

Creating a basic GUI using Scilab

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<https://sakshat.ac.in>

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Learning Objectives

In this tutorial, we will learn:



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- **About a Graphical User Interface (GUI) and its benefits.**



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- Create a pushbutton.
- Add a callback function.
- **Create a basic GUI using Scilab.**



System Requirements

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- **Windows 10 OS**



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The process demonstrated in this tutorial is similar in Linux OS.

Annotations are added to the tutorial if there are any differences.



Pre-requisites

- **The learner must have basic knowledge of Scilab.**

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- For pre-requisite Scilab tutorials please visit <https://spoken-tutorial.org>



Code Files

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



What is a Graphical User Interface?

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- **A graphical display that allows the user to do interactive tasks using objects.**
- **Users can create and arrange the objects in a graphical window.**



What is a Graphical User Interface?

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- The object style includes edit, slider, pushbutton, etc.
- We use their callbacks to make them interactive.
- **GUIs can also create and display data in a tabular form or as a plot.**



What is a pushbutton?

A pushbutton is a rectangular button used to run a callback.

What is a callback?

- **A callback is a function that executes a set of commands.**



What is a callback?

- A callback is a function that executes a set of commands.
- This happens in response to a predefined user action.



What is a callback?

For example,

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- When the pushbutton is pressed, the code written in the callback is executed.

What is a callback?

For example,

- When the pushbutton is pressed, the code written in the callback is executed.
- As a result, the pushbutton becomes interactive.



Summary

In this tutorial, we have learnt:

- **About a Graphical User Interface(GUI) and its benefits.**
- **Created a pushbutton.**
- **Added a callback function.**
- **Created a basic GUI using Scilab.**



Assignment

Add one more pushbutton to the current GUI as described below,

- **Size, Height: 200 units Width: 100 units.**
- **Position: Align it below the Print pushbutton with a gap of 20 units.**



Assignment

- Add a String named 'Press here' for the pushbutton.
- Add a callback function to display the message 'Good day!' on the Scilab console.

Hint: The name of the function must be different.



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

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)

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Thank you

- The script has been created by **FOSSEE Team and FOSSEE intern Shwethaa.**



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- The script has been created by FOSSEE Team and FOSSEE intern Shwethaa.
- The video for this tutorial was created by me Anandajith, I am a FOSSEE intern signing off.

