

Release Notes for SKILLCAD

http://skillcad.com/download_tool.html

New for release v4.2R

- **New Functions**

- 1) New Search interface for ICLA commands.
- 2) Option to add SKILLCAD pulldown into schematic window (**Kits, Sync Schematic View**)

To enable the “SKILLCAD” menu in the schematic view, the following global variable has to be defined in .cdsinit **before loading SKILLCAD**:

```
when( getShellEnvVar("SKILLCAD_PATH")&&isReadable(strcat( getShellEnvVar
("SKILLCAD_PATH") "/source/skillcad.il"))
      _createSkillcadSchematicMenu = t
      load( strcat( getShellEnvVar("SKILLCAD_PATH") "/source/skillcad.il"))
);when
```

- **Enhancements and bug fixes**

- 1) **rSolver command** - fixed a bug where rSolver would not take the starting and ending line for the measurement.
- 2) **Pins, Pin Placer/Browser** - Justification of label after placing pins. Before: label origin is 1 grid inside of prBoundary. Now: Label origin is exactly on prBoundary
- 3) **V-Editor, Bus Connect** – Clone groups are now handled correctly.
- 4) **Advanced Fill** - Enhancement request. Flat shapes will be saved as figGroups
- 5) **Kits, Xor Background View** – Command will now compare label string.

New for release v4.2Q

- **New Functions**

- 1) **Search SKILLCAD commands**, is a tool to search for SKILLCAD commands in the Virtuoso environment. The commands can be searched by command name and keywords. Once the desired command is found, the command can be launched directly from the tool.

- **Enhancements and bug fixes**

- 1) In the **FillVia command**, a bug was fixed where the via pattern would extend past the actual overlap area of the metals to be connected.
- 2) **Align InstPins (merged Align Inst Pin to neighbor and Align Inst Pin to top)**, in Pin Functions, has been fixed to now:
 - a. Handle pin labels correctly
 - b. Will require the Editing Instance in Edit Mode
 - c. Improved the way to determine the relative position between the editing Instance and reference Instance
- 3) Recompiled the context to be backward compatible in IC5 64-bit mode.
- 4) The **GetNet command**, in Net Functions, has been improved so that it can now recognize metal cut patterns, and break up the net correctly.
- 5) The **Xor Background View**, in Kits, has been improved to recognize and report layers that are only found in one of the views. It also now uses two colors to show whether the missing/extra shape is in the current cellview or in the background view.
- 6) The **CMOS XView command** has been improved to allow poly contact and diffusion contact in different layers.
- 7) Fixed a bug in the **StepRouter command** to handle equivalent layers correctly.
- 8) The **River Router command**, in V-Editor, has been improved.

New for releases v4.2A – v4.2P

- **New Functions**

- 2) **Cross Sectional View (CXVIEW)** for OLED process. Draw a line through the area to view, and a cross-sectional representation of that area will be generated.
- 3) **Cross Sectional View (CMOS_XVIEW)** for CMOS process. Draw a line through the area to view, and a cross-sectional representation of that area will be generated.
- 4) **“Layer Generation”** on the SkillCad Kits menu, is a function to generate new shapes based on the interaction of two selected objects.
- 5) **“Sync Schematic View”**, on the Kits menu, is similar to the existing “Sync Window View” and is in the SkillCad Kits menu. This new function enables a designer pull up two versions of the same schematic (such as a previous version of a schematic and the current version of the schematic) and zoom to the same point in both schematics for comparison purposes.
- 6) **“Replace Part of Layer”**, on the SkillCad Kits menu, enables a designer to replace or change the layer, of the part of the shape or path, that is over another area (such as a cell boundary). As an example, if a metal shape or

path crosses over a lower level circuit block, the part of the metal that is within the boundary of the cell block can be changed to a different layer.

- 7) **“XOR Background View”**, on the Kits menu, enables the designer to run a Layout vs. Layout comparison between the current cell view and the cellview being used as background view. The function also compares labels and provide an interface to allow the designer to browse the differences between the two views.
- 8) **“Move Pin to Pad Center”** on the SKILLCAAD Pin Functions menu, enables a designer to quickly move pins that have already been placed on pads, to the centers of the pads.
- 9) **“River router Adjustor”**, on the V-Editor menu, enables a designer to adjust the length/resistance of the metal routings created by the River Router function.
- 10) **“Shield River Route”**, on the V-Editor menu, enables a user to shield the routing created by the River Router function.
- 11) **“rAdjustor”**, on the V-Editor menu, enables a designer to adjust the length/resistance on a segment of a metal route.
- 12) **“Fill Track”**, on the Track Functions menu, creates dummy fill on the routing tracks.

- **Enhancements and bug fixes**

- 1) SkillCad is now compatible with Cadence IC6.1.8 and IC18
- 2) In Density Check, an option has been added to check the density of the result of a Boolean operation between two, or multiple layers.
- 3) Fixed an off-grid issue occurring when the layout grid < 0.001 in advanced nodes.
- 4) In the Mesh Bus function, an option was added to use keys 1, 2, 3.. to change routing layers. This is similar to the way the other metal routing functions operate.
- 5) In the Line Distance function an option was added to check distances between all neighboring edges. For example, if a line is drawn across a bus of metal routes, all the metal widths and spaces of the metals included by the line will be measured and displayed. There is also a new option to check distances of PrBoundary Edges.
- 6) The metal enclosure of vias has been improved for difference cutClass in advanced nodes.
- 7) In the Nano Track Router function, an option has been added that will allow a designer to assign net names on the routing metals.
- 8) In Via Wall Shield, the distance between the routing metal and the shielding metals would sometimes change from the distance specified in the form, to a different value. This has been fixed.
- 9) There was a problem when setting up minimum metal overlaps of vias. This problem has been fixed.

- 10) In the RAdjust function, there was a problem when the squiggles were created in the horizontal plane, in a tight space. Sometimes the squiggles would merge with sections of the metal line. This issue has been fixed.
- 11) An enhancement In the Extract Net function allows the designer to select multiple nets. These nets are then displayed as a list, in a window in the form. The designer can then select the nets to be extracted, from this list of nets.
- 12) An enhancement to the User Interface in the User Preferences form, enables a user to customize the Pop-up menu they see, when the SKILLCAD is selected from the Cadence tool bar. There is a new button in the User Preferences form, in the Tool Bar customization area, called "Customize Pop-up Menu". When this is selected, a form pops up that allows the user to select the commands that will appear on the pop-up menu that appears when SKILLCAD is selected.