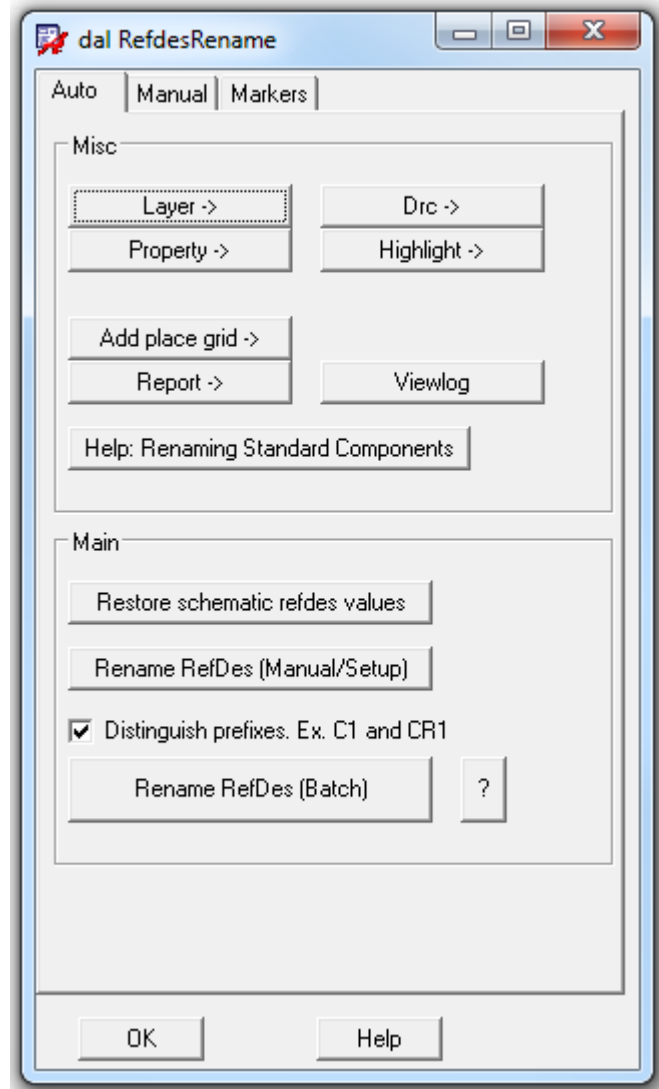
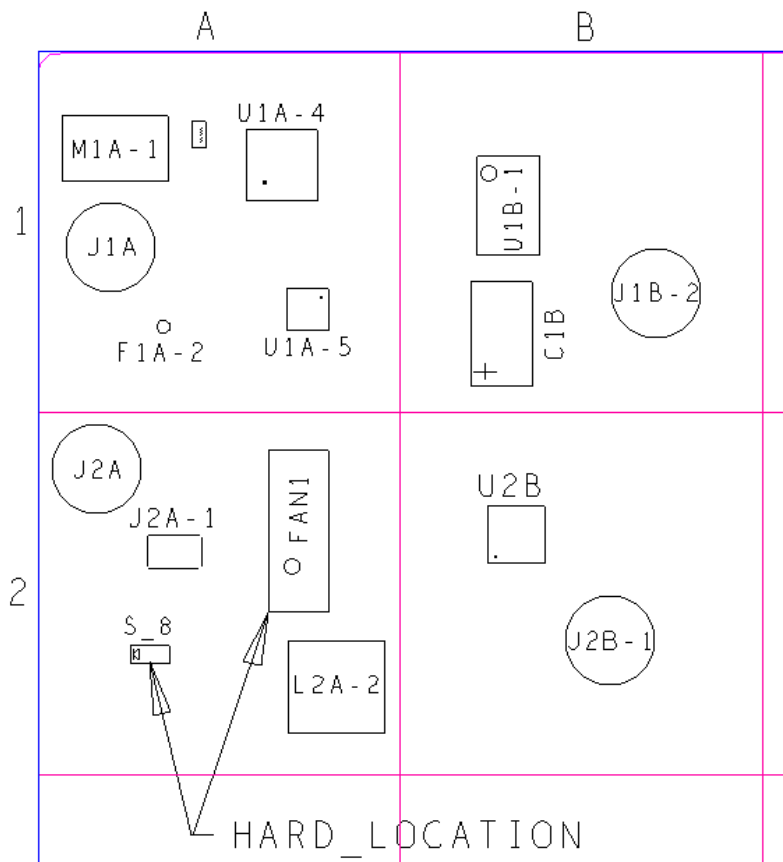


refdesRename

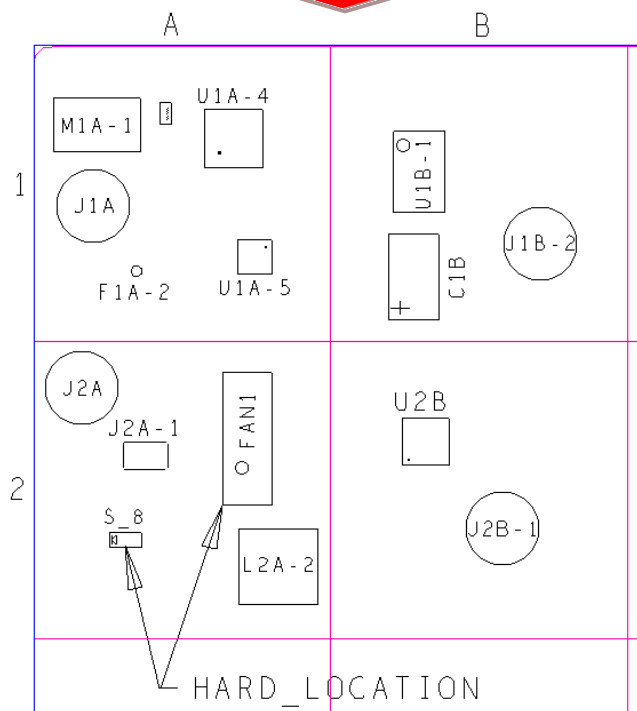
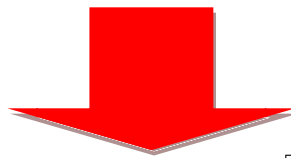
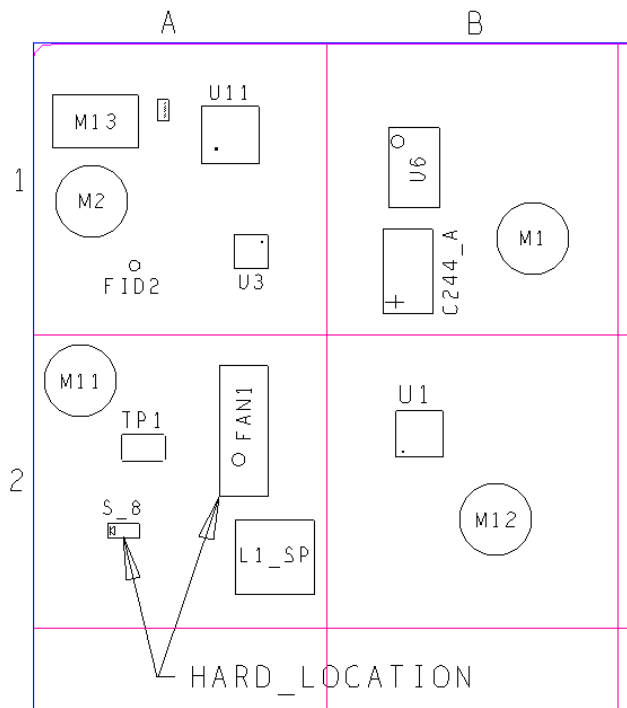
Renames reference designators per an alpha/numeric xy board grid pattern. This utility adds more features and improves the standard Cadence “Logic->Rename Refdes” command.

Features:

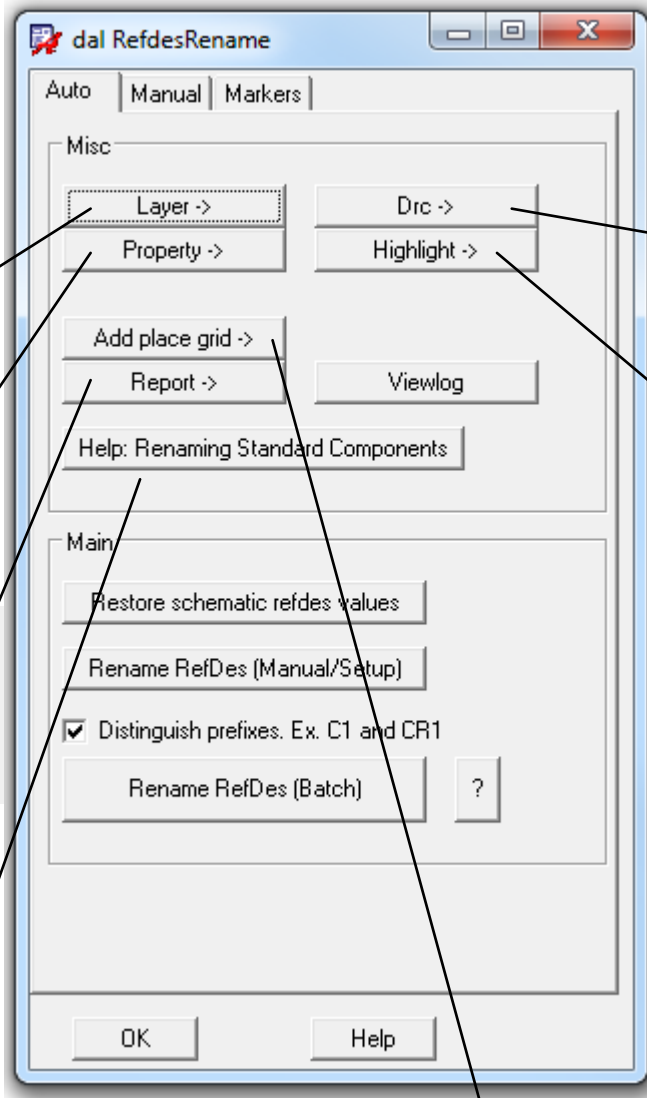
- Faster and easier parameter, property and layer control.
- Automatically inserts the grid pattern with markers.
- Detailed reports.
- Change refdes GUI form.



Example



GUI Form



TOP Assembly Layers
BOTTOM Assembly Layers

TOP Silkscreen Layers
BOTTOM Silkscreen Layers

Board Geometry/Place_Grid_Top
Board Geometry/Place_Grid_Bottom

Add AUTO_RENAME prop to all components
Add AUTO_RENAME by select

Add HARD_LOCATION by select

Delete all AUTO_RENAME properties

Unique refdes prefixes (current)
Unique refdes prefixes (symbol instance)

All component data

Duplicate refdes

Non Standard names

All components with AUTO_RENAME property
All components with HARD_LOCATION property

Dehighlight all

Add top place grid
Add bottom place grid

Add a top place grid 1000 x 1000 starting at the upper left corner
Add a bottom place grid 1000 x 1000 starting at the upper right corner

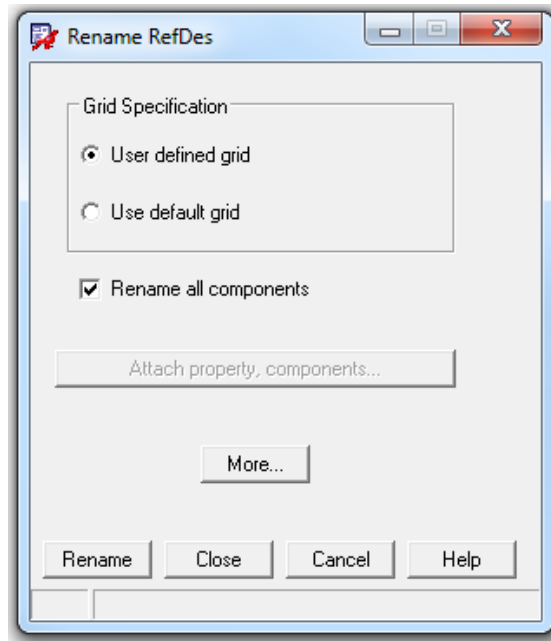
cadence

Allegro® User Guide: Completing the Design

Product Version 16.5
May 2011

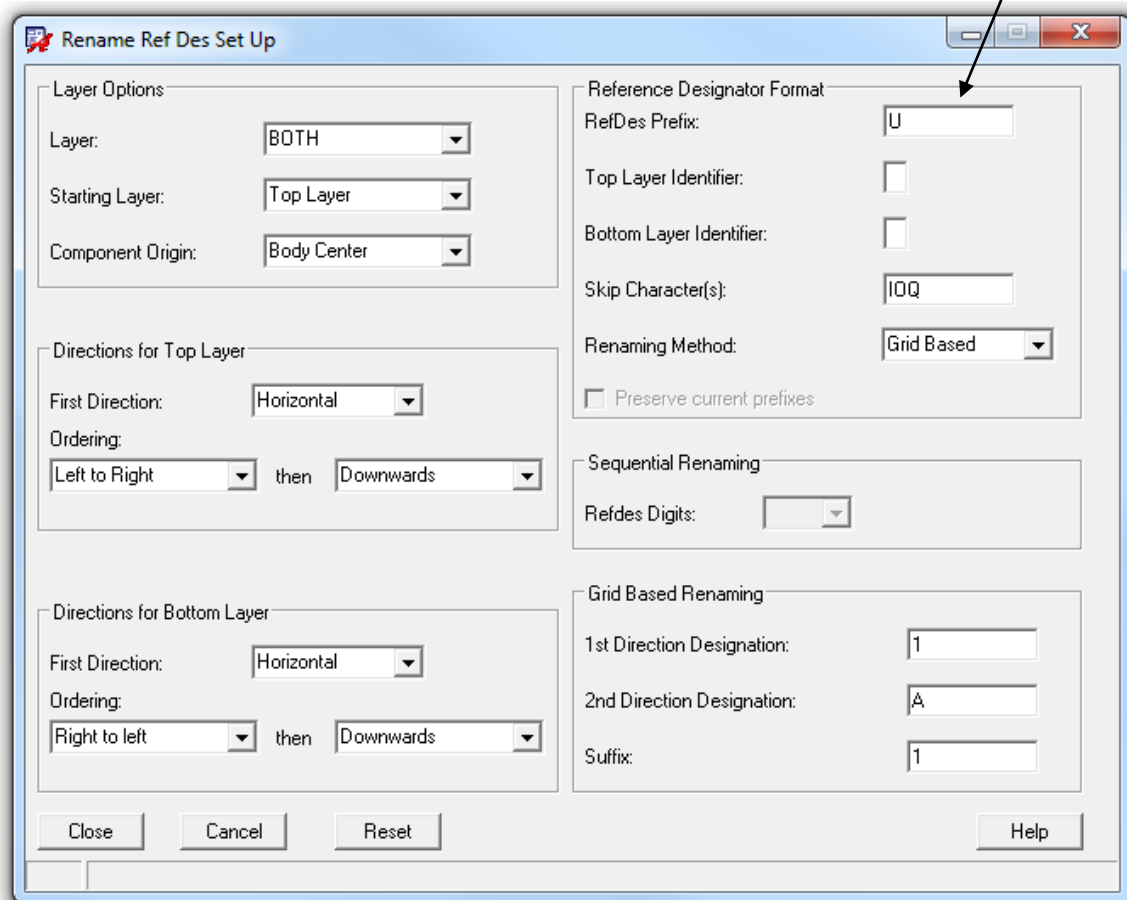
Document Updated on: June 12, 2012

Suggested settings



This field is automatically filled in with the dalTools (batch) refdesRename command for each refdes prefix.

Note: Currently if you enter "*" here the Cadence rename code will use the library symbol refdes layer prefix. This is not optimal and is why the dalTools utility batches each refdes prefix individually.



Reports

comp.csv - Microsoft Excel

File Home Insert Page Layout Formulas Data Review View QuickBooks

E21 fx SM_0402R

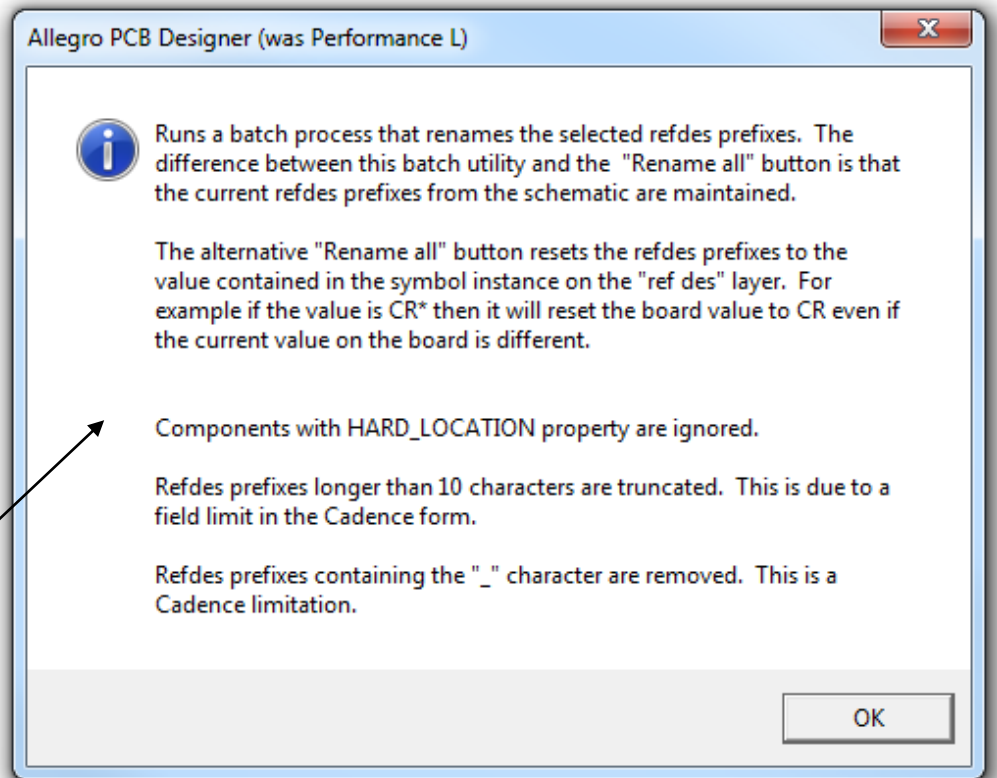
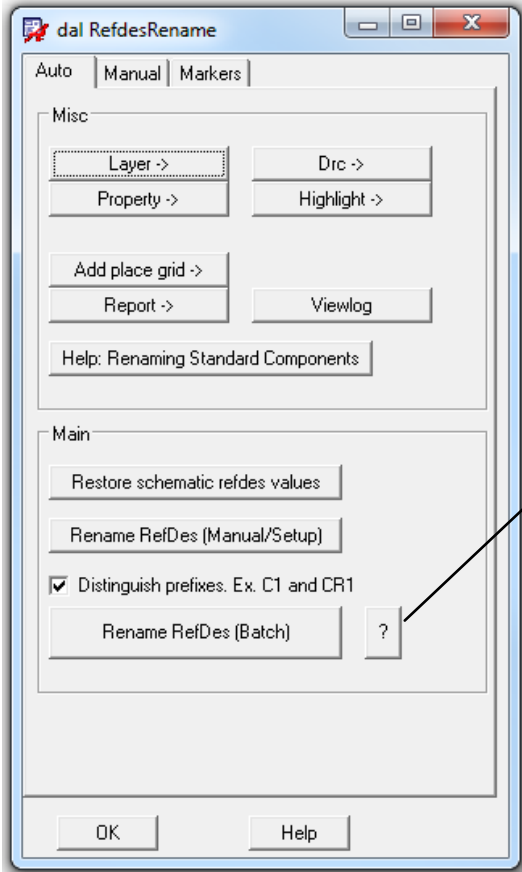
	A	B	C	D	E	F	G	H	I
1	refdes	alphaPrefix	symInstPrefix	schRefdes	symName	isMirrored	isAutoRename	isHardLocation	xy
2	C3D-7	C	C	C3D-7	SM_0402C	NO	YES	NO	(3185.0 630.0)
3	R3F-5	R	C	R3F-5	SM_0402R	YES	YES	NO	(5140.91 1278.77)
4	R2F	R	C	R2F	SM_0402R	YES	YES	NO	(5259.01 1869.32)
5	RV1D-4	RV	C	RV1D-4	SM_0402R	YES	YES	NO	(7010.0 3215.0)
6	RV1D-3	RV	C	RV1D-3	SM_0402R	YES	YES	NO	(7050.0 3215.0)
7	U1F-2	U	U	U1F-2	QFN-21	NO	YES	NO	(5680.0 2835.0)
8	U1G	U	U	U1G	QFN-21	NO	YES	NO	(6075.0 2835.0)
9	R1F-20	R	C	R1F-20	SM_0402R	YES	YES	NO	(4550.0 2750.0)
10	R3D-14	R	C	R3D-14	SM_0402R	NO	YES	NO	(3650.0 660.0)
11	R3D-13	R	C	R3D-13	SM_0402R	NO	YES	NO	(3636.0 732.0)
12	R4F-13	R	C	R4F-13	SM_0402R	YES	YES	NO	(4925.0 190.0)
13	R4D-7	R	C	R4D-7	SM_0402R	YES	YES	NO	(6370.0 555.0)
14	R4F-12	R	C	R4F-12	SM_0402R	YES	YES	NO	(5010.0 140.0)
15	R3D-25	R	C	R3D-25	SM_0402R	YES	YES	NO	(6330.0 695.0)
16	R4F-2	R	C	R4F-2	SM_0402R	NO	YES	NO	(4935.0 195.0)
17	R4F-16	R	C	R4F-16	SM_0402R	YES	YES	NO	(4715.0 505.0)
18	R4F-18	R	C	R4F-18	SM_0402R	YES	YES	NO	(4675.0 505.0)
19	R1D-22	R	C	R1D-22	SM_0402R	YES	YES	NO	(6660.0 2770.0)

Reports Continued

```
1 BARCODE [1]
2 BD [2]
3 BT [1]
4 BUILDCONF [1]
5 C [678]
6 CKVISNA [1]
7 CKVISPA [1]
8 D [3]
9 DBCKN [1]
10 DBCKP [1]
11 F [16]
12 FAN [2]
13 FB [8]
14 FID [3]
15 J [4]
16 L [1]
17 LOGOLABEL [1]
18 M [16]
19 MGTAVCCA [1]
20 MGTAVTTA [1]
21 NS [29]
22 P [1]
23 PARTNUMLA [1]
24 PCB [1]
25 PCOREA [1]
26 PDRAMA [1]
27 PM [2]
28 PVTTLA [1]
29 PVTTRA [1]
30 Q [8]
31 R [497]
32 RFLTBSP [1]
33 RFREQSP [1]
34 RLOADASP [1]
35 ROVPSP [1]
36 RREFSP [1]
37 RS [8]
38 RV [16]
39 RVRFSP [1]
40 RVRHSP [1]
41 SODIMM [2]
42 S_ [1]
43 TP [8]
44 U [43]
45 VCCAUKA [1]
46 VCCAUKIOA [1]
47 X [1]
Warning: The following do not start with alpha character(s)
48 1 12V_CBL_FLT [1]
49 2 980_PWRFLT_SP [1]
51
```

```
These are the refdes text in the symbol instance. Note: The "*" character in refdes names is ignored by the rename utility.
1 * [7] (xy (3470.0 1746.0) symInstPrefix "*" alphaPrefix "NS" refdes "NS2D-3" symName "NET_SHORT_SM" isMirrored nil isAutoRenam
2 BARCODE [4] (xy (1916.0 4117.0) symInstPrefix "BARCODE" alphaPrefix "BARCODE" refdes "BARCODE1C" symName "BAR_CODE_LABEL_SMALL
3 C [1192] (xy (3185.0 630.0) symInstPrefix "C" alphaPrefix "C" refdes "C3D-7" symName "SM_0402C" isMirrored nil isAutoRename t
4 DS [3] (xy (9610.0 2615.0) symInstPrefix "DS" alphaPrefix nil refdes "12V_CBL_FLT" symName "SM_0603_LED" isMirrored t isAutoRe
5 F [16] (xy (1670.0 -400.0) symInstPrefix "F" alphaPrefix "F" refdes "F4J-1" symName "SM_1206F" isMirrored t isAutoRename t comp
6 FB [8] (xy (3455.0 2105.0) symInstPrefix "FB" alphaPrefix "FB" refdes "FB2G-1" symName "SM_0603FB" isMirrored t isAutoRename t
7 FD [3] (xy (10005.0 145.0) symInstPrefix "FD" alphaPrefix "FID" refdes "FID4L" symName "FID_BOTH" isMirrored nil isAutoRename
8 J [37] (xy (4870.0 3015.0) symInstPrefix "J" alphaPrefix "U" refdes "U1F" symName "SC70-5" isMirrored nil isAutoRename t comp
9 L [1] (xy (5622.0 3210.0) symInstPrefix "L" alphaPrefix "L" refdes "L1F" symName "SM6_9X27R5" isMirrored nil isAutoRename t coi
10 M [5] (xy (10.0 3290.0) symInstPrefix "M" alphaPrefix "M" refdes "M1A-1" symName "320-000080-001" isMirrored nil isAutoRename
11 NS [28] (xy (5395.0 376.0) symInstPrefix "NS" alphaPrefix "NS" refdes "NS4F-1" symName "NET_SHORT_VIA" isMirrored nil isAutoRe
12 P [1] (xy (2050.0 -820.0) symInstPrefix "P" alphaPrefix "J" refdes "J5D" symName "MLX_PCIE16_164P_ECONN" isMirrored nil isAu
13 Q [3] (xy (6415.0 635.0) symInstPrefix "Q" alphaPrefix "Q" refdes "Q3D-1" symName "VMT3" isMirrored t isAutoRename t comp dbi
14 R [14] (xy (5525.0 3055.0) symInstPrefix "R" alphaPrefix "RLOADASP" refdes "RLOADASP1E" symName "SM_0603R" isMirrored t isAut
15 TP [4] (xy (6770.0 525.0) symInstPrefix "TP" alphaPrefix "DBCKP" refdes "DBCKP4G" symName "SM_050_TP" isMirrored nil isAutoRe
16 U [44] (xy (5285.0 2835.0) symInstPrefix "U" alphaPrefix "U" refdes "U1F-1" symName "QFN-21" isMirrored nil isAutoRename t coi
17 X [1] (xy (7175.0 450.0) symInstPrefix "X" alphaPrefix "X" refdes "X4H" symName "XTAL_2520" isMirrored nil isAutoRename t comp
```

Help “?” Button



FAQ

Q. What is the purpose of the component property AUTO_RENAME?

A. When the AUTO_RENAME property is attached to components, the automatic renaming process will process those components. When all components are selected from the gui this property is not necessary.

Q. What is the purpose of the component property HARD_LOCATION?

A. The HARD_LOCATION property is usually passed from the schematic and locks the refdes value from changing. This is useful in the case where the value should not change. For instance a refdes for an LED which might have a description as part of the name.

Q. How does the refdes rename utility determine the alpha prefix for the refdes when "*" is entered in the "Rename Ref Des Set Up" RefDes Prefix box?

A. The base alpha refdes prefix is read from the library symbol instance text on the refdes layer. For instance C* is C. Any * is ignored. When certain refdes prefixes are manually entered, for example C*, the automatic renaming uses the refdes alpha prefix currently on the component.

Q. How do I restore all the refdes values from the schematic?

A. Logic import (netrev) will reset the refdes values back to match the schematic.

Q. How do I back annotate the new changed refdes values back to the schematic?

A. Import physical from the project manager or HDL editor. For OrCad Capture schematics do the following: ?

Q. What are the top and bottom place grid layers used for?

A. The top and bottom place grids are created to divide the board outline into the placement xy grid pattern. The refdes rename utility uses this to determine which grid a symbol is within. Then it renames the refdes with this grid value.

Q. Some parts are not changing when I run the rename utility?

A. Check to see if the HARD_LOCATION property is on the component and remove if necessary.

Q. Why do we need to run the dalTools refdesRename utility instead of enter "*" in the Cadence gui form?

A. For some reason if we enter * in the "Refdes prefix" box the Cadence "rename refdes" command uses the refdes prefix of the symbol instance rather than the refdes prefix from the schematic. The dalTools utility solves this important issue.

Q. Can I edit the vertical and horizontal positions of the placement grid lines individually?

A. Yes, you may move the grid lines to adjust the grid line edges as needed. This may be useful around the edges or to increase or decrease any of the specific areas.

Help

