

Hint Map Tool User Guide

Step 1: **Log in** by using your username (email address) and your password.

Step 2: **Select Hint Map Creation Tool** in the main window.

Step 3: **Upload your emn file.** Browse your computer to find the first emn file you wish to work with. Choose the **Upload EMN** button. (Note: Your electrical information will not be saved on our servers. Only required fields from your emn file will be “grabbed” and used by our tools.)

Step 4: **View the simplified table** to see the unique components in your PCB design that you may want to replace with 3D models.

Generate Hint Map File

Merge Another: Electrical EMN Electrical EMN ECAD Hint Map

Qty	ecad_name	ecad_alt_name	PRO/E name	PRO/E type	Lock
8	cap0805	62509841067	<input type="text"/>	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>
1	res0603	2654872004	<input type="text"/>	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>
11	res2010	9416987456	<input type="text"/>	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>
2	sot23-6pin	4657524432	<input type="text"/>	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>
2	sot23-6pin	8647425877	<input type="text"/>	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>

Generate Hint Map File

Step 5: **Upload additional emn files** (optional). This feature will allow the user to work with multiple PCB designs at once. This is very effective for new users that need to quickly generate multiple 3D PCBs in Pro/Engineer.


Step 6: **Upload an existing ecad_hint.map file** (optional). The hint.map tool will cross-reference an ecad_hint.map file against your uploaded emn file(s). Components that already have ecad_hint.map entries will be highlighted and those entries will initially be locked in the table view.

Step 7: **Choose a Pro/E name for each component.** You can either select 3D electrical components from our online library or choose models that you already have built at your company.

Click the magnifying glass in the Hint Map Tool to search our site for replacement 3D models.

Search Components [X]

Select a Component Family to begin your search:



Family: Discrete Chip Components
Description: Chip Resistors, Capacitors, and Inductors
 118 results returned.

2	1 × 0.5	0.35	0402 Package	Select Details
2	1 × 0.5	0.5	0402 Package	Select Details
2	1 × 0.5	0.56	0402 Package	Select Details
2	1.4 × 1	1	1410 Package	Select Details
2	1.6 × 0.8	0.45	0603 Package	Select Details
2	1.6 × 0.8	0.5	0603 Package	Select Details

- Navigate to the appropriate component family.
- When you find a component that you may want to use, click on **Details** to see the documentation with dimensions.
- Click **Select** to add that component to your table and the ecad_hint.map file.
- If you can't find a certain component in the library, you can place a component request or build that component yourself. A Pro/Engineer model name can be manually typed or cut and pasted into the Hint Map Tool, **Pro/E Name** field.

Generate Hint Map File

Merge Another: Electrical EMN Electrical EMN ECAD Hint Map Browse... Upload

Qty	ecad_name	ecad_alt_name	PRO/E name	PRO/E type	Lock
8	cap0805	62509841067	D0805H085	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>
1	res0603	2654872004	D0603H050	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>
11	res2010	9416987456	D2010H060	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>
2	sot23-6pin	4657524432	SOT-6P340x220LL330H133	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>
2	sot23-6pin	8647425877	SOT-6P340x220LL330H133	<input checked="" type="radio"/> part <input type="radio"/> assembly	<input type="checkbox"/>

Generate Hint Map File

Step 8: Generating the output:

- Use the **Generate Hint Map File** button when you are finished adding 3D components.
- If you need to go back and edit the data, use the **Modify Hint Map** File button.
- Click **Download Hint Map Now** to download your mapping file. This file connects your electrical component information to your 3D replacement mechanical components.
- You will be prompted to download any components included in your hint map file. If you have downloaded these components previously, skip this step.

Downloaded .zip files contain the following:

- A Pro/Engineer .prt file with the name called out in your ecad_hint.map file.
- An emn file that can be imported into electrical design software that supports IDF format. The emn file represents a 2D electrical component outline that geometrically matches your 3D file and has identical component orientation.
- An IGES file. You can use this file if you do not want your 3D geometry to be parametric or if you want to bring the geometry into other CAD software besides Pro/Engineer.

Suggestions: If working with a large design, you may want to occasionally “save” your files. Your data will not be stored on our servers. We recommend that you work on your design in steps and choose the **Generate Hint Map File** button occasionally to download an up to date ecad_hint.map file. Click the **Modify Hint Map** File button to resume work on the Hint Map Tool.

Step 9: **Set up Pro/Engineer** by adding the following settings to your config.pro:

```
ecad_comp_csys_def_name    cs_ecad_comp  
ecad_mapping_file          "Choose the location of your downloaded mapping file"
```

Make sure Pro/Engineer can find the downloaded 3D .prt files by either putting them in your PDM, creating a search_path in your config.pro, or making sure they are in your session memory.

Step 10: **Import a PCB into Pro/Engineer** by using the following commands:

```
File>Open>Choose the proper EMN File>Open>Choose Assembly Button and enter  
Assembly Name>OK>Choose the proper EMP File>Open
```