USER GUIDE

UGxxx | Using the PSpice Libraries

Ella Wu

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.

For any new users of a tool, the basic functionalities must be learned before the tool can be put to use. For PSpice, knowing how to correctly install and find the models is crucial. Our PSpice models consist of a symbol file (*.olb) and a netlist file (*.lib). Our models are available on these platforms: Würth Elektronik homepage and GitHub repository.

Note: The following instructions are base on PSpice versions 2023.

2. INSTALLING THE LIBRARIES

2.1 Downloads from Würth Homepage

All our latest Eagle libraries can be downloaded from the Würth Elektronik homepage.

Browse www.we-online.com >> Components >> Find the product unit according to the catalog.

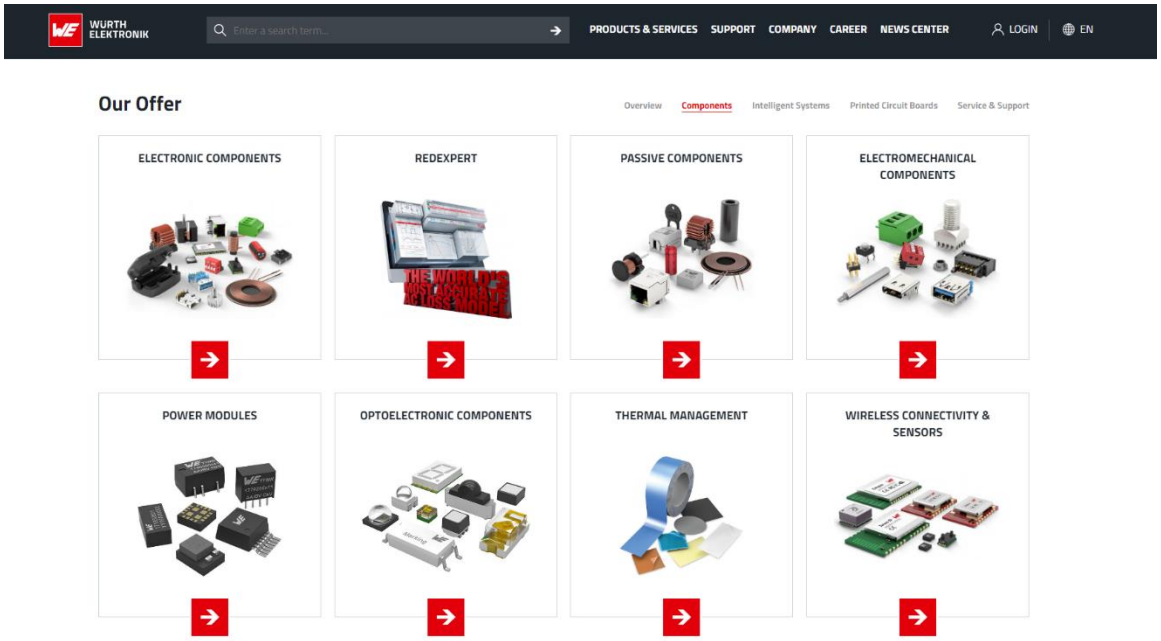

Figure 1: Würth Elektronik homepage

Or enter a search term such as part number or series.

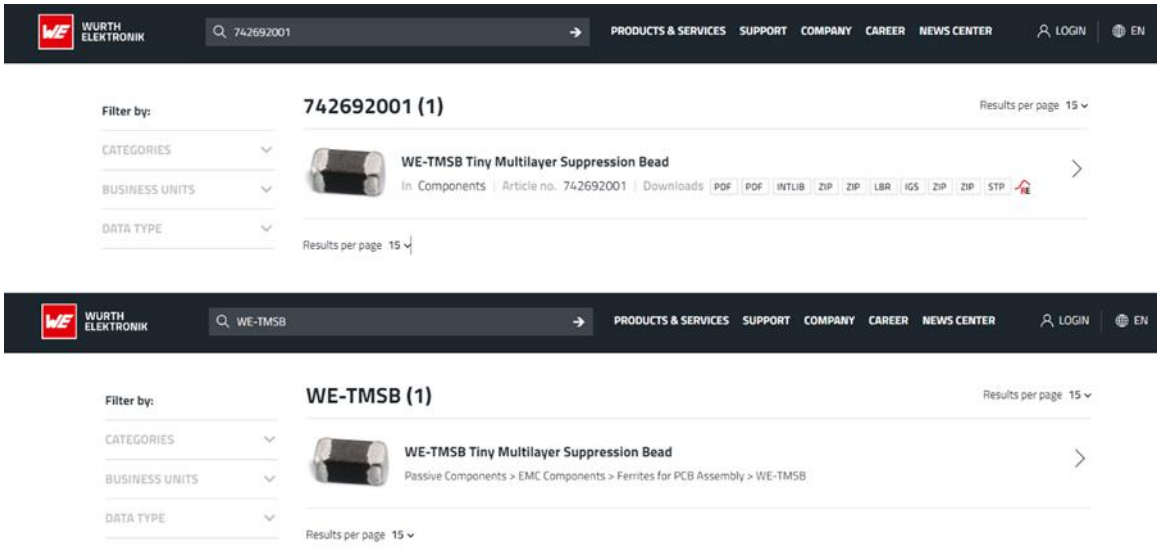

Figure 2: Search part number or series

Enter Product series page >> expand the Downloads dropdown for the desired part number >> click Eagle file to download it.

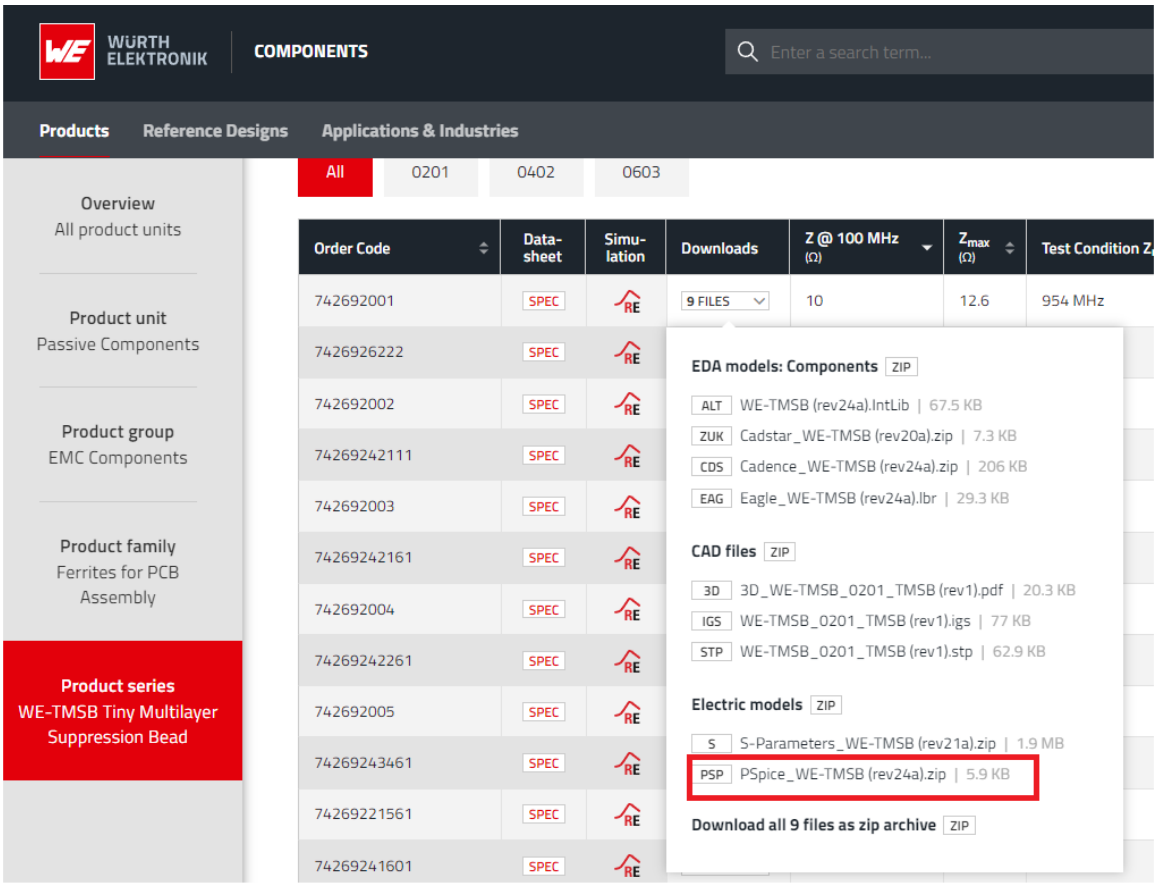

Figure 3: Download PSpice libraries on Würth Homepage

2.2 Save the Libraries

Note: This step is optional but allows you to quickly find the libraries in the next step of the installation, you can skip this step to store the library files in any folder, but you need to remember the path where you stored the libraries.

If the PSpice libraries are only being used in a certain schematic, 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).

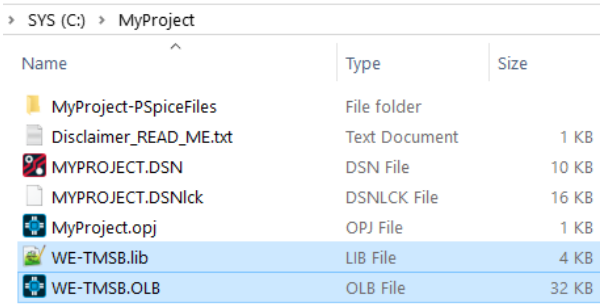

Figure 4: Model files in same folder as schematic

2.3 Install the Local Libraries

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

Click the Place Part symbol from the toolbar on the left (or type 'P'). Or select Place in Toolbar on the top >> Part

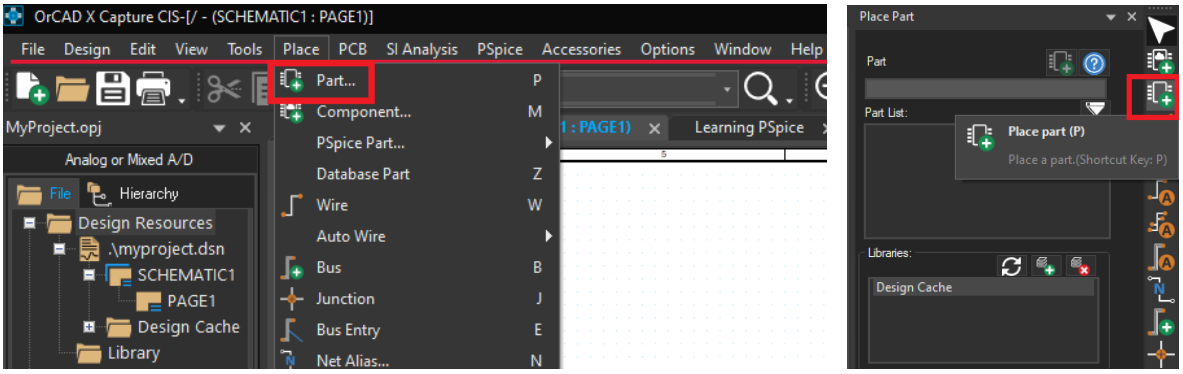

Figure 5: Place Part

Add the Library to your project by clicking the Add Library symbol on Place Part window (or type 'Alt+A'), then Browse File and select the desired symbol file (*.olb) and click open.

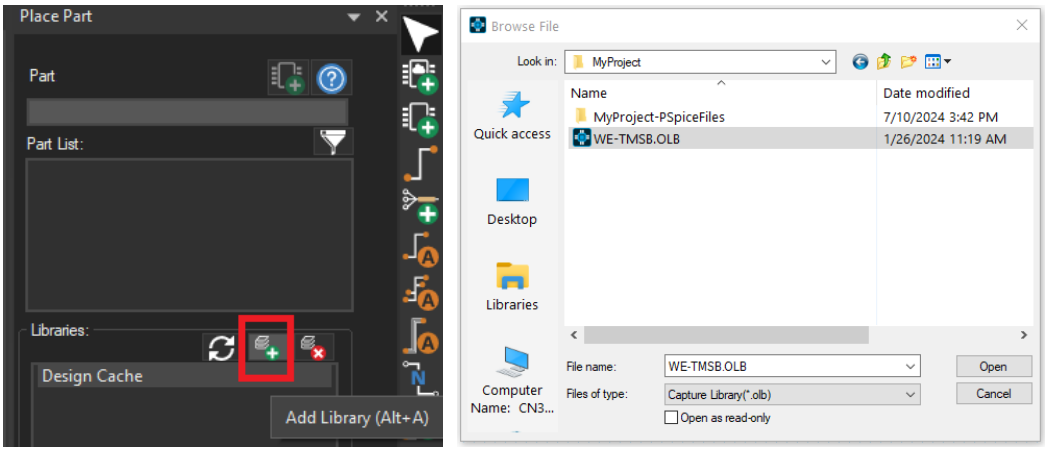

Figure 6: Add Library

Choose the desired part number by double-clicking and place the symbol in the schematic.

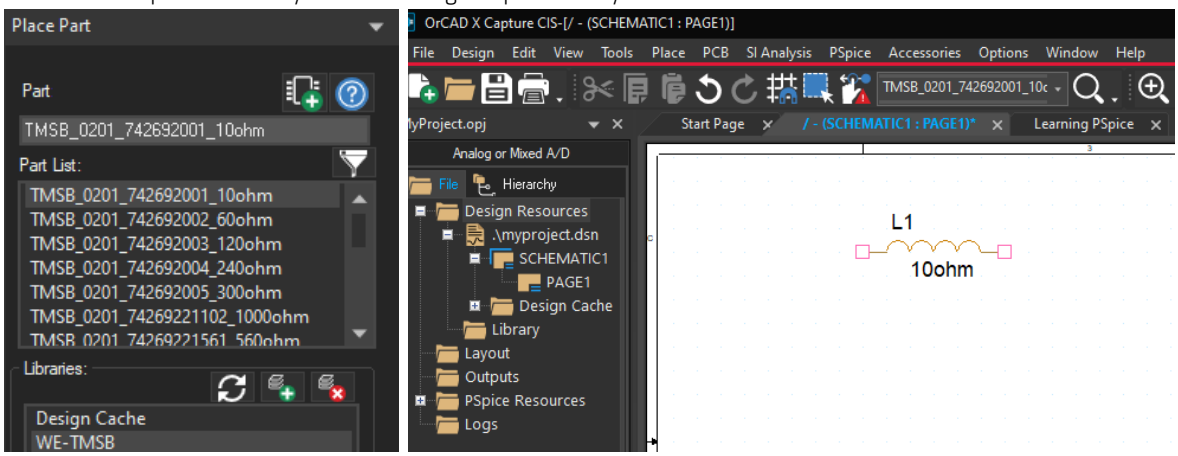

Figure 7: Place Component

2.4 Configure Netlist File

This step is very critical, only correctly configured netlist files, we can run the simulation properly.

Select PSpice in Toolbar >> New simulation Profile or Edit Simulation Profile If you have already created a Simulation Profile.

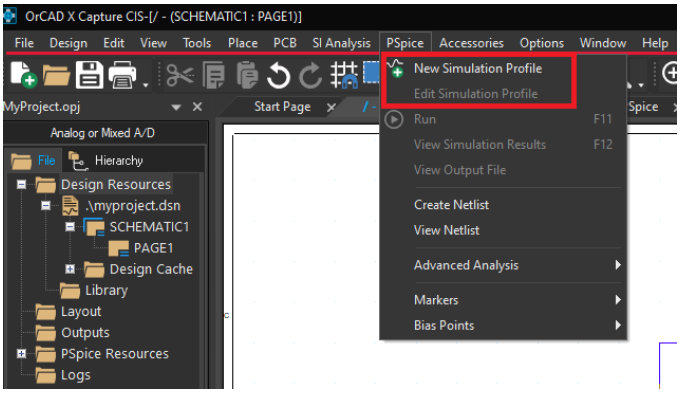

Figure 8: New or Edit Simulation Profile

Configuration Files >> Library >> Browse File and select the desired netlist file (*.lib) and click open.

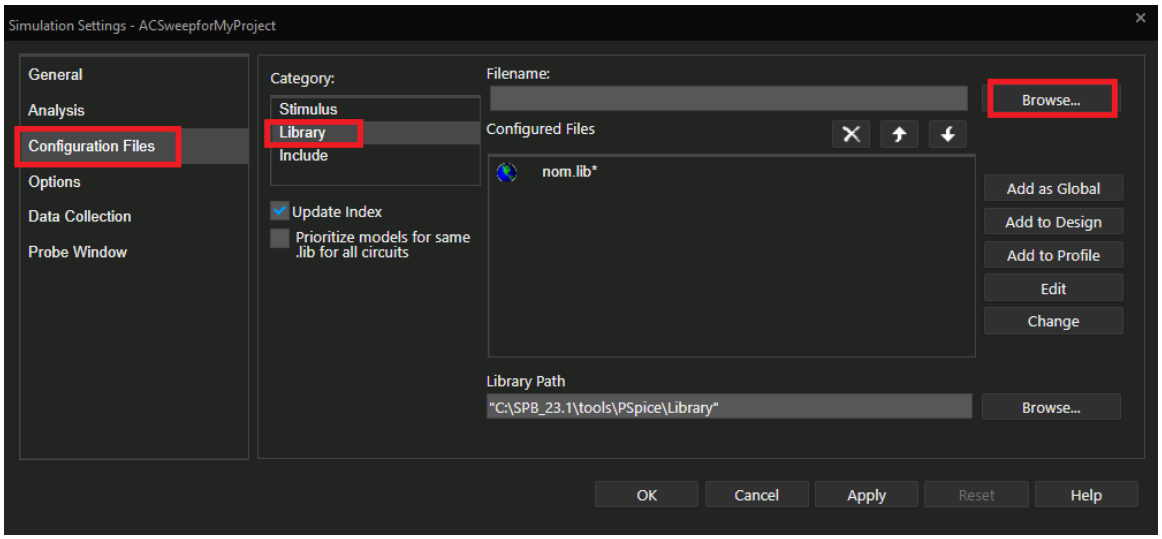

Figure 9: Add Netlist File

Select Add as Global or Add to Design. if the component is used in more than one project, add it as a global item. Click OK and save the simulation profile.

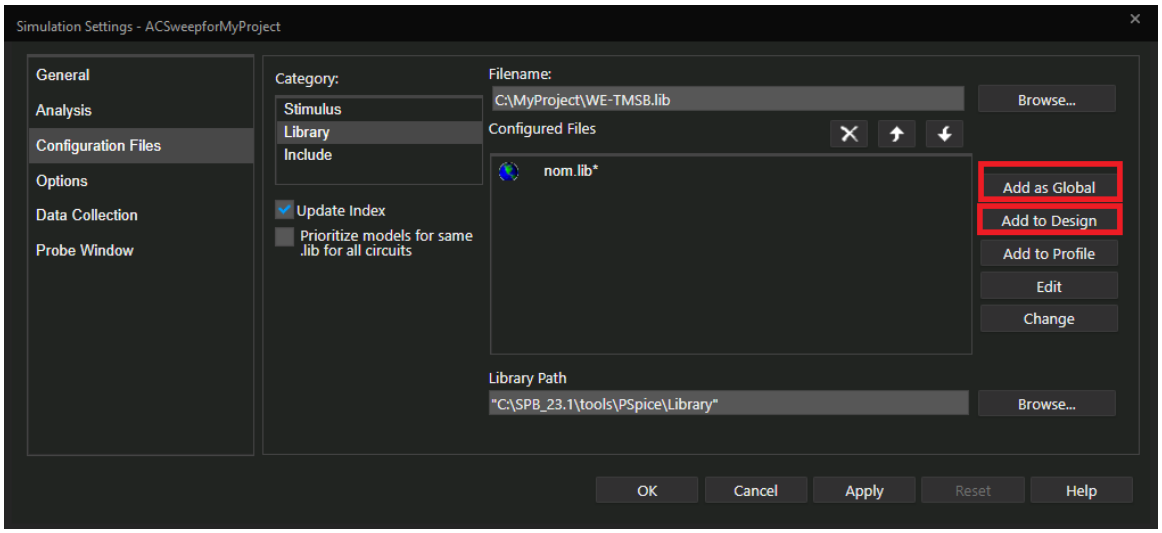

Figure 10: Add as Global or Design

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 the opening GitHub Browser webpage authenticate yourself and give permission to the GitHub desktop application. Then the process jumps back to the Desktop tool/application.

3.2 Clone the Library

From GitHub Desktop, click the button Clone a repository from the Internet as shown in the following screen in Figure13.

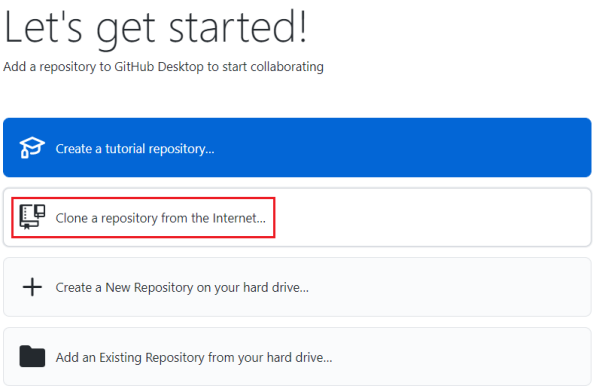

Figure 11: Clone a repository from the Internet

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

Then click the **Clone** button, all the files from the online repository will begin to synchronize into local.

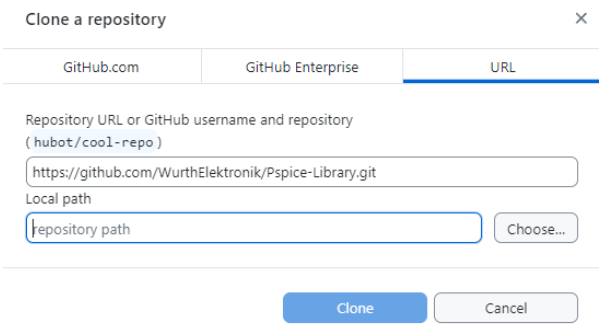

Figure 12: Clone Setup

Cloning repository will take some time.

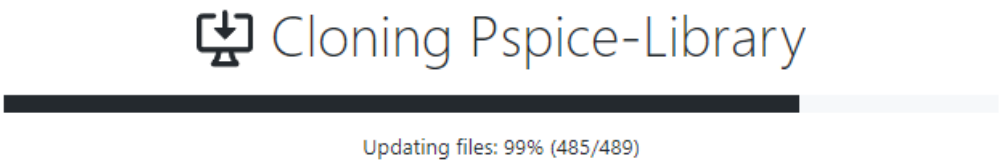

Figure 13: Clone in progress

3.3 Synchronize Local Library from GitHub

If there are updates in GitHub repository, GitHub Desktop will detect it and you can "Pull" the update to your local. 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 local folder immediately.

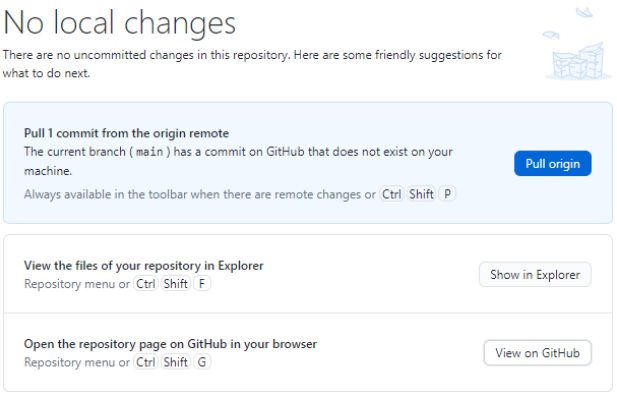

Figure 14: Local repository update option

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

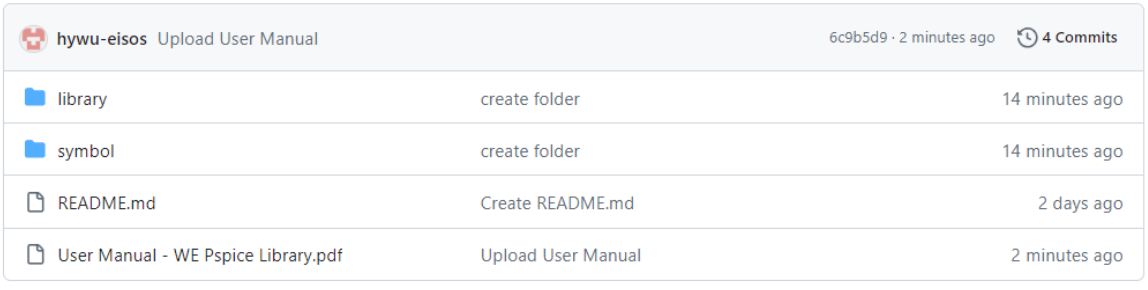

Figure 15: View the updates on GitHub

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CONTACT INFORMATION

appnotes@we-online.com
Tel. +49 7942 945 - 0

Würth Elektronik eiSos GmbH & Co. KG
Max-Eyth-Str. 1 · 74638 Waldenburg
Germany
www.we-online.com