

Building a GUI for basic plotting

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

Script: Rashmi P, Iswariya S

Video: Iswariya Sasikumar

FOSSEE Team

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Learning Objectives

In this tutorial, we will learn:



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In this tutorial, we will learn:

- ▶ **About Checkbox.**



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In this tutorial, we will learn:

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- ▶ **Generate graphs of the sine and cosine functions using GUI.**



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:



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- ▶ **The learner must have basic knowledge of Scilab and GUI Builder toolbox.**



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- ▶ The learner must have basic knowledge of Scilab and GUI Builder toolbox.
- ▶ For pre-requisite Scilab tutorials please visit <https://spoken-tutorial.org>



Code Files

- ▶ **The files used in this tutorial are provided in the Code files link.**



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- ▶ **Make a copy and then use them while practising.**



What is Checkbox?

- ▶ **A Checkbox is a button with two states.**



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- ▶ **A Checkbox is a button with two states.**
- ▶ **It is used when a user wants to make multiple independent choices.**



Summary

In this tutorial, we have learnt:

- ▶ **About Checkbox.**
- ▶ **Generated graphs of the sine and cosine functions using GUI.**



Assignment

- ▶ **Add two Checkboxes to the current GUI to find:**
 - ▶ inverse of $\sin(t)$
 - ▶ inverse of $\cos(t)$
- ▶ **Display the response of a system using an Axes.**



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.
- ▶ You will have to register to ask questions.



- ▶ 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](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 the Ministry of Education, Government of India.**



Thank you

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

