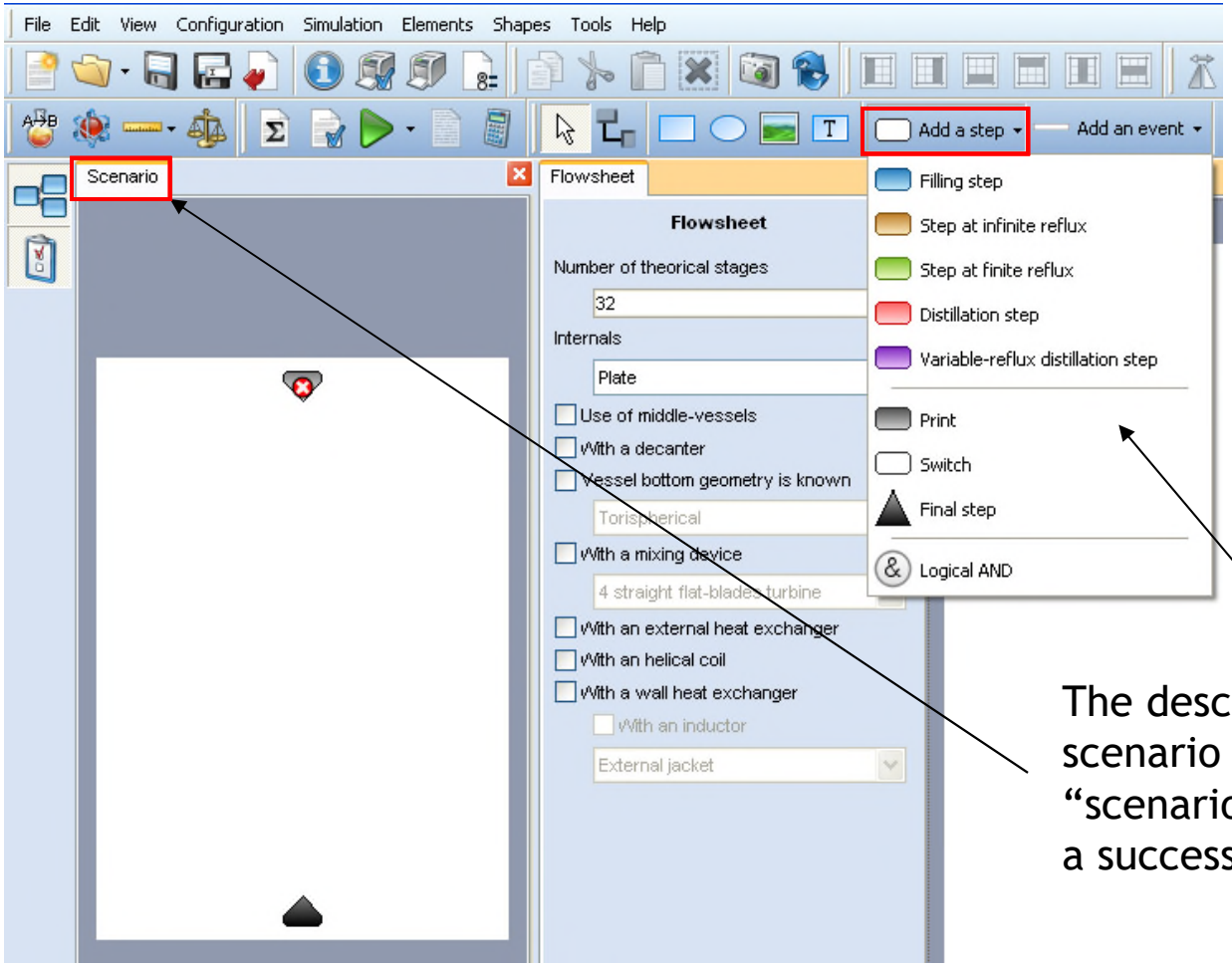
4.2- Column

The distillation icon is not highlighted anymore.



The global validation system reports other missing or inconsistent information. It is normal since your file is still being configured.

5-Describing the operating mode

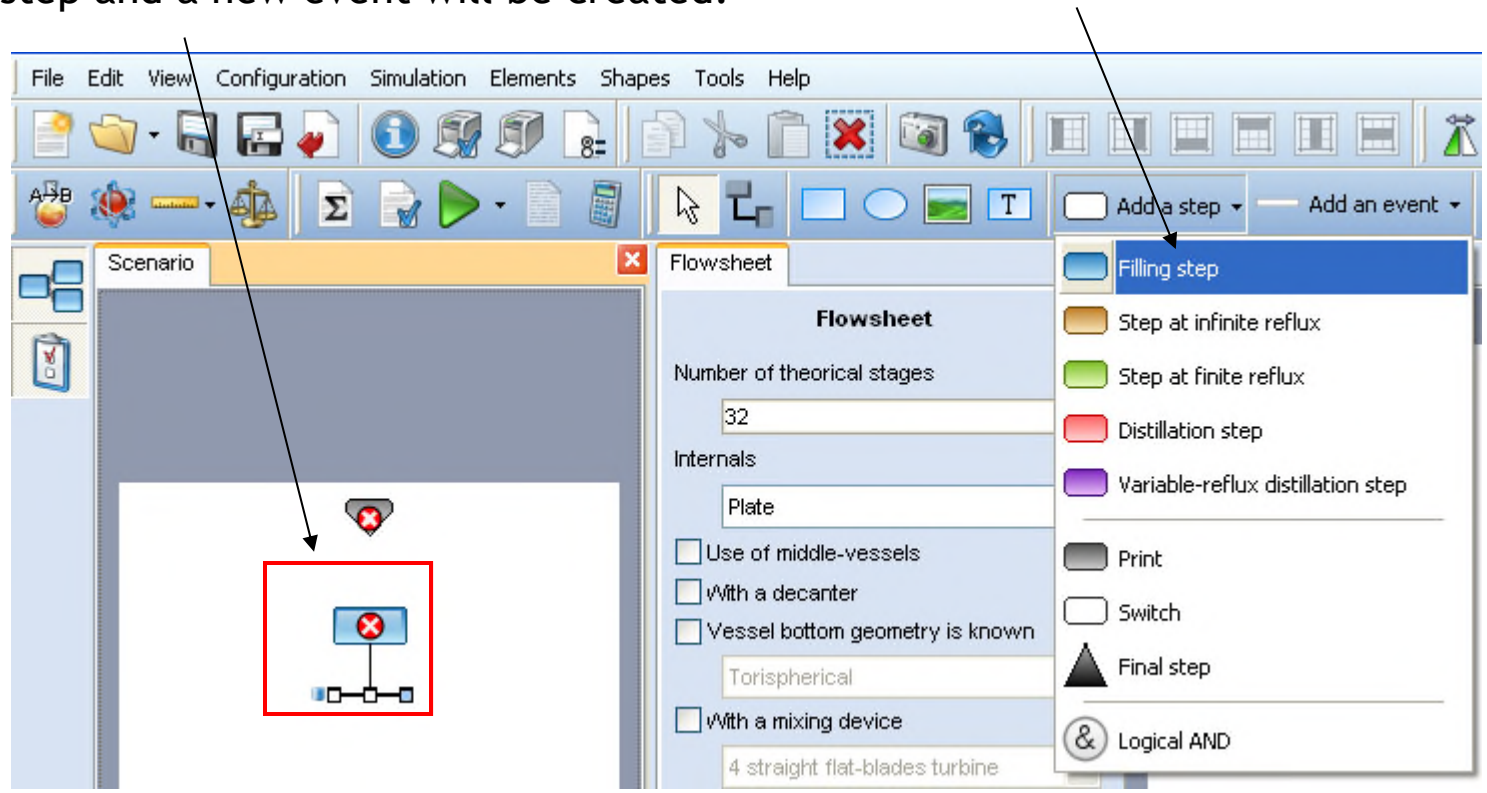


The description of the operating scenario is made in the "scenario" window. It consists of a succession of steps and events.

5-Describing the operating mode

2- Click on the “scenario” window.
A new step and a new event will be created.

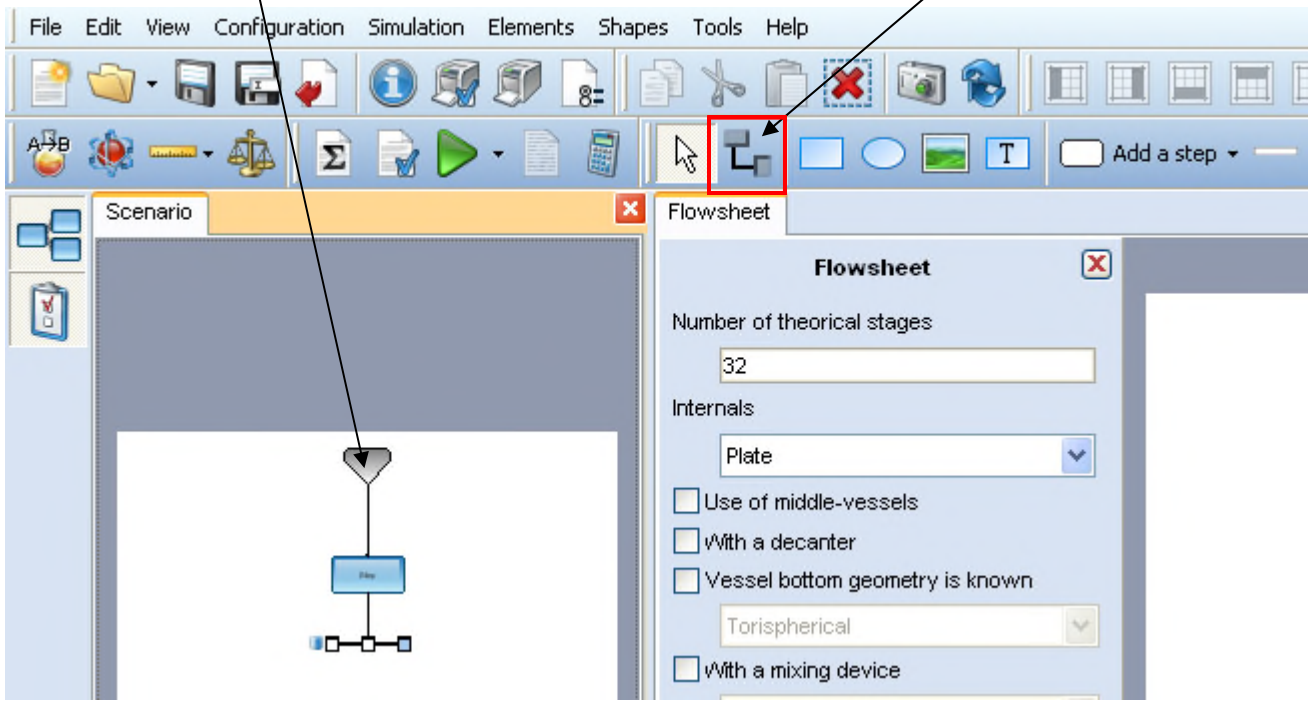
1- Click on the “Filling” step.



5-Describing the operating mode

2- Click on the first triangle (corresponding to the beginning of the simulation) and then click on the first step.
A new connection will be created.

1- Click on “connection”.

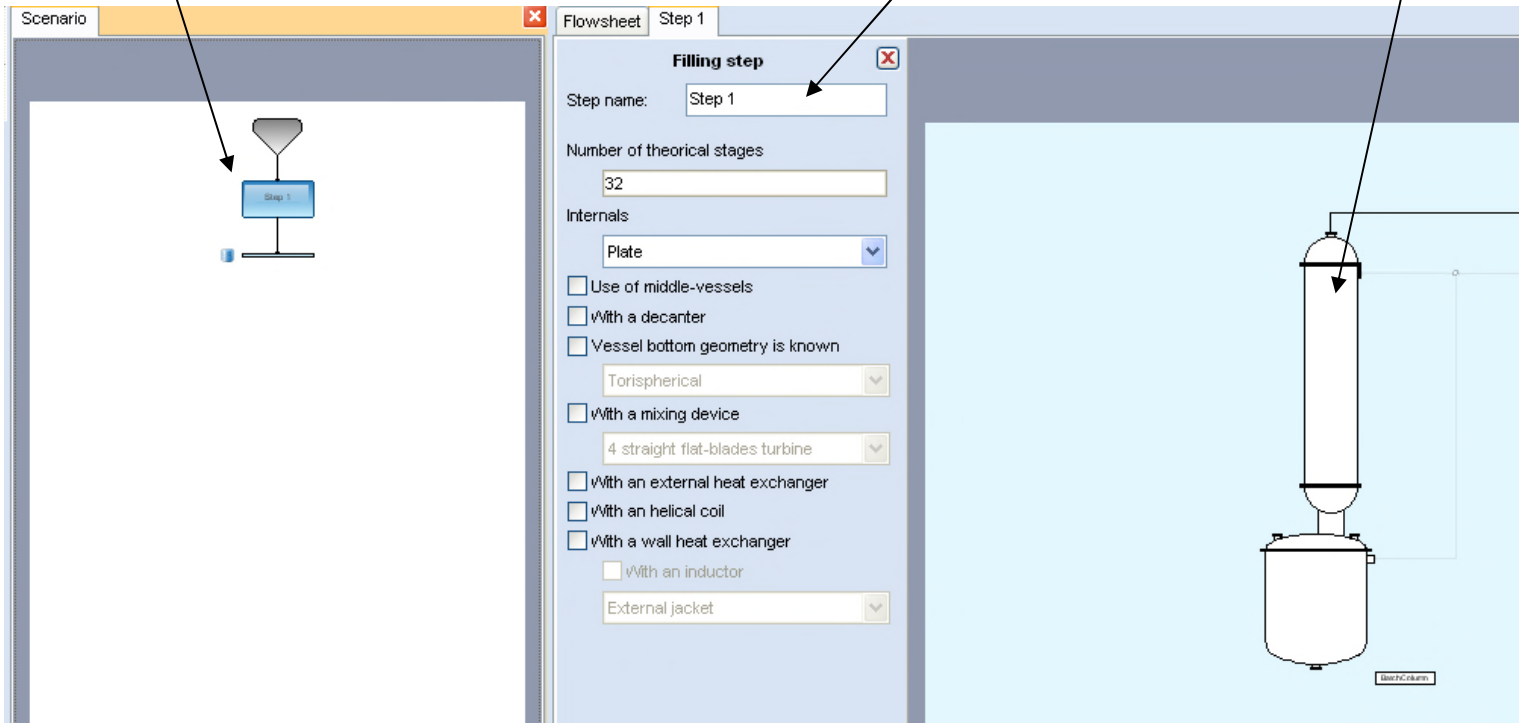


5-Describing the operating mode

1- Select the first step (double click on the icon).
A new tab appears, for the configuration of the step.

2- Change the default name by Step 1

3- Double click on the column icon



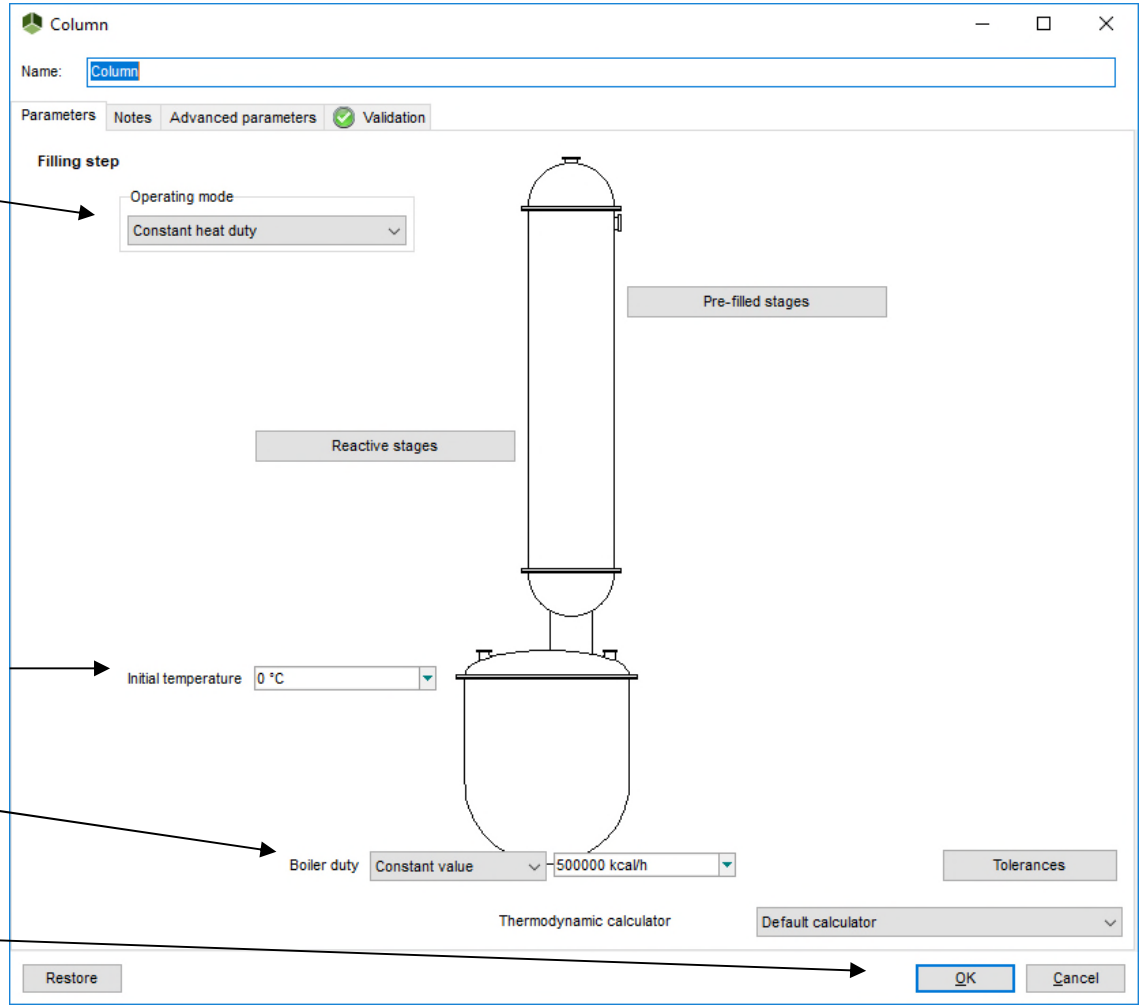
5-Describing the operating mode

1- Select “constant heat duty” (default option)

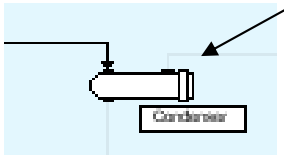
2- Enter the initial temperature

3- Enter the boiler duty

4- Click on “OK”

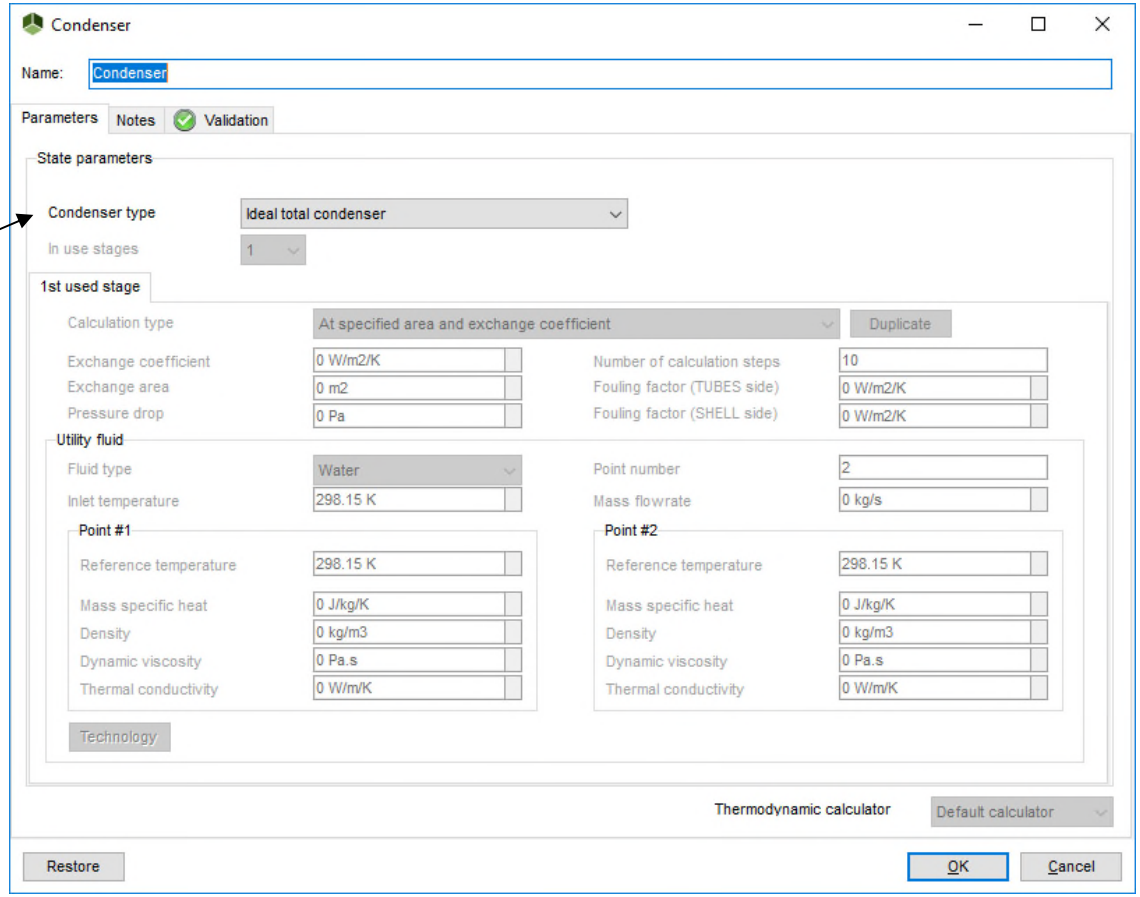


5-Describing the operating mode



Double click on the condenser to access the configuration window.

1- Select “Ideal total condenser” (default option)

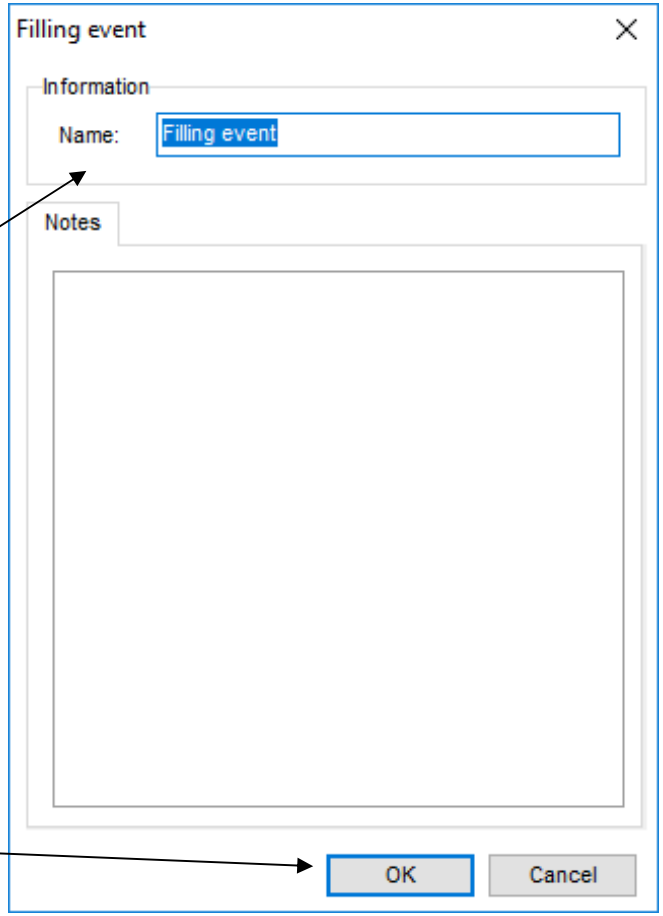


5-Describing the operating mode

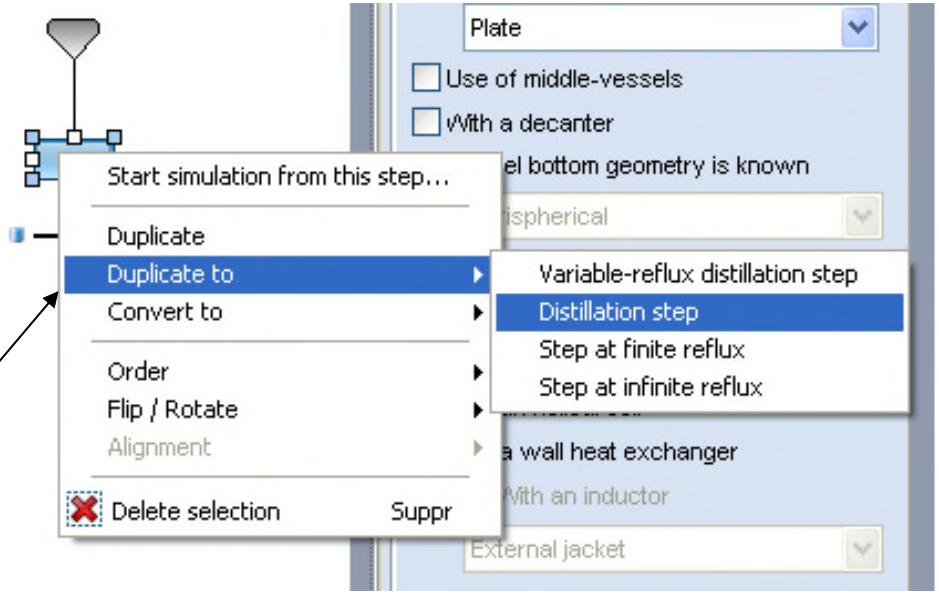
1- Double click on the end event of step 1

2- Enter a name for the event (by default “Filling event”)

3- Click on “OK”



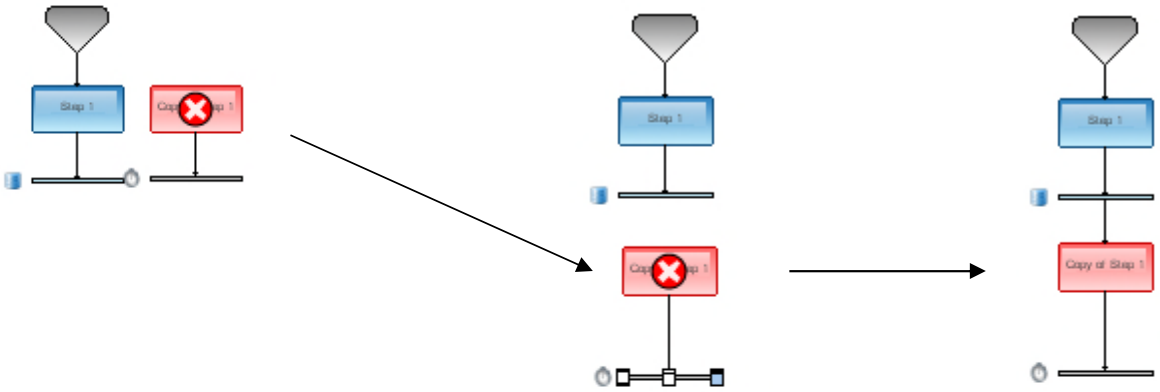
5-Describing the operating mode



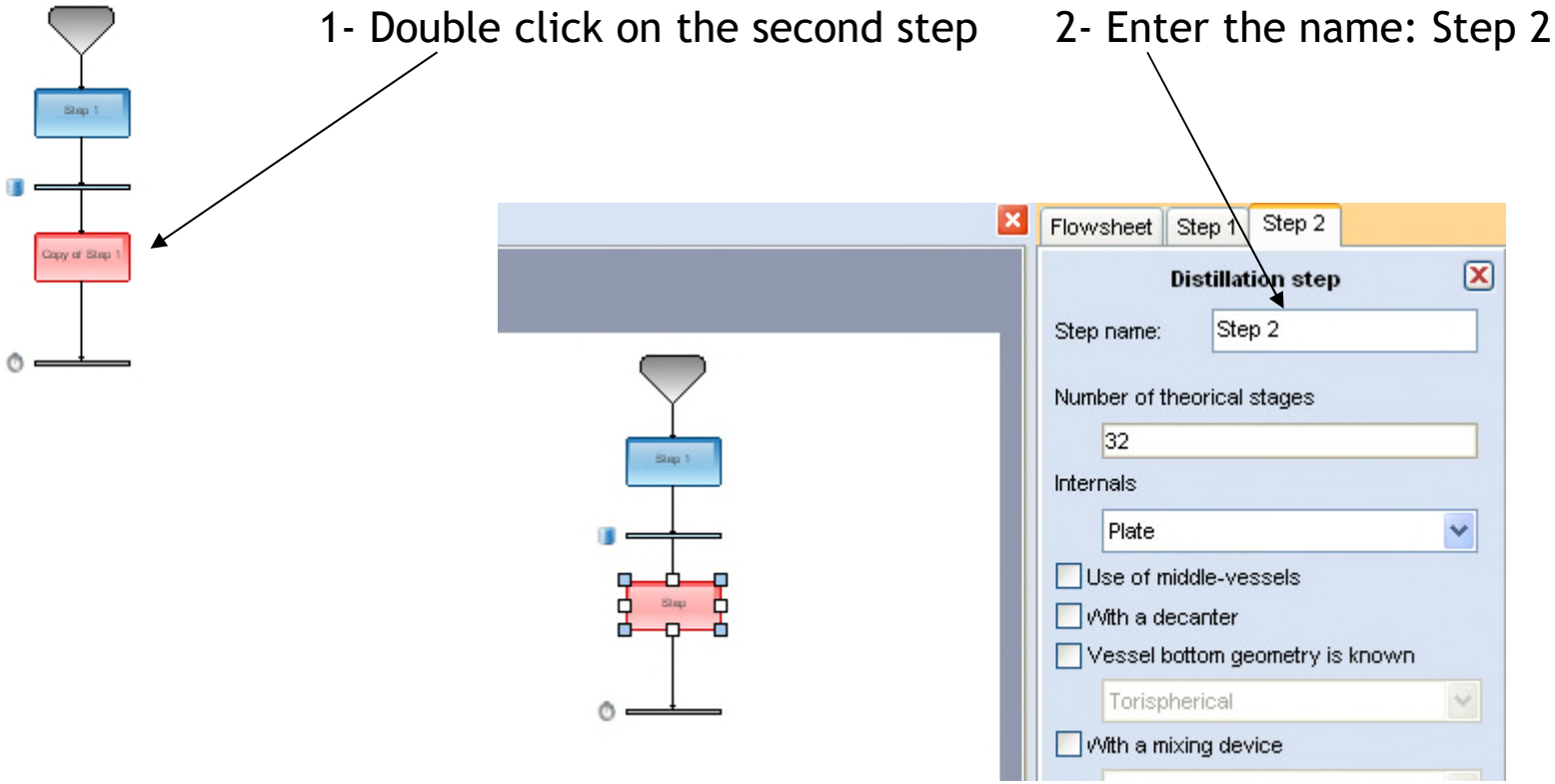
Right click on the first step, select “Duplicate to” sub-menu and then select “Distillation step”.
This copy avoids to specify again most of the input parameters for this new step.

5-Describing the operating mode

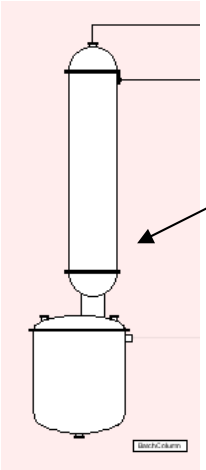
Connect appropriately the new step to the ending event of the first step



5-Describing the operating mode



5-Describing the operating mode

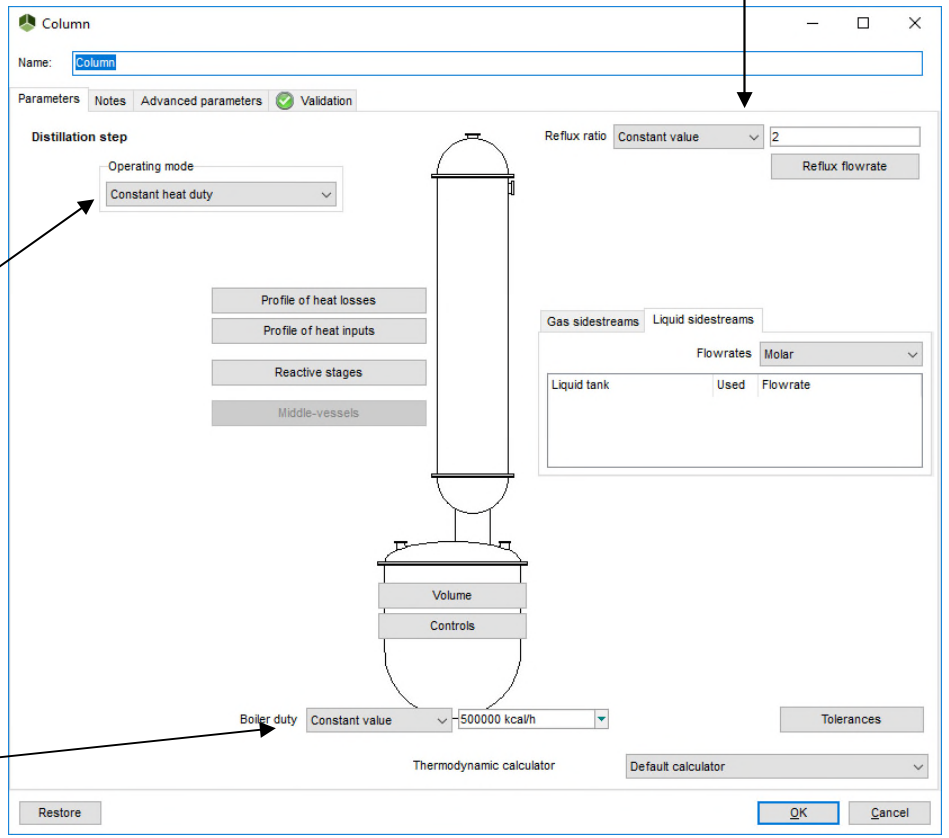


1- Double click on the column icon

2- Select “constant value” and enter the reflux ratio

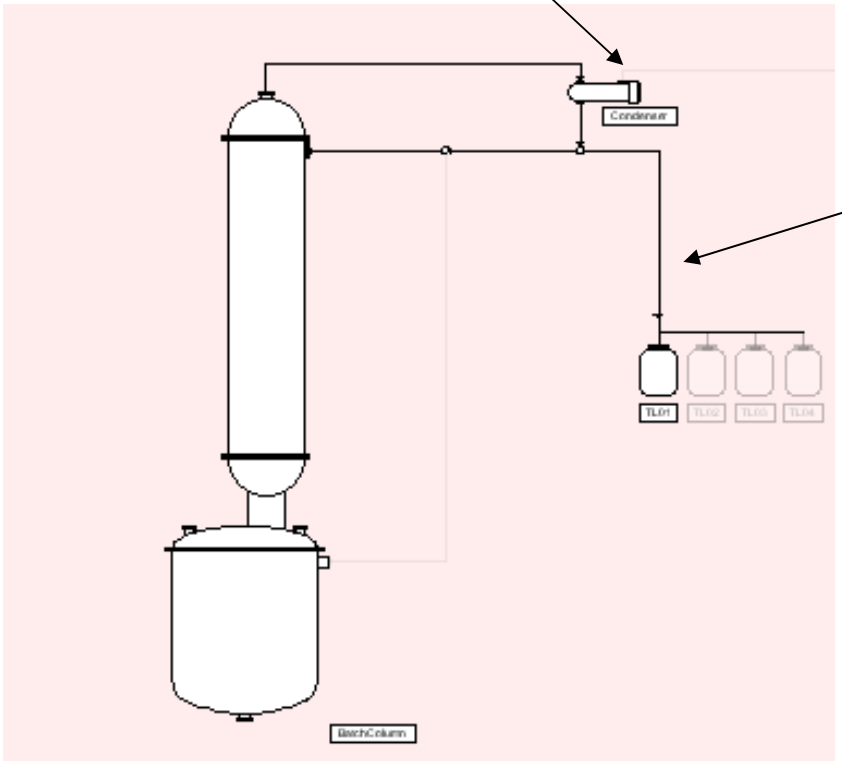
3- Select “Constant heat duty” (default option)

4- Select “constant value” and enter the boiler duty



5-Describing the operating mode

5- Nothing to change for the condenser



6- Distillate is sent to the first tank, as indicated on the flowsheet

5-Describing the operating mode

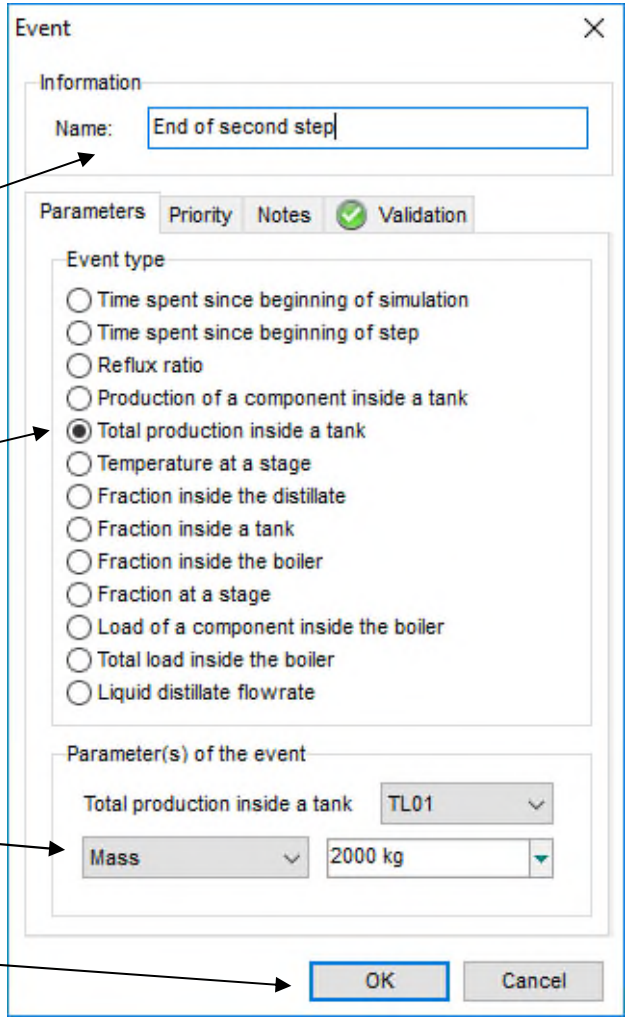
1- Double click on the event at the end of the second step

2- Enter a name for the event

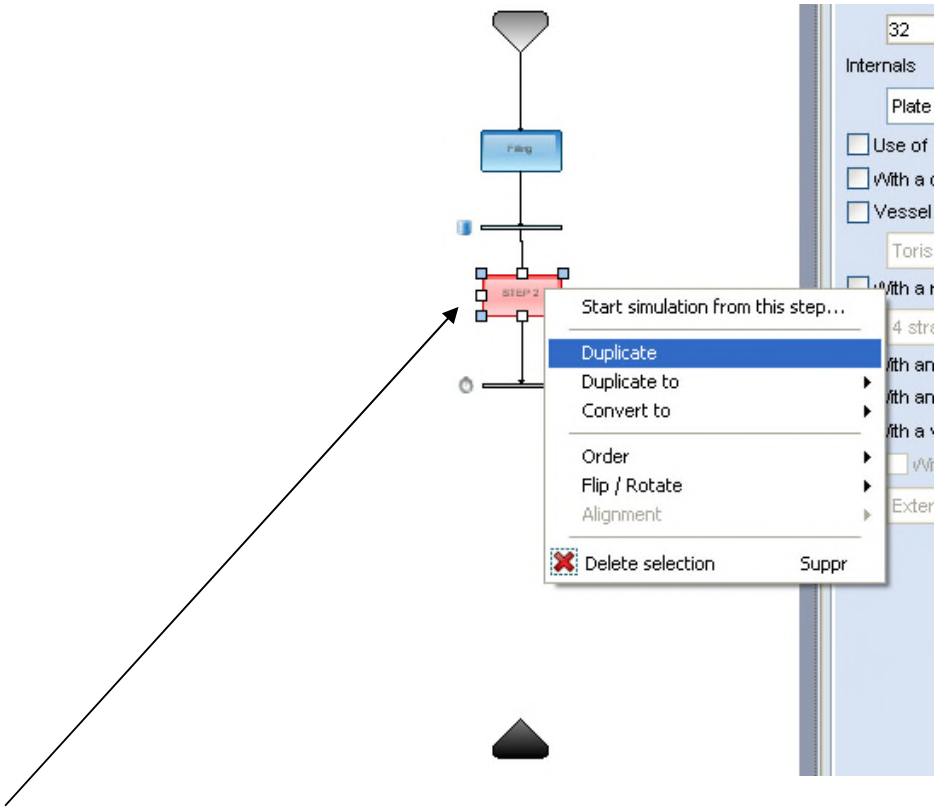
3- Select “total production inside a tank”

4- Enter the desired production

5- Click on “OK”



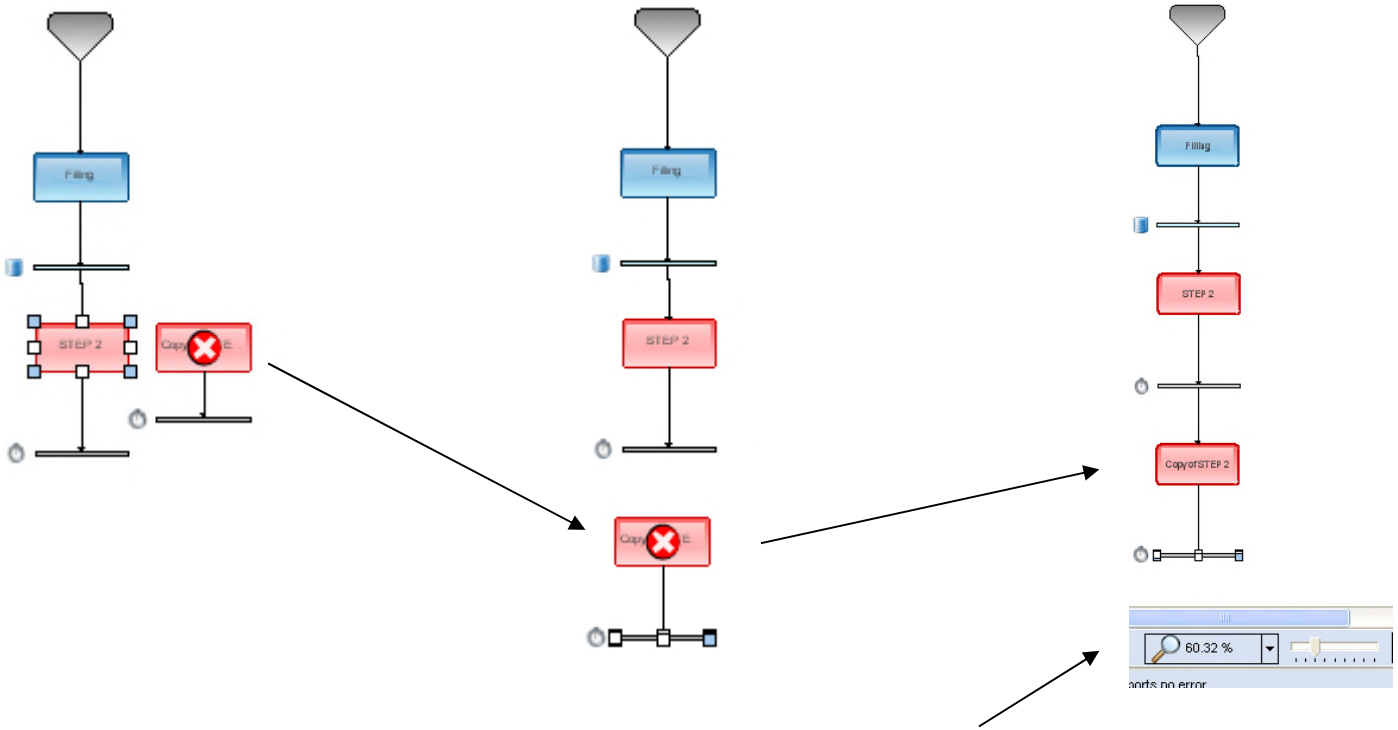
5-Describing the operating mode



Right click on the second step and select “Duplicate”
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the second step



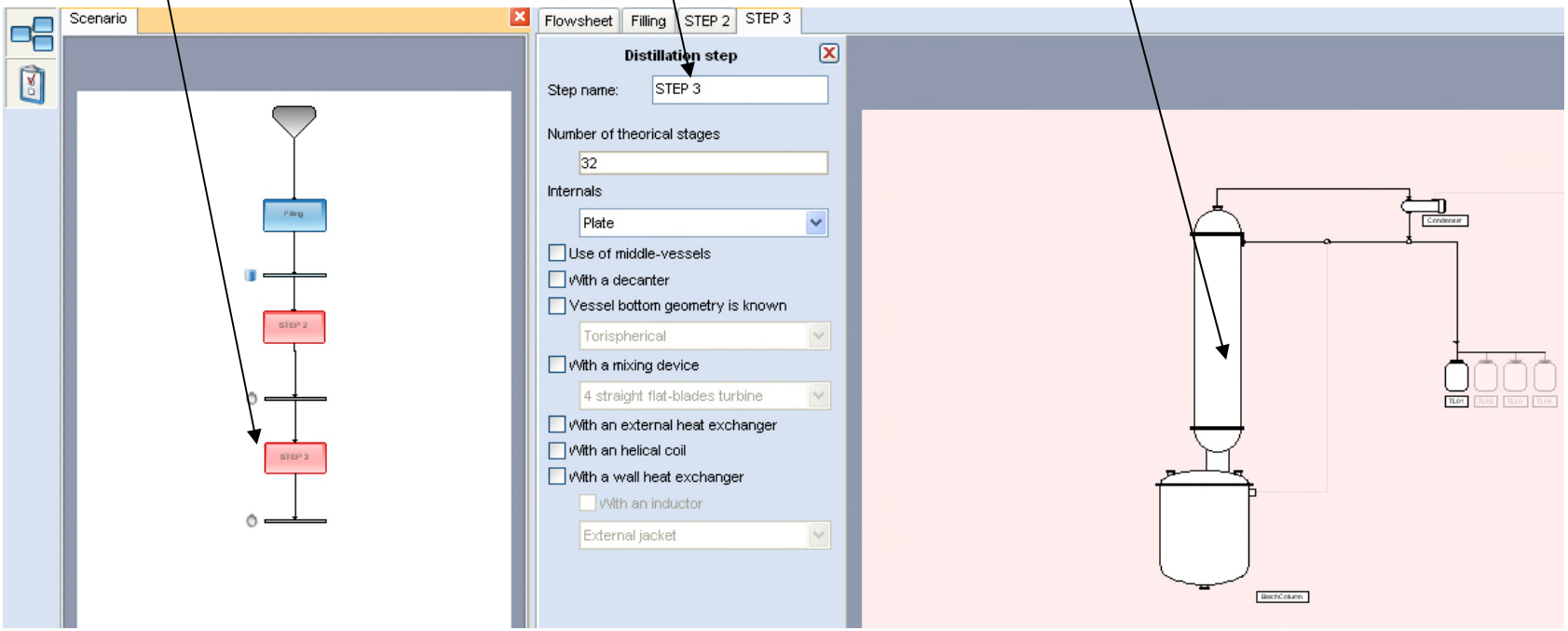
You can zoom in to ease the connection of the blocks

5-Describing the operating mode

1- Double click on the third step

2- Enter the name: STEP 3

3- Double click on the column

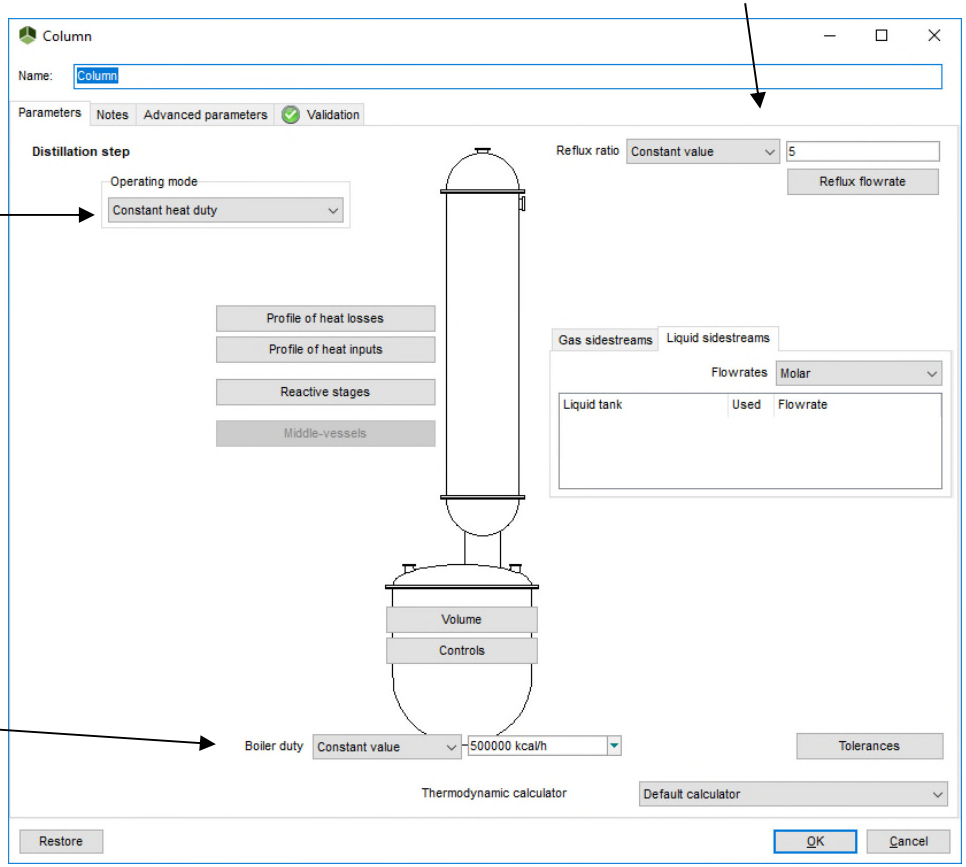


5-Describing the operating mode

4- Select “constant value” and enter the reflux ratio

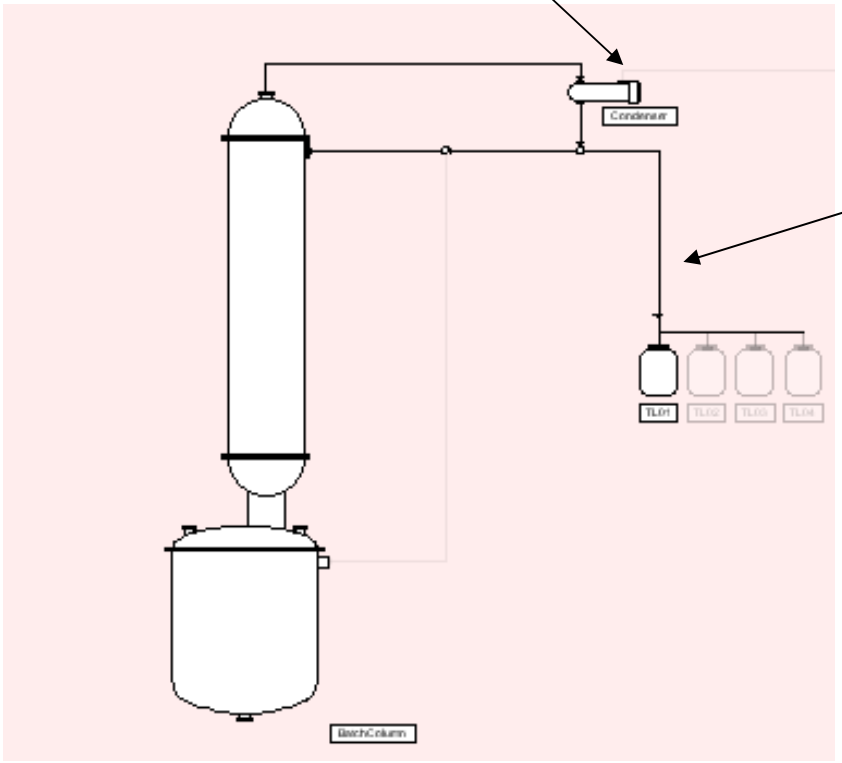
5- Select “Constant heat duty” (default option)

6- Select “constant value” and enter the boiler duty



5-Describing the operating mode

7- Nothing to change for the condenser



8- Distillate is sent to the first tank, as indicated on the flowsheet

5-Describing the operating mode

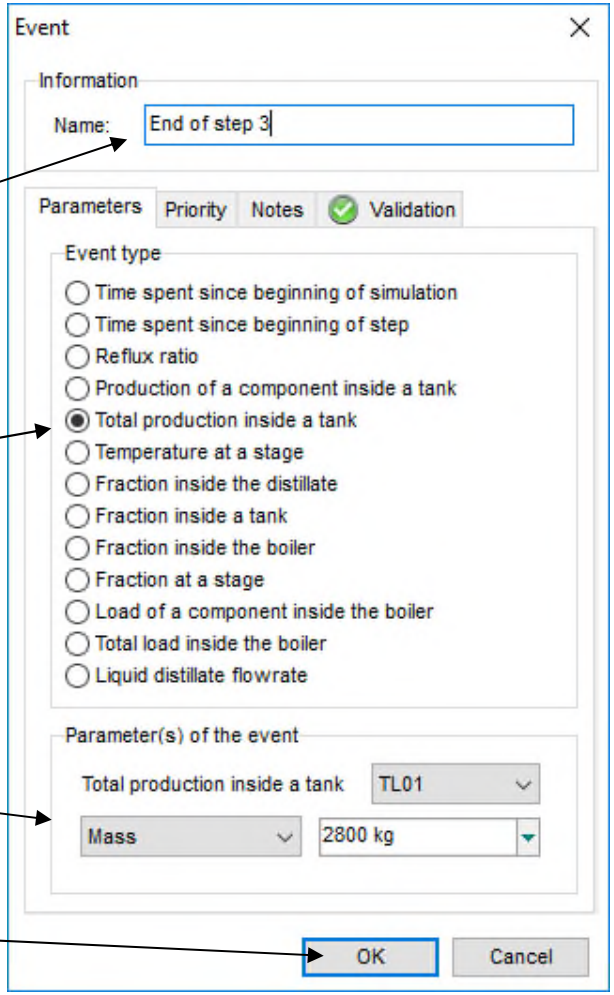
1- Double click on the event at the end of the third step

2- Enter a name for the event

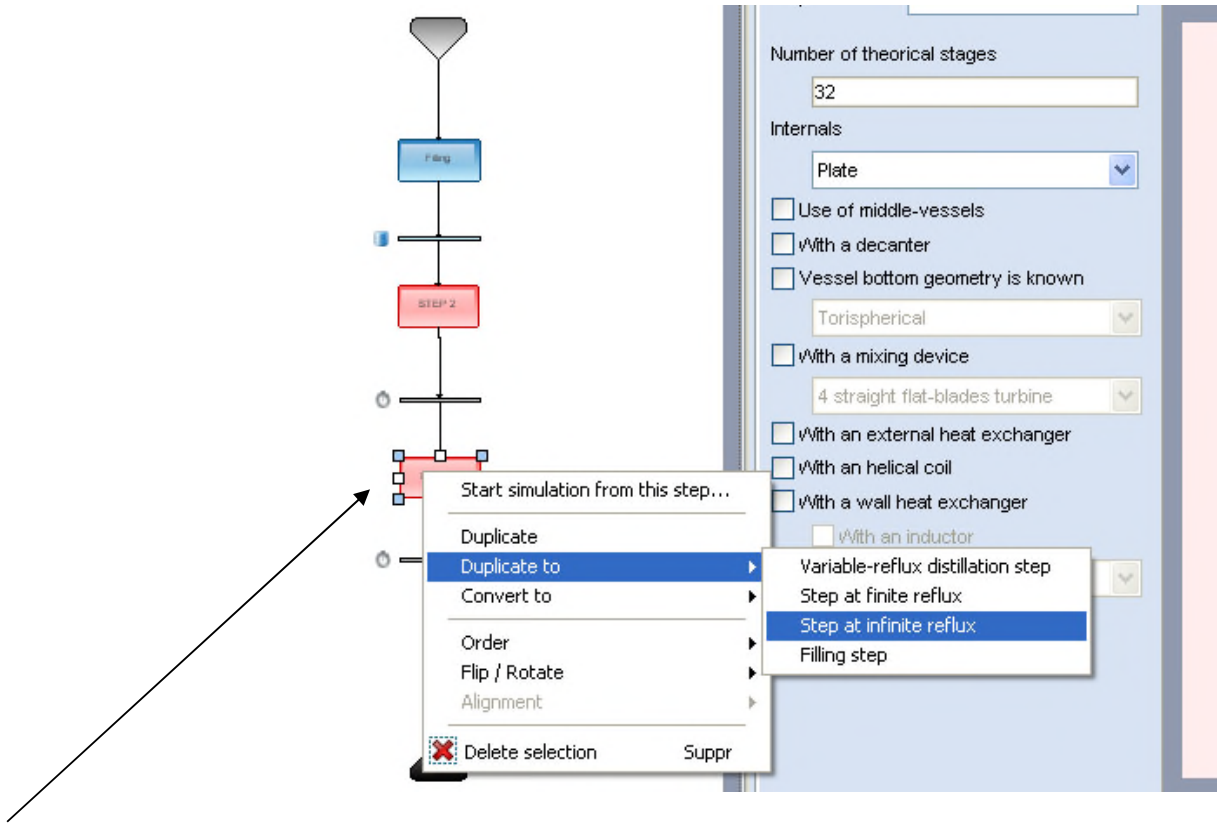
3- Select “total production inside a tank”

4- Enter the desired production

5- Click on “OK”



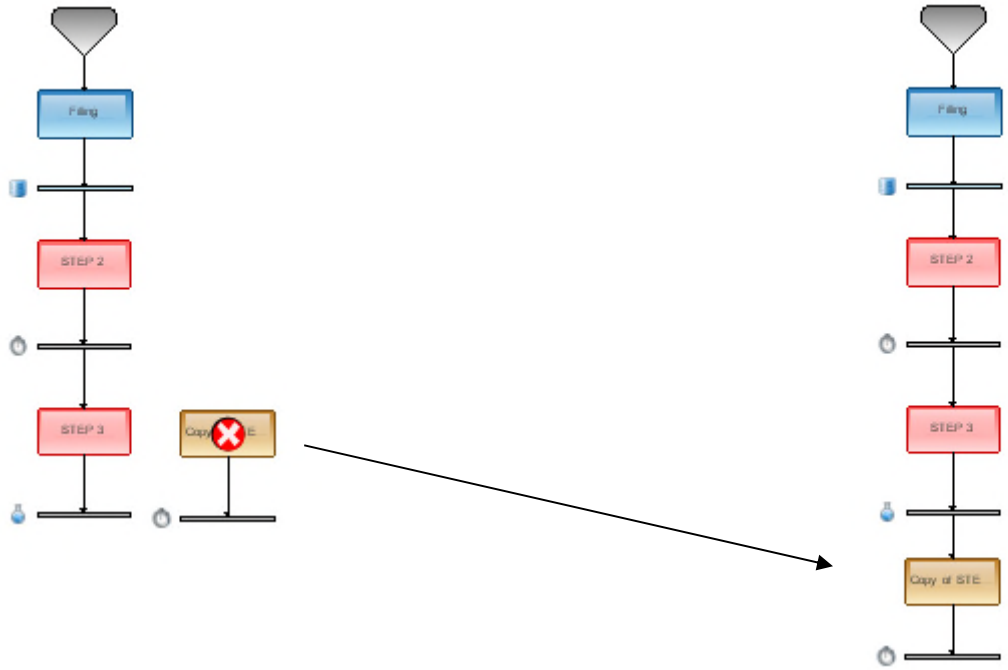
5-Describing the operating mode



Right click on the third step and select “Duplicate to”, then select “Step at infinite reflux”.
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the third step.

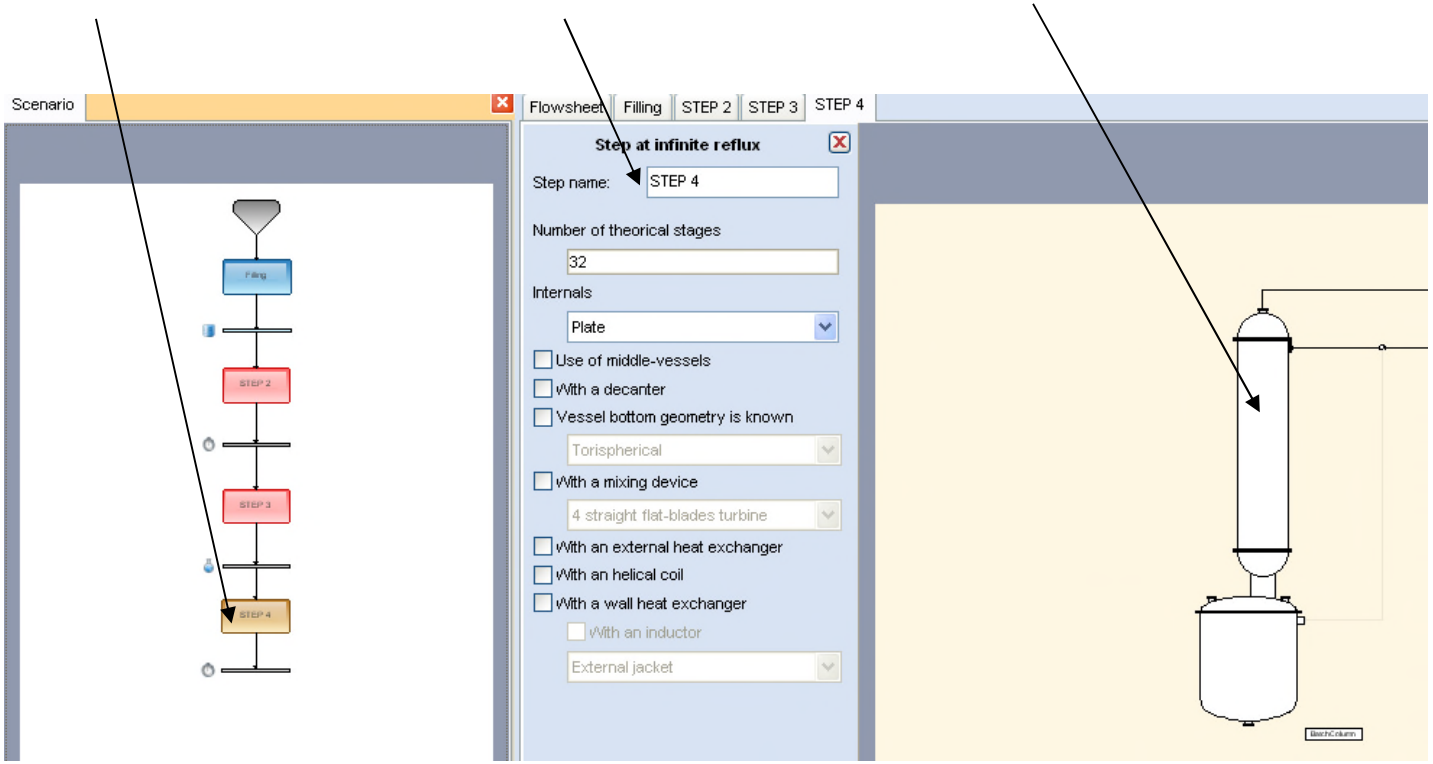


5-Describing the operating mode

1- Double click on the fourth step

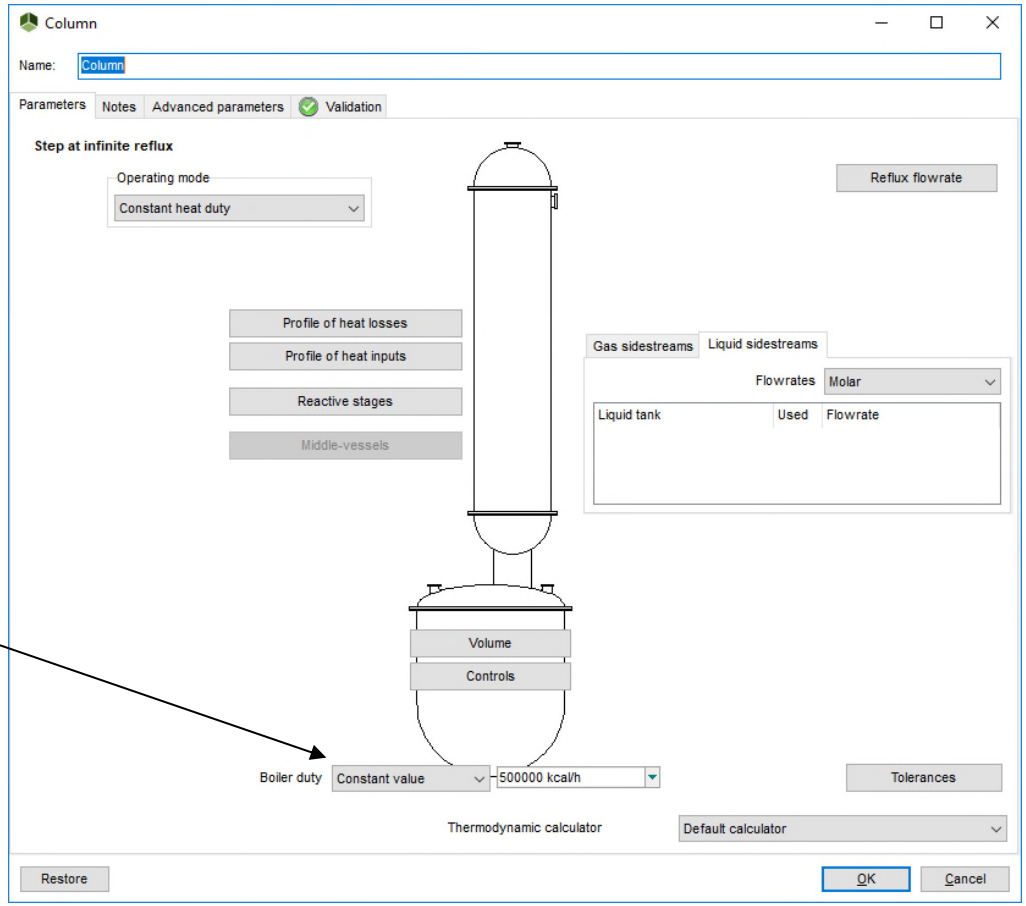
2- Enter the name: STEP 4

3- Double click on the column

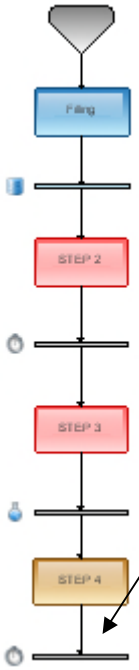


5-Describing the operating mode

4- Nothing to change in this window since this step has been duplicated from the previous one, the boiler duty is already defined as for the step 3



5-Describing the operating mode



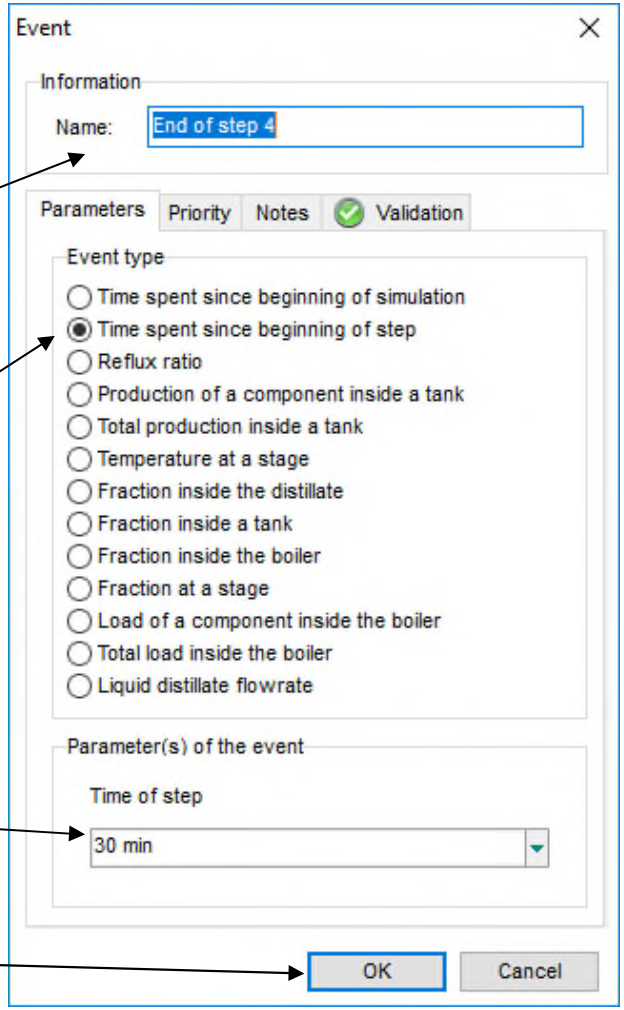
1- Double click on the event at the end of the fourth step

2- Enter a name for the event

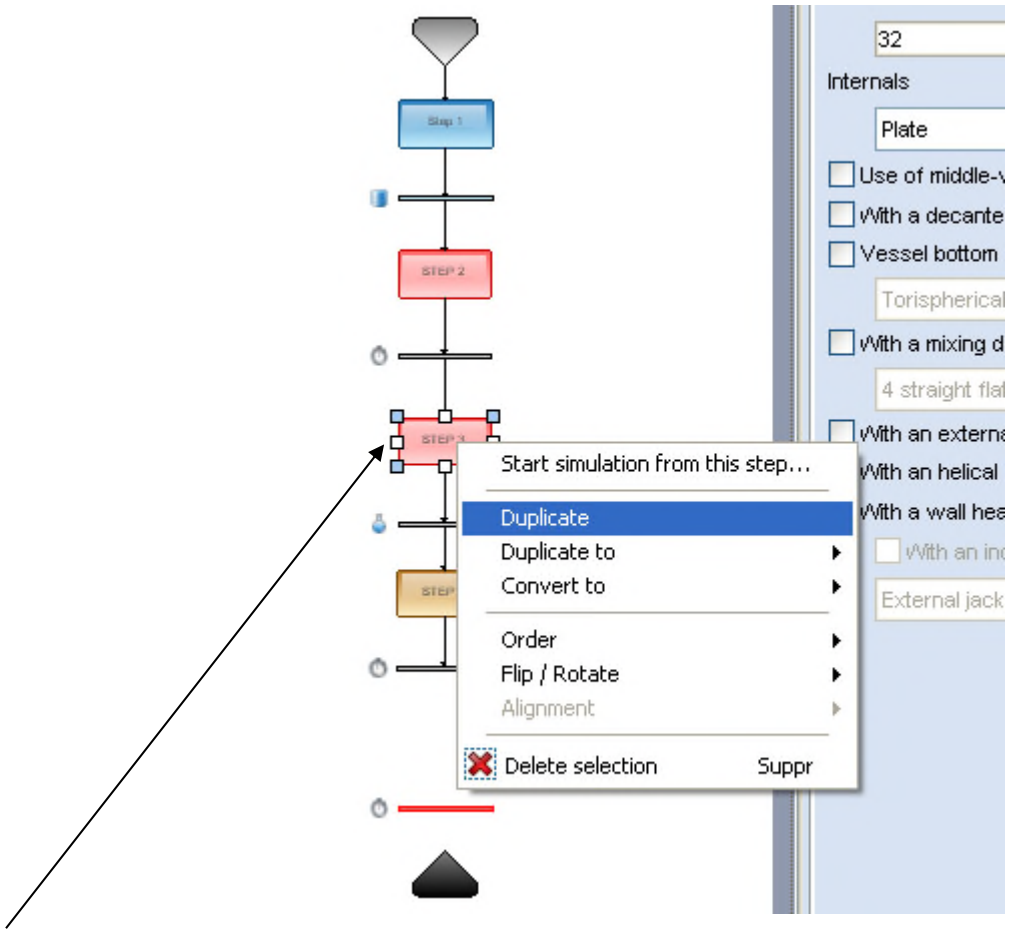
3- Select “time spent since beginning of step”

4- Enter the desired time for this step

5- Click on “OK”



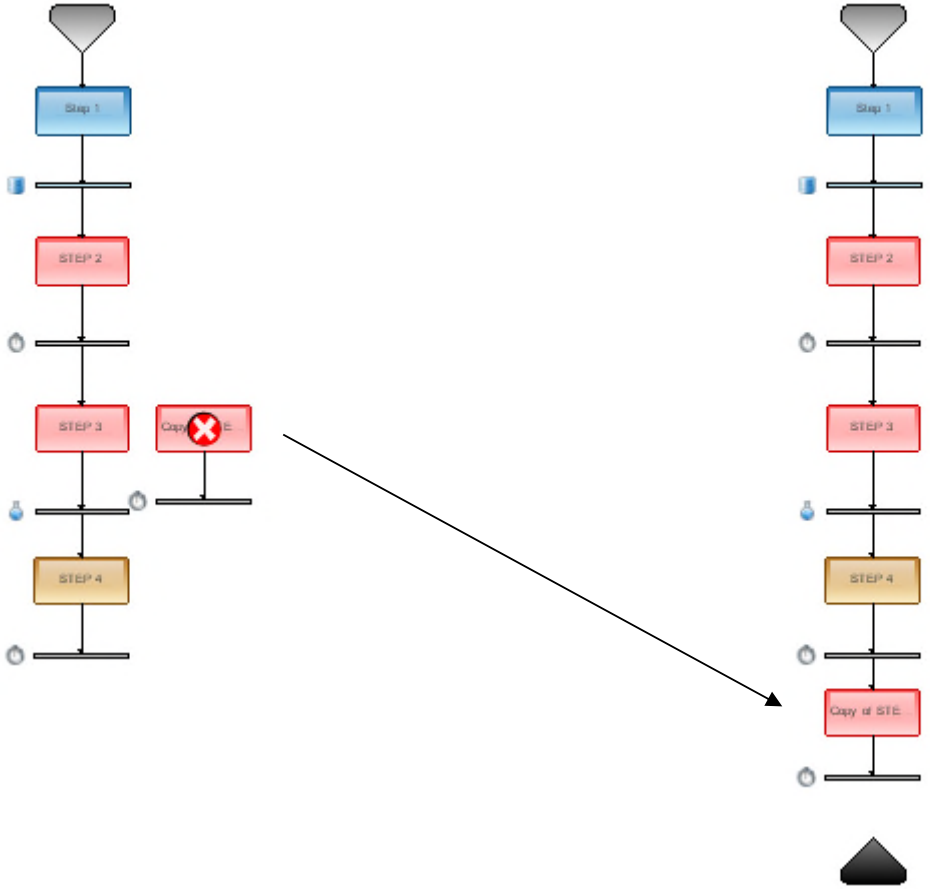
5-Describing the operating mode



Right click on the third step and select “Duplicate”.
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the fourth step

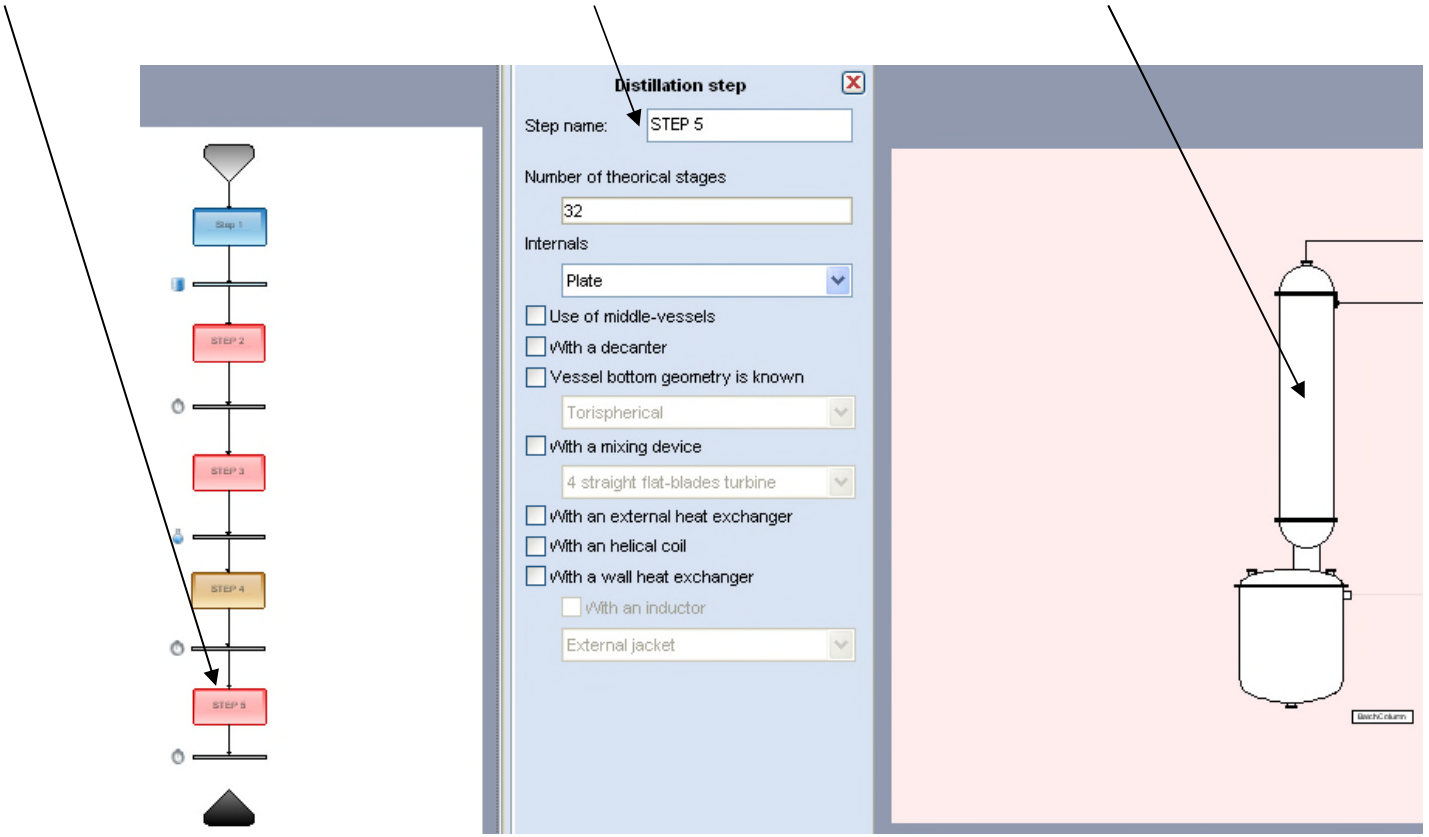


5-Describing the operating mode

1- Double click on the fifth step

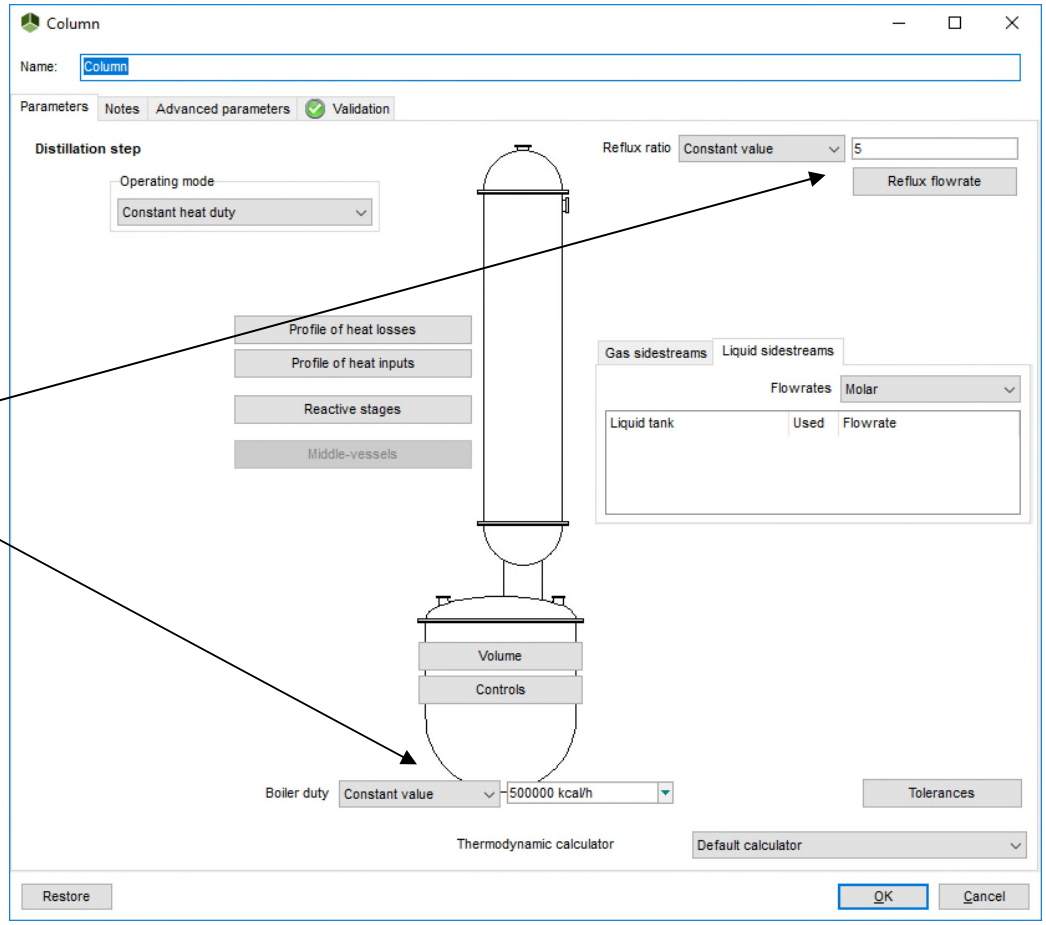
2- Enter the name: STEP 5

3- Double click on the column

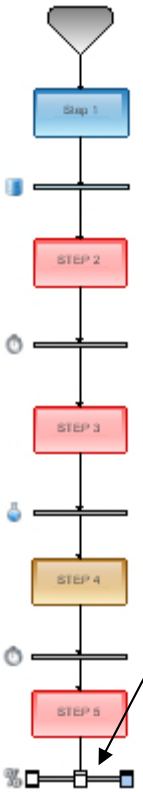


5-Describing the operating mode

4- Nothing to change in this window since this step has been duplicated from step 3, which is identical to step 5. The boiler duty is already defined as well as the reflux ratio.



5-Describing the operating mode



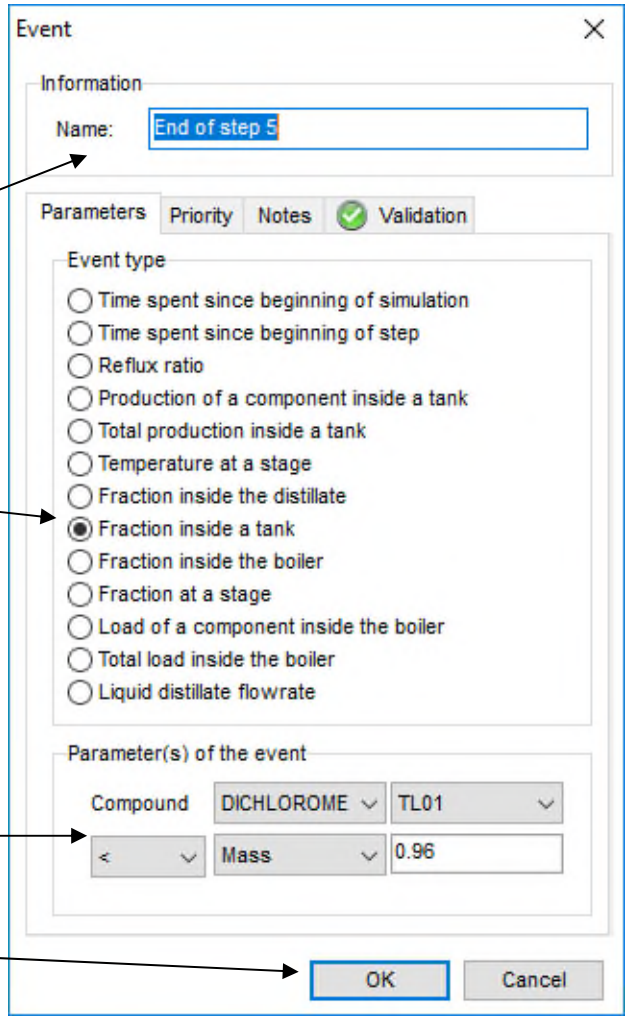
1- Double click on the event at the end of the fifth step

2- Enter a name for the event

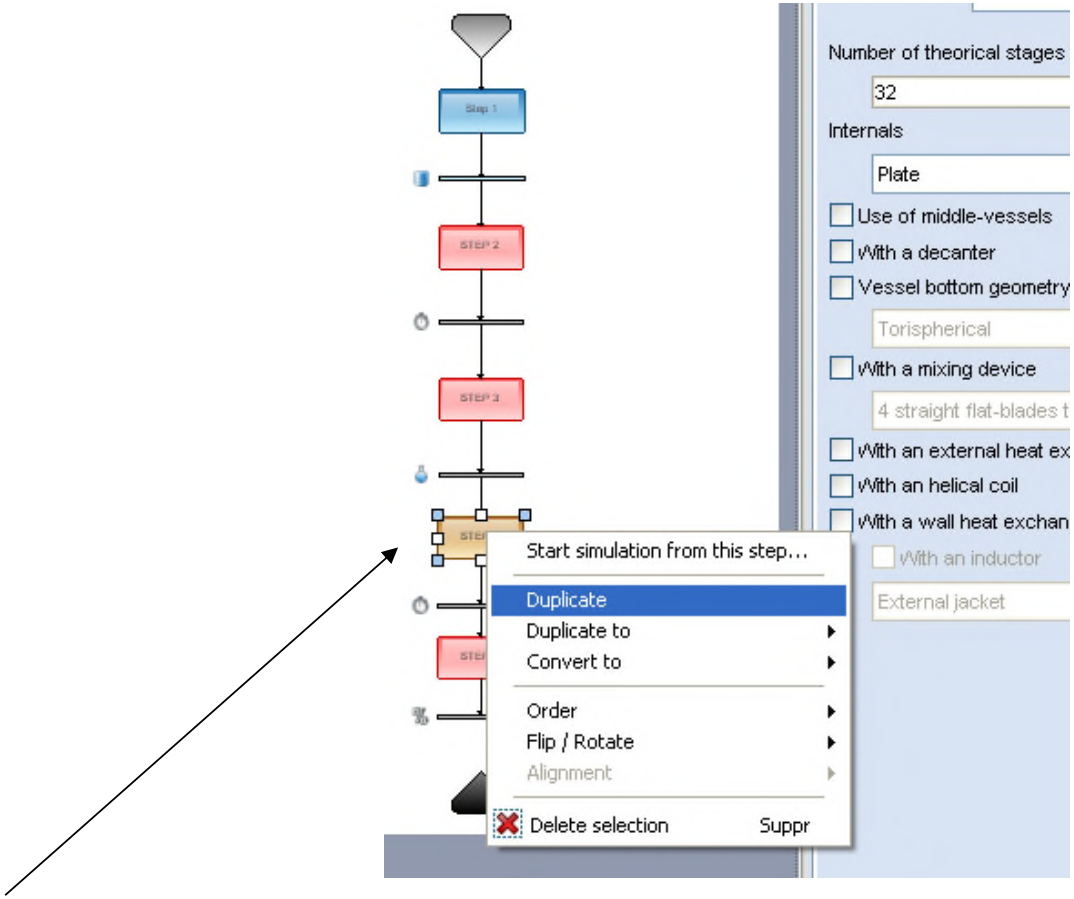
3- Select “fraction inside a tank”

4- Enter the desired mass fraction of dichloromethane.
Select “<” to indicate that the event should be reached by decreasing value.

5- Click on “OK”



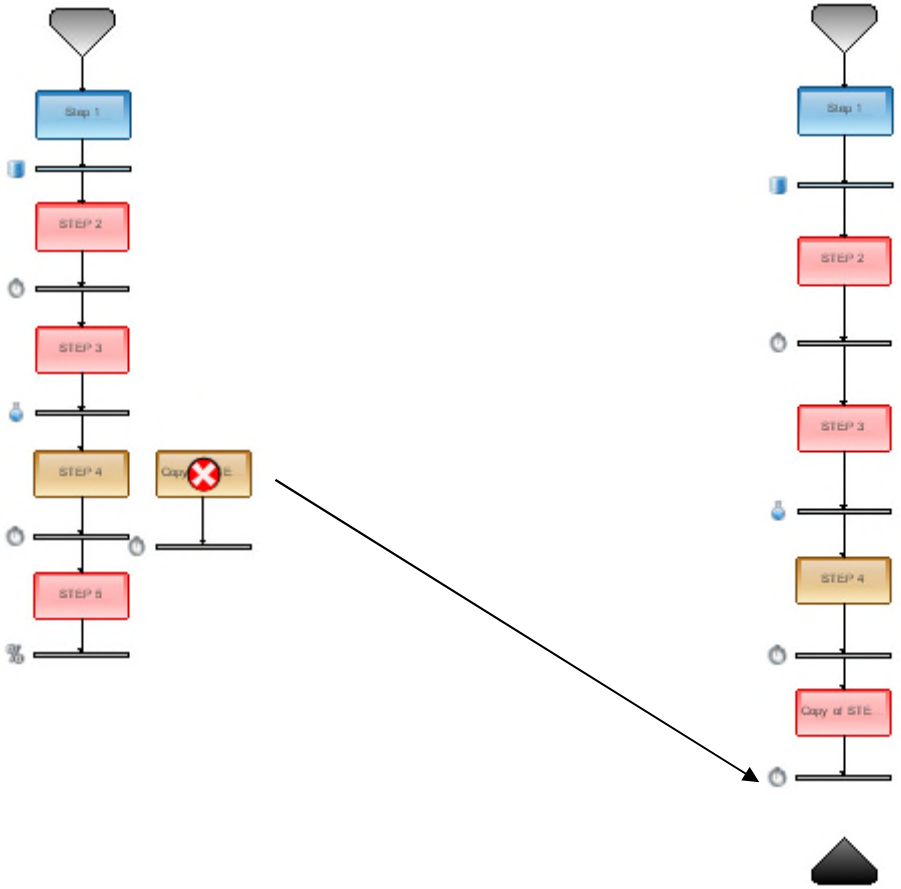
5-Describing the operating mode



Right click on the fourth step and select “Duplicate”.
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the fifth step

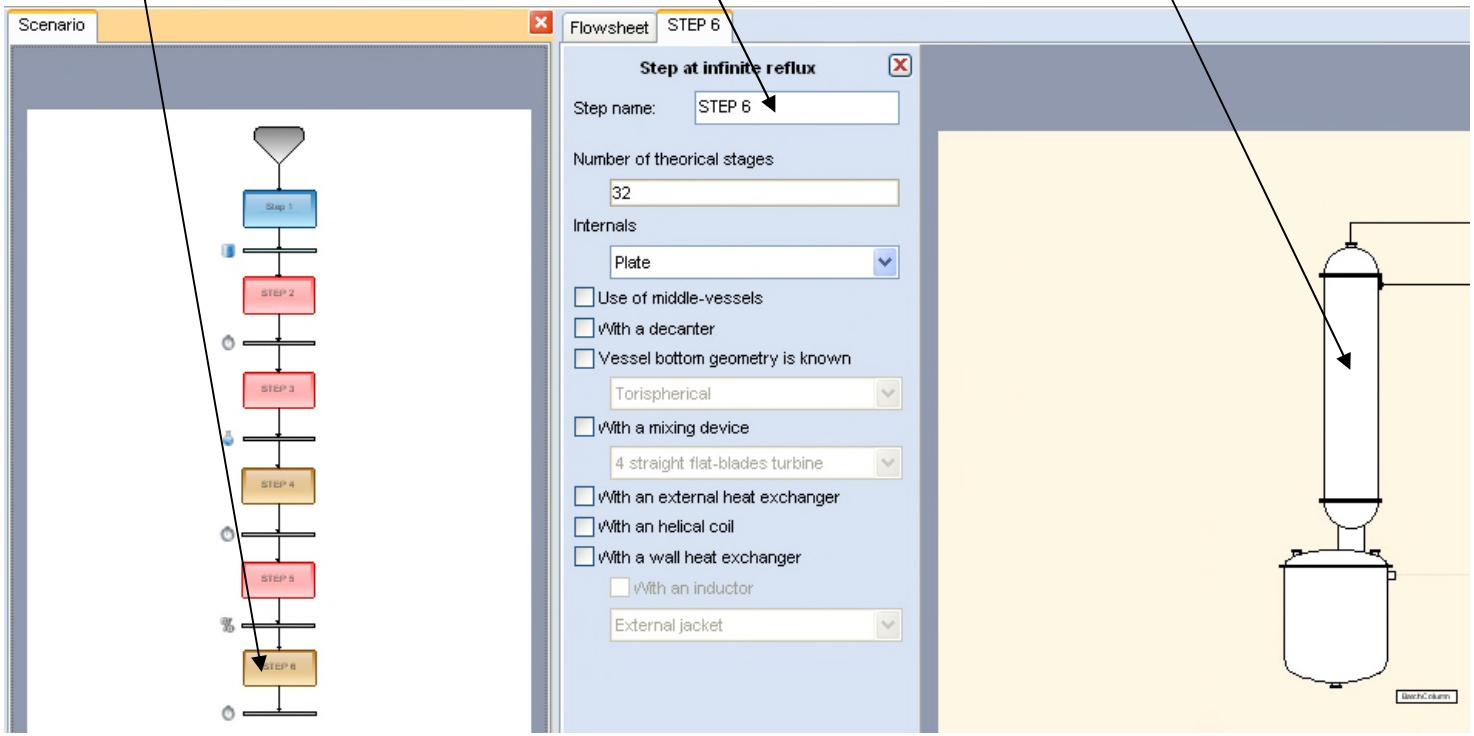


5-Describing the operating mode

1- Double click on the last step

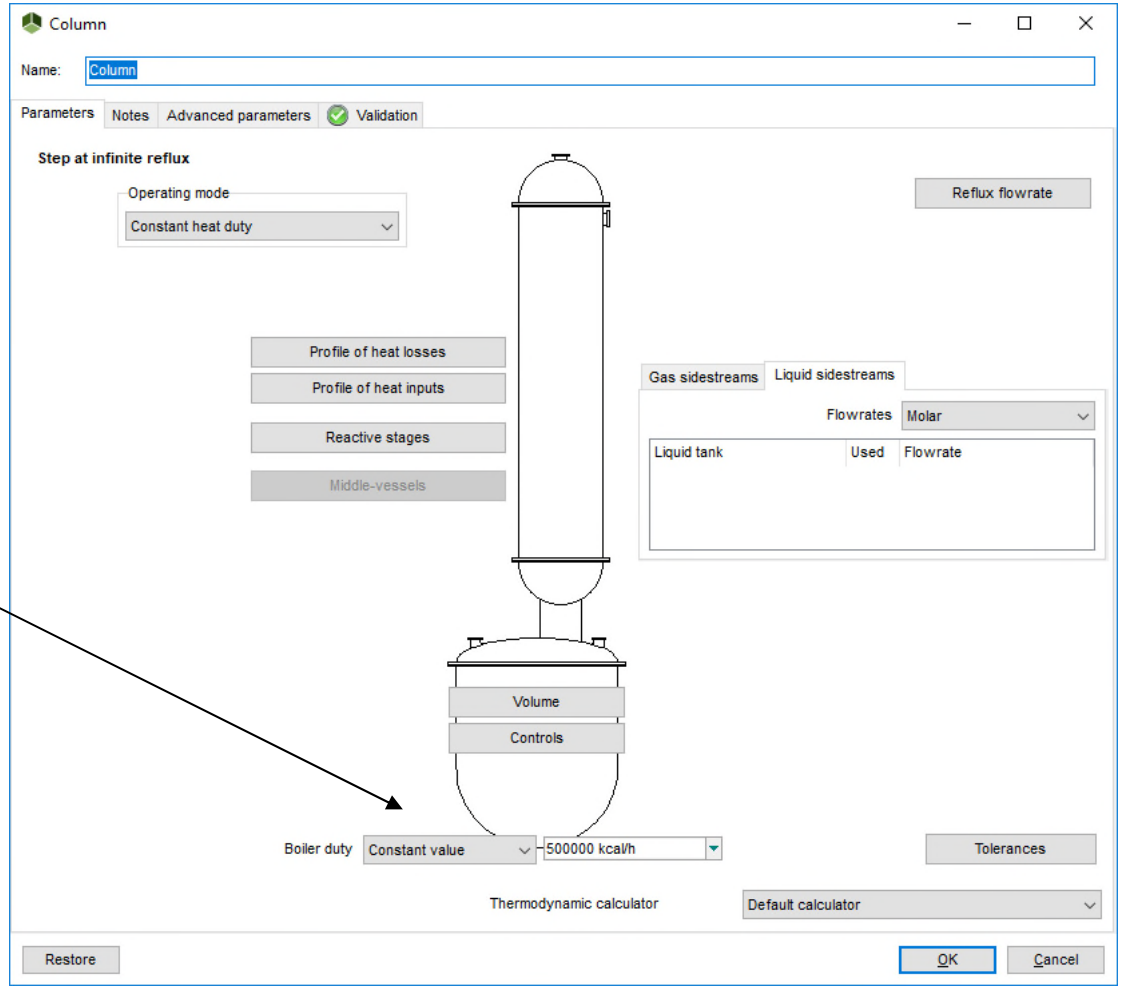
2- Enter the name: STEP 6

3- Double click on the column



5-Describing the operating mode

3- Nothing to change in this window since this step has been duplicated from step 4, which is identical to step 6. The boiler duty is already defined.



5-Describing the operating mode

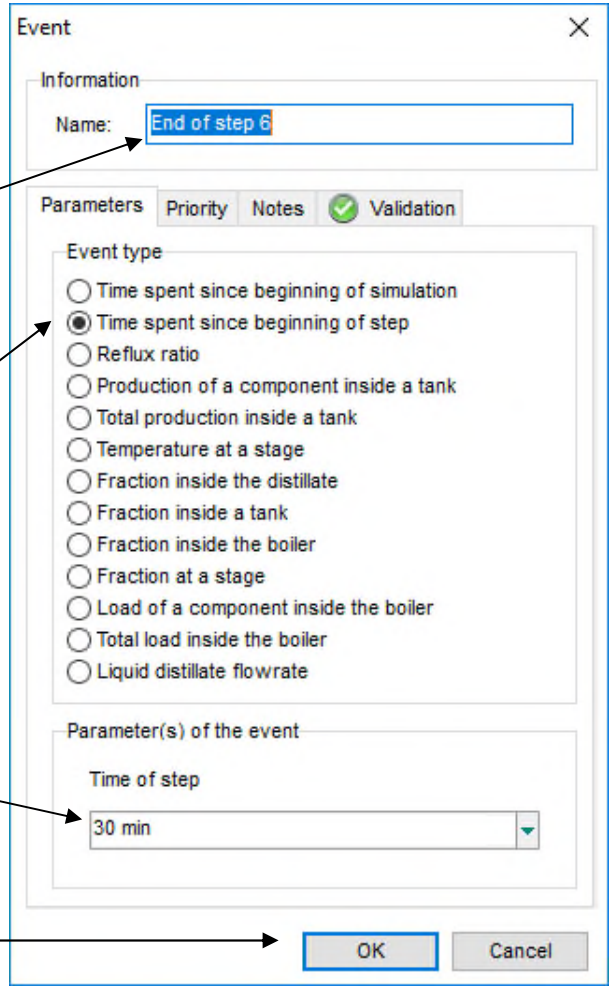
1- Double click on the event at the end of the sixth step

2- Enter a name for the event

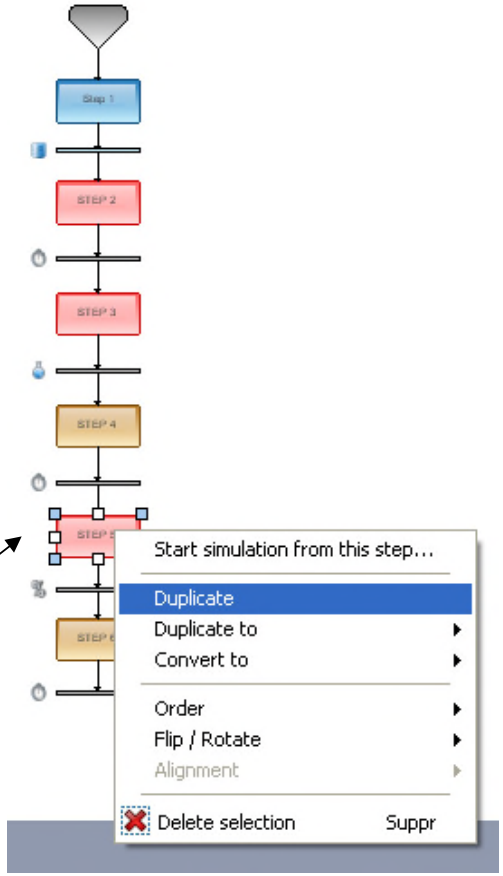
3- Select “time spent since beginning of step”

4- Enter the desired time of step

5- Click on “OK”



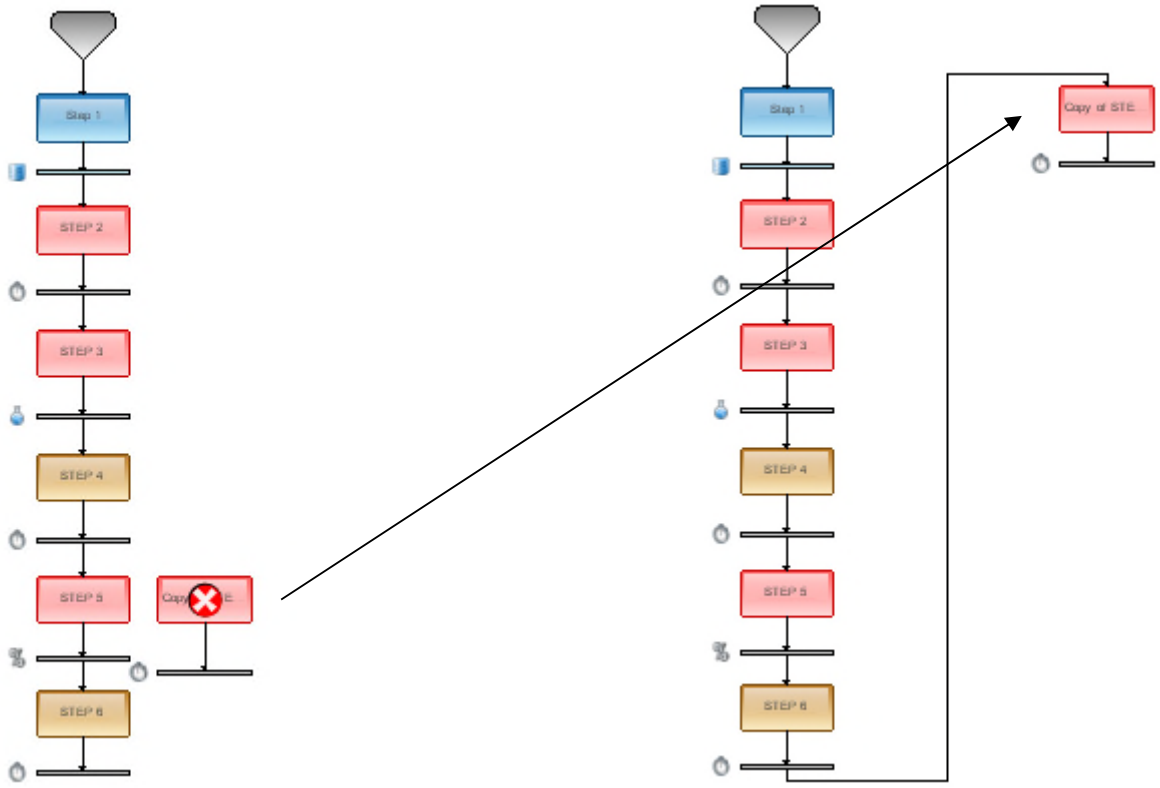
5-Describing the operating mode



Right click on the fifth step and select “Duplicate”.
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the sixth step



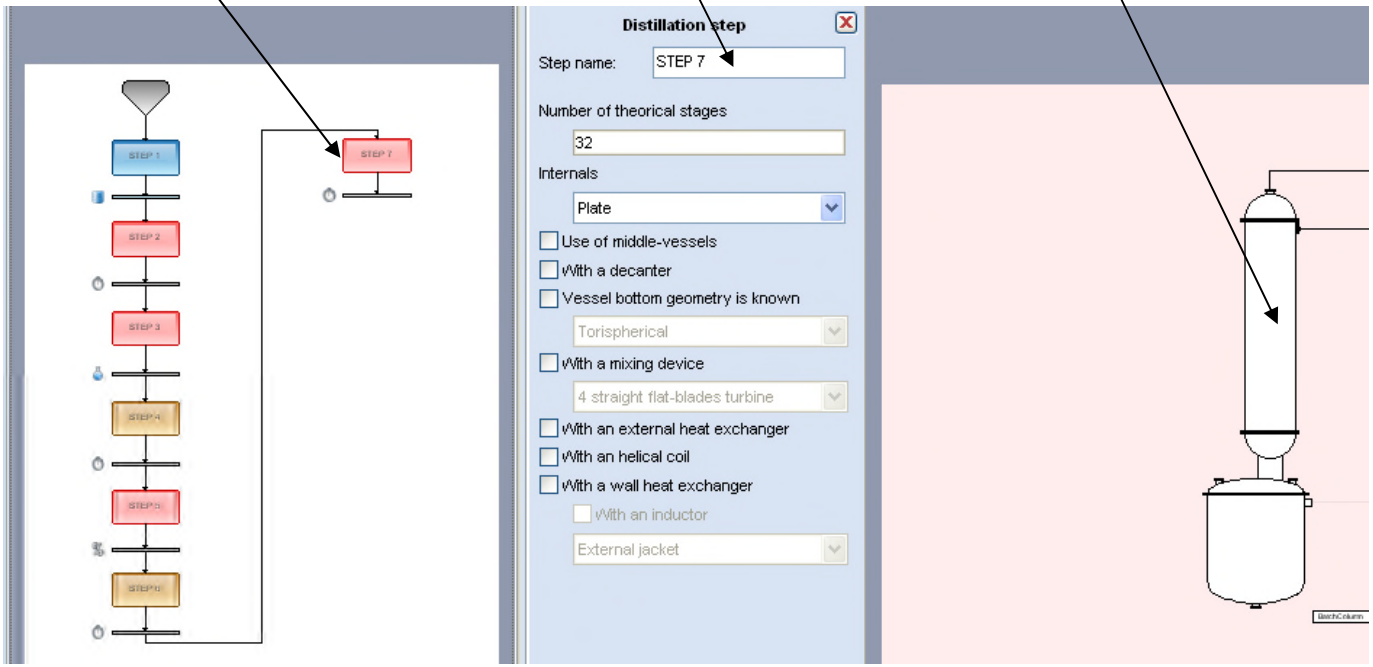
You may want to align the icons on the left side of the window in order to have the new step at the top right side.

5-Describing the operating mode

1- Double click on the last step

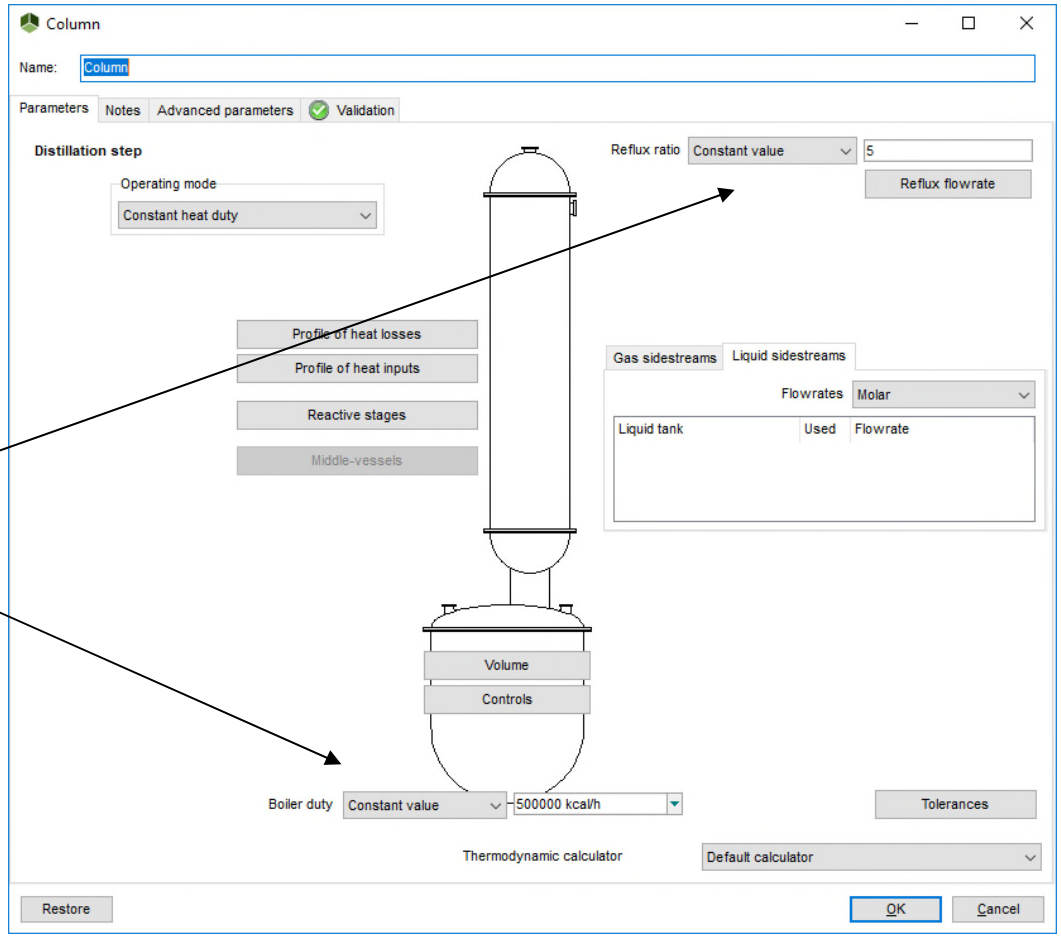
2- Enter the name: STEP 7

3- Double click on the column

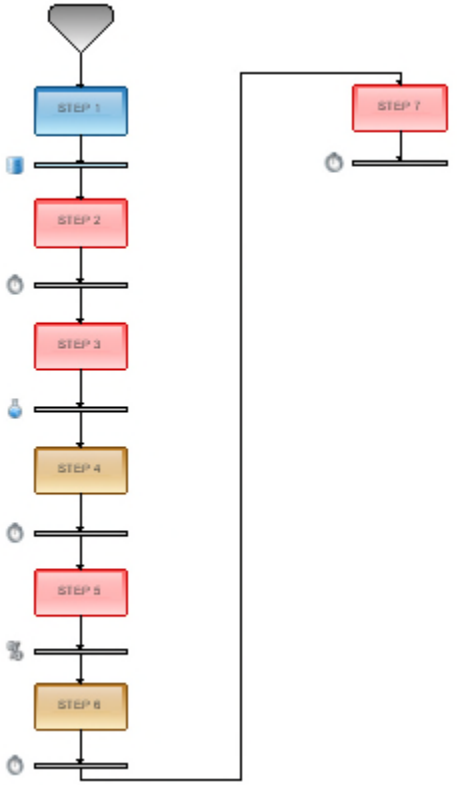


5-Describing the operating mode

4- Nothing to change in this window since the step has been duplicated from step 5, which is identical to step 7. The boiler duty and the reflux ratio are already defined.



5-Describing the operating mode



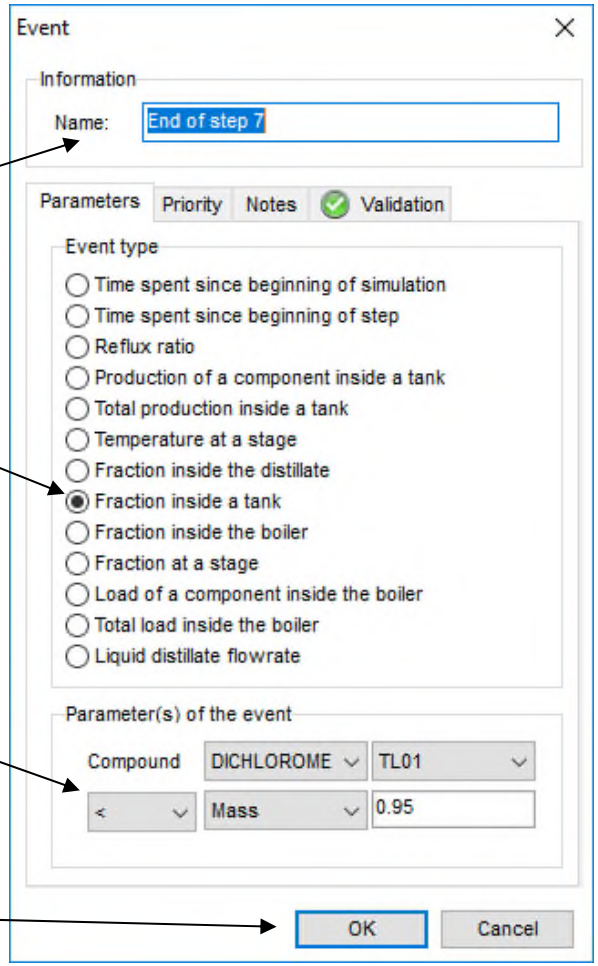
1- Double click on the event at the end of the step 7

2- Enter a name for the event

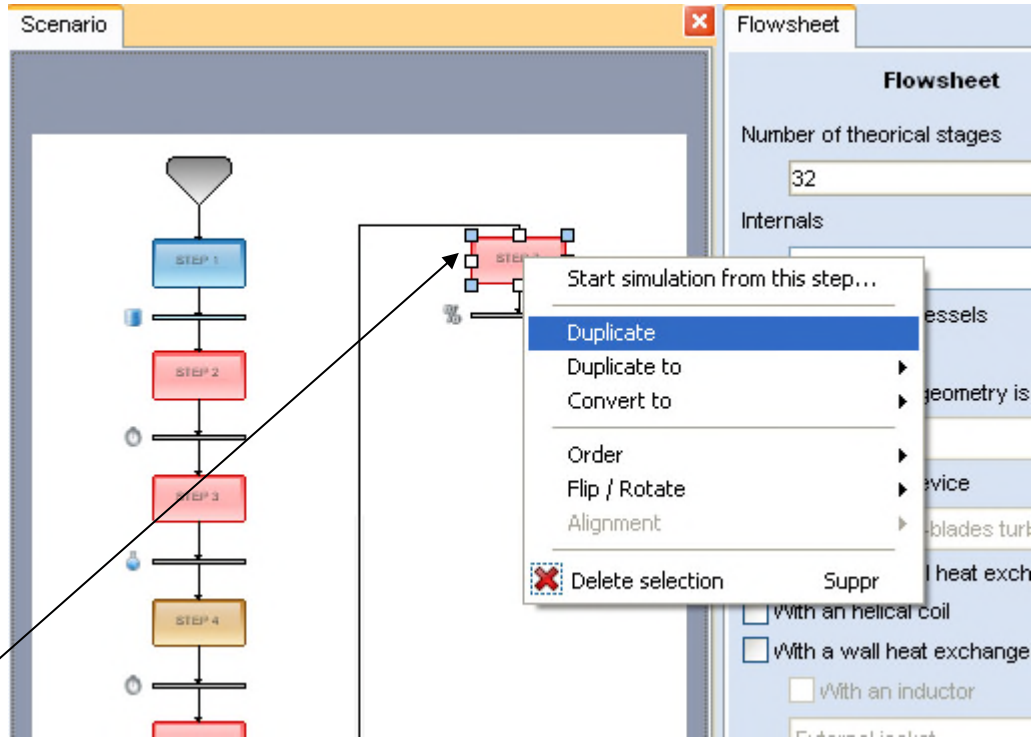
3- Select “fraction inside a tank”

4- Enter the desired mass fraction of dichloromethane. Select “<” to indicate that the event should be reached by decreasing value.

5- Click on “OK”



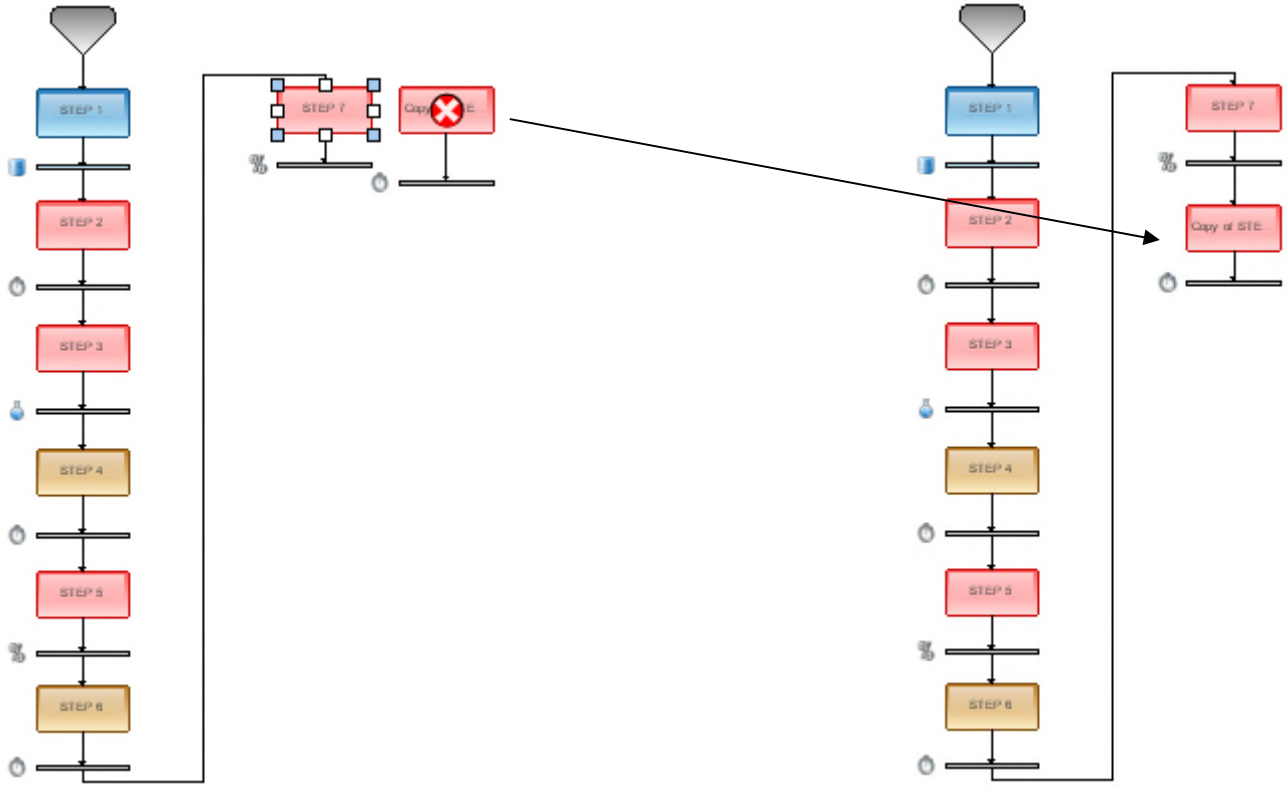
5-Describing the operating mode



Right click on the step 7 and select “Duplicate ”.
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the step 7

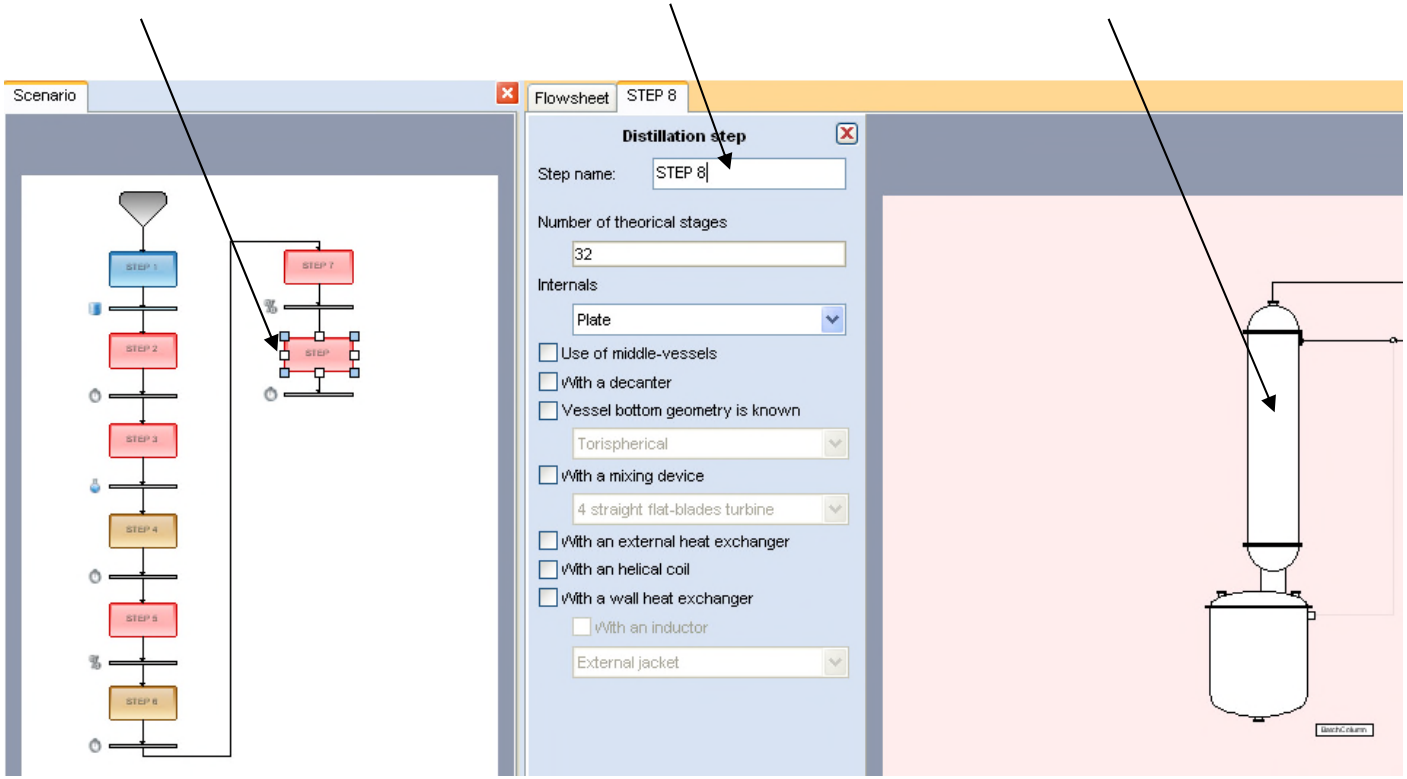


5-Describing the operating mode

1- Double click on the last step

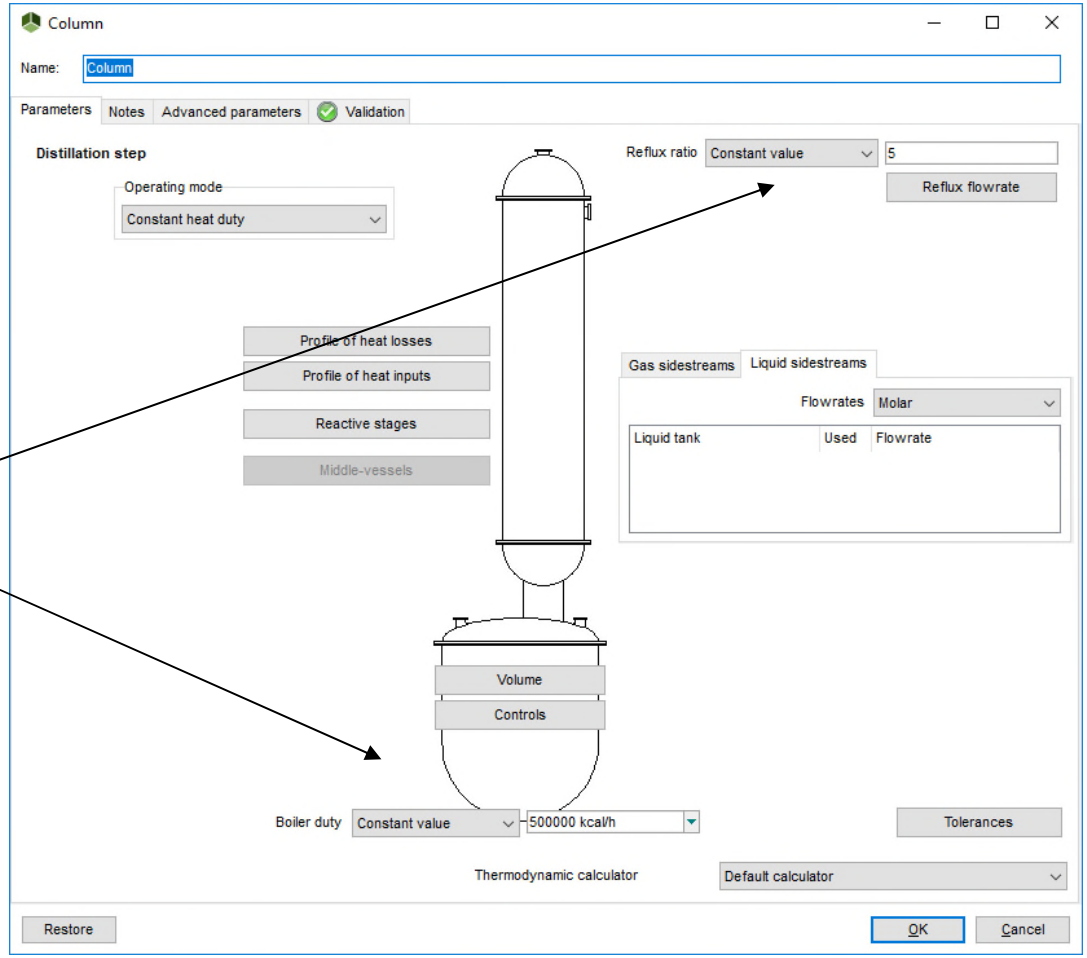
2- Enter the name: STEP 8

3- Double click on the column



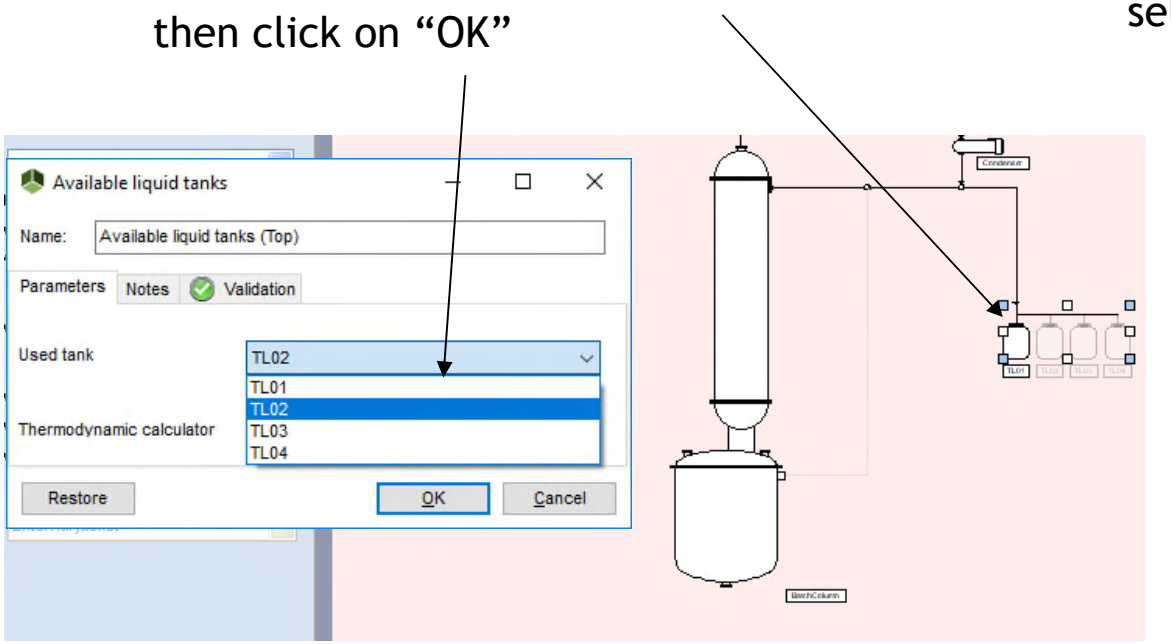
5-Describing the operating mode

4- Nothing to change in this window since this step has been duplicated from step 7, which is identical to step 8. The boiler duty and the reflux ratio are already defined.

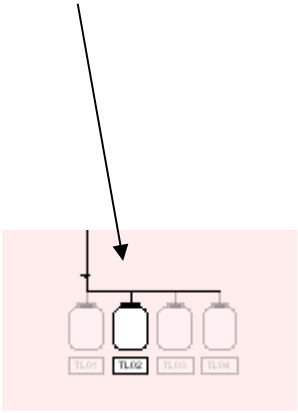


5-Describing the operating mode

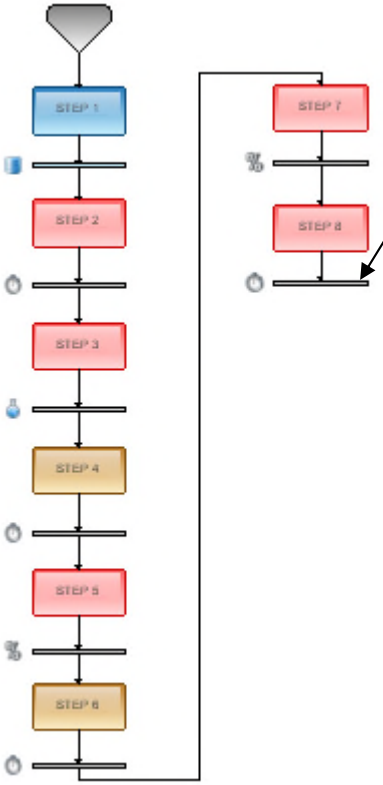
5- Double click on the liquid tanks and select the tank 2 then click on “OK”



6- The tank 2 has been selected



5-Describing the operating mode



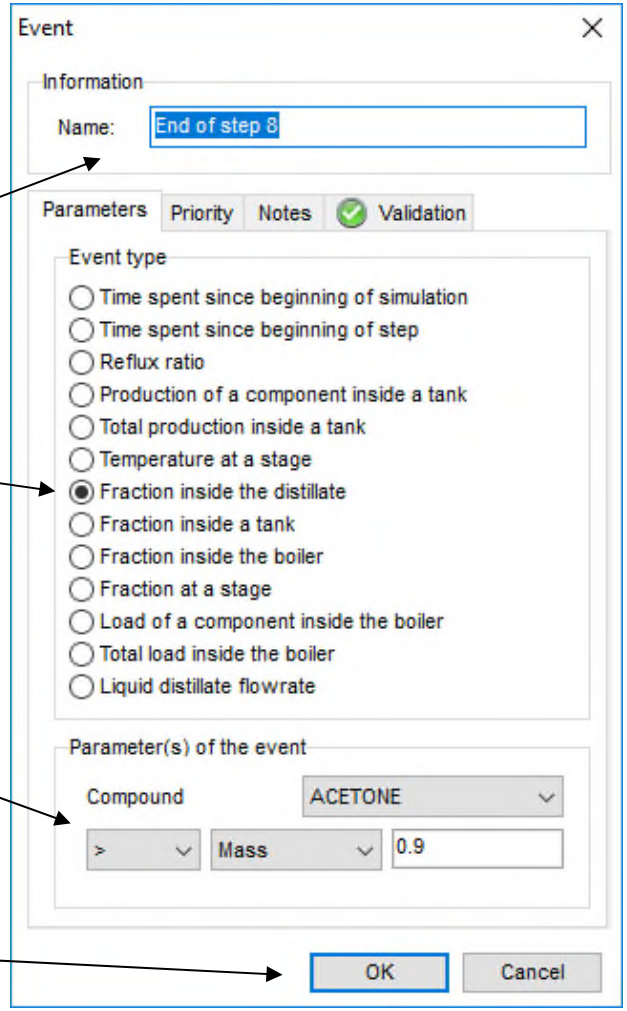
1- Double click on the event at the end of the step 8

2- Enter a name for the event

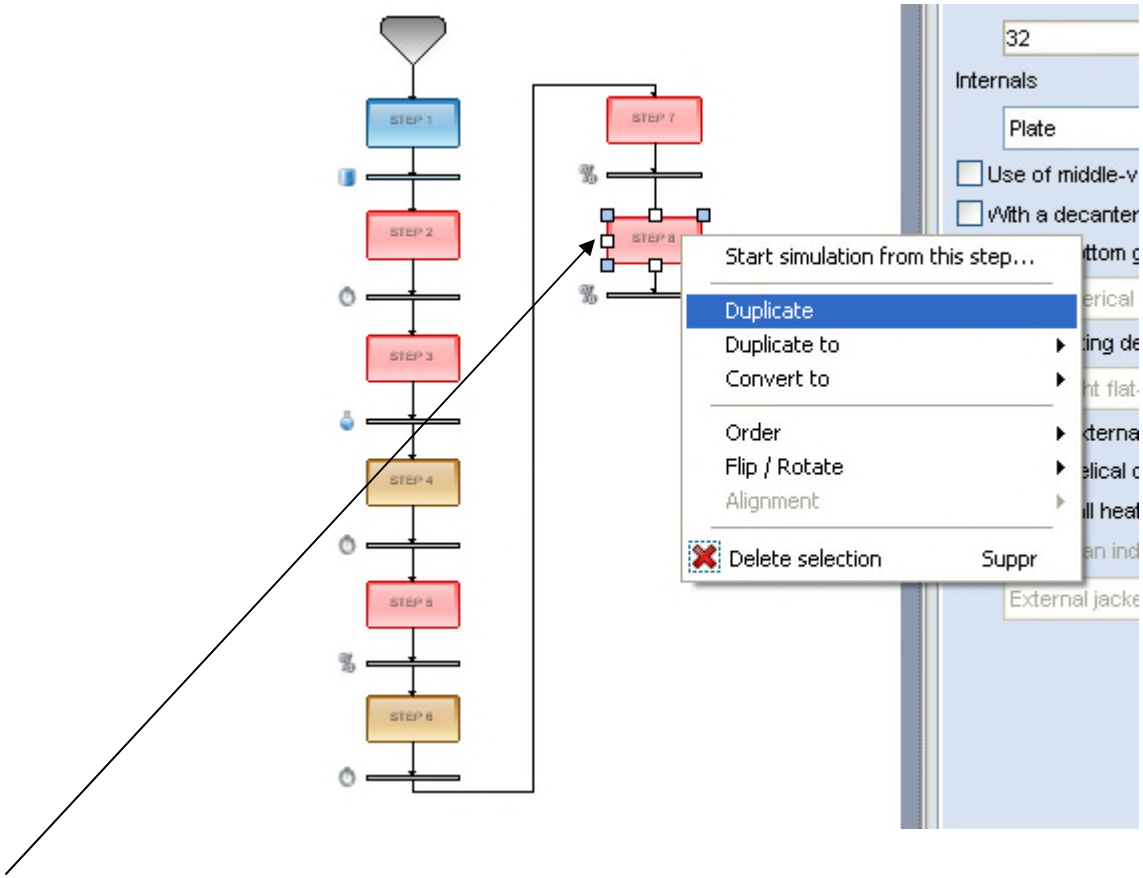
3- Select “fraction inside the distillate”

4- Enter the desired mass fraction of acetone.
Select “>” to indicate that the event should be reached by ascending value.

5- Click on “OK”



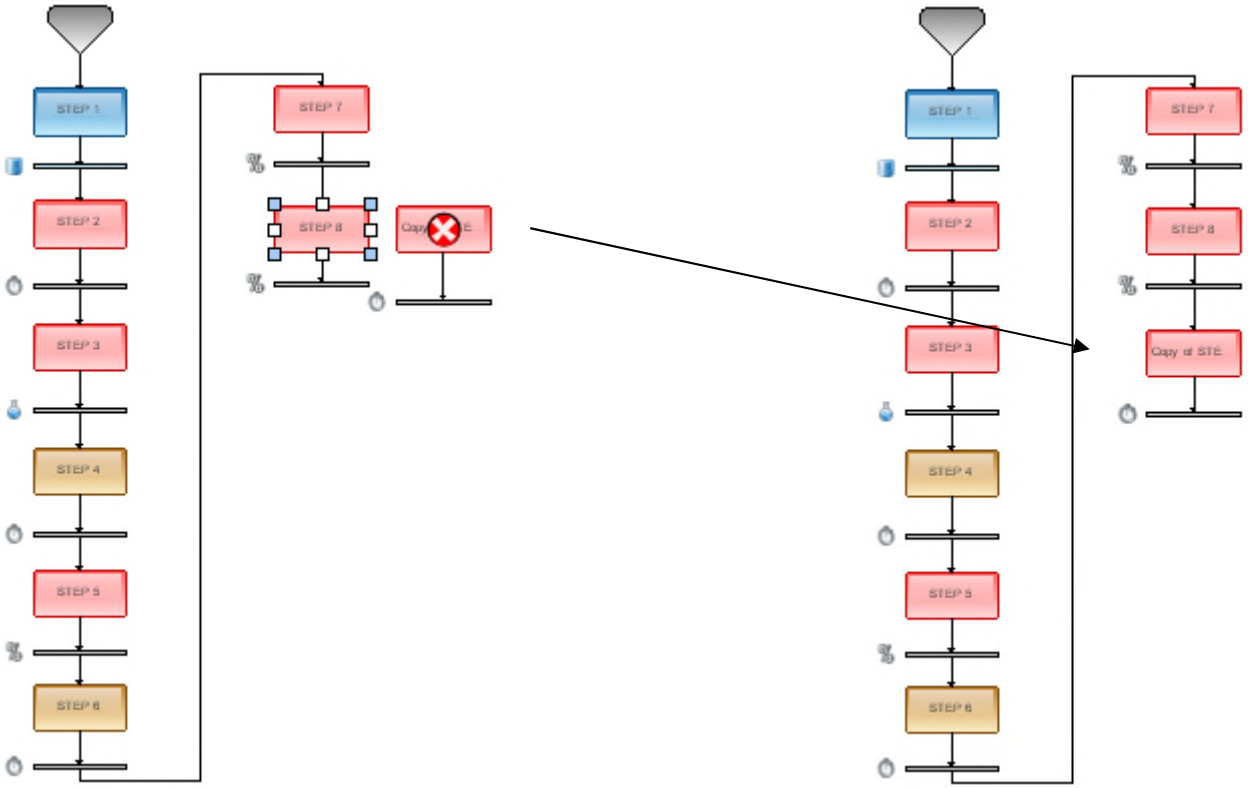
5-Describing the operating mode



Right click on the step 8 and select “Duplicate ”.
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the step 8

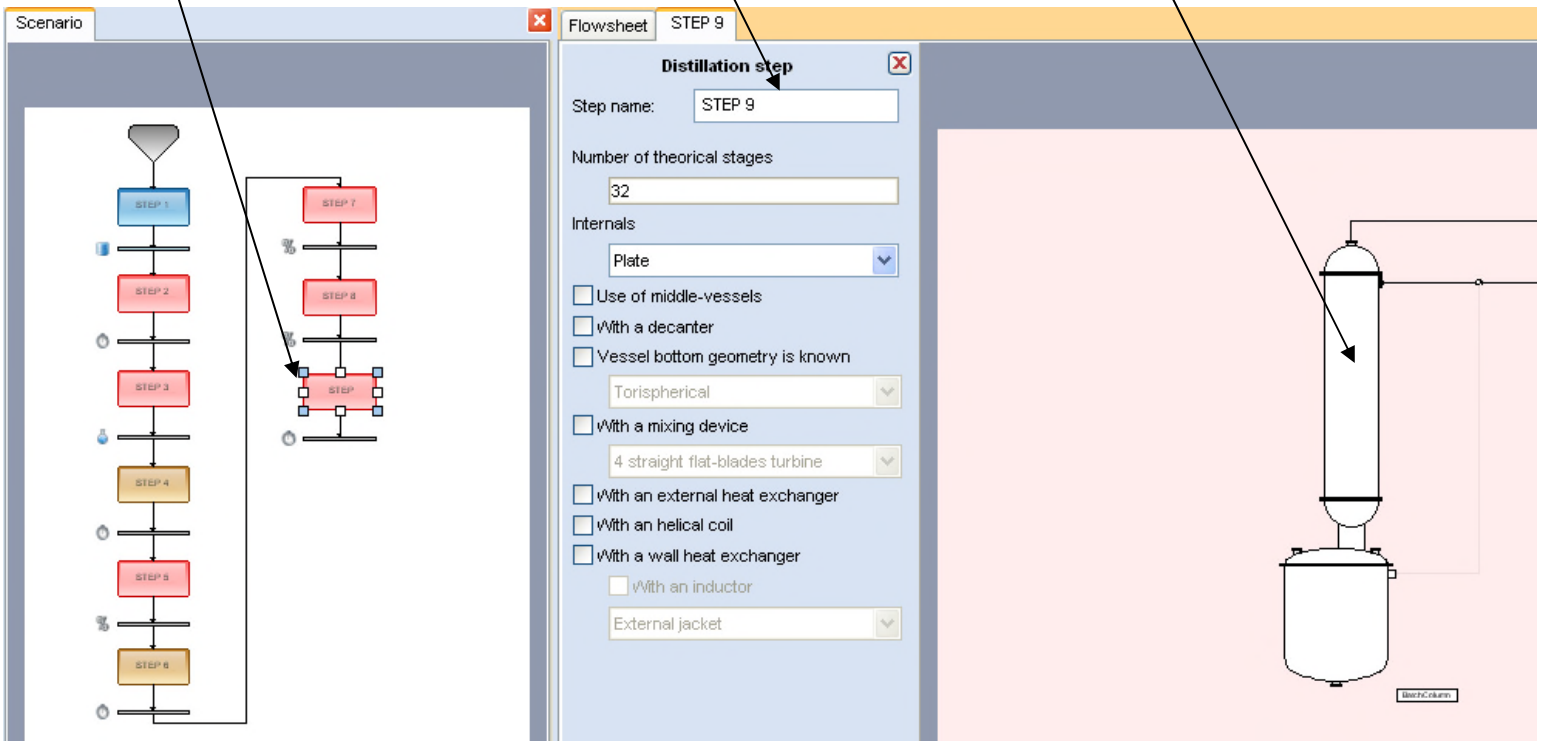


5-Describing the operating mode

1- Double click on the last step

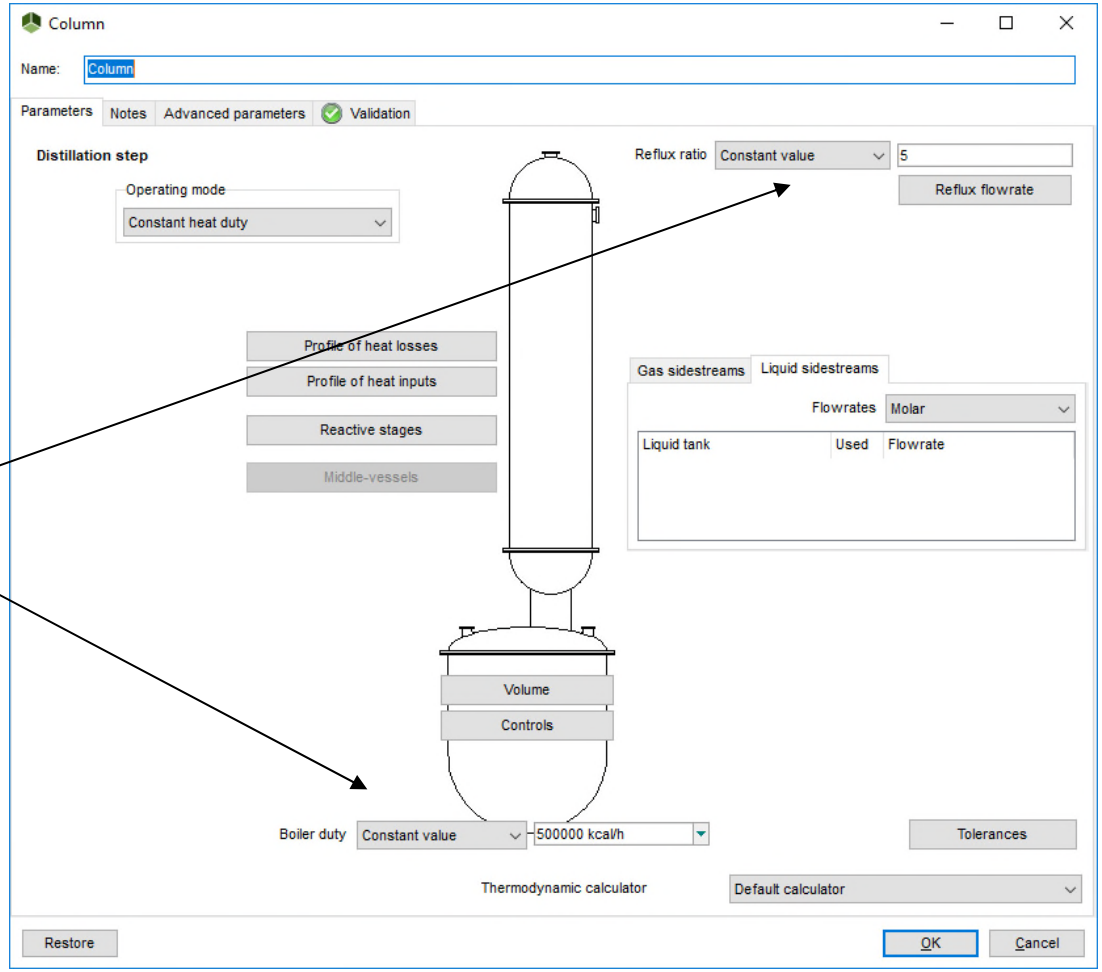
2- Enter the name: STEP 9

3- Double click on the column



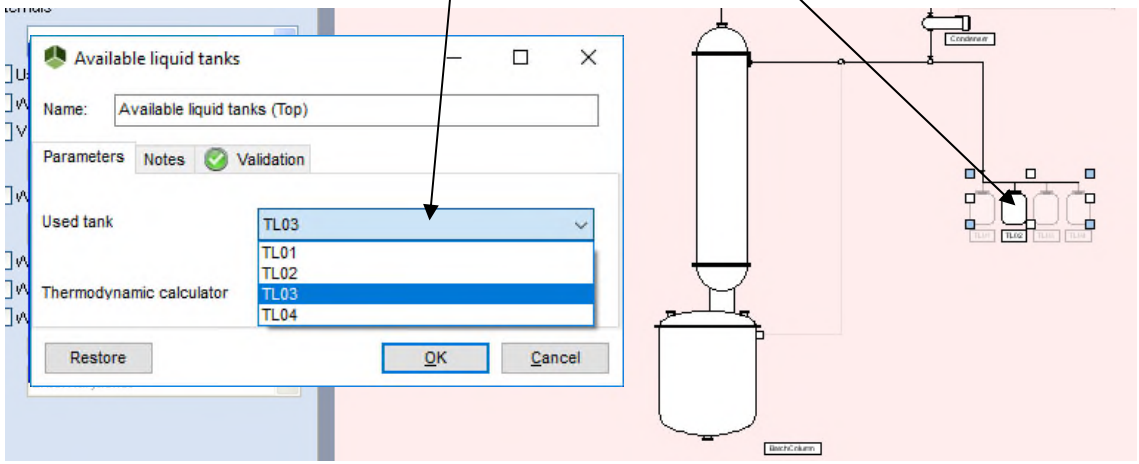
5-Describing the operating mode

4- Nothing to change in this window since this step has been duplicated from step 8, which is identical to step 9. The boiler duty and the reflux ratio are already defined.

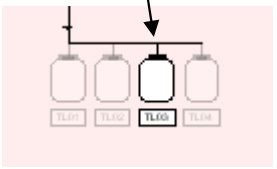


5-Describing the operating mode

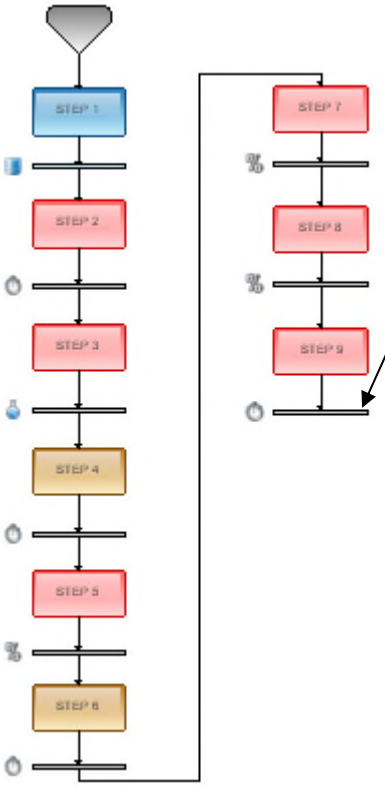
5- Double click on the liquid tanks, select the tank 3 then click on “OK”



6- The tank 3 has been selected



5-Describing the operating mode



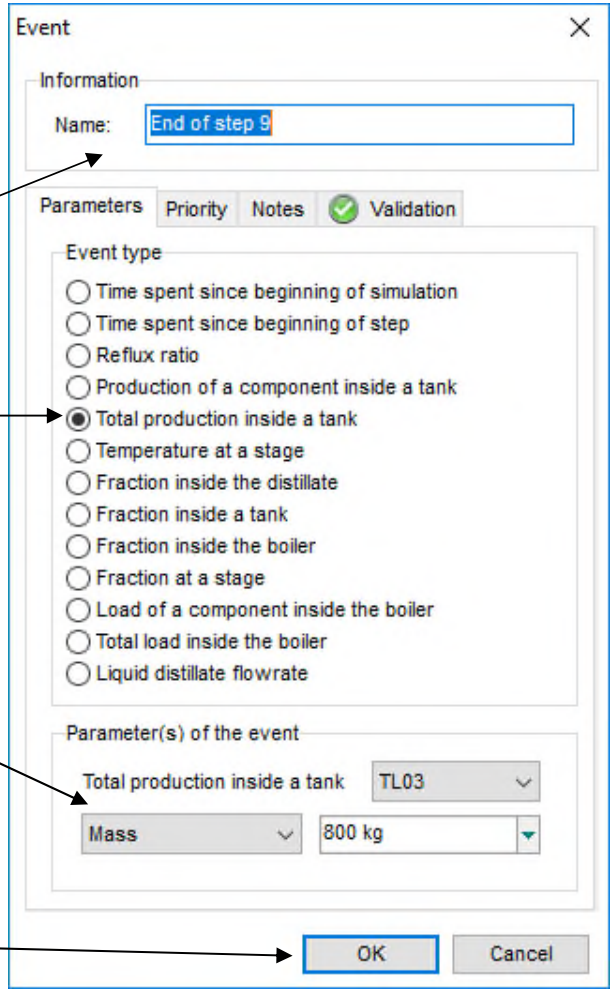
1- Double click on the event at the end of the step 9

2- Enter a name for the event

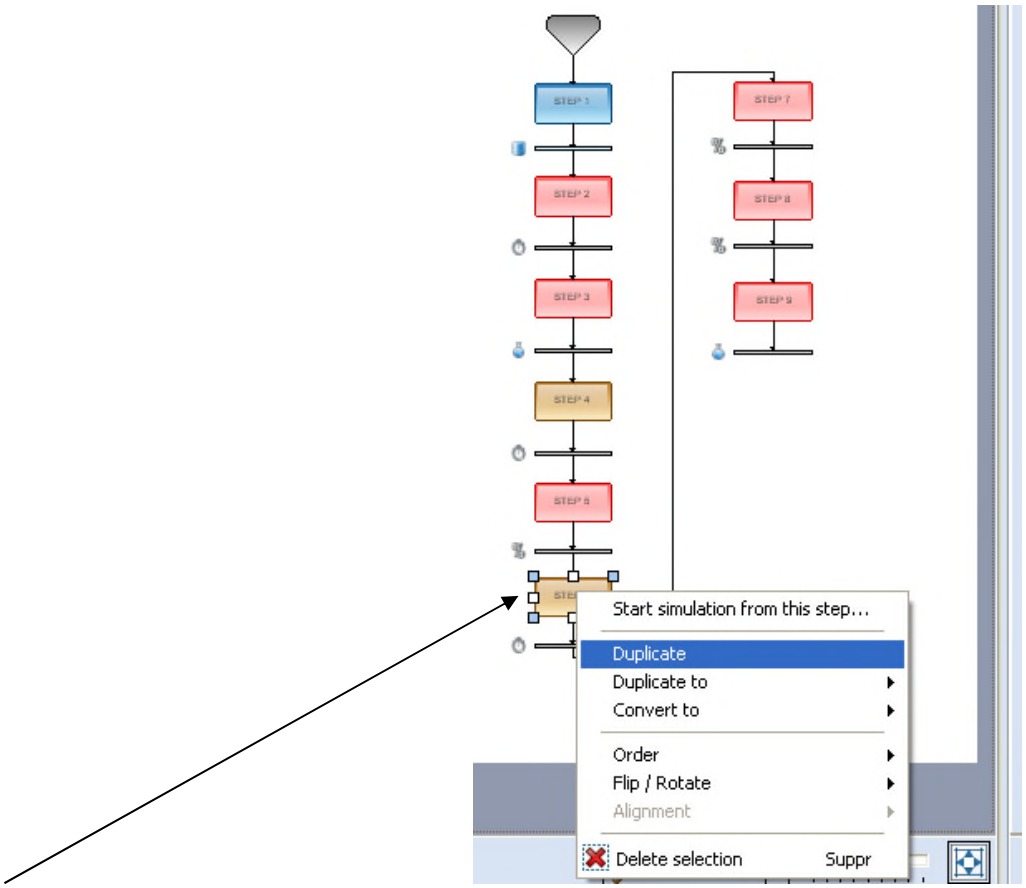
3- Select “total production inside a tank”

4- Enter the desired total production inside tank 3

5- Click on “OK”



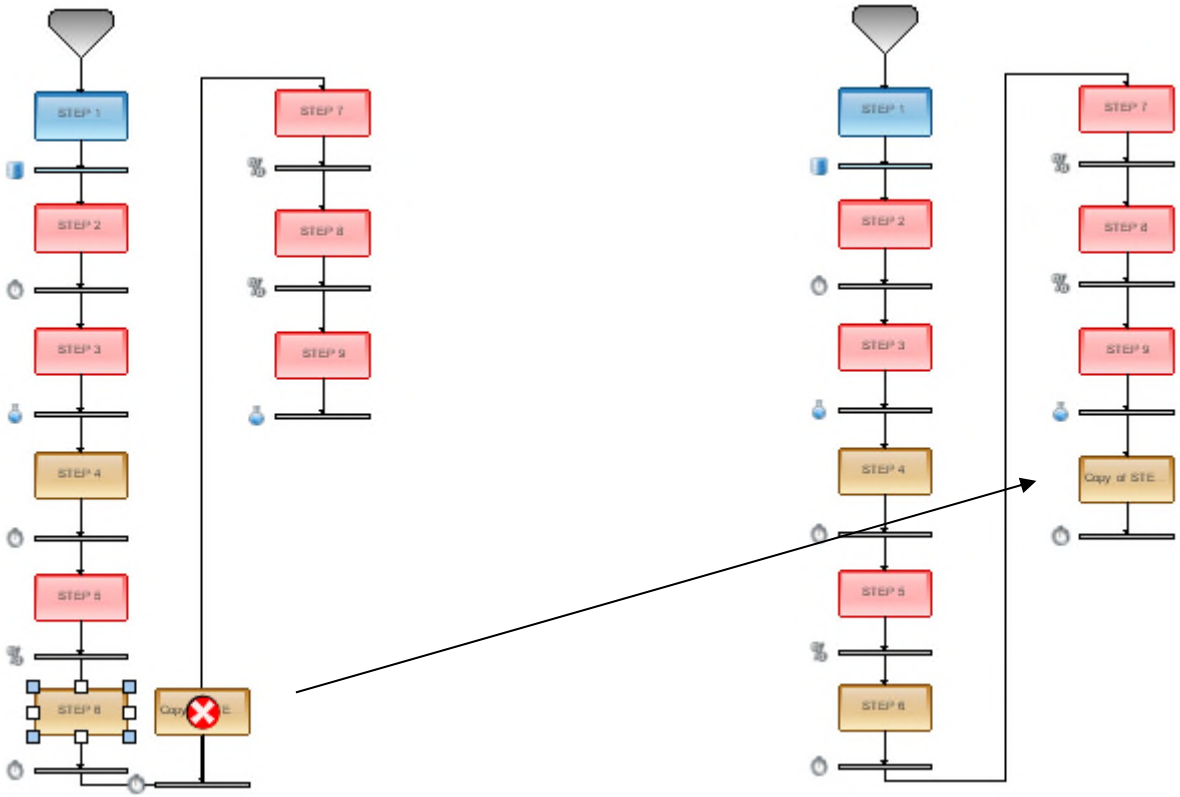
5-Describing the operating mode



Right click on the step 6 and select “Duplicate”.
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the step 9.

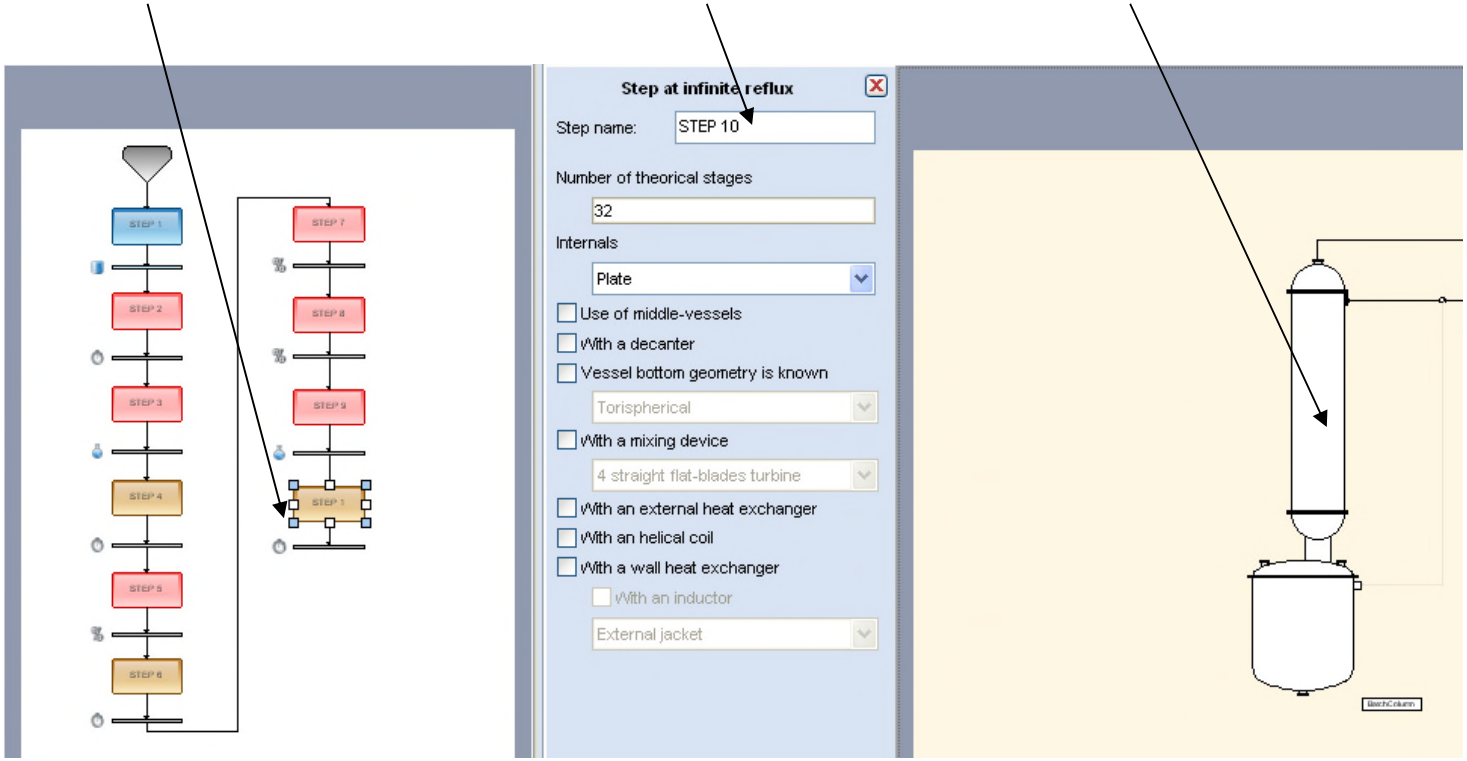


5-Describing the operating mode

1- Double click on the last step

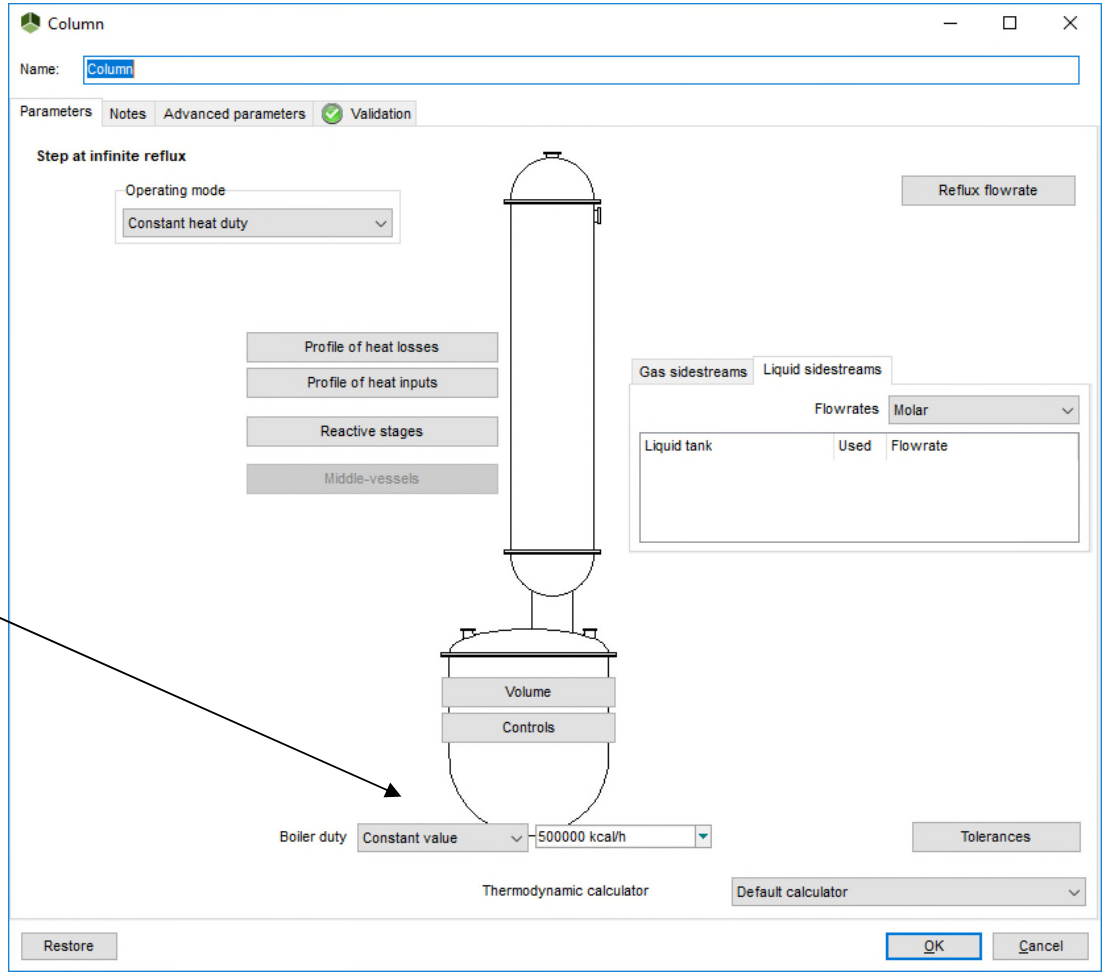
2- Enter the name: STEP 10

3- Double click on the column

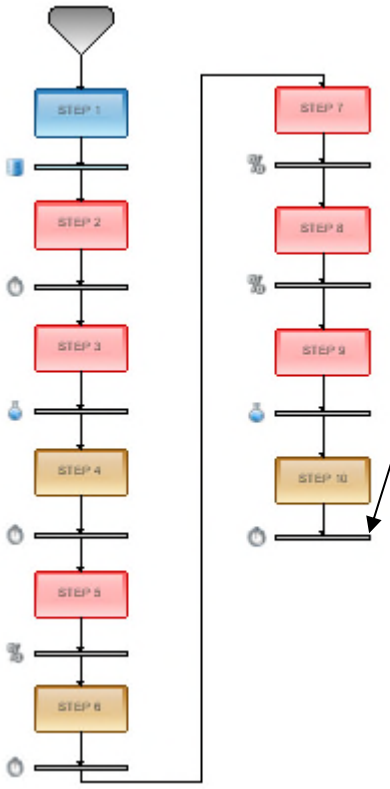


5-Describing the operating mode

4- Nothing to change in this window since this step has been duplicated from step 6, which is identical to step 10. The boiler duty is already defined.



5-Describing the operating mode



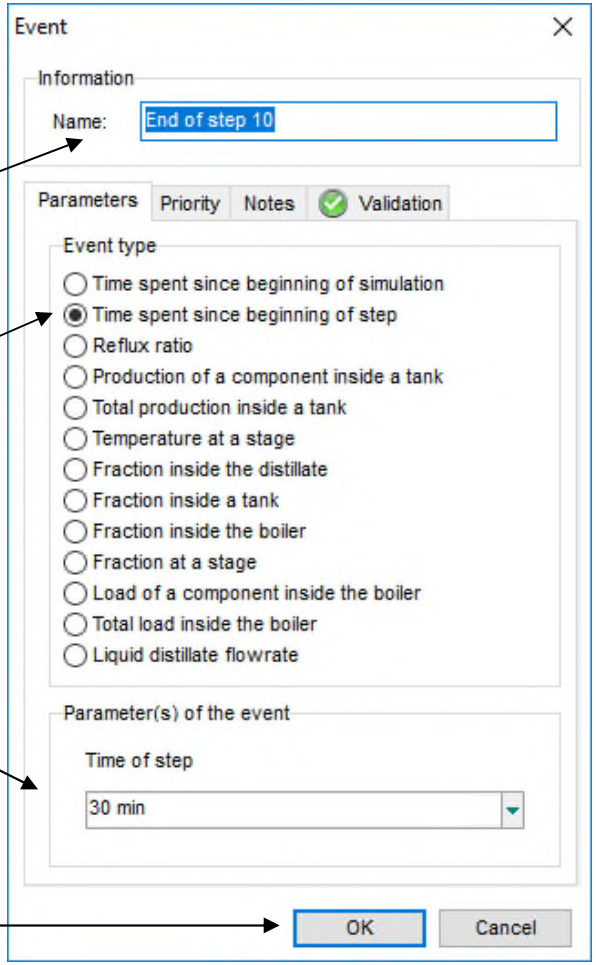
1- Double click on the event at the end of the step 10

2- Enter a name for the event

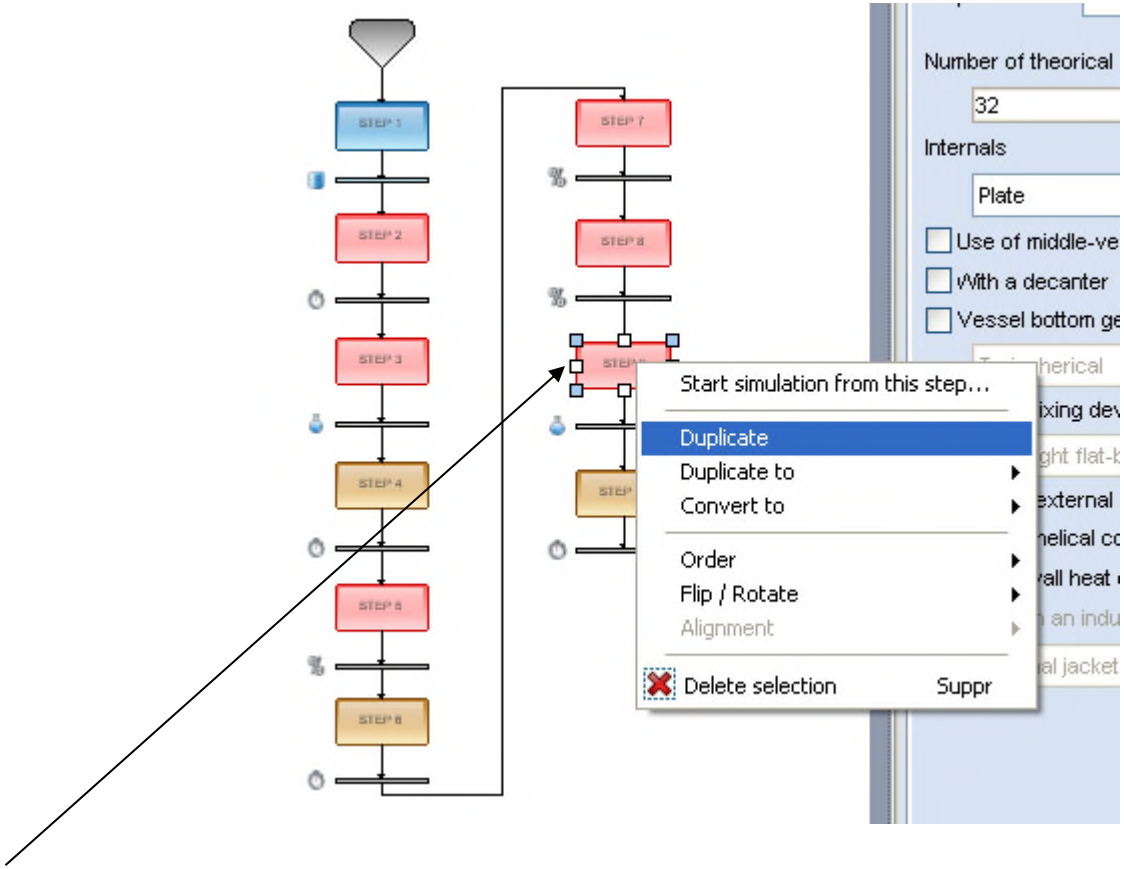
3- Select “time spent since beginning of step”

4- Enter the desired time of step

5- Click on “OK”



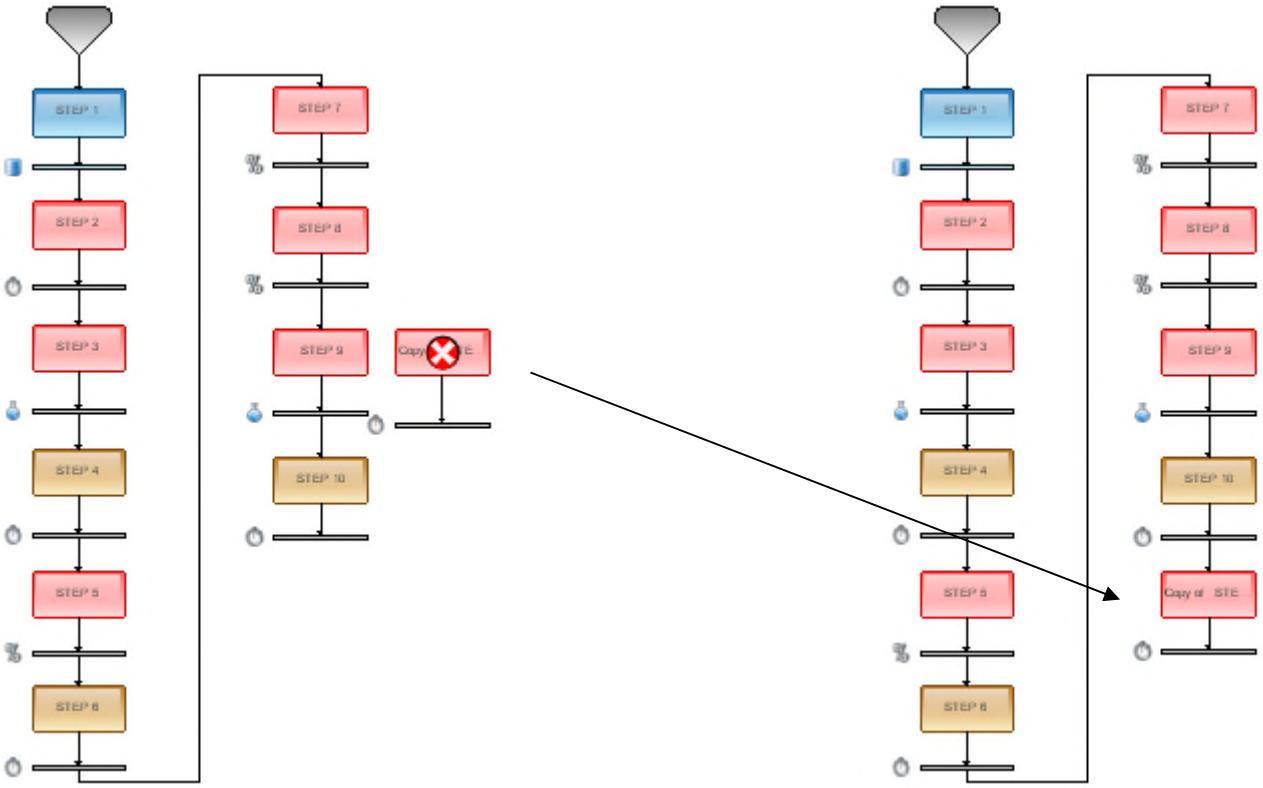
5-Describing the operating mode



Right click on the step 9 and select “Duplicate”.
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the step 10

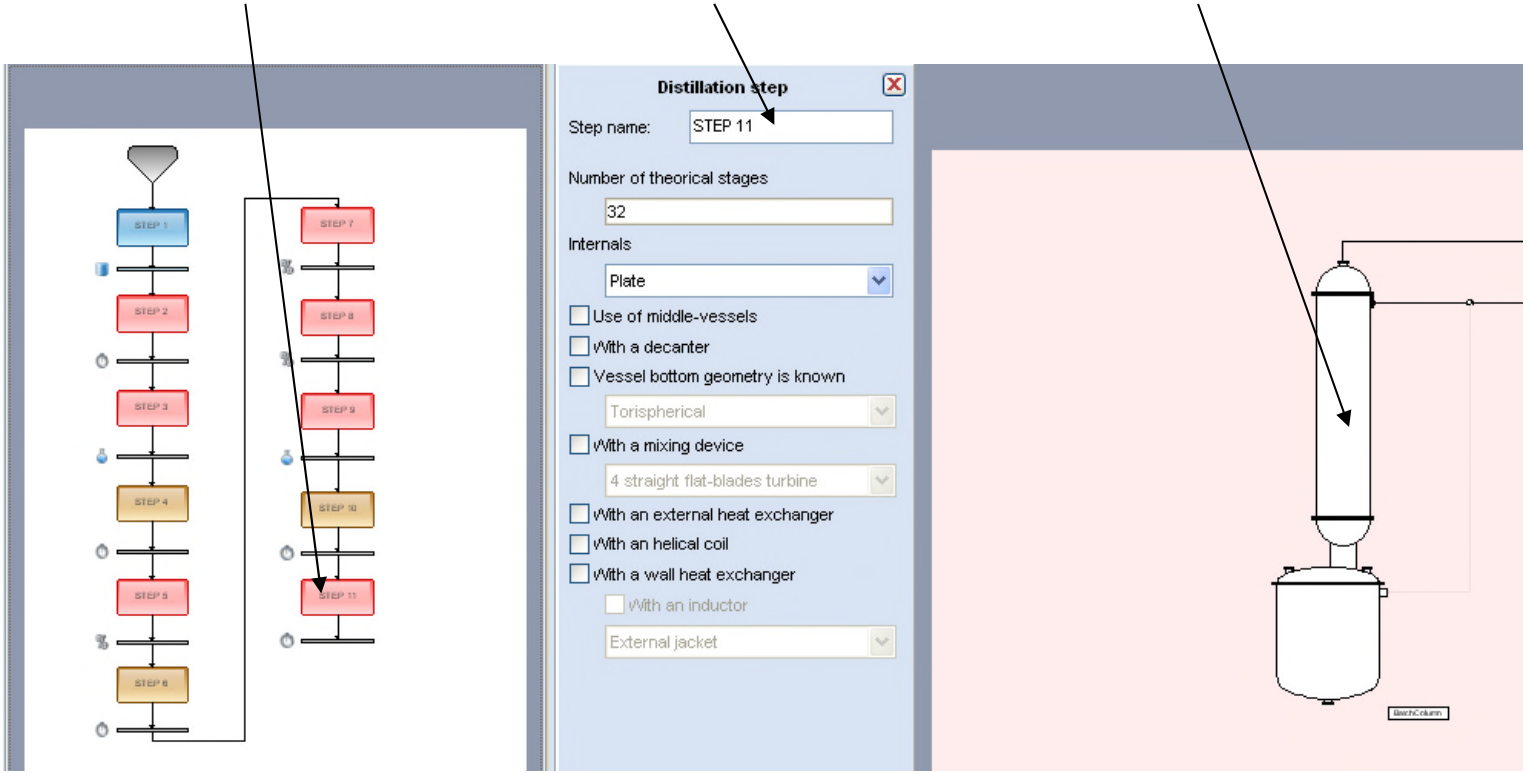


5-Describing the operating mode

1- Double click on the last step

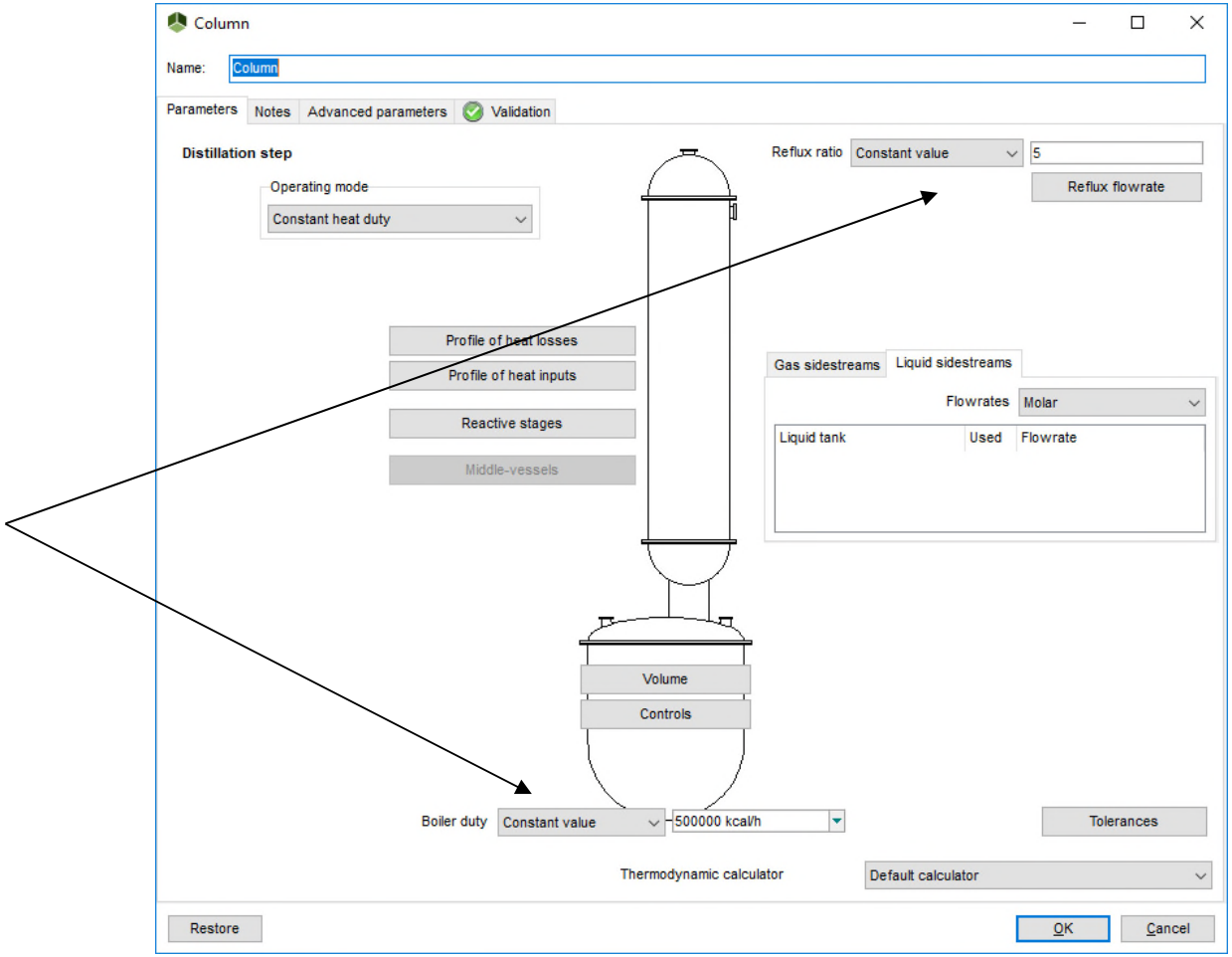
2- Enter the name: STEP 11

3- Double click on the column

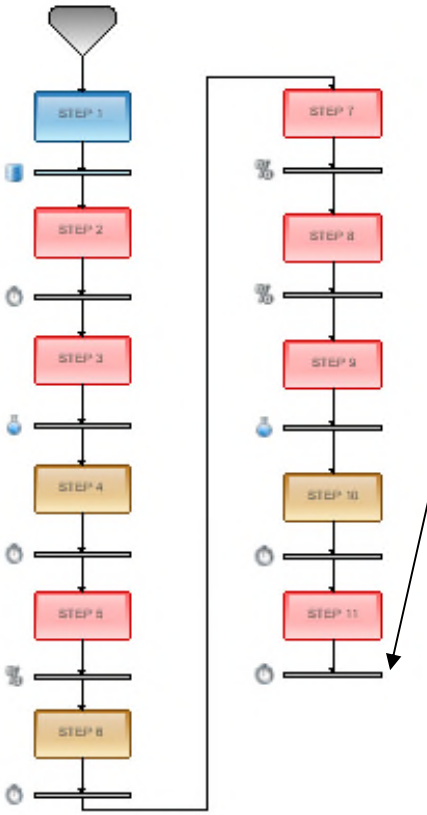


5-Describing the operating mode

4- Nothing to change in this window since this step has been duplicated from step 9, which is identical to step 11. The boiler duty is already defined as well as the reflux ratio.



5-Describing the operating mode



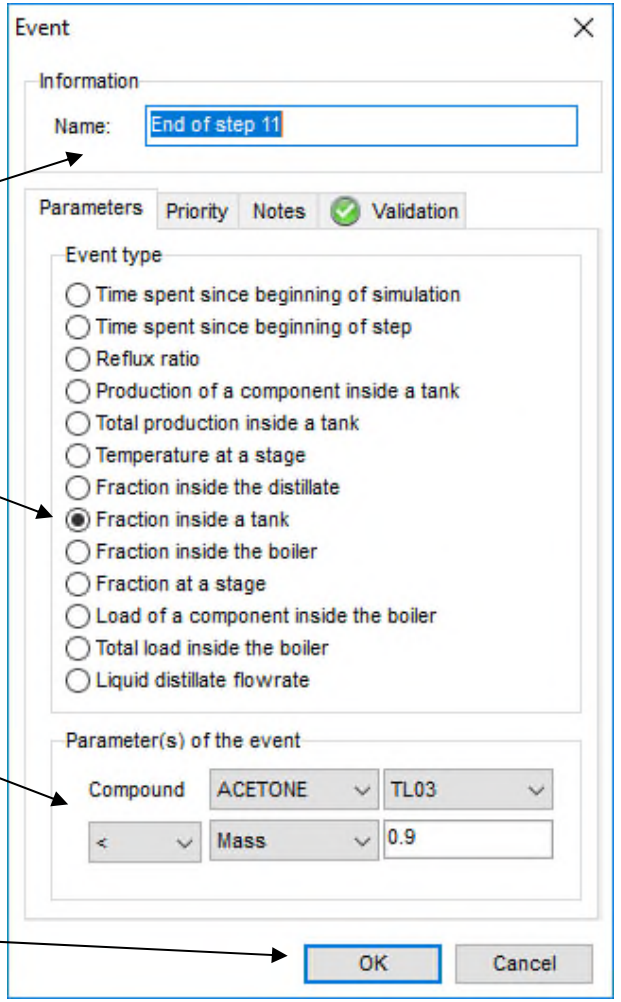
1- Double click on the event at the end of the step 11

2- Enter a name for the event

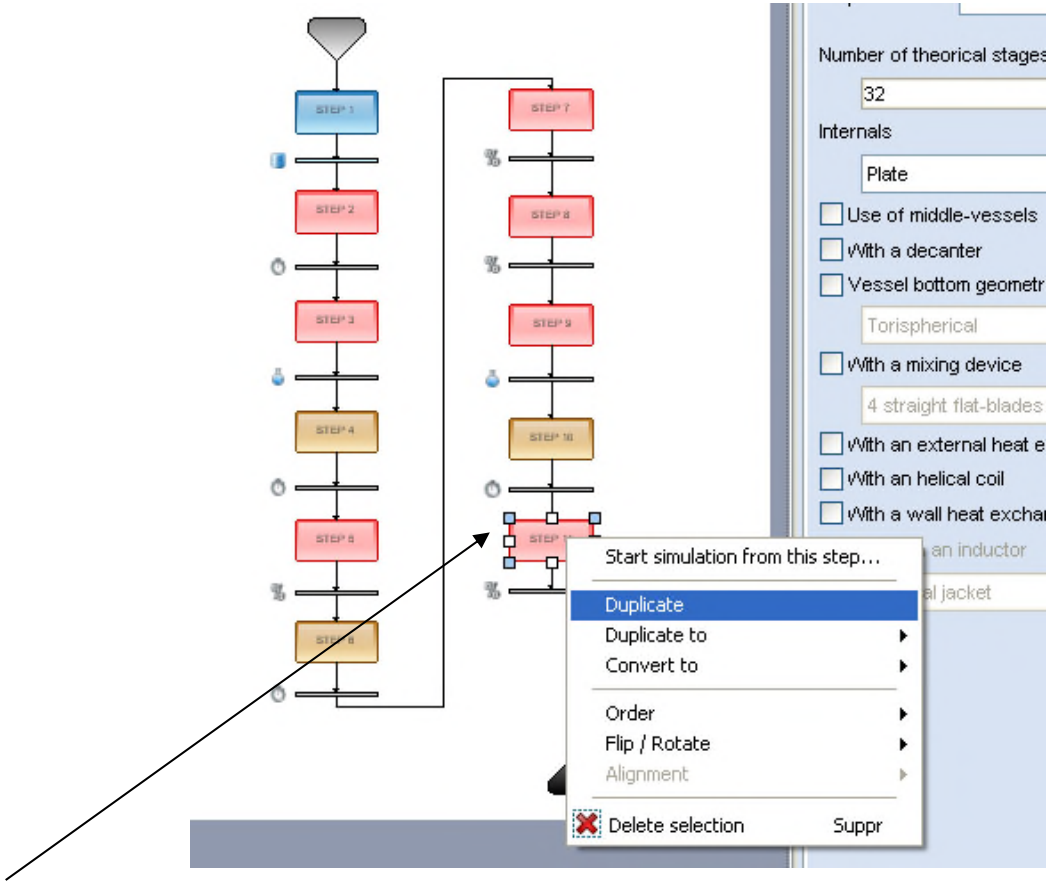
3- Select “fraction inside a tank”

4- Enter the desired mass fraction of acetone.
Select “<” to indicate that the event should be reached by decreasing value.

5- Click on “OK”



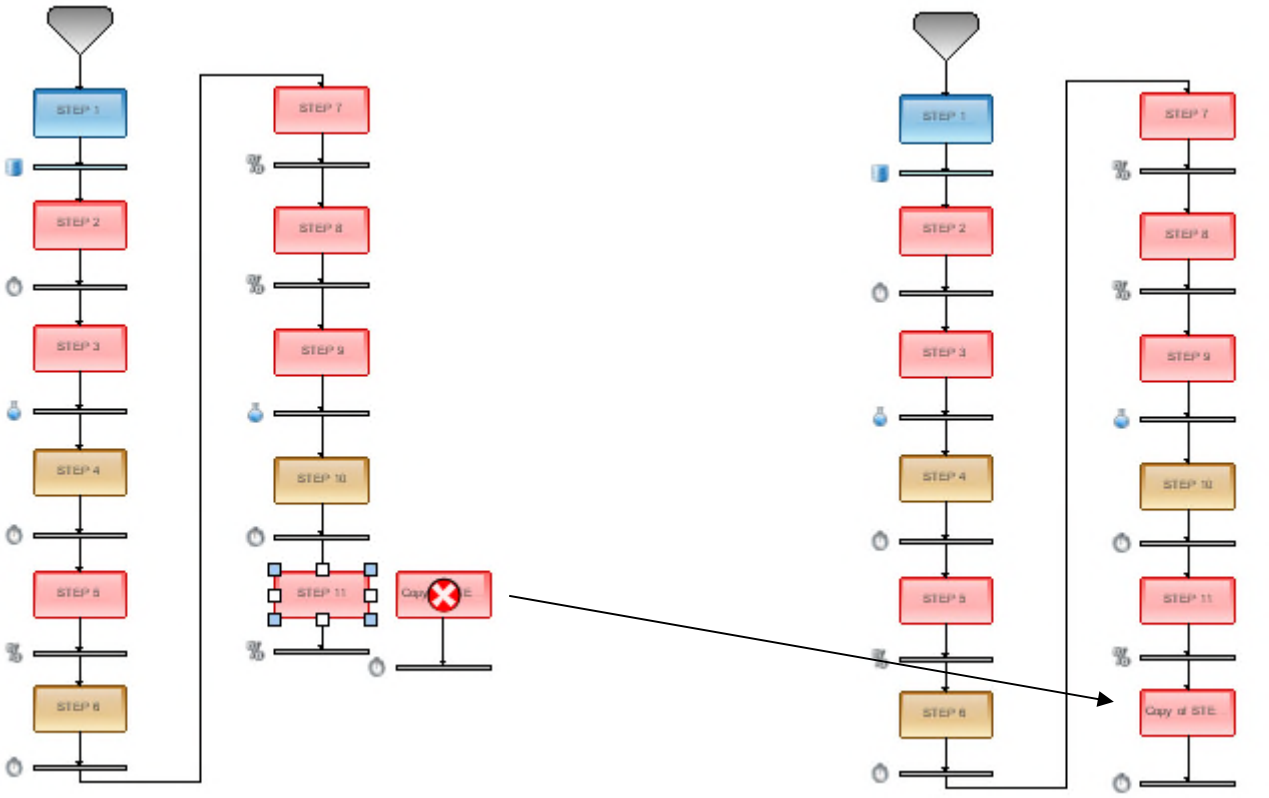
5-Describing the operating mode



Right click on the step 11 and select “Duplicate”.
This copy avoids to specify again most of the parameters for this new step.

5-Describing the operating mode

Connect the new step to the ending event of the step 11

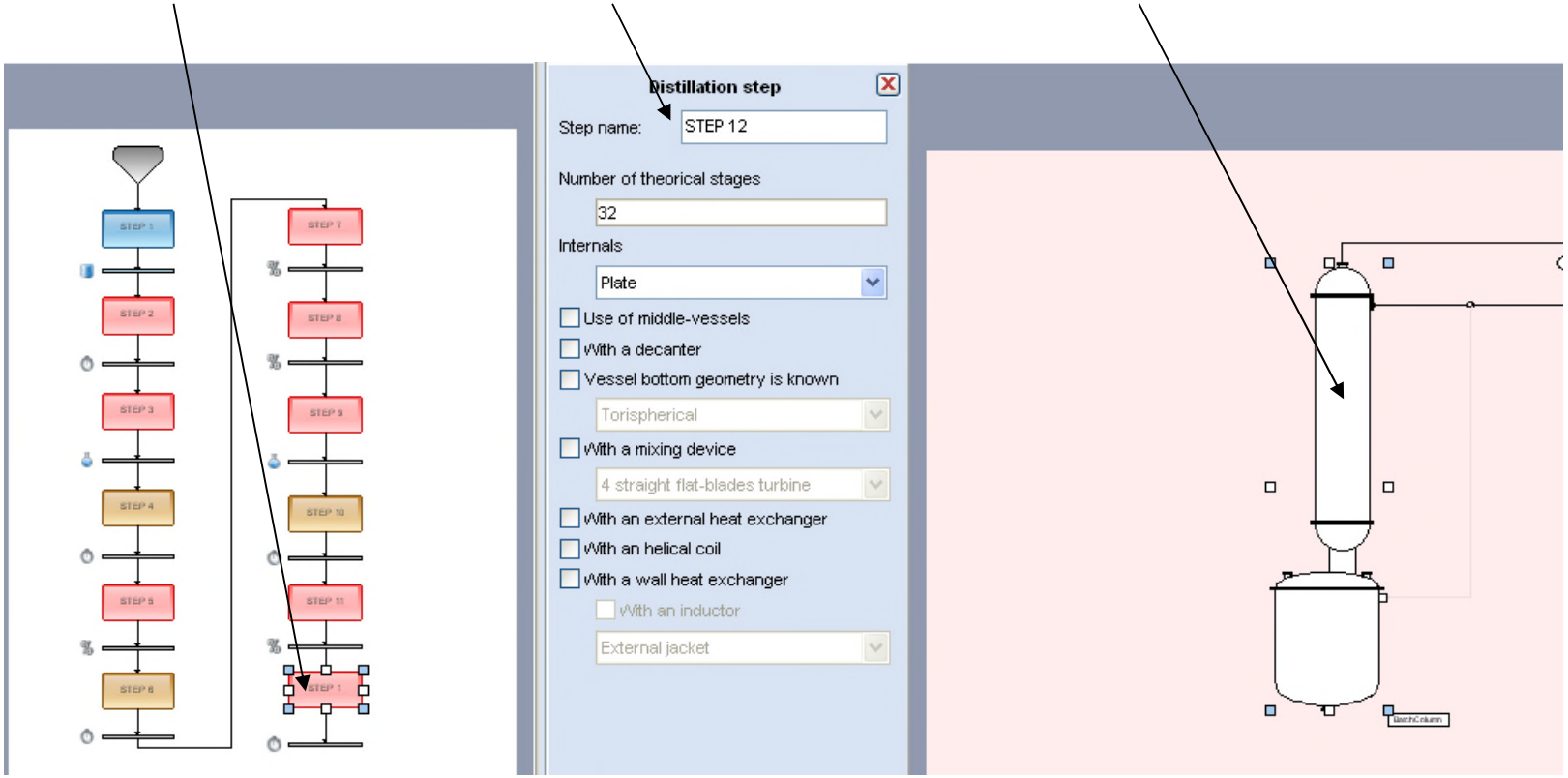


5-Describing the operating mode

1- Double click on the last step

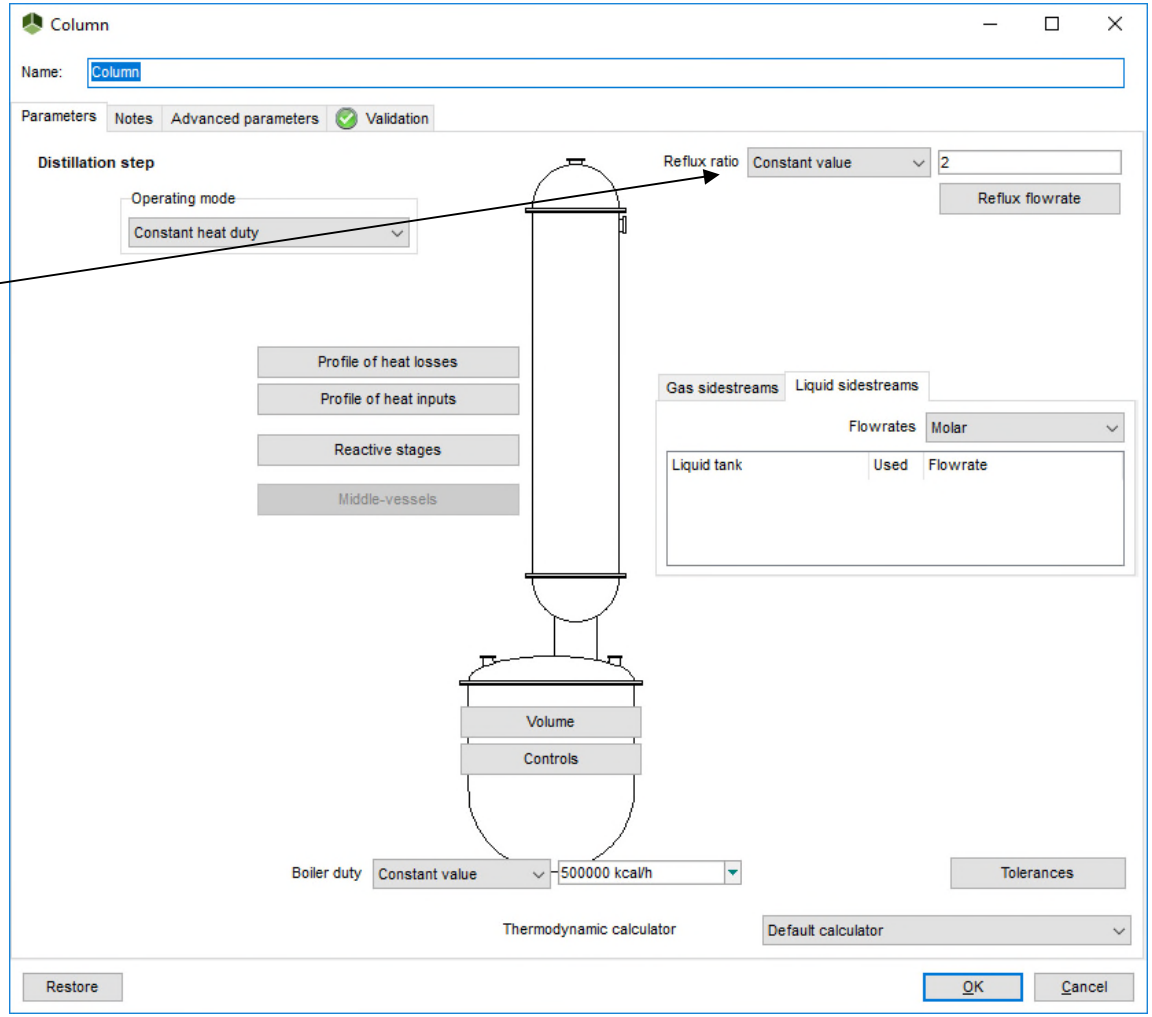
2- Enter the name: STEP 12

3- Double click on the column



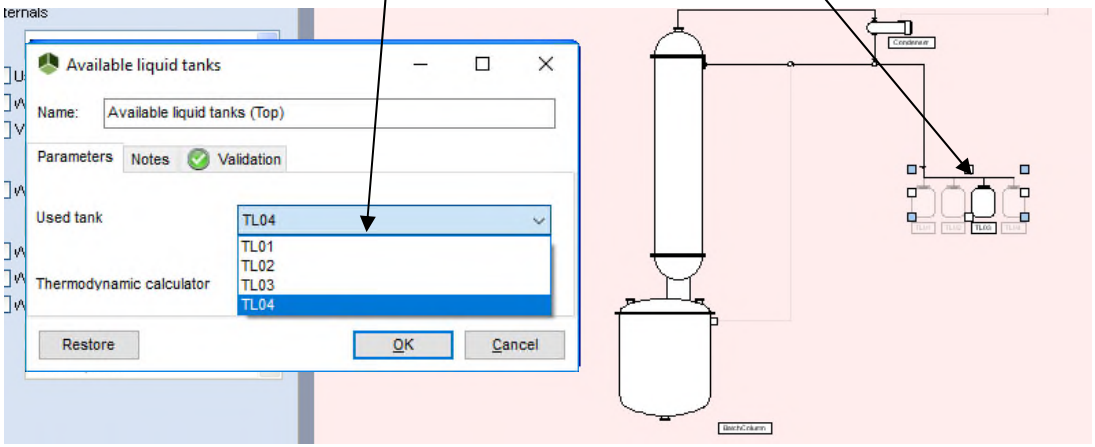
5-Describing the operating mode

4- Enter the reflux ratio equal to 2

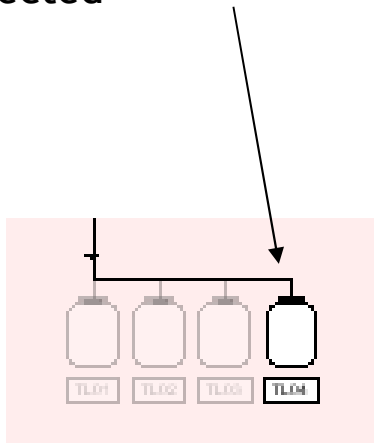


5-Describing the operating mode

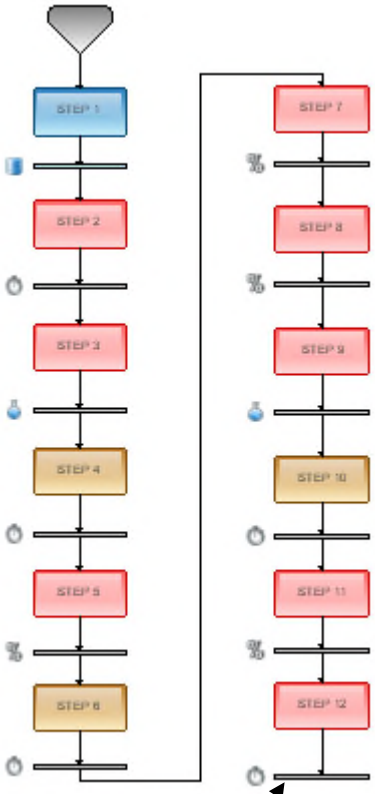
5- Double click on the liquid tanks, select the tank 4 then click on “OK”



6- The tank 4 has been selected



5-Describing the operating mode



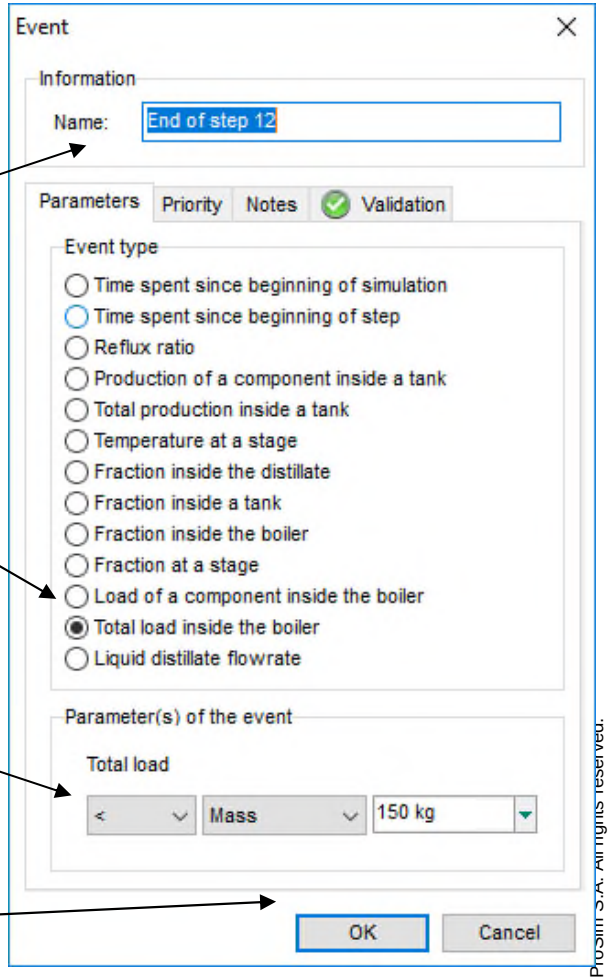
1- Double click on the event at the end of the step 12

2- Enter a name for the event

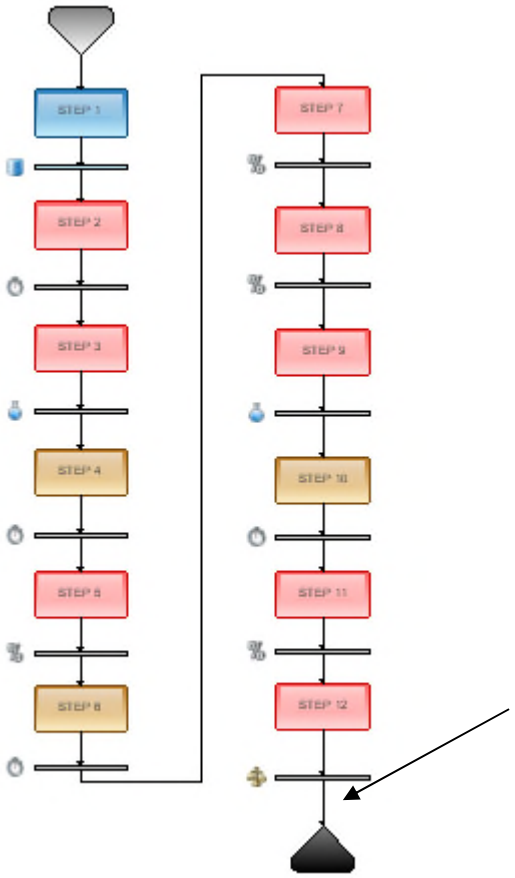
3- Select “total load inside the boiler”

4- Enter the desired mass load inside the boiler.
Select “<” to indicate that the event should be reached by decreasing value.

5- Click on “OK”



5-Describing the operating mode



Finally, connect the last event to the end of the simulation

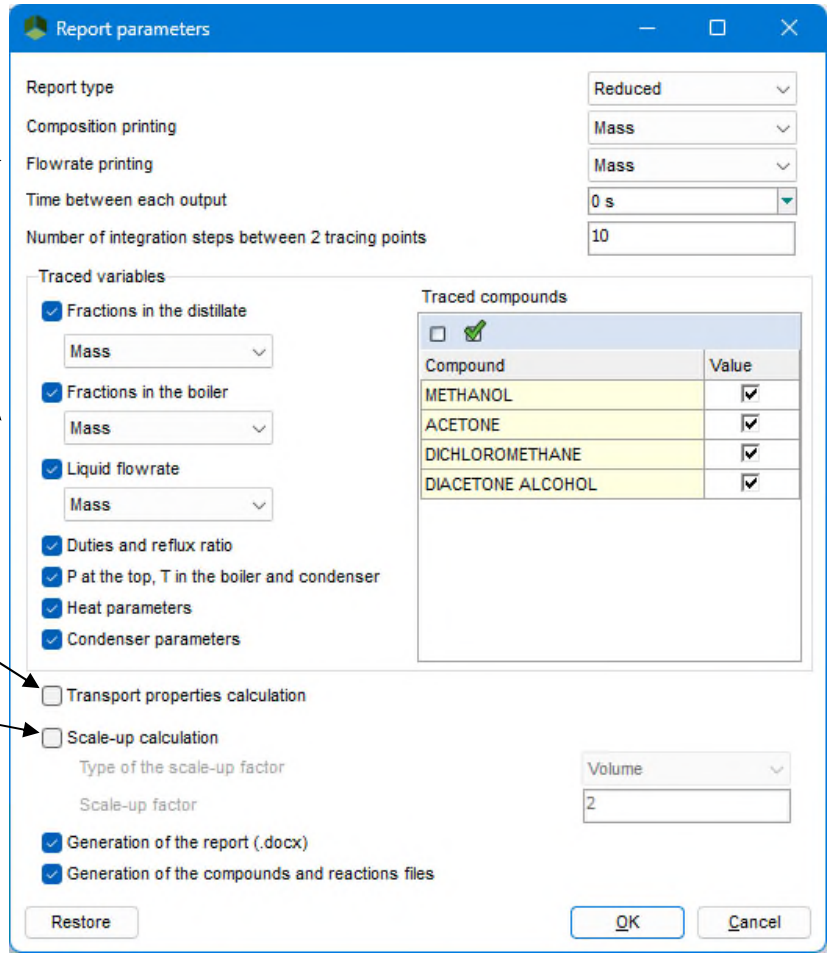
6-Running the simulation

Click on “Report parameters” →

Select the desired options for the presentation of the report

It is possible to automatically calculate the transport properties for each stage

It is possible to perform scale-up calculation



Save the file →

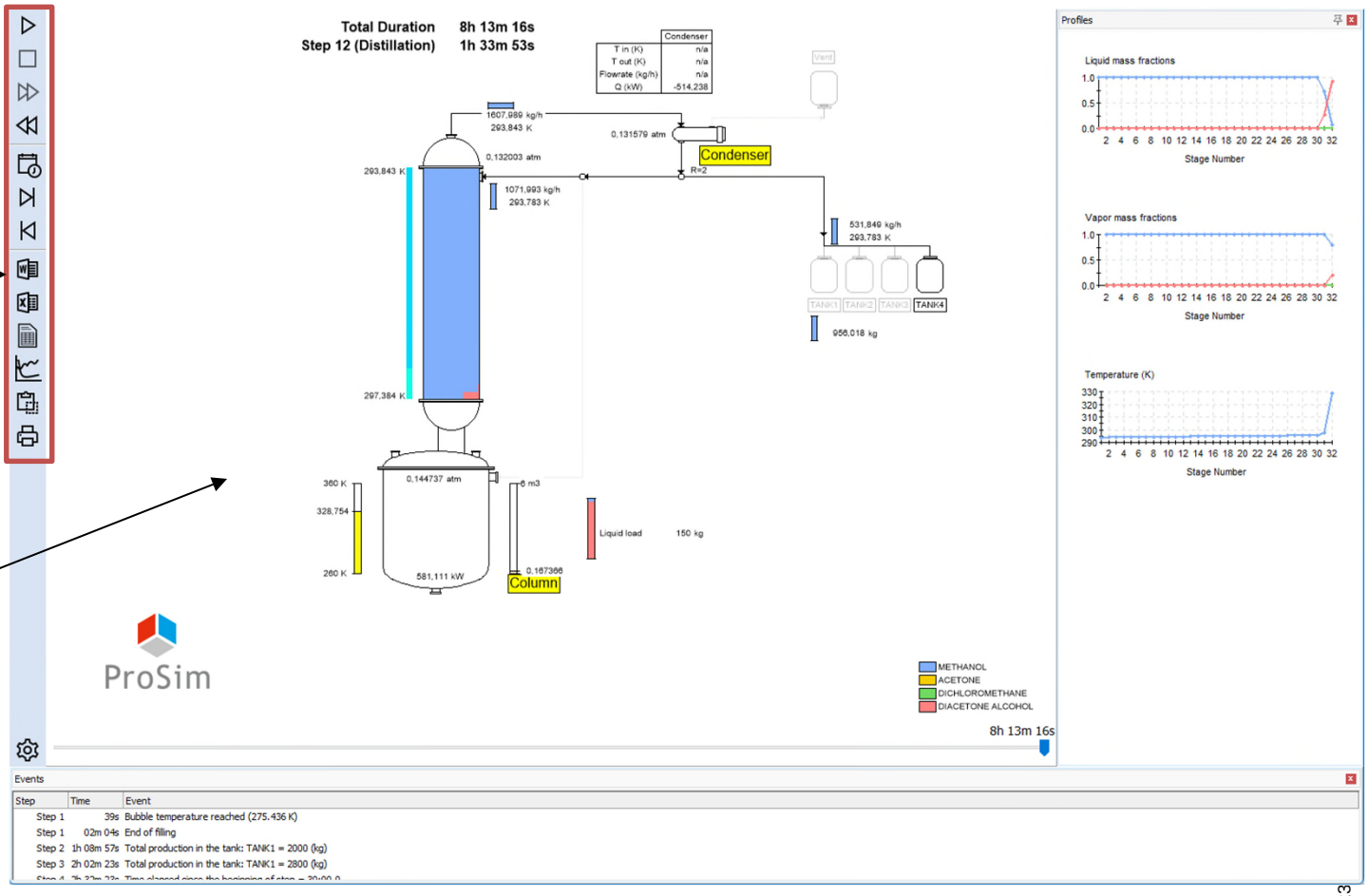
Click on “Start the simulation” →

6-Running the simulation

The following window displays in real time the process operating parameters:

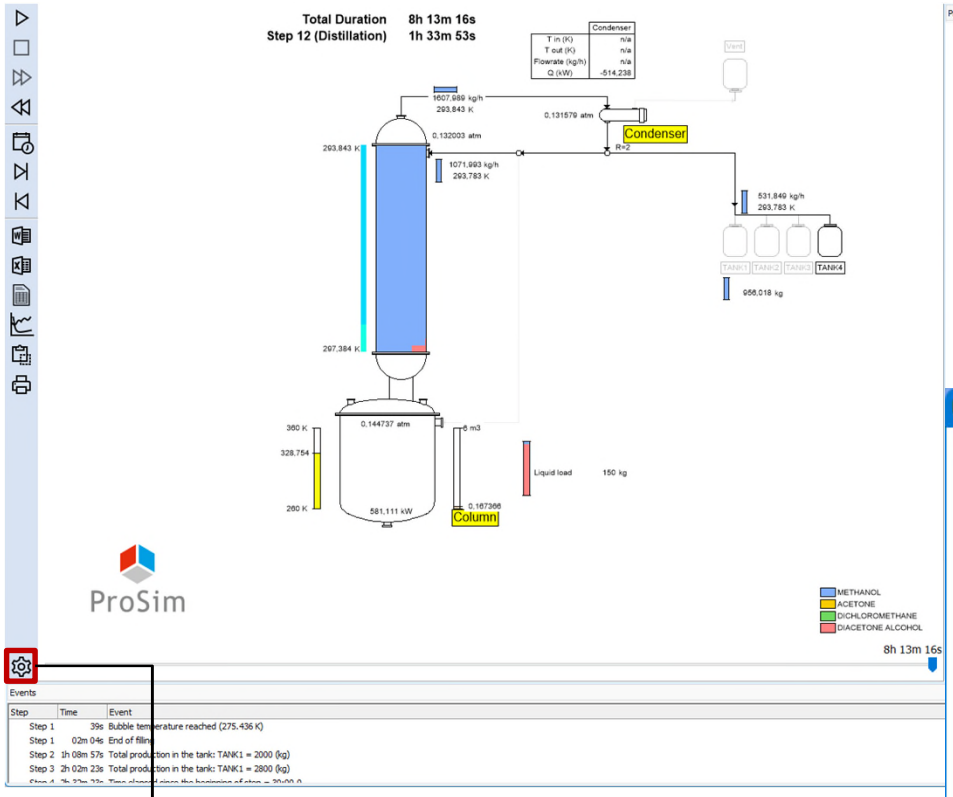
Toolbar that is used to pause, go to the next step, access the graphical settings, etc…

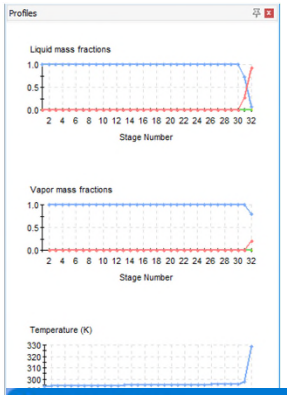
Operating parameters are displayed here (temperatures, pressures, flowrates, compositions, etc…)

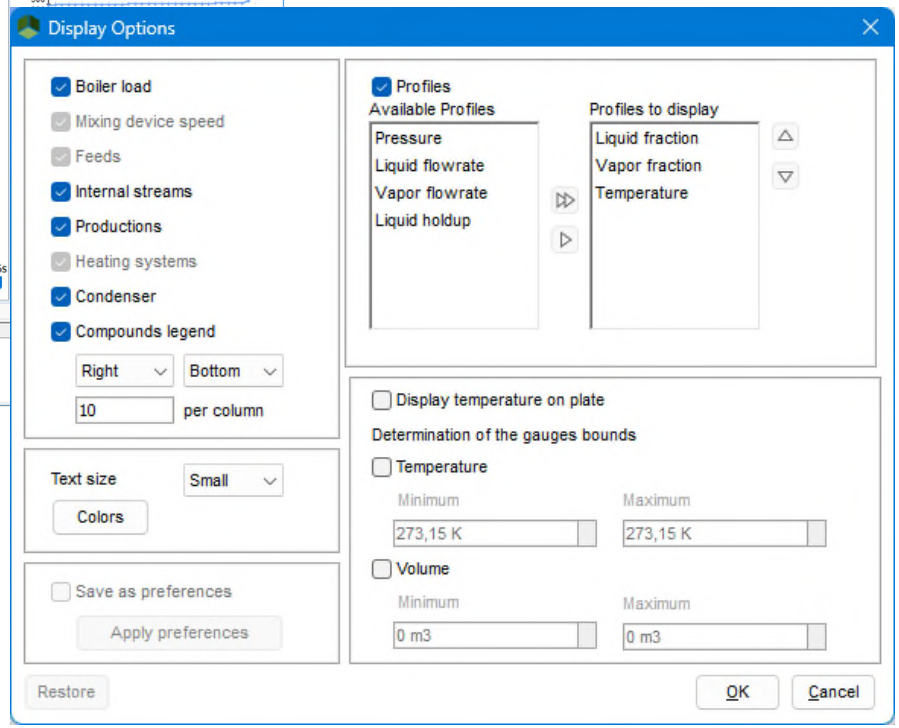


6-Running the simulation

The following window displays in real time the process operating parameters:



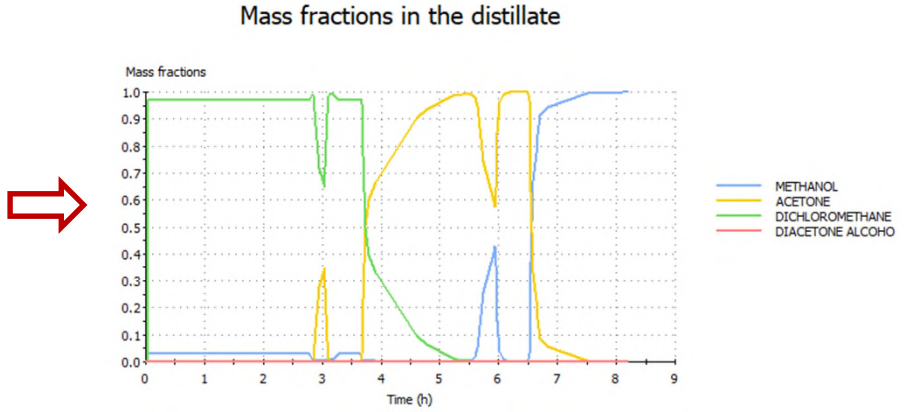


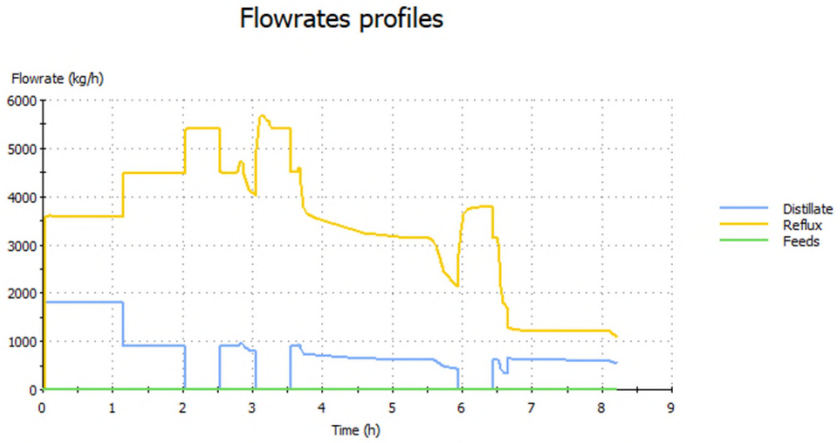


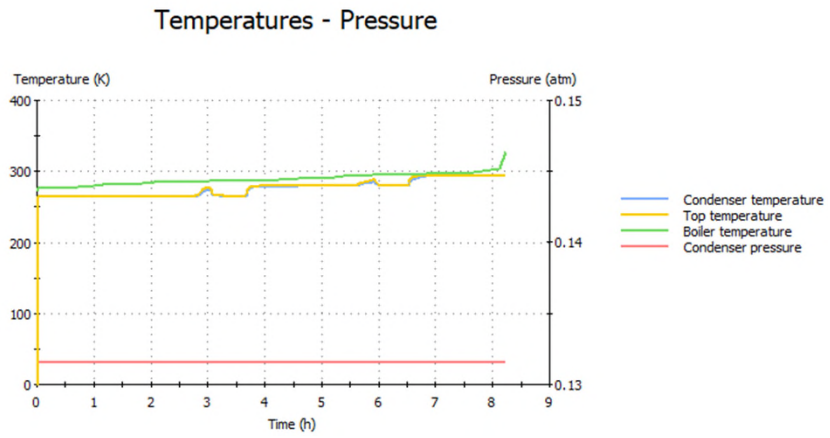
Click here to access the display options

7-Reviewing the simulation results

Once the simulation is complete, click on "Open the graph report" to analyze the evolution as a function of time of the variable parameters (pressure, temperature, flowrates, compositions, heat duties, physical properties, etc…)

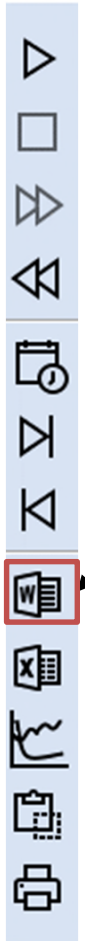


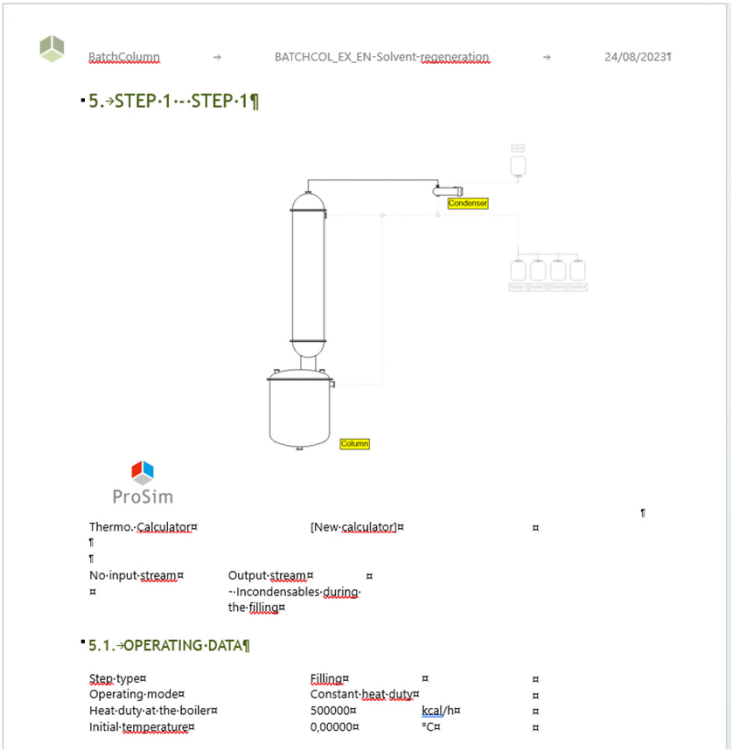


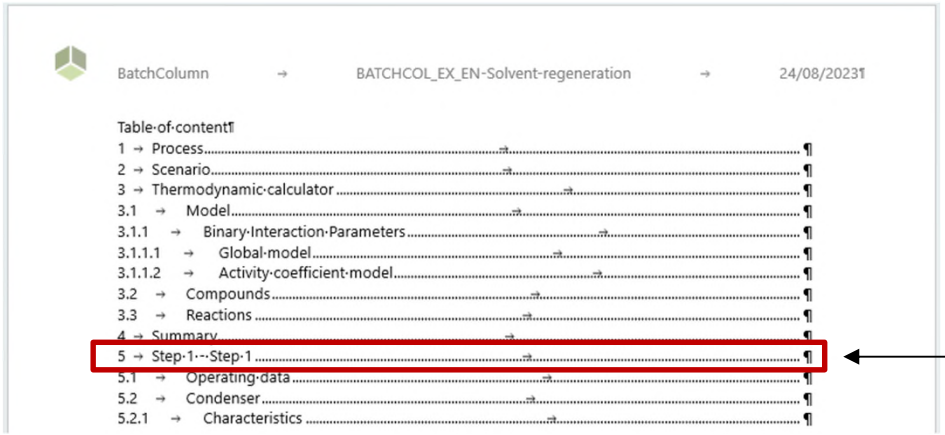


7-Reviewing the simulation results

Click on "Open the report" to open the full simulation report in MS-Word format. It includes the input data (equipment and operating scenario) as well as the numerical and graphical results

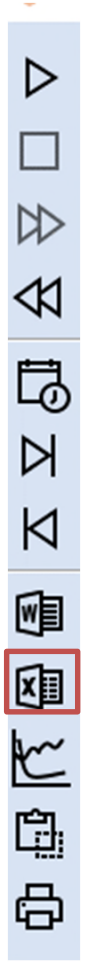






The detailed table of content provides a convenient access to the results

7-Reviewing the simulation results



Click here to access the simulation report in MS-Excel format. It includes the evolution of the process variables as a function of time

2413	Time (h)	Liquid volume (m3)	Feed flowrate (kg/h)	Liquid sidestream (kg/h)	Vapor sidestream (kg/h)	Vapor distillate (kg/h)	liquid distillate (kg/h)	Reflux (kg/h)
2414	1.67E-04	2.2278891	1	0	0	1.0052927	0	2.00E-02
2415	1.67E-02	2.2286754	1	0	0	1.3371409	0	2.73E-02
2416	3.33E-02	2.230627	1	0	0	1.5397891	0	3.36E-02
2417	5.00E-02	2.2332999	1	0	0	1.6559845	0	3.94E-02
2418	6.67E-02	2.2364167	1	0	0	1.7185781	0	4.53E-02
2419	8.33E-02	2.239802	1	0	0	1.7493801	0	5.13E-02
2420	0.1	2.243351	1	0	0	1.7614792	0	5.76E-02
2421	0.116667	2.2470044	1	0	0	1.7625298	0	6.43E-02
2422	0.133333	2.2507285	1	0	0	1.757826	0	7.16E-02
2423	0.15	2.2544892	1	0	0	1.7492106	0	7.94E-02
2424	0.166667	2.2582715	1	0	0	1.7412496	0	8.80E-02
2425	0.183333	2.2620693	1	0	0	1.7278169	0	9.70E-02
2426	0.2	2.2658796	1	0	0	1.7193188	0	0.10702215
2427	0.216667	2.2697004	1	0	0	1.7098734	0	0.11781666
2428	0.233333	2.2735296	1	0	0	1.7007094	0	0.12949264
2429	0.25	2.2773661	1	0	0	1.6923622	0	0.14214939
2430	0.266667	2.2812092	1	0	0	1.6844712	0	0.15582606
2431	0.283333	2.2850585	1	0	0	1.6773023	0	0.17061809
2432	0.3	2.2889139	1	0	0	1.6706803	0	0.18658742
2433	0.316667	2.2927754	1	0	0	1.6645653	0	0.20381152

7-Reviewing the simulation results

Several files are automatically generated in the folder containing the simulation file. It includes:

- The simulation file (*.pbpc)
- The results file in MS-Excel format (*.csv)
- The evolution as a function of time of the liquid flowrate in the column (*_DL.csv)
- The evolution as a function of time of the vapor flowrate in the column (*_DV.csv)

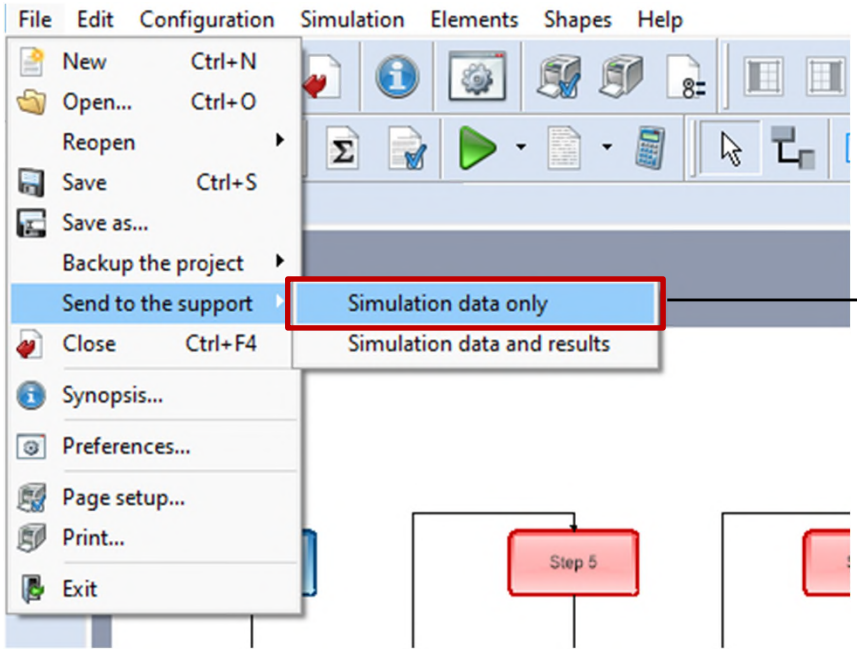
BATCHCOL_EX_EN-Solvent-regeneration_files	24/08/2023 08:55	Dossier de fichiers	
BATCHCOL_EX_EN-Solvent-regeneration.cat	24/08/2023 08:55	Catalogue de sécurité	13 Ko
BATCHCOL_EX_EN-Solvent-regeneration.csv	24/08/2023 08:55	Fichier CSV Microsoft E...	330 Ko
BATCHCOL_EX_EN-Solvent-regeneration.docx	24/08/2023 08:55	Document Microsoft W...	1 806 Ko
BATCHCOL_EX_EN-Solvent-regeneration.don	24/08/2023 08:53	Fichier DON	4 Ko
BATCHCOL_EX_EN-Solvent-regeneration.his	24/08/2023 08:55	txtfile	5 Ko
BATCHCOL_EX_EN-Solvent-regeneration.log	24/08/2023 08:55	Document texte	1 Ko
BATCHCOL_EX_EN-Solvent-regeneration.pbpc	10/09/2020 11:43	Document BatchColumn	9 631 Ko
BATCHCOL_EX_EN-Solvent-regeneration.res	24/08/2023 08:55	Compiled Resource Script	620 Ko
BATCHCOL_EX_EN-Solvent-regeneration.xyg	24/08/2023 08:55	Fichier XYG	420 Ko
BATCHCOL_EX_EN-Solvent-regeneration_DL.csv	24/08/2023 08:55	Fichier CSV Microsoft E...	60 Ko
BATCHCOL_EX_EN-Solvent-regeneration_DV.csv	24/08/2023 08:55	Fichier CSV Microsoft E...	60 Ko

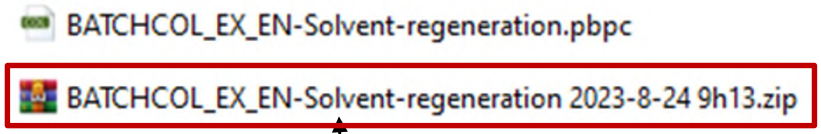
7-Reviewing the simulation results

For any questions, please contact ProSim technical support by sending an email to support@prosim.net, with:

- The objectives of your simulation
- Your simulation file

To facilitate the sending of the simulation file by email, a zip file can be automatically generated by clicking on “send to support”





A zip file is created in the folder where the simulation file is stored

ProSim

Software & Services In Process Simulation

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