

USER GUIDE

UG005 | Using the Eagle Libraries

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1. INTRODUCTION

EAGLE is electronic design automation (EDA) software that lets printed circuit board (PCB) designers seamlessly connect schematic diagrams, components placement, PCB routing, and comprehensive library content.

Würth Elektronik offers libraries for many components, which are mostly pre-installed in the Eagle Managed Libraries. Users can also find our libraries on the Würth Elektronik homepage, Eagle Managed Libraries, and GitHub. Note: These instructions are for EAGLE versions 9.0.1 and later; earlier versions may have different features and interfaces.

2. INSTALLING THE LIBRARIES

a. Downloads from Würth Homepage

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

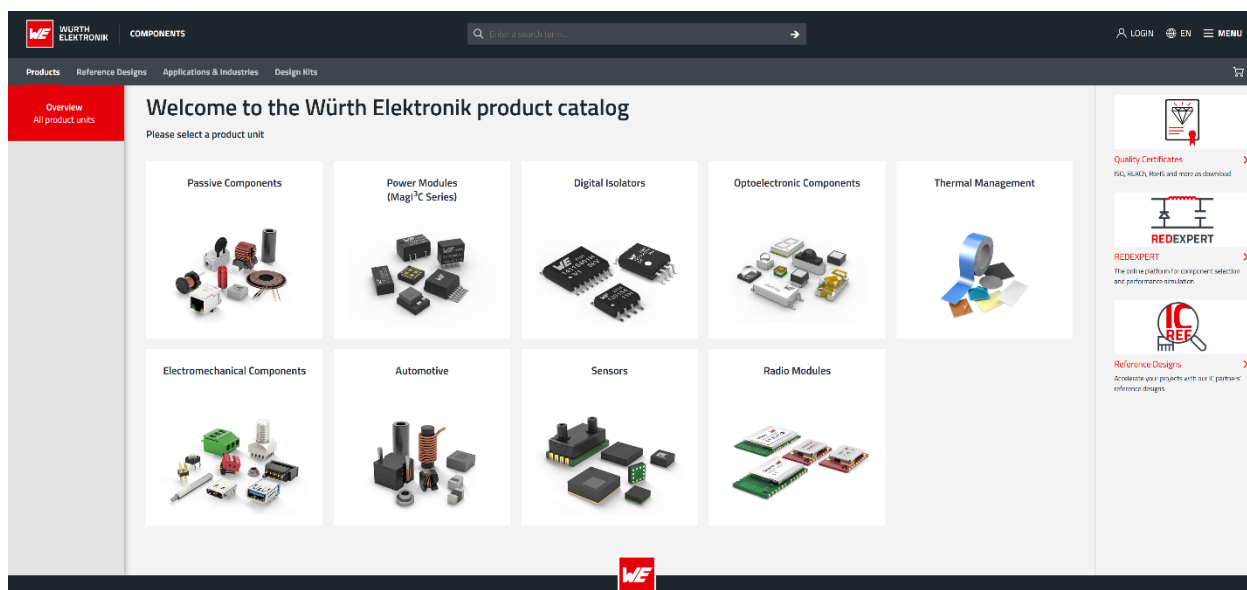


Figure 1: [Würth Elektronik Homepage](#).

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

The first screenshot shows the search results for part number 742692001. The search bar at the top contains '742692001'. The results show '742692001 (1)' with a filter by 'Categories', 'Business Units', and 'Data Type'. The product is 'WE-TMSB Tiny Multilayer Suppression Bead' with a download icon. The second screenshot shows the search results for the series 'WE-TMSB'. The search bar contains 'WE-TMSB'. The results show 'WE-TMSB (22)' with a filter by 'Categories', 'Business Units', and 'Data Type'. The product is 'WE-TMSB Tiny Multilayer Suppression Bead' with a download icon. Below the product name, there is a link to 'USB connector application'.

Figure 2: Search part number or series.

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

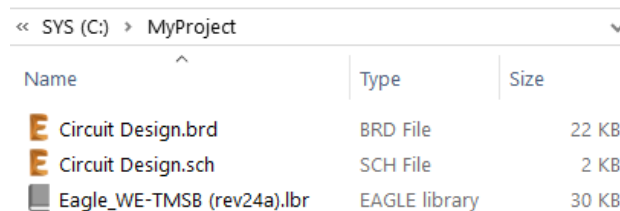
The screenshot shows the product series page for 'WE-TMSB Tiny Multilayer Suppression Bead'. The left sidebar shows the navigation menu with 'Product series' selected. The main content area shows a table of products with columns: Order Code, Data-sheet, Simulation, Downloads, Status, and Z @ 100 MHz. The 'Downloads' column has a dropdown menu with '10 FILES'. The 'Status' column shows 'Active' and '1'. The 'Z @ 100 MHz' column shows '10'. The table lists 10 products, each with a 'SPEC' link and a 'RE' icon. The 'Downloads' column for the first product (742692001) is expanded, showing a list of files: 'ALT WE-TMSB (rev24a).IntLib | 67.5 KB', 'CDS Cadence_WE-TMSB (rev24a).zip | 206 KB', 'EAG Eagle_WE-TMSB (rev24a).lbr | 29.3 KB' (highlighted with a red box), 'KIC KiCad_WE-TMSB (rev25a).zip | 110.1 KB', and 'ZUK Cadstar_WE-TMSB (rev20a).zip | 7.3 KB'. Below the table, there are sections for 'CAD files' and 'Electric models'.

Figure 3: Download Eagle libraries on Würth Elektronik Homepage.

b. Save the Libraries

Note: The step is optional but makes it easier to find the libraries in the next step of the installation. You can skip this step and save the library files in any folder, but you need to remember the path where you saved the libraries.

If the Eagle library is only being used in a certain schematic, the *.lbr file can be saved in the same local folder as the schematic file (*.sch) and the circuit board file (*.brd).



<< SYS (C:) > MyProject		
Name	Type	Size
 Circuit Design.brd	BRD File	22 KB
 Circuit Design.sch	SCH File	2 KB
 Eagle_WE-TMSB (rev24a).lbr	EAGLE library	30 KB

Figure 4: Model files in the same folder as schematic files.

Alternatively, the location of your Library can be defined directly in the Control Panel (Control Panel>>Options). Under the "Directories" tab, you can define the location for libraries. You can then save all Eagle libraries in the folder you have specified.

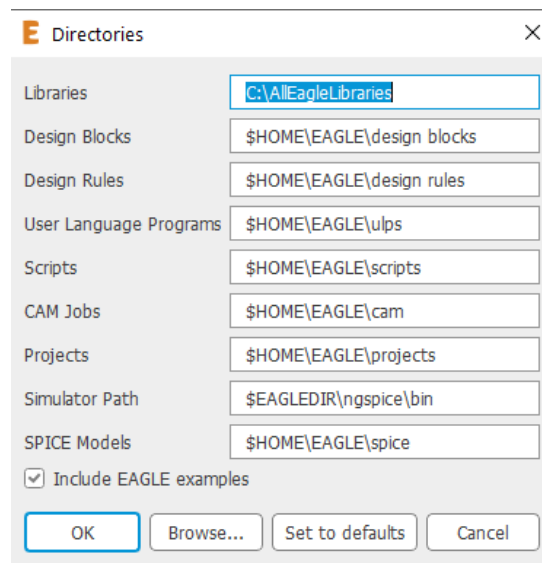


Figure 5: Define user library folder.

c. Install the Local Libraries

Run the Eagle software, open or create a schematic page and select "Library" in the toolbar. Open "Library Manager" and select "In Use". Browse the directory where the library is saved and select the library you wish to install. After clicking "Open" the library should have installed successfully and you should see all the installed libraries in "In Use".

Note: If you have defined a user library location in the previous step, the first time you click "Browse", it will open with the path you have specified.

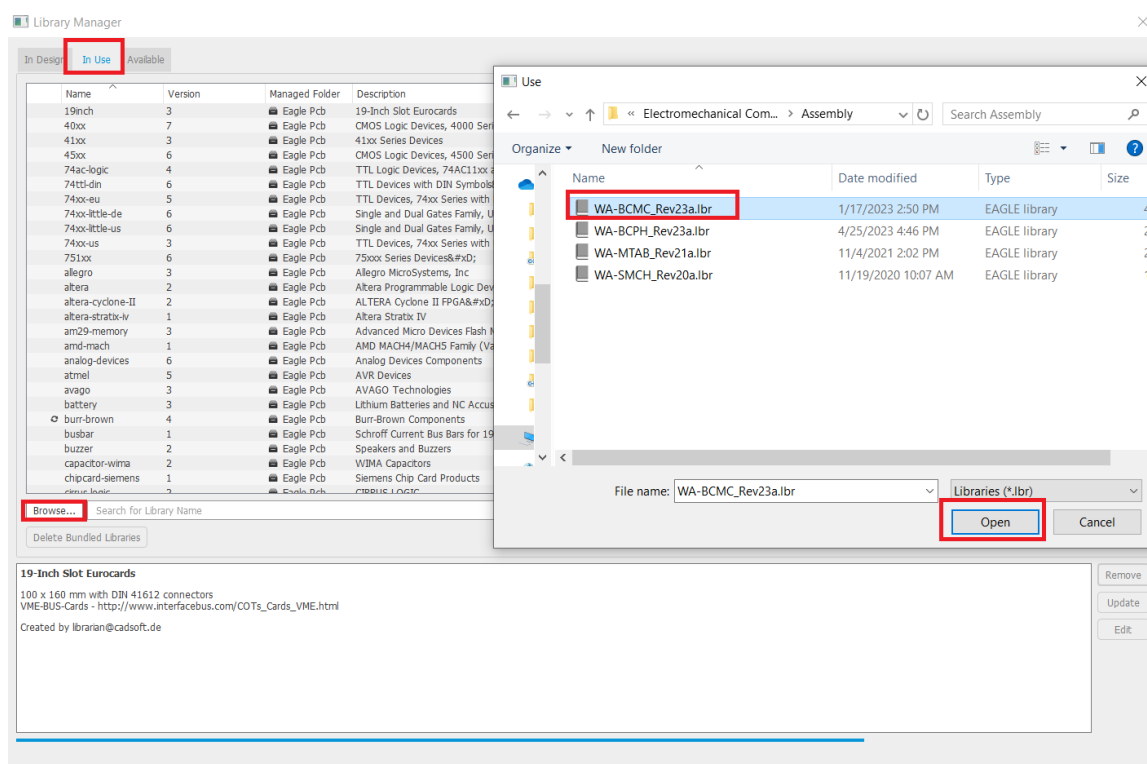


Figure 6: Installation of the libraries in "In Use".

Add the symbol to your schematic by clicking the "Add Part" symbol from the toolbar (or press 'Ctrl+Shift+A').

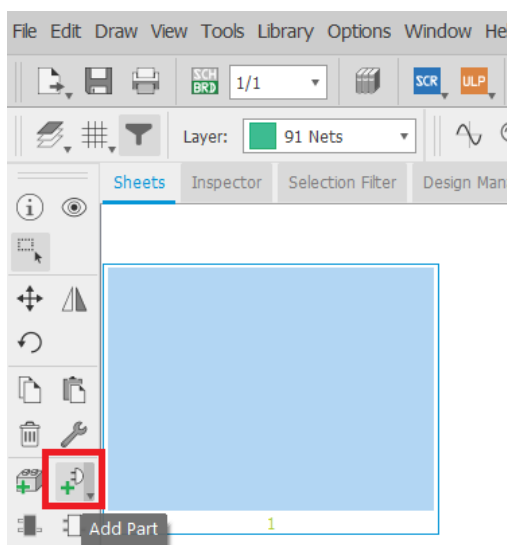


Figure 7: Add Part.

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Select "Library" and choose the part number, or use "Search" and "Attributes" to find the component you wish to use.

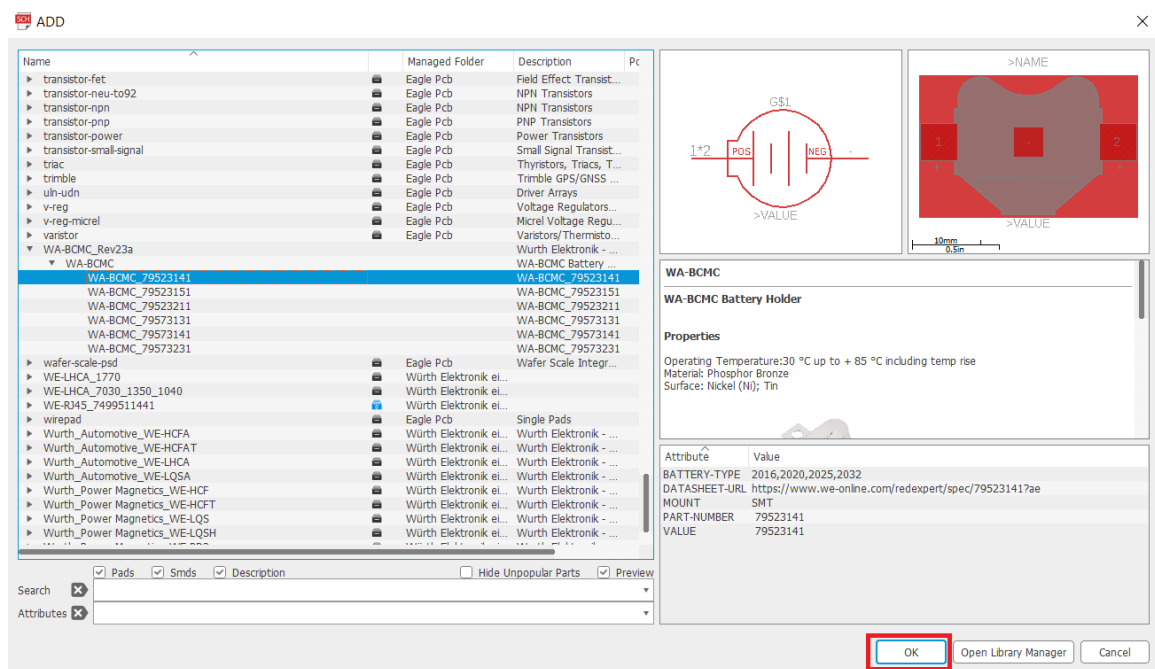


Figure 8: Select "Library" and choose the part number you wish to use.

d. Update the Local Libraries

Select "Library" in the toolbar, click "Update" and then "Browse". Navigate to the directory where the updated library is saved. Select the updated library and click open.

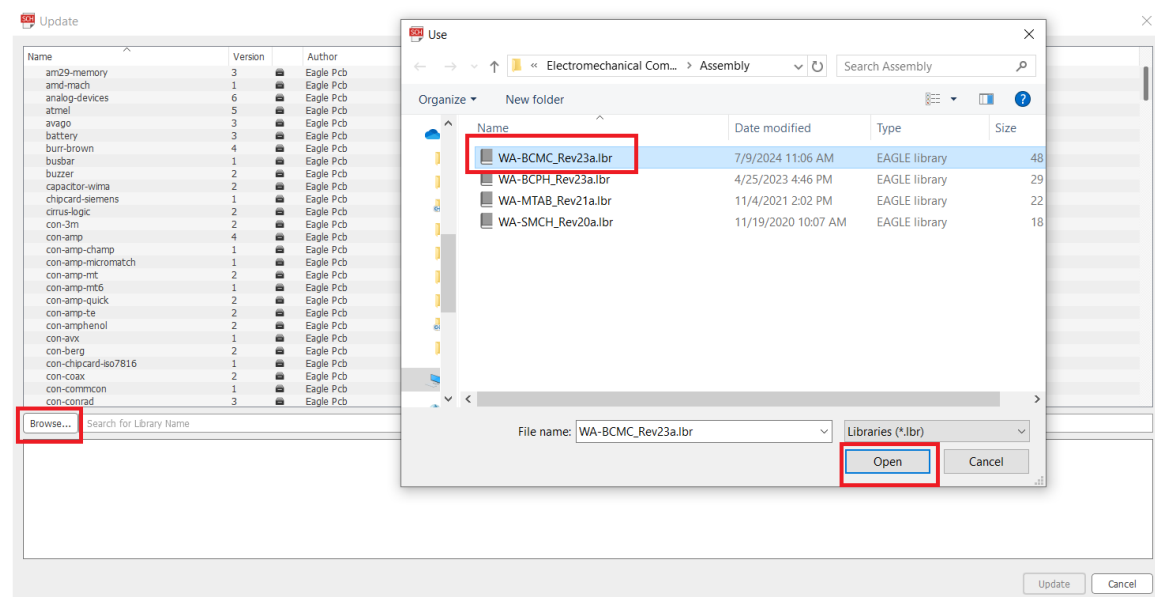


Figure 9: Update the Local Libraries.

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3. EAGLE MANAGED LIBRARIES

Library.io is a website provided by Autodesk, built to share, collaborate on, and store EAGLE libraries and 3D models.

EAGLE Managed Libraries are online EAGLE libraries and 3D models stored in the Managed folder of Library.io, which is available to users directly in the Eagle platform and alerts users when the library is updated.

You can find the Würth Elektronik libraries here: [Würth Elektronik Library.io](https://www.wueonline.com)

a. Install Managed Libraries+

On the Library Manager window, select “Available” and type “Würth” or the series you are interested in, into the search box. Select the relevant library and click “Use”. You can find the library in the “In Use”.

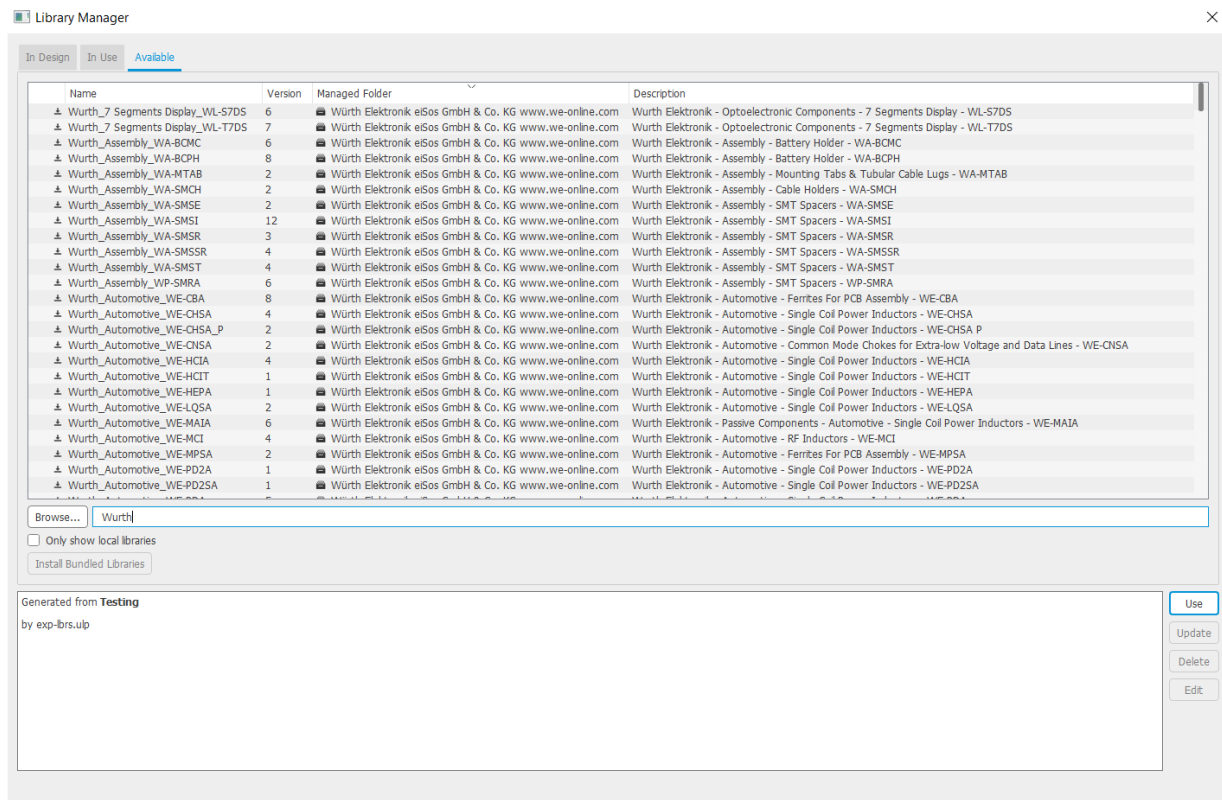


Figure 10: Search Managed Libraries.

b. Managed Folder from Würth

On the Control Panel window, expand Libraries and Managed Libraries. Then expand Würth Elektronik eiSos GmbH & Co. KG www.we-online.com. You will then see all the libraries from Würth Elektronik you have downloaded in the folder.

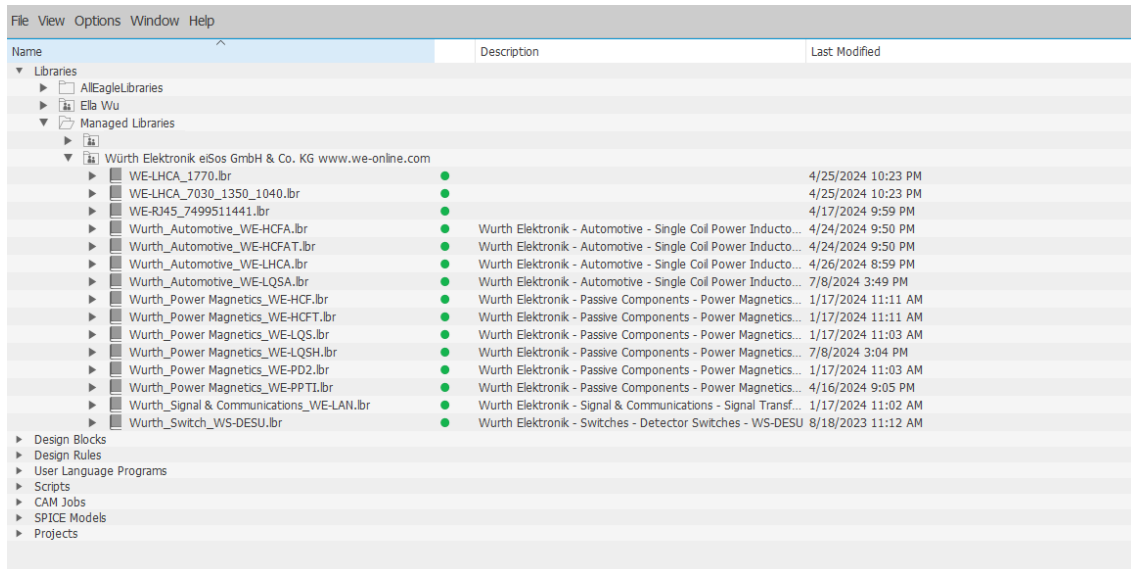


Figure 11: Managed Folder from Würth Elektronik.

c. Update Managed Libraries

When the first column of a library has a small cyclic icon, it means that the library has been updated.

To update the libraries in use to the most recent version, open the “Library Manager” window and select “In Design” or “In Use”. Select the library you want to update and click “Update”.

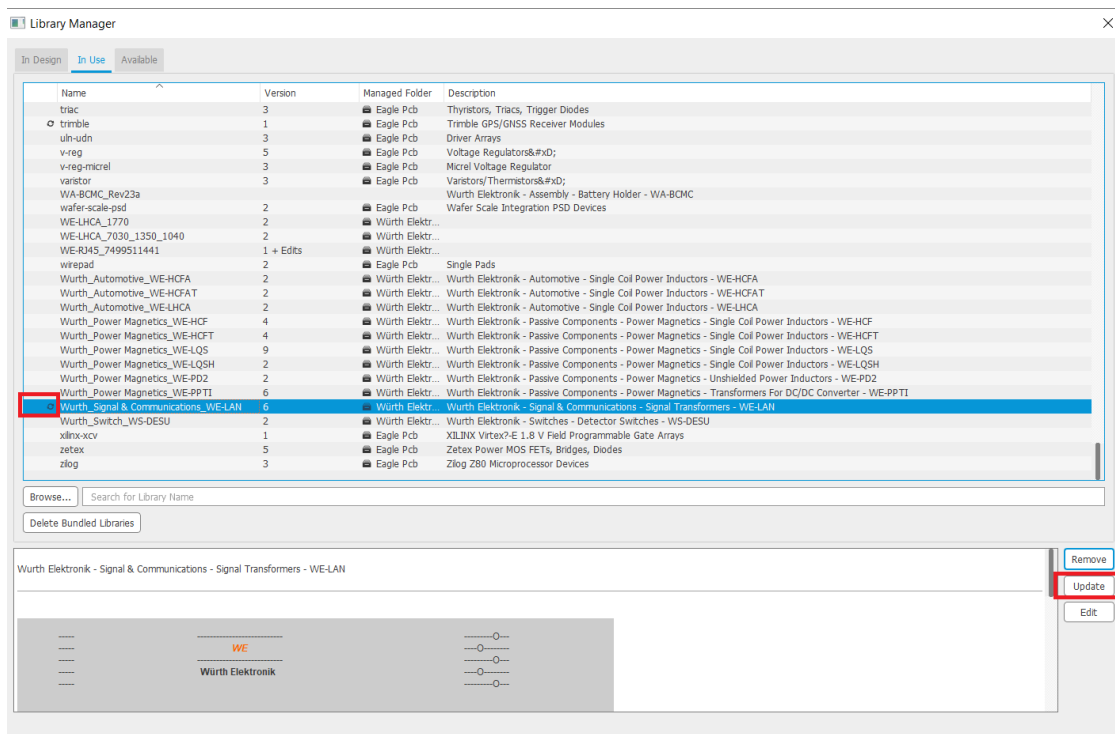


Figure 12: Update Managed Libraries.

4. INSTALL FROM GITHUB REPOSITORY

a. 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.

b. Clone the Library

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

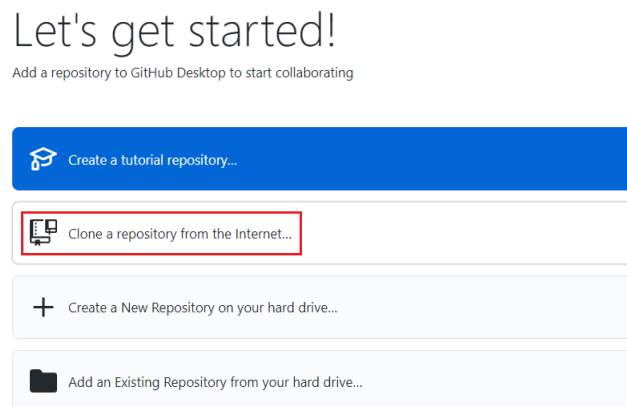


Figure 13: Clone a repository from the Internet.

Enter the URL of Würth Elektronik Eagle Library repository <https://github.com/WurthElektronik/Eagle-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.

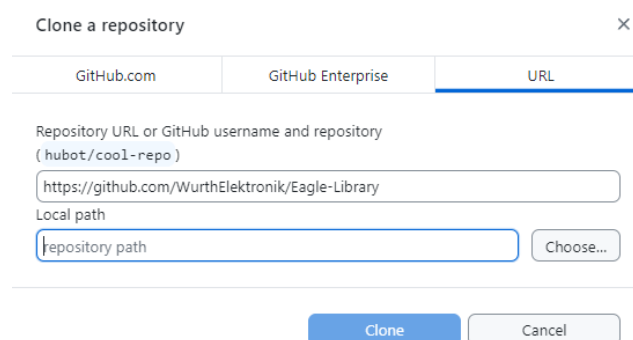


Figure 14: Cloning the Würth Elektronik Eagle Library repository to your local directory.

Cloning Eagle-Library

Receiving objects: 15% (66/434), 188.00 KiB | 336.00 KiB/s

Figure 15: Cloning in progress.

c. 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.

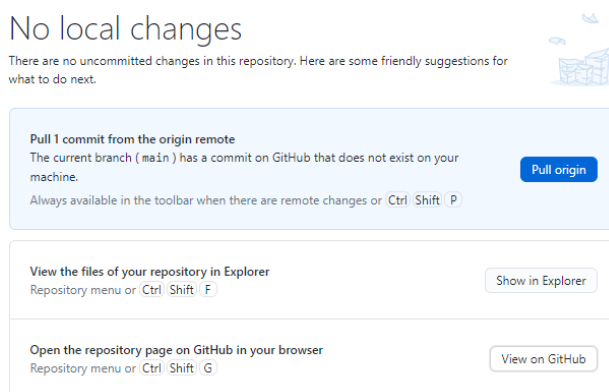


Figure 16: Pulling the repository to your local directory.

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

 hywu-eisos	Merge branch 'master' of https://github.com/WurthElektronik/Eagle-Lib...	b5680e6 · 6 minutes ago	 13 Commits
 Automotive	upload libraries	2 days ago	
 Digital Isolators	upload libraries	2 days ago	
 Electromechanical Components	upload libraries	2 days ago	
 Optoelectronic Components	upload libraries	2 days ago	
 Passive Components	upload libraries	2 days ago	
 Power Modules	upload libraries	2 days ago	
 Sensors	upload libraries	2 days ago	
 README.md	Update README.md	yesterday	
 User Manual - WE Eagle Library.pdf	Upload User Manual	6 minutes ago	

Figure 17: View the updates on GitHub.

IMPORTANT NOTICE

The Application Note is based on our knowledge and experience of typical requirements concerning these areas. It serves as general guidance and should not be construed as a commitment for the suitability for customer applications by Würth Elektronik eiSos GmbH & Co. KG. The information in the Application Note is subject to change without notice. This document and parts thereof must not be reproduced or copied without written permission, and contents thereof must not be imparted to a third party nor be used for any unauthorized purpose.

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USEFUL LINKS



Application Notes

www.we-online.com/apnotes



REDEXPERT Design Platform

www.we-online.com/redexpert



Toolbox

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Product Catalog

www.we-online.com/products

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