

Creating a Material Stream

Spoken Tutorial Project
<https://spoken-tutorial.org>

National Mission on Education through ICT
<https://sakshat.ac.in>

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Learning Objectives



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In this tutorial, we will learn to:



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In this tutorial, we will learn to:

- **Select Chemical compounds**



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- Define a Thermodynamic package



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- Define a Thermodynamic package
- **Choose Units and Values and**



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In this tutorial, we will learn to:

- Select Chemical compounds
- Define a Thermodynamic package
- Choose Units and Values and
- **Specify a Material stream**



System Requirement



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- **DWSIM v 5.8 (Classic UI) Update 3**



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- Windows 10 OS



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- DWSIM v 5.8 (Classic UI) Update 3
- Windows 10 OS
- Any OS: Linux, Mac OS X or FOSSEE OS on ARM



Prerequisites

- **You should have DWSIM installed on your machine**



Summary

- **Select Chemical compounds**
- **Define a Thermodynamic package**
- **Choose Units and Values and**
- **Specify a Material stream**



Assignment 1: Total is not 1

- Choose Benzene and Toluene mole fractions that do not add up to 1
- Check how DWSIM normalises when you press Accept Changes button



Assignment 2: Normalise button

- Go to the page where you defined mole fractions
- Check what the Normalize button does when the total is not 1



Assignment 3: Consistency check

- Go to the page where we defined the molar flow rate
- DWSIM automatically displays equivalent flow rates in other units
- Check if these values are consistent



Assignment 4

- Create a stream consisting of Benzene, Toluene and Xylene
- Carry out the previous assignments for this stream also



About the Spoken Tutorial Project

- Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- It summarises the Spoken Tutorial project



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Spoken Tutorial Workshops

The Spoken Tutorial Project Team,

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to contact@spoken-tutorial.org



Forum for specific questions

- Do you have questions in this Spoken Tutorial?
- Please visit <https://forums.spoken-tutorial.org>
- Choose the minute and second where you have the question
- Explain your question briefly
- Someone from the FOSSEE team will answer them



DWSIM Flowsheeting Project

- The FOSSEE team coordinates conversion of existing flowsheets
- We give honorarium and certificates for those who do this
- For more details, please visit this site
<https://dwsim.fossee.in/flowsheeting-project>



Lab Migration Project

- The FOSSEE team helps migrate commercial simulator labs to DWSIM
- We give honorarium and certificates for those who do this
- For more details, please visit this site
<https://dwsim.fossee.in/lab-migration-project>



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