

USER GUIDE

UG017 | Using the PSpice Libraries



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1. INTRODUCTION

PSpice is a SPICE circuit simulator application for the simulation and verification of analog and mixed-signal circuits. It integrates easily with Cadence PCB schematic entry solutions like OrCAD Capture and comes with an easy-to-use graphical user interface.

This user guide demonstrates how to locate, download and install WE component libraries for PSpice (version 2023). WE component libraries for PSpice consist of a symbol file (*.olb) and a netlist file (*.lib). You can access our libraries through the [Würth Elektronik website](#) or our GitHub repository. For the most up-to-date version, we recommend visiting our GitHub repository.

2. INSTALLING THE LIBRARIES

2.1 Downloads from Würth Homepage

Visit the [WE product portfolio](#) and navigate to the product you are interested in.

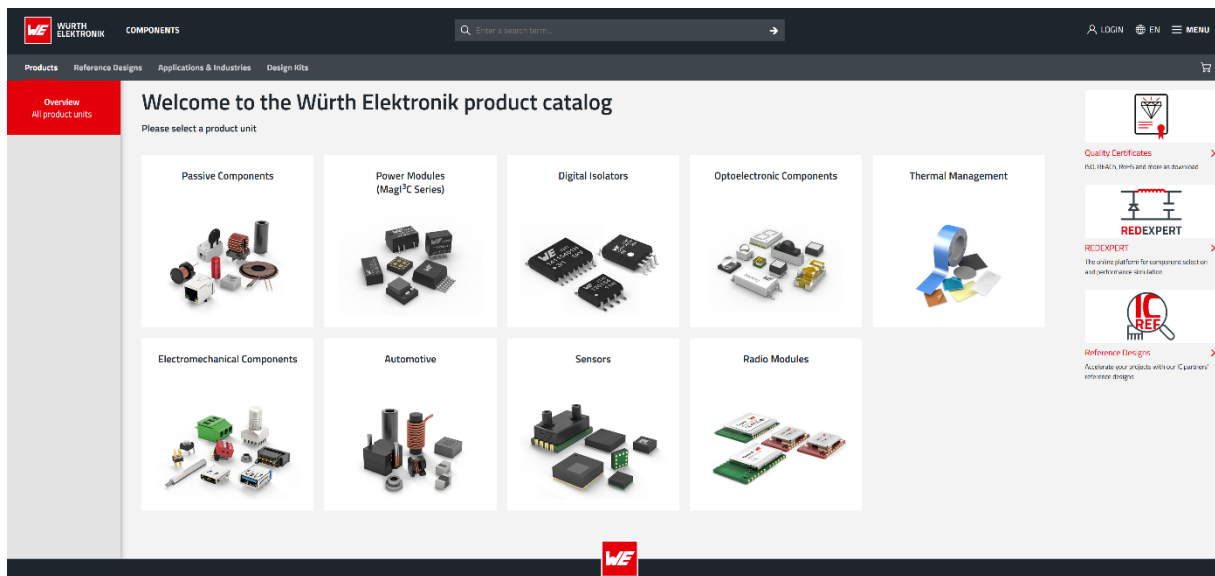


Figure 1: [Würth Elektronik Homepage](#).

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Alternatively, enter the part number or product series into the search bar located at the top of the page.

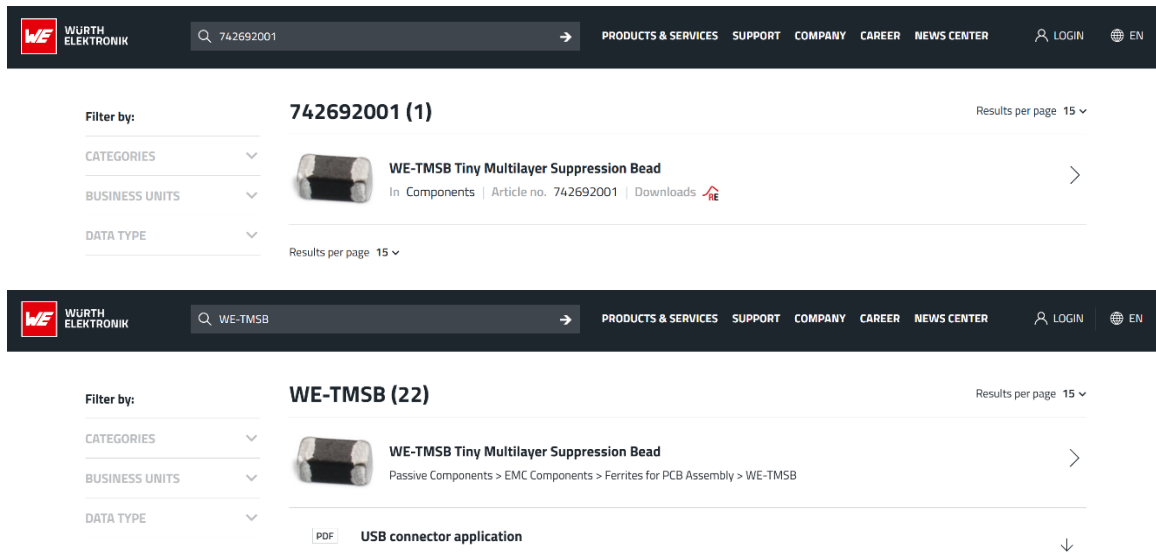


Figure 2: Search part number or series.

On each product series page, you will find the download column in the product list. Locate the PSpice library in the dropdown list.

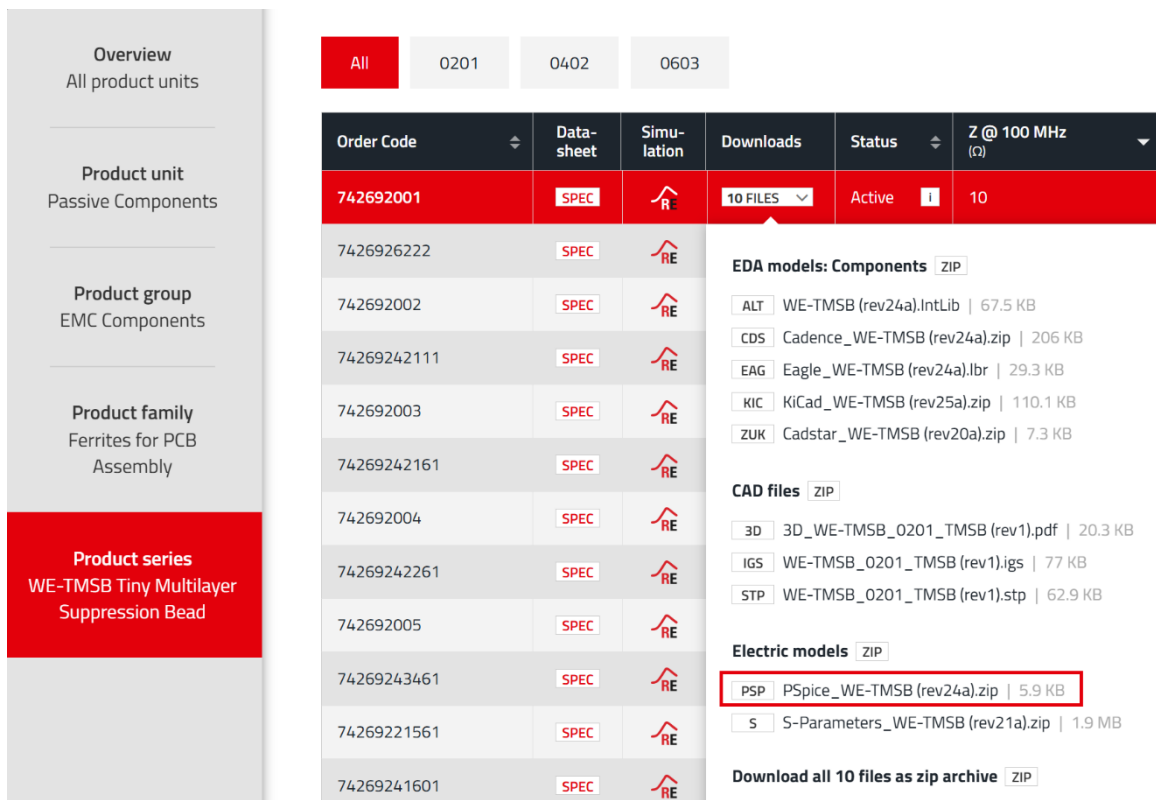


Figure 3: Download PSpice libraries on Würth Elektronik Homepage.

2.2 Save the Libraries

We recommend saving the libraries in a convenient folder for your project. The symbol file (*.olb) and netlist file (*.lib) can be saved in the same local folder as the schematic file (*.DSN) and the project file(*.opj).

SYS (C:) > MyProject		
Name	Type	Size
MyProject-PSpiceFiles	File folder	
Disclaimer_READ_ME.txt	Text Document	1 KB
MYPROJECT.DSN	DSN File	10 KB
MYPROJECT.DSNlck	DSNLCK File	16 KB
MyProject.opj	OPJ File	1 KB
WE-TMSB.lib	LIB File	4 KB
WE-TMSB.OLB	OLB File	32 KB

Figure 4: Model files in same folder as schematic.

2.3 Install the Local Libraries

Run OrCAD Capture, open or create a project and open the schematic page.

Click the “Place” tab and select “Part” option from the menu. Alternatively, select “Place” in the action toolbar. You may also press the “P” key.

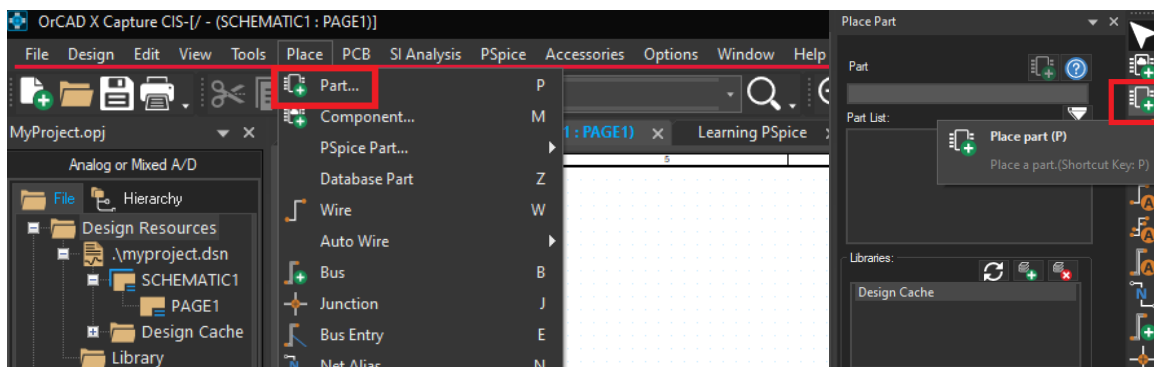


Figure 5: Navigating to the “Place Part” window using the menu (left) and using the toolbar (right).

Add the Library to your project by clicking the “Add Library” symbol in the “Place Part” window or you may also press “Alt + A”. This will open the “Browse File” window where you may select the desired symbol file (*.olb) and click open.

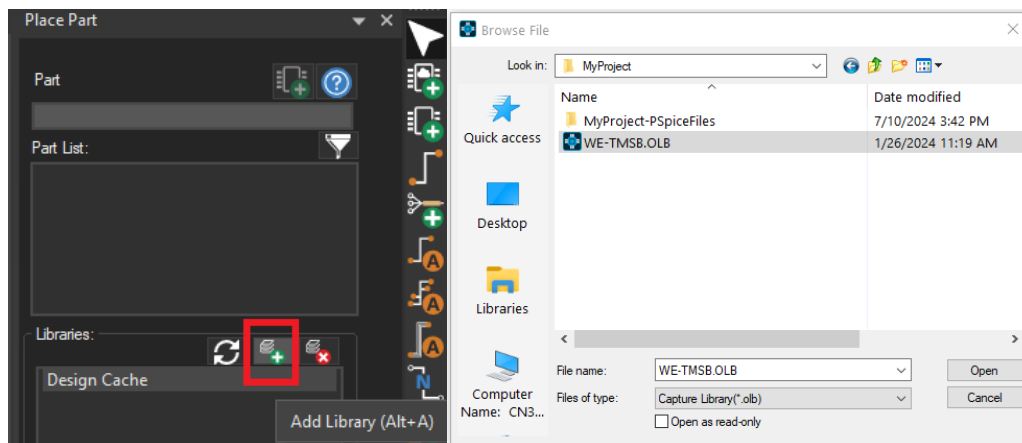


Figure 6: Adding the library to the “Place Part” window.

Double click on the desired part number and place the symbol in the schematic.

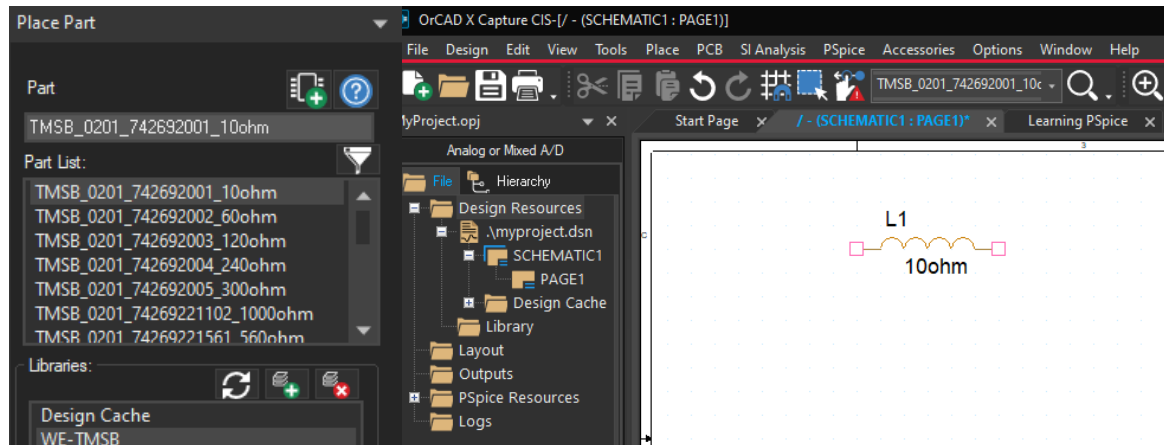


Figure 7: Place component in the schematic from the "Place Part" window.

2.4 Configure Netlist File

At this stage, it is critical to correctly configure the library to the appropriate netlist file.

Select "PSpice" in the menu and select "New Simulation Profile" from the menu. Alternatively, select "Edit Simulation Profile" if you have already created a Simulation Profile.

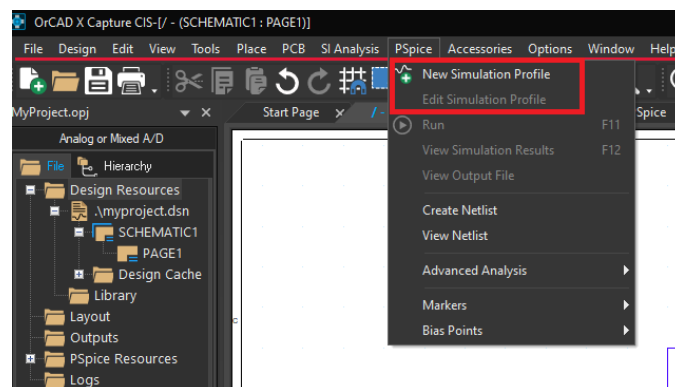


Figure 8: Navigating to the "Simulation Profile" menu options.

In the "Simulation Settings" window, click "Configuration Files", "Library" and then "Browse...". Once you have chosen the folder containing the relevant library, you can select the desired netlist file (*.lib) and click open.

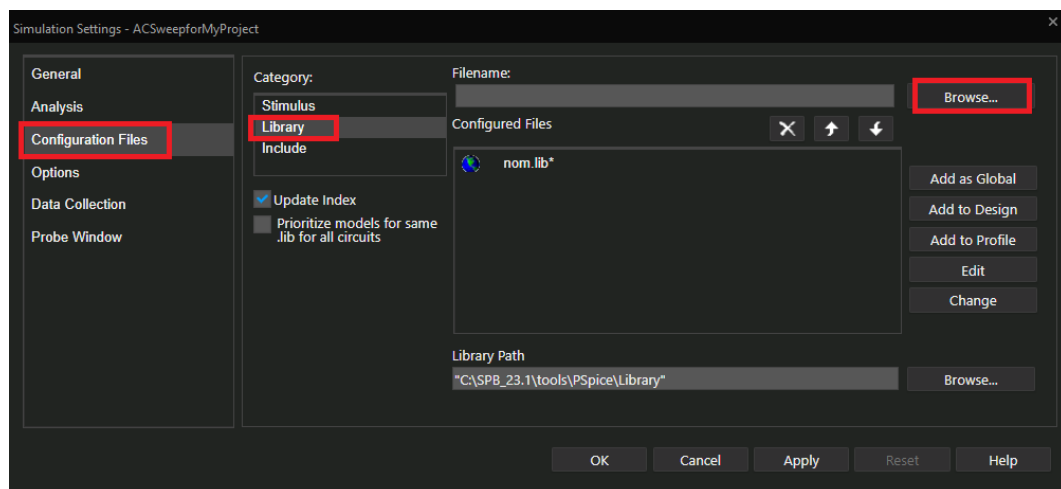


Figure 9: Navigating the "Simulation Settings" window to add the relevant netlist file.

You may now either select “Add as Global” if you wish the library to be available for all designs, or “Add to Design” if you wish to only use the library for the current design. Click “OK” and save the simulation profile.

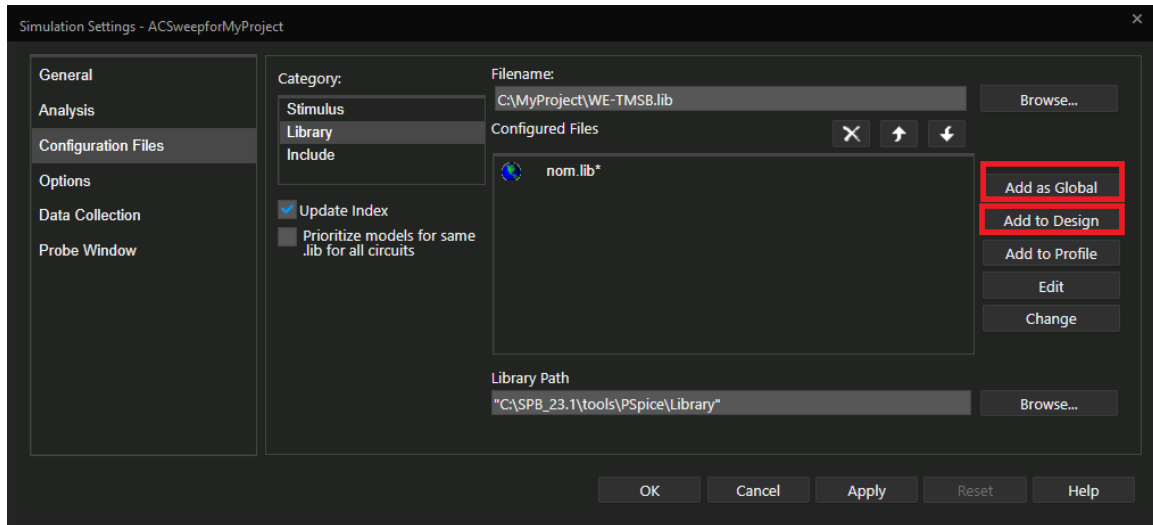


Figure 10: Adding the library to be either available for all designs or limited to the current design.

3. INSTALL FROM GITHUB REPOSITORY

3.1 Install GitHub Desktop

GitHub Desktop is the most user-friendly tool for working with GitHub projects, and we recommend you use it for keeping your library files up to date.

Go to <https://desktop.github.com/> to download the appropriate package for your operating system and install it on your computer.

During the Desktop installation, register or sign in with your GitHub Account and click next. On opening the GitHub Browser webpage, authenticate yourself and give permission to the GitHub desktop application. The process will then return you to the desktop application.

3.2 Clone the Library

From GitHub Desktop, click the button “Clone a repository from the Internet...”.

Let's get started!

Add a repository to GitHub Desktop to start collaborating

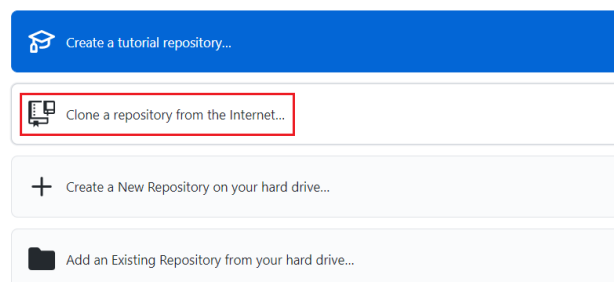


Figure 11: Clone a repository from the Internet.

Enter the URL of Würth Elektronik PSpice Library repository <https://github.com/WurthElektronik/Pspice-Library.git> and define a local directory to which to clone the repository.

Then click the “Clone” button. A window will then open, synchronizing the libraries into your local directory from the online repository. Cloning repository may take some time.

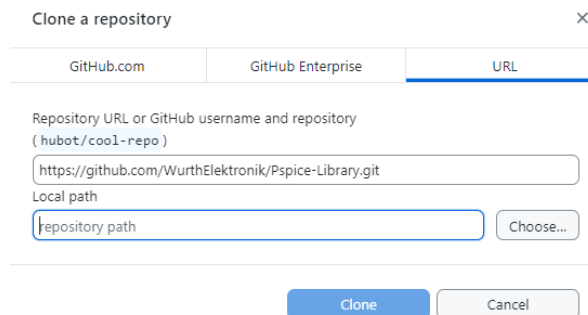


Figure 12: Cloning the Würth Elektronik PSpice Library repository to your local directory.

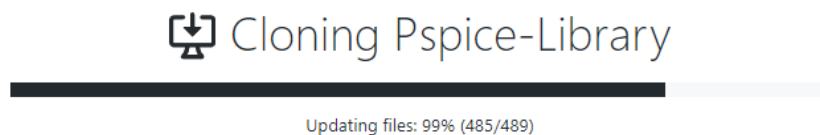


Figure 13: Cloning in progress.

3.3 Synchronize Local Library from GitHub

If there are updates in GitHub repository, GitHub Desktop will detect it. You can “Pull” the update to your local directory. If there are any new commits on the online master repository, from GitHub Desktop you’ll receive the update information automatically.

Click “Pull origin” button to fetch the updates to your local directory immediately.

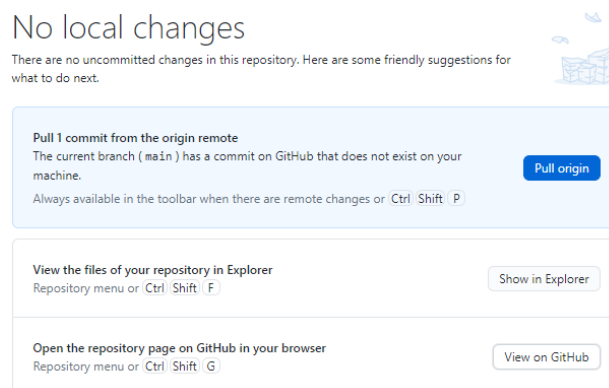


Figure 14: Pulling the repository to your local directory.

Click “View on GitHub” to explore more details of the latest updates.

hywu-eisos Upload User Manual		6c9b5d9 · 2 minutes ago	🕒 4 Commits
library	create folder	14 minutes ago	
symbol	create folder	14 minutes ago	
README.md	Create README.md	2 days ago	
User Manual - WE Pspice Library.pdf	Upload User Manual	2 minutes ago	

Figure 15: View the updates on GitHub.

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USEFUL LINKS



Application Notes

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REDEXPERT Design Platform

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Toolbox

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Product Catalog

www.we-online.com/products

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