



WikiComponents^{BETA}

Your Open Source for Accurate 2D and 3D Component Data

User Guide

WikiCCTM

Linking Wiki Components & CAMCAD Professional

Version 3/10

TABLE OF CONTENTS:

1.0	What is WikiCC?	Page	3
1.1	Using WikiCC	Page	4
1.1.1	Setup	Page	4
1.1.2	GUI Description	Page	6
1.2	Creating the Wiki 2D XML File	Page	8
1.2.1	Downloading via a Partnumber BOM	Page	8
1.2.2	Downloading via a Package BOM	Page	9
1.2.3	Manually via a "Shopping Cart"	Page	10
1.3	Assigning Wiki Components to CAMCAD Packages	Page	11
1.3.1	Assign by Packages	Page	11
1.3.2	Assign by Partnumber	Page	12
1.3.3	Assign by User Attributes	Page	12
1.3.4	Manual Assignments	Page	13
1.4	Q&A.....	Seite	14

1.0 What is WikiCC?

WikiCC™ allows users of CAMCAD Professional to make use of the exciting capabilities of the web-based user portal Wiki Components.

Wiki Components is the industry's only open-source for accurate 2D and 3D component data. With an ever-growing library at their disposal, it is a logical complement to the CAMCAD Professional line of assembly and test software.

Here are some of the advantages which CAMCAD Professional users can achieve by linking WikiComponents into their design-to-manufacturing flow:

- Ensure the accuracy of purchasing BOMs and AVL lists
- Visually check the “fit“ of a given package on the landpatterns
- Perform advanced DFM checks based on the manufacturer package specifications
- Ensure proper assembly rotation match between design and assembly equipment
- Create 3D height drawings in, for example, Solidworks or PRO-E
- Perform advanced DFT checks based on the manufacturer package specifications
- Create advanced documentation of the entire assembly and test process

Using WikiCC is simple. All you need to do is:

1. Choose the packages you want from WikiComponents (either individually or via a BOM)
2. Download into a 2D Neutral XML File
3. Load the XML File into WikiCC
4. Make assignments based on Partnumber, Package Alias, or user-specified attributes
5. Click to see the parts in CAMCAD

The resulting part assignments are then part of the .CCZ file and will be available for all subsequent processes.

So, let's get started!

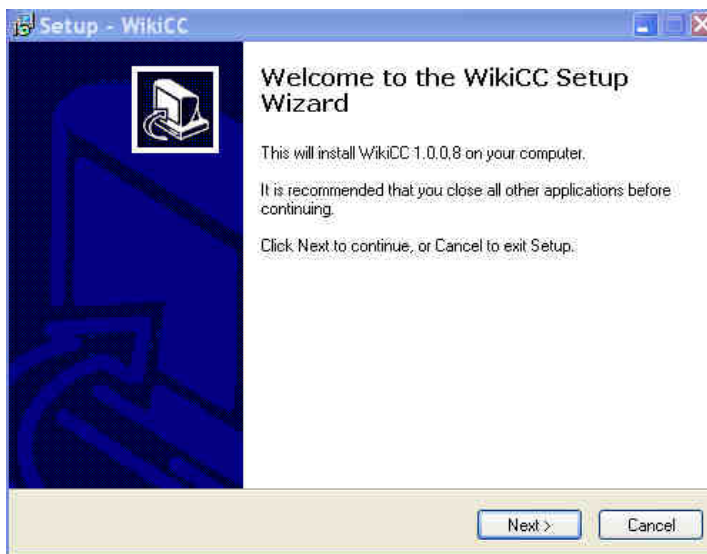
1.1. Using WikiCC

WikiCC™ is very easy to use. Just run the quick installer, start the program and you should be assigning parts in moments.

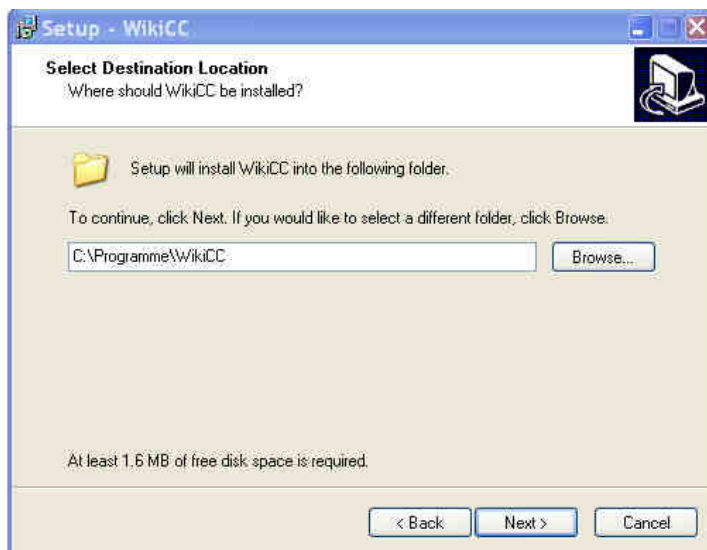
1.1.1 Installation

When you download **WikiCC™** you will have an installer called WIKICC_SETUP.

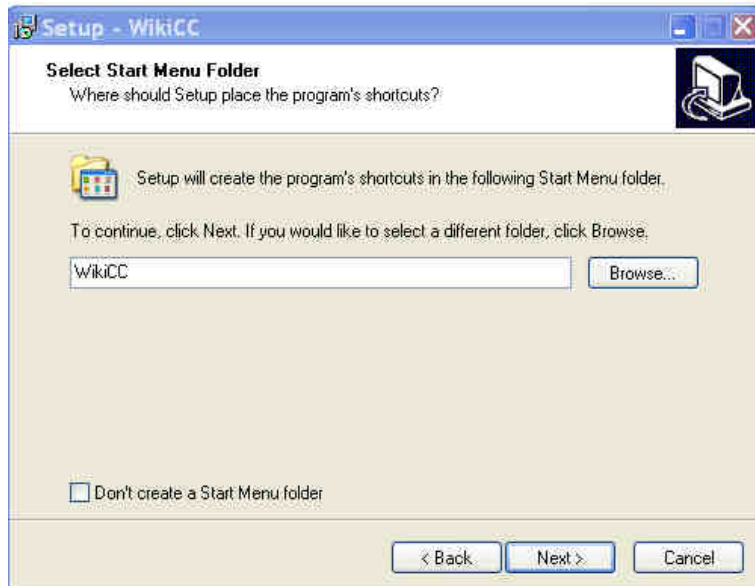
Just double click on the EXE and you will see the opening install screen. If you do not see the opening screen it is because you do not have the latest DOT-NET Framework. This standard Microsoft module is required to run the program. You will receive download instructions. Once you have downloaded, you can restart the installer. You should see this screen:



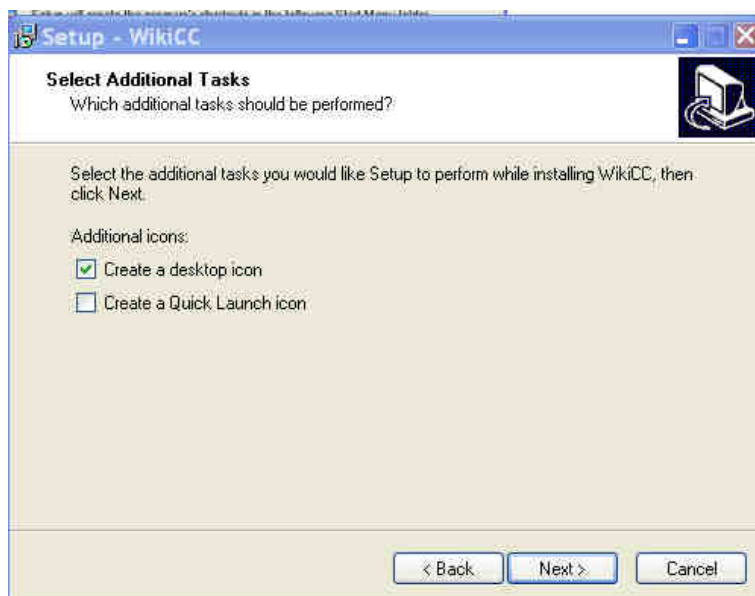
Click NEXT. Now choose your destination:



Either click NEXT or browse to a desired location.



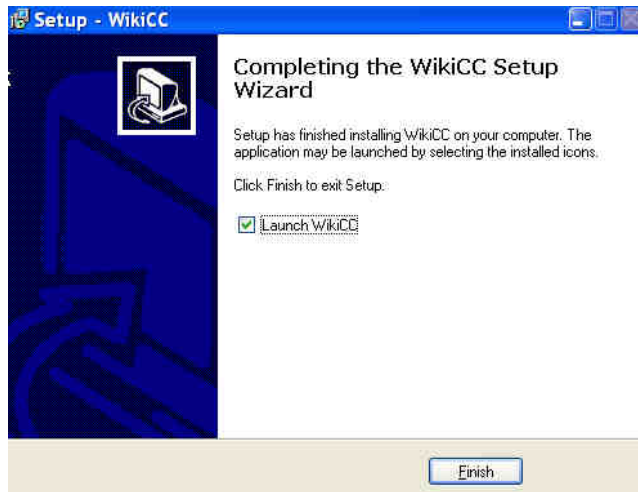
We recommend adding the program as a Start Menu Folder. If you wish to do this, click NEXT. Otherwise, choose DON'T CREATE A START MENU FOLDER and hit NEXT.



If you want to put WIKICC on your desktop select the option CREATE A DESKTOP ICON. If you want a "Quick Launch" in your lower Windows Bar, click CREATE A QUICK LAUNCH ICON and hit NEXT.

Finally you will see your current install settings. If you want to change anything hit BACK, otherwise hit NEXT to proceed with the install.

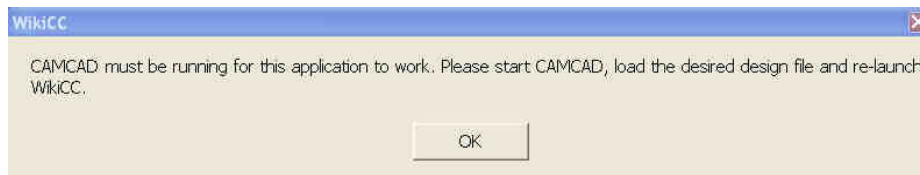
When finished you will see this screen:



To launch WikiCC simply hit FINISH. If you do not want to launch the program at this time, unselect the box LAUNCH WIKICC and hit FINISH.

1.1.2 GUI Description

Before you can start WikiCC you will need to have CAMCAD Pro opened with a CCZ file loaded. If CAMCAD is not running or no board has been loaded into CAMCAD, you will see this message:



If this is the case, please start CAMCAD, load a CCZ file and re-start WikiCC. We have provided a sample file called WIKI_TEST.CCZ. The following tutorial will use this data.

1.2 Creating the Wiki Components 2D XML File

In order to use **WikiCC™** you will need a 2D XML File. How to create the 2D XML File?

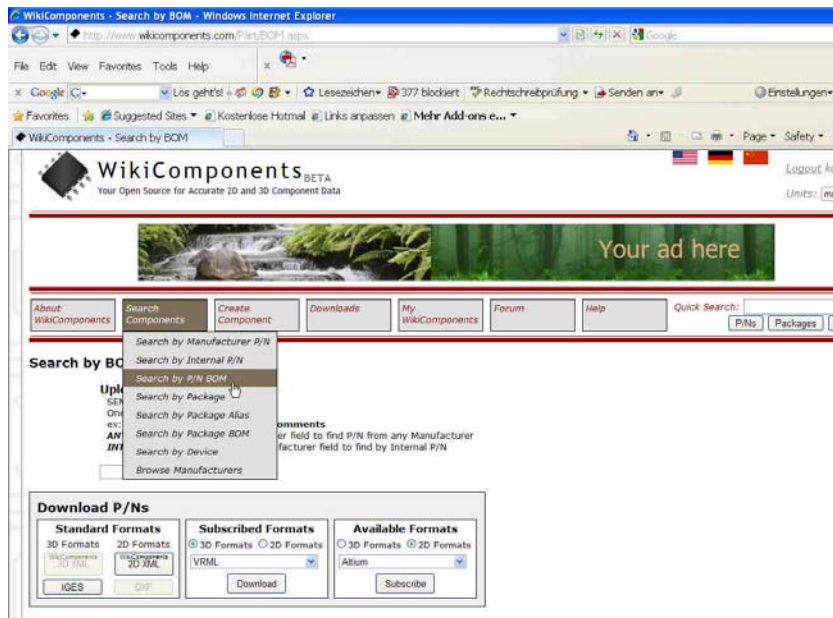
There are three ways to create:

- Via a Partnumber BOM
- Via a Package BOM
- Manually

1.2.1 Downloading via a Partnumber BOM

Probably the most used method of downloading parts is via a Partnumber BOM. This is a typical AVL, which includes:
Manufacturer; Manufacturer Partnumber; additional comments.

To download parts using this method, go to **SEARCH COMPONENTS- SEARCH BY P/N BOM**.



This will lead you to input your PN BOM. For more on the specifics of the partnumber BOM, see the appropriate section in the WikiComponents Online Help File.

Once this is done, you will receive a list of parts which correspond to your choices.

Select the parts you want to download and choose the standard 2D XML Format.

1.2.2 Downloading via a Package BOM

The next most popular method is via the Package BOM. A Package BOM contains a list of package names, either with or without Alias. A package Alias is a very easy way of grouping similar parts from different vendors. For example, there may be several suppliers of a 0603. If you give them all the Alias 0603 you can download these all at once.

To download via a Package BOM, choose SEARCH COMPONENTS – SEARCH BY PACKAGE BOM.

This will put you in a similar point as before, except that you are now asked to choose a Package BOM. The format is:

MANUFACTURER; PACKAGE NAME; optional comments

If you use the ALIAS, rather than a specific manufacturer name, you will get all the components which have the given alias, i.e. 0603.

For example, take the BOM called ALIAS.TXT:

```
ALIAS;1206  
ALIAS;SO28  
ALIAS;SO16
```

When you upload this BOM, you will see the following:

Download	Manufacturer	Package
	ALIAS	1206
<input checked="" type="checkbox"/>	Panasonic	<u>1206</u>
	ALIAS	SO28
<input checked="" type="checkbox"/>	Texas Instruments	<u>SOIC127P1030X265-28N</u>
<input type="checkbox"/>	Generic	<u>SOIC127P1030X265-28N</u>
<input type="checkbox"/>	Lattice	<u>SOIC127P1030X265-28N</u>
	ALIAS	SO16
<input checked="" type="checkbox"/>	Lattice	<u>SOIC127P1032X265-16N</u>

Here we have told the system that we want to see all the parts that have Alias 1206, S028 and S016.

The result, as you see is the 1206, coming from Panasonic, as well as several manufacturers which have been assigned alias S028 and one manufacturer with the alis S016.

Select which of the S028 parts you want to download, then choose:

2D Formats



The result is a 2D XML file which we can load into WikiCC.

1.2.3 Manually via “Shopping Cart”

It is also possible to simply choose specific parts either via QUICK SEARCH or the SEARCH BY MANUFACTURER PN, or SEARCH BY PACKAGE. Simply click ADD TO SHOPPING CART for each component you want to download. When you are done, you can download your entire shopping cart by clicking on the download button

2D Formats

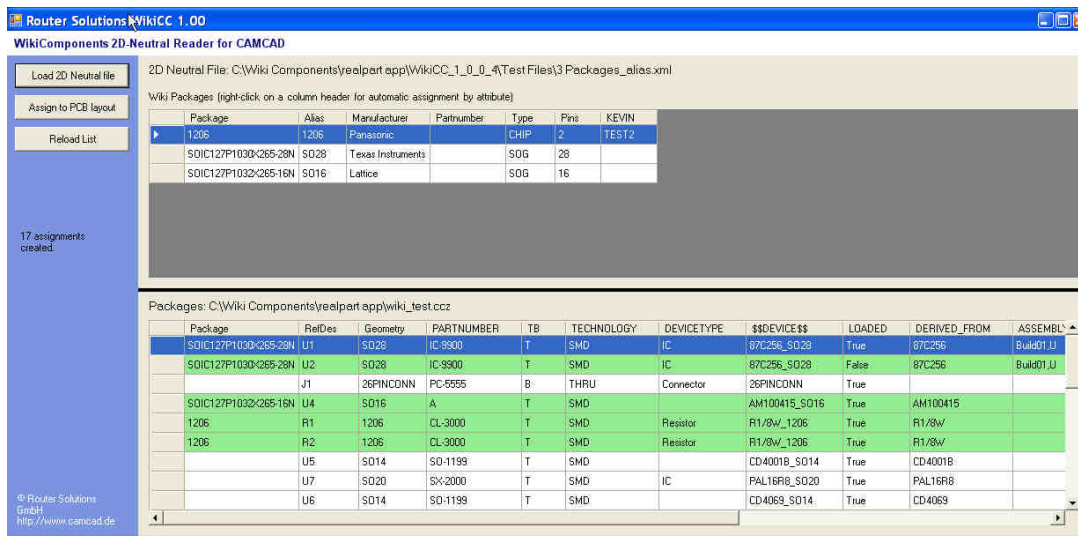


1.3 Assigning Wiki Components to CAMCAD Packages

To start assigning your packages in CAMCAD Pro, click on the LOAD 2D NEUTRAL FILE button.

Load the file 3_PACKAGES_ALIAS.XML, which we just downloaded in the previous exercise.

Your screen should look like this:



1.3.1 Assign by Package

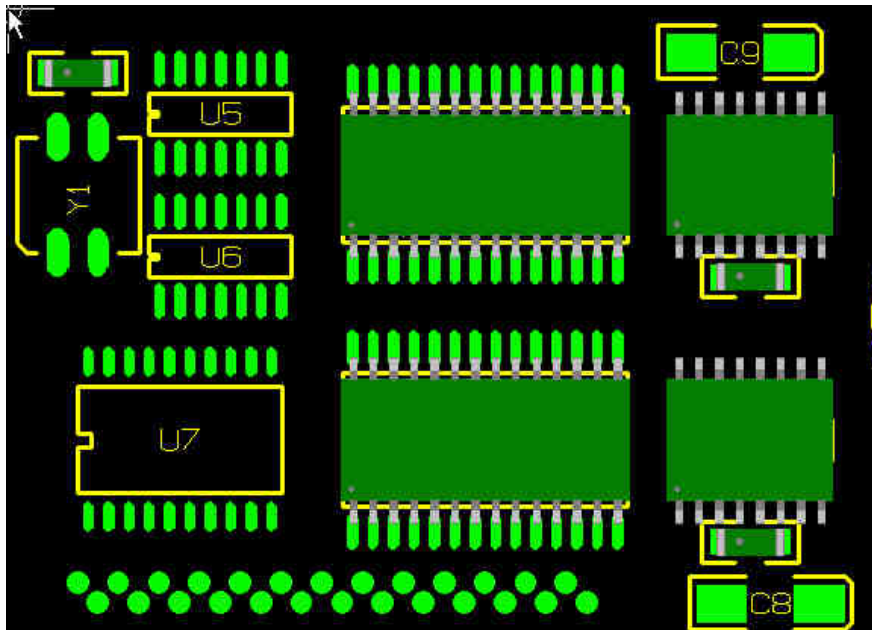
As you can see as soon as the file was loaded WikiCC assigned automatically all Alias names to CAMCAD Geometry names. These are shown in green.

If you sort by PACKAGE NAME by clicking on the column header you will see this even more clearly.

Packages: C:\Wiki Components\realpart app\wiki_test.ccz

Package	RefDes	Geometry	PARTNUMBER	TB	TECHNOLOGY	DEVICETYPE	\$\$DEVICE\$\$	LOADED	DERIVED_FROM	ASSEMBLY
SOIC127P103Dx265-16N	U3	SO16	SO-1111	T	SMD		AM100415_SO16	True	AM100415	
SOIC127P103Dx265-16N	U4	SO16	A	T	SMD		AM100415_SO16	True	AM100415	
SOIC127P103Dx265-28N	U2	SO28	IC-9900	T	SMD	IC	87C256_SO28	False	87C256	Build01.U
SOIC127P103Dx265-28N	U1	SO28	IC-9900	T	SMD	IC	87C256_SO28	True	87C256	Build01.U
1206	R2	1206	CL-3000	T	SMD	Resistor	R1/8W_1206	True	R1/8W	
1206	C5	1206	PX-0001	B	SMD	Capacitor	CAP1206	True		
1206	C7	1206	PX-0001	B	SMD	Capacitor	CAP1206	True		
1206	R1	1206	CL-3000	T	SMD	Resistor	R1/8W_1206	True	R1/8W	
1206	R5	1206	CL-3000	T	SMD	Resistor	R1/8W_1206	True	R1/8W	

To now see these assignments in CAMCAD, simply click ASSIGN TO PCB LAYOUT.



As you can see WikiCC placed the components defined in the 2DXML file directly on the corresponding parts in CAMCAD. Body outlines, pin 1 marker, package pin and package foot have all been defined. We can clearly see that the S016 from LATTICE is not a good fit here.

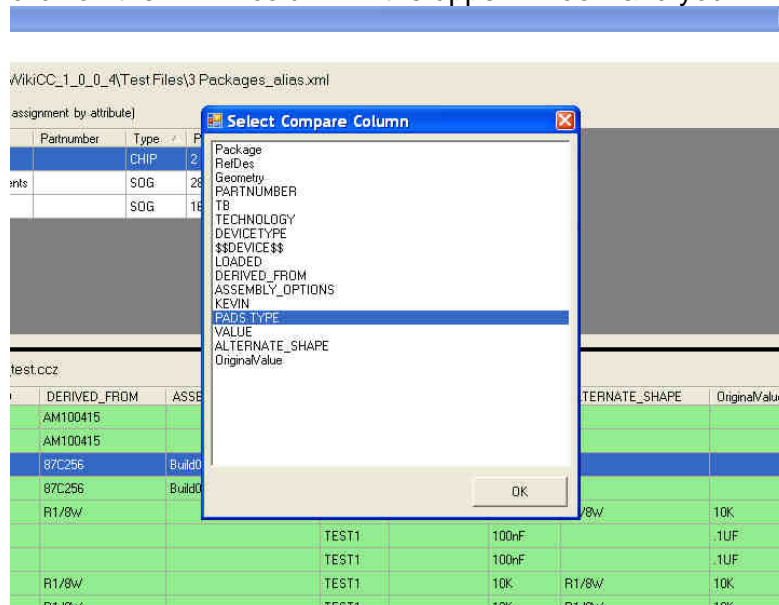
1.3.2 Assign by Partnumber

Partnumbers always take precedence over package alias names. If your 2D XML file has corresponding partnumbers that match partnumbers in the CAMCAD file these will automatically be matched in the same way as above.

1.3.3 Assign by User Attributes

Since WikiComponents allows users to add their own internal attributes to library parts there will probably be times where you know exactly what attribute you want to map parts using. WikiCC allows you unlimited control over this. Simply right-click on any column in the top grid. A list of all available attributes in the lower, CAMCAD grid will appear. Select which attribute in CAMCAD contains the matching information from WikiComponents.

For example, we may want to use the WikiComponents attribute TYPE to map our parts. This attribute may be equal to the attribute in the CCZ file called PADS_TYPE. Simple right-click on the TYPE column in the upper window and you will see this:



Choose PADS_TYPE and OK. If there are any matches in the yet-unmatched parts, they will be made whenever the contents of TYPE are equal to the contents of PADS_TYPE.

1.3.3 Manual Assignments

Last but not least, you can always do a specific match by simply choosing a reference designator in the lower “CAMCAD List”, then double-clicking on a component in the upper “Wiki List”. The reference designator line in the CAMCAD List will turn green.

1.4 Q & A