WÜRTH ELEKTRONIK MORE THAN YOU EXPECT

USER GUIDE

UGXXX | WE Ansys Library

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1. Introduction

Ansys was founded in 1970 to automate finite element analysis (FEA), which was previously performed by hand. They have developed a software suite which today includes mechanical, structural, CAD, fluid, material and electromagnetic simulations.

Würth Elektronik has a growing portfolio of models available for use in Ansys HFSS (High Frequency Simulation Software) or Ansys Icepak (thermal simulation). These models allow Ansys users to accurately simulate, troubleshoot and solve RF, EMI or thermal issues before going to production.

Our models are created to provide the best possible simulation results. They feature:

- Detailed and accurate material parameters for accurate simulation
- Highly detailed and precise 3D models
- Model creation process verified against known laboratory results
- Mesh optimized for balance of simulation speed and accuracy

For any new users of a tool, the basic functionalities must be learned before the tool can be put to use. For Ansys, knowing how to correctly install and find the models is crucial. Our models can be installed via three ways: Würth Electronics homepage, xml file, GitHub repository.

Note: The following instructions apply to Ansys versions 2023R1 or higher. Previous versions of Ansys have some significant differences, especially the geometry core.

2. Install from website

Note: Ansys models on homepage are always the latest.

2.1 Download from Würth homepage

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

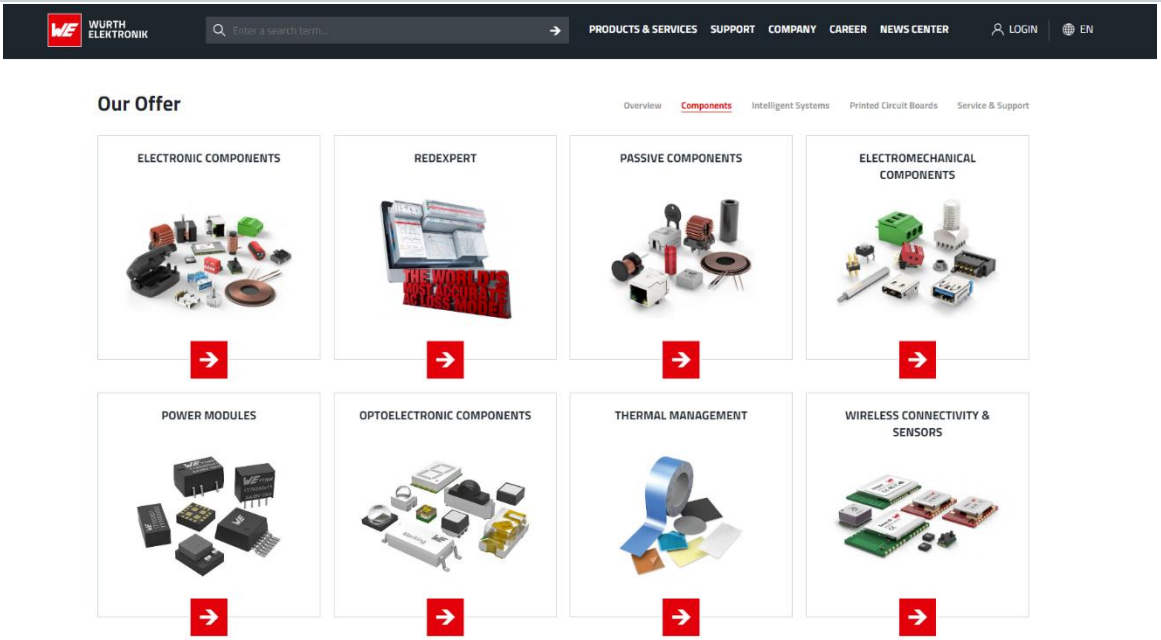

Figure 1: Würth Elektronik Homepage

Or search for the part number or series you are interested in. For example, search part number 744910016 or series WE-CAIR, this search result shows 744910016 has Ansys HFSS .a3dcomp model.

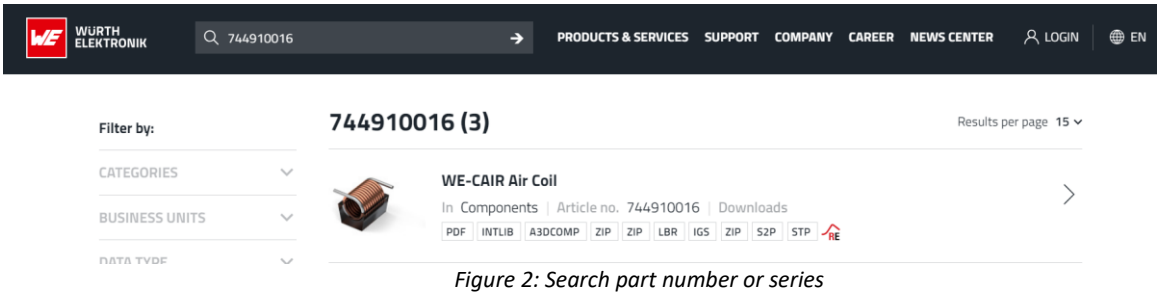

Figure 2: Search part number or series

For the desired part number, expand the Downloads dropdown, select and click the ADS zipped file to download it.

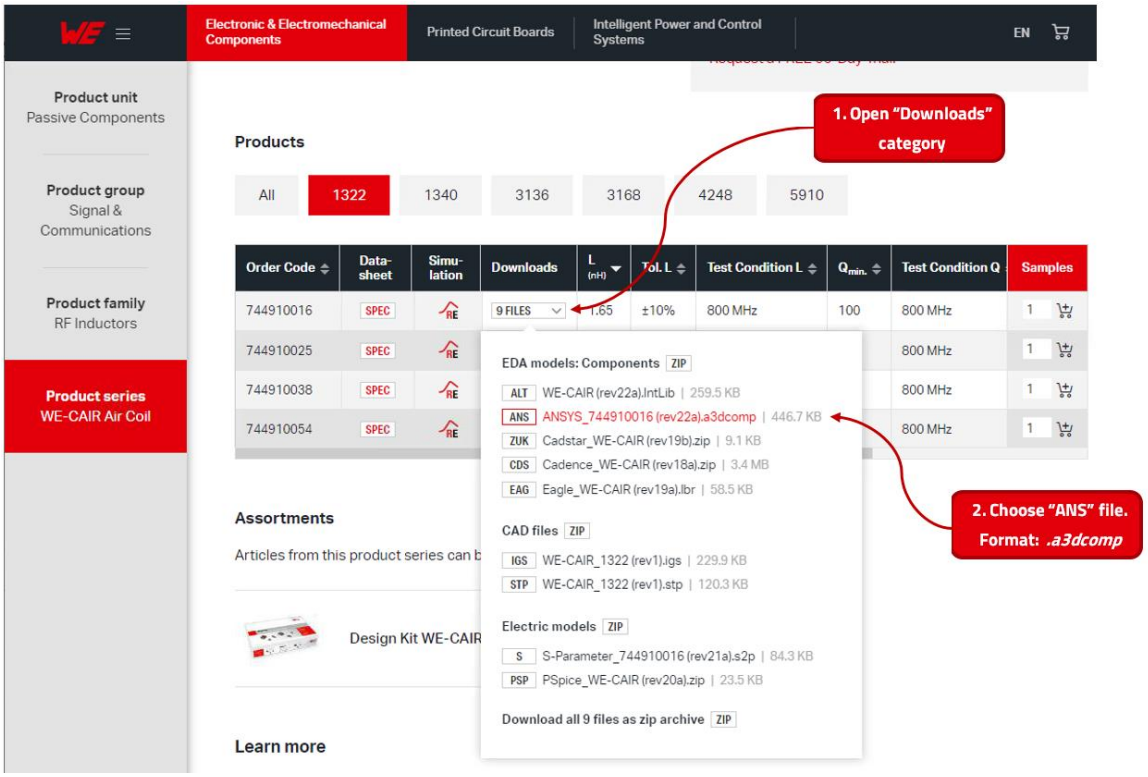

Figure 3: Download library

2.2 To install the model

Drag and drop the downloaded file into the Ansys Desktop window.

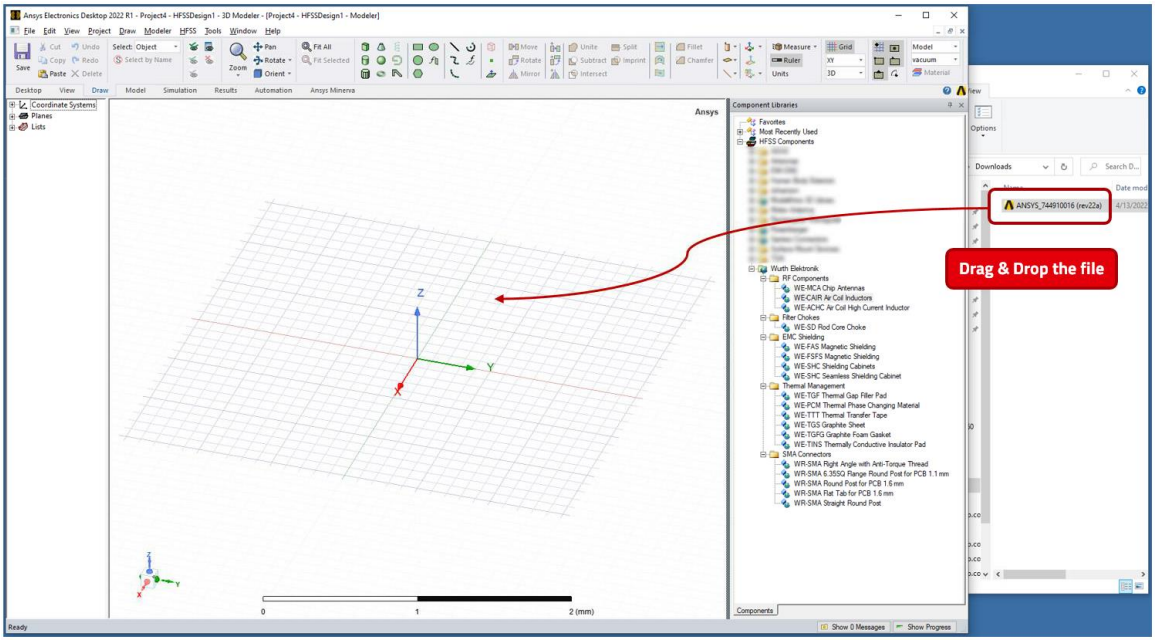

Figure 4: Import model to HFSS

The model is now ready for you to use.

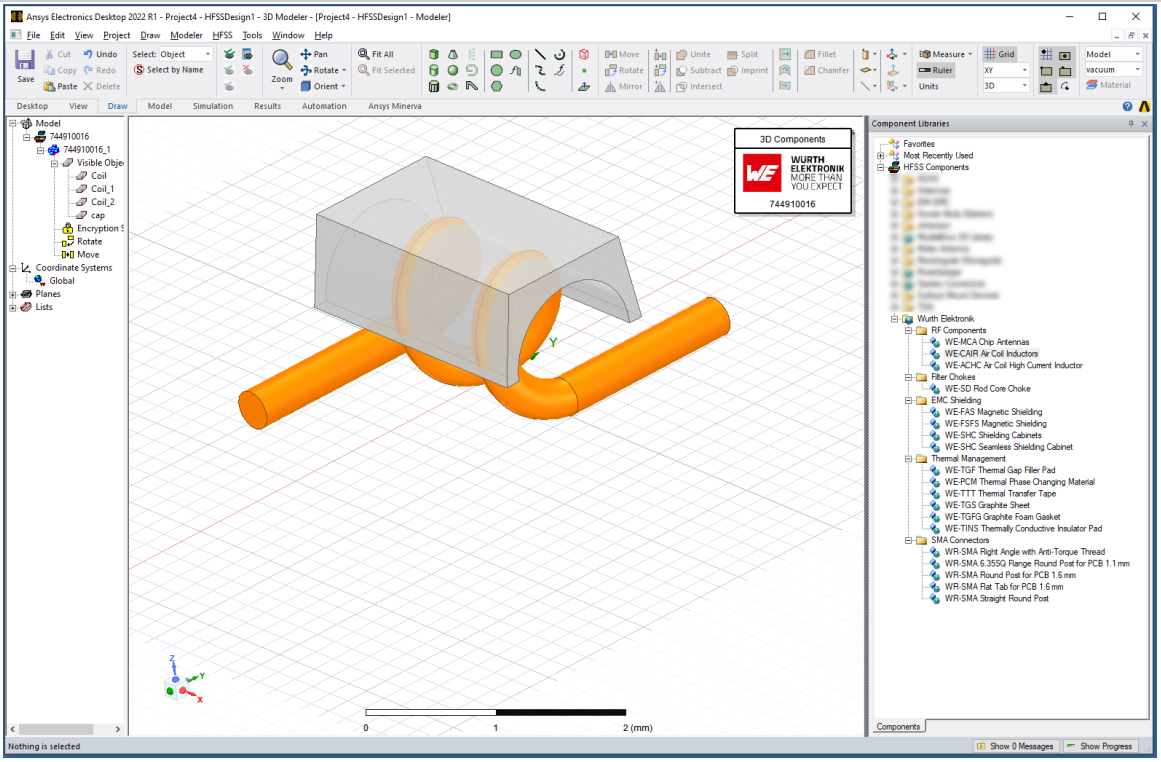

Figure 5: Imported model in HFSS.

3. Install from xml file

Note: Zipped Ansys models and xml file on landing page are updated quarterly so they may not be the latest. For the latest model please refer to our github repository.

3.1 To download the xml file

Visit Würth Elektronik Ansys landing page https://www.we-online.com/en/support/design-tools/libraries/ansys as below:

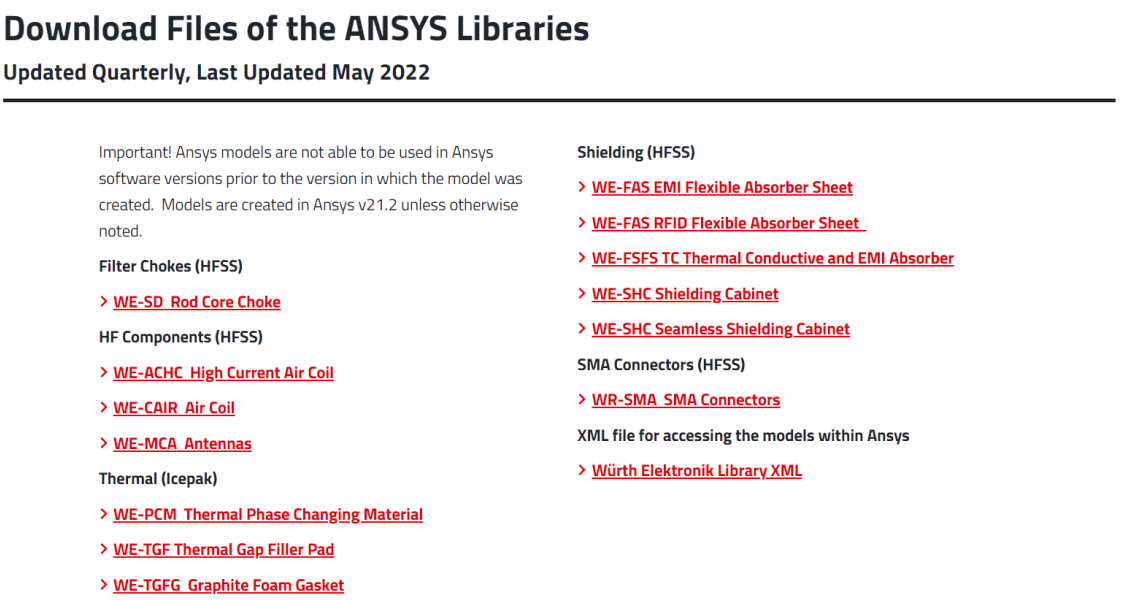

Figure 6: Ansys landing page

The landing page is integrated for Ansys library introduction and models. Here you can download zipped Ansys models by series and xml file.

3.2 To install the xml file

In this section, you can find the guideline of how to import xml file into Ansys.

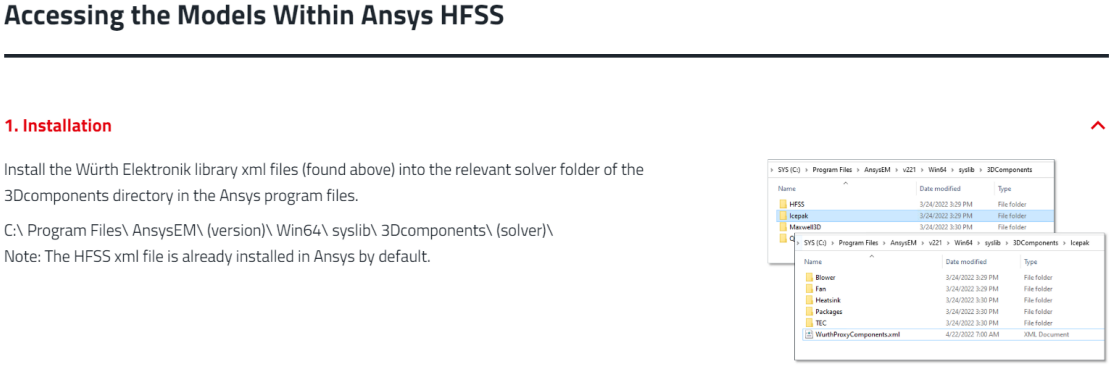

Figure 7: Install xml file

2. From the Ansys Electronics Desktop library, open the Würth Elektronik folder

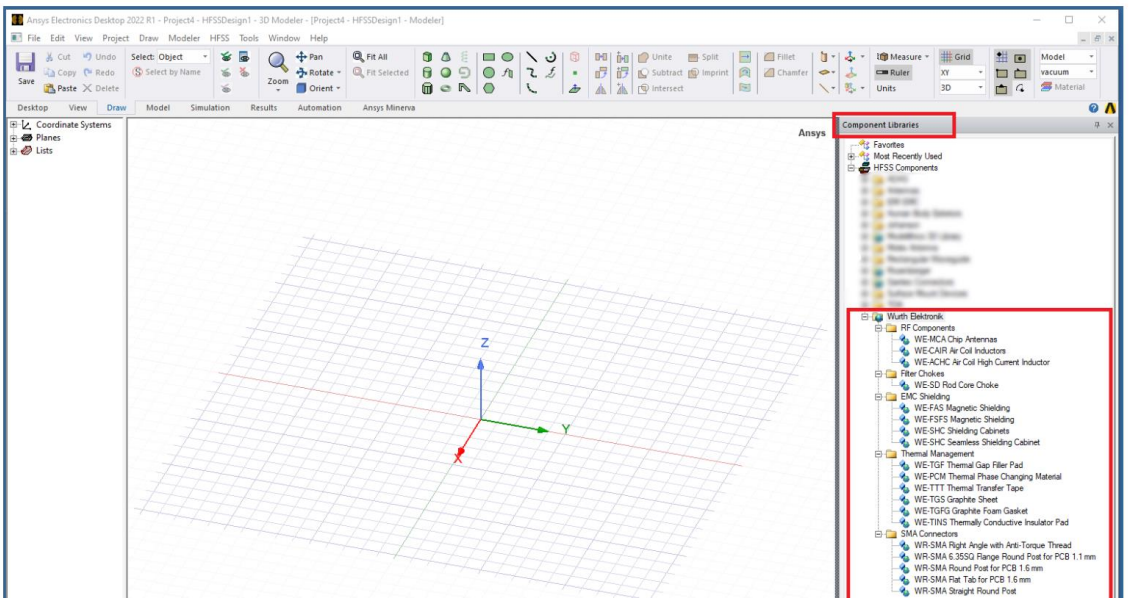

Figure 8: Open in HFSS

3. Double-click on the series of the desired model. This will open the corresponding series webpage

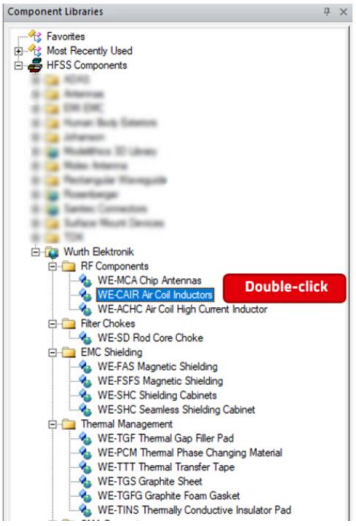

Figure 9: Lead to corresponding webpage

The next steps are the same as downloading from the homepage.

4. Install from GitHub repository

Note: Ansys models and xml file in GitHub repository are always the latest.

4.1 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.

4.2 Clone the library

From GitHub Desktop, click the button Clone a repository from the Internet. Enter the URL of Würth Elektronik Ansys-Model repository https://github.com/WürthElektronik/Ansys-Model.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.

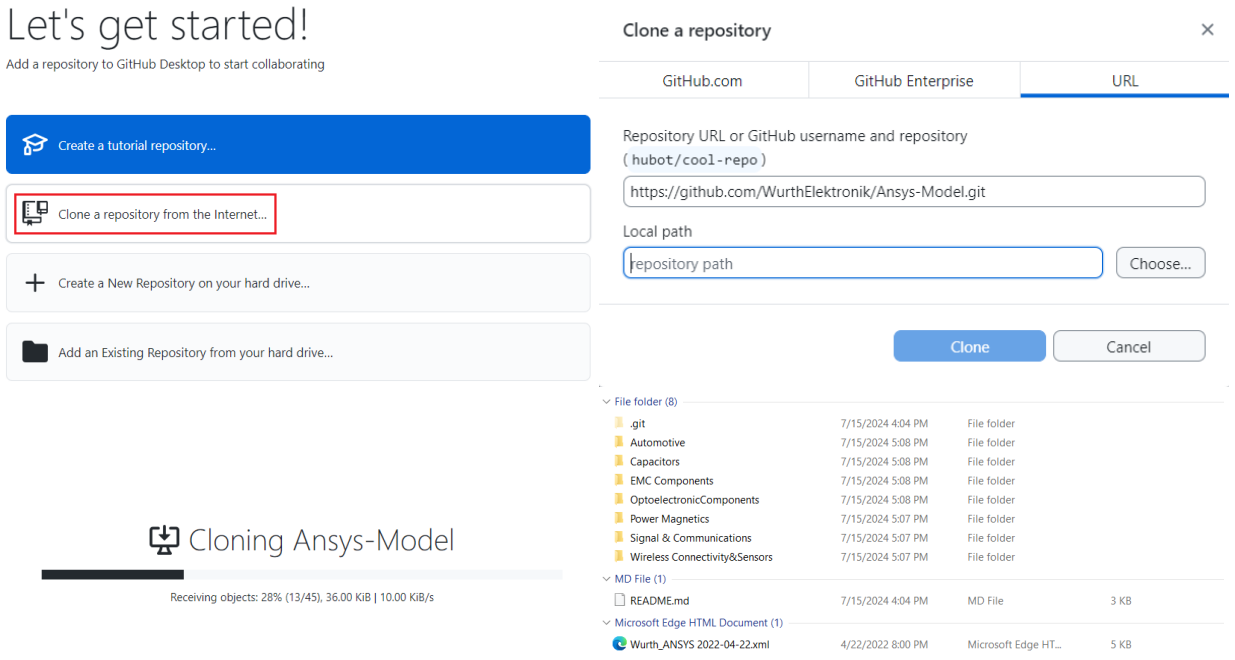

Figure 10: Clone the library

4.3 Synchronize local library from GitHub

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

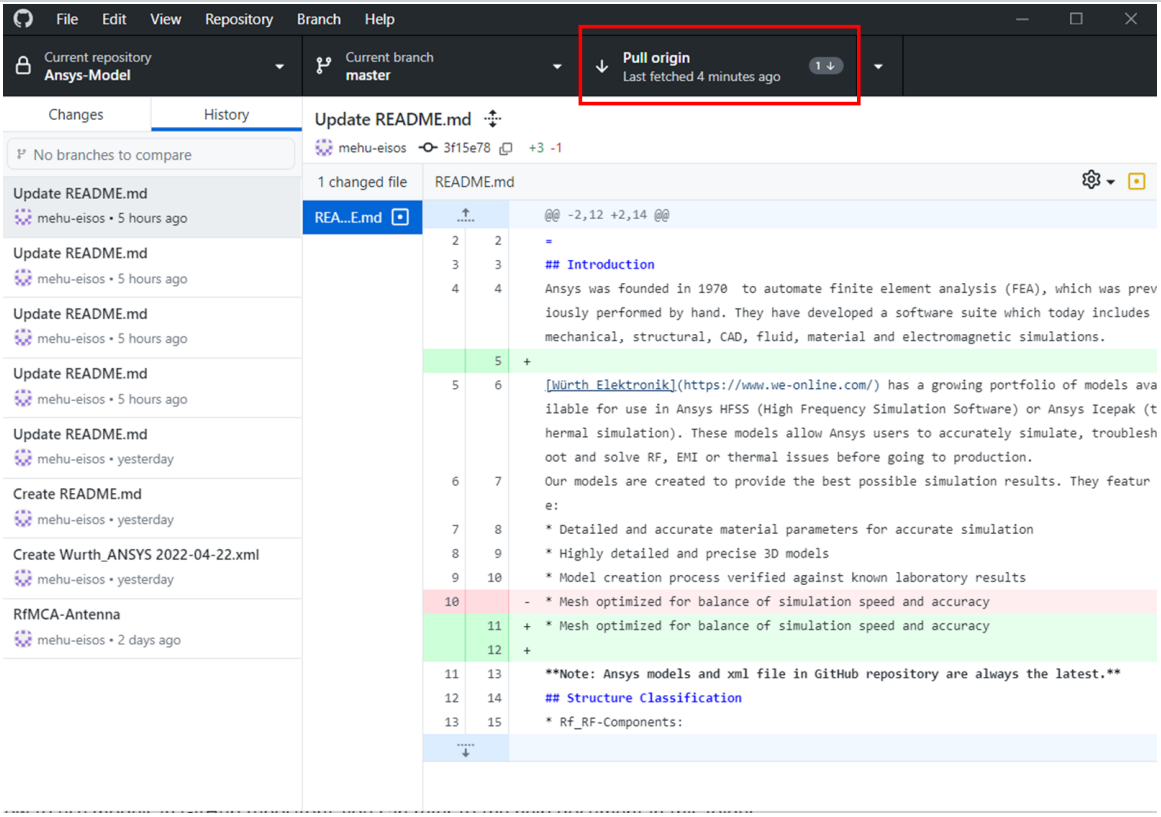

Figure 11: Synchronize from GitHub

Tips: You can select clone folder in C:\Program Files\AnsysEM\(version)\Win64\syslib\3DComponents\(solver). Then you can directly use GitHub models in HFSS, which means that you can enjoy xml structure convenience but don't need to download again and the models are always latest if you synchronize regularly.

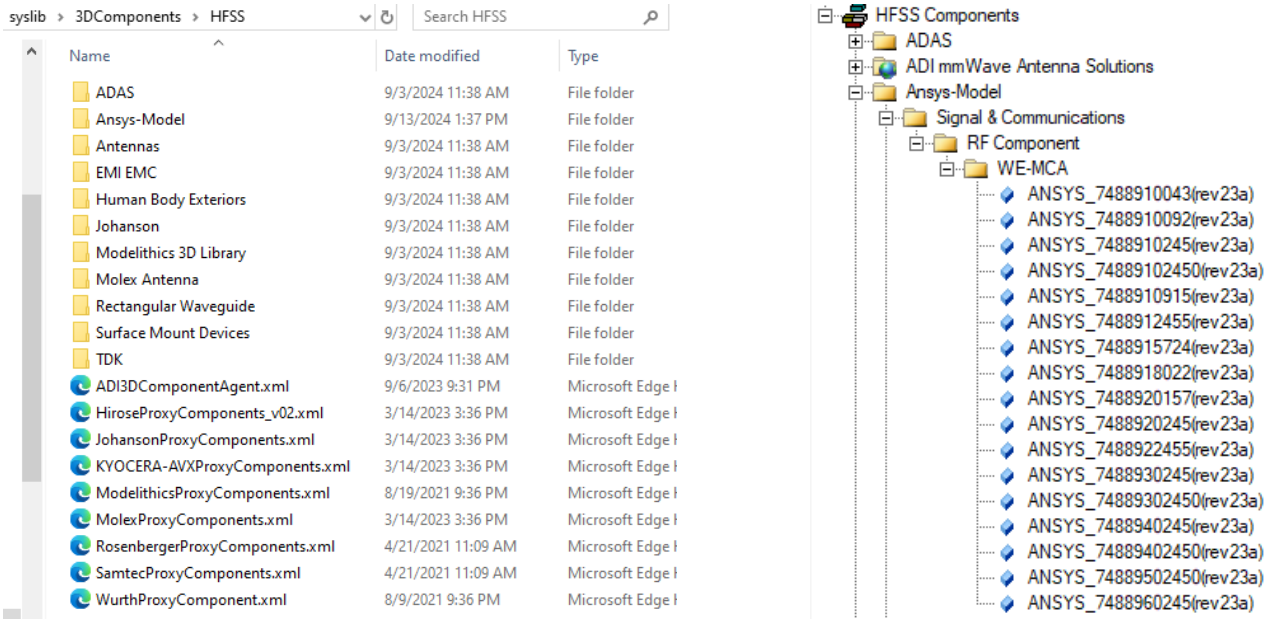

Figure 12: Use for simulation

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