

Interactive Simulation in Xcos using Slider

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives

In this tutorial, we will learn how to:



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In this tutorial, we will learn how to:

- **Use Slider in Xcos**



Learning Objectives

In this tutorial, we will learn how to:

- ▶ **Use Slider in Xcos**
- ▶ **Use TKSCALE block for simulation**



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In this tutorial, we will learn how to:

- ▶ **Use Slider in Xcos**
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- ▶ **Run Xcos simulations in real-time**



System Requirements

To record this tutorial, I am using



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- ▶ **Windows 10 OS**



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- ▶ **Scilab 6.1.0**



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The process demonstrated in this tutorial is identical in Linux OS also



Pre-requisites

To follow this tutorial, you should have:

- ▶ **Basic knowledge of Scilab and Xcos**



Pre-requisites

To follow this tutorial, you should have:

- ▶ Basic knowledge of Scilab and Xcos
- ▶ If not, for relevant tutorials please visit <https://spoken-tutorial.org>



Interactive Simulation

- **Interactive simulation gives a way to change the parameters during simulation**



Interactive Simulation

- ▶ **Interactive simulation gives a way to change the parameters during simulation**
- ▶ **The parameters can be changed by using the Slider**



Interactive Simulation

- In this tutorial we will see how to change values using the TKSCALE block as a Slider



Summary

In this tutorial, we have learnt to:

- ▶ **Use Slider in Xcos**
- ▶ **Use TKSCALE block for simulation**
- ▶ **Run Xcos simulations in real-time**



Assignment

- ▶ **Modify the Xcos diagram to have an autoscale feature(scale graph at runtime) in the graph**
- ▶ **Hint: Explore the use of SCALE_CSCOPE to have the autoscale feature**



About Spoken Tutorial project

- ▶ Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



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



Answers for THIS Spoken Tutorial

- ▶ Questions in THIS Spoken Tutorial?
- ▶ Visit <https://forums.spoken-tutorial.org/>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ The Spoken Tutorial project will ensure an answer



- For any general or technical questions on Scilab, visit the FOSSEE forum and post your question

<https://forums.fossee.in/>



Textbook Companion project

- ▶ **The FOSSEE team coordinates the Textbook Companion project**
- ▶ **We give Certificates and Honorarium to the contributors**
- ▶ **For more details, please visit:**
https://scilab.in/Textbook_Companion_Project



Lab Migration

- ▶ The FOSSEE team coordinates the Lab Migration project
- ▶ For more details, please visit:
[https://scilab.in/
Lab_Migration_Project](https://scilab.in/Lab_Migration_Project)



Acknowledgements

- ▶ **The Spoken Tutorial project is funded by MoE, Government of India**



Thank you

- ▶ **This is Iswariya Sasikumar, a FOSSEE intern 2021, IIT Bombay signing off**
- ▶ **Thanks for joining**

