


















Highlighted = most useful functions)


(*Functions will also work for Advanced nodes (i.e.. N10, N7, N5))

SKILLCAD Base Functions		
Module	Featured tools	Description
 Edit Via (OA)	Stretch *	Stretch standard Cadence via
	Stretch Enc *	Stretch via enclosure
	Set Params/Variants *	Edit Via params (cutClass, via variants)
	cutPattern *	Edit Via Pattern
 V-Editor	BusAdjust *	Adjust bus/net space/width
	BusGrow *	Add more bits (or shield lines) along the existing bus/net
	V-Stretch *	Stretch by V-Line
	V-Move	Move by V-Line
	BusTap	Create taps on bus by V-Line
	Bus Connect(BusJoint) *	Connect bus by order, net names
	Bridge *	Change layers for part of bus/net
	Distribute Bus	Evenly distribute bus in a range
	Align BusEnd *	Stretch/Align bus end with right path end spacing rule
	Bus continue	Continue connections
	BreakBus	Split bus with right path end spacing rule
	changeLayer	Change Metal layer and meanwhile update connected vias
	Detour	Make turns on bus
	Dent Corner	Convert 90-degree corners to 45 degree corners
	viaChain (* partially)	Create via arrays over multiple pins
	GateCont	Create gate contact by V-Line
	combRouter *	Pin to trunk Router
	Fix MinArea *	Fix minimum Area
	Taper Connect	Direct Pin to pin wedge connection
	Rounder Corner	Round Bus Corner
River Router	Single layer pin to pin compact router	
rAdjustor	Adjust the resistance of a path	
Trim Bus Connect	Any angle bus connector	
SameL Connect	Same Length(Resistance) pin to pin connector	
 StepRouter	Path Router	User guided single Path Router
	Bus Router	User guided Bus Router
 SegJumper	segJumper	New Interactive wire stitcher, allowing different widths, spaces, fan-in, fan-out, different layer, with integrated busContinue, busConnect and distributeBus features
 FreeJumper	Path Jumper	Interactive Path Stitcher
	Bus Jumper	Interactive Bus Stitcher


	Shield Bus	ShieldBus Jumper *	left/right/middle/top/bottom shielding, allow layer jumping
		Via Wall Shield *	left/right/middle/top/bottom shielding, and via MPP shielding
	UniVia	Create Via	Create SKILLCAD UniVia(IC5) or standard via
	MPP/Ring	Draw MPP	Create regular MPP
		Draw Rect Ring	Create Rectangle guard ring
		Draw Polygon Ring	Create Polygon guard ring
		Change Mpps	Modify Mpps
		Grow From Obj/layer	Create Ring By Sizing Selected Obj
		Reshape Selected MPP	Reshape the selected Multipart Path
	Fill Via	Draw Rect Via	Fill via in a rectangle region
		Draw Polygon Via	Fill via in a polygon region
		Fill selected regions (* Partially)	Fill via in selected regions
		Fill Overlap by Click (* Partially)	Fill via in overlaps of specified two layers
		Fill overlap of Any two layers By Click (* Partially)	Auto detect overlapping layers and fill proper uniVia
	LayerHandler	QueryLayer *	Get hierarchical Layer info under point/box/cellview
		LayerSet *	Programmable Buttons to save/retrieve layer settings
	Slot Functions	Draw SlotPath	Draw slot path (pcells)
		Convert To Slot Path	Convert select path(s) to slot paths (pcells)
		Copy Slot Holes	Create Slot From the slot on other Layer with offsets
		Create Mesh	Create Mesh Shapes with Paths/Wires
	GetNet	SelectNet	Select metals/vias of the net
		ExtractNet	Hierarchically extract net to a separate cell view
		HilightNet	Hierarchically highlight a net
	Fill Functions	Advanced Fill (* Partially)	Coverage-aware Dummy Pattern Fill
		Simple Fill (* Partially)	Fill Rectangular dummy shapes.
		Check Density *	Check layer(s) density in a local region/window. Includes a new function to check areas created by Boolean operations.
	Pin Functions	Pin Placer/Browser *	Browse pins/labels, auto place pins.
		Align InstPins To Neighbor *	Place Pins in the editing instance with reference to the pins in the neighboring instances
		Align InstPins To Top *	Place Pins in the editing instance with reference to the top level pins
		Quick Label(Pin) *	Create Labels/pins one by one, by line or all in one click , import schematic pin names
		Promote Pins *	Promote lower level pins to top level
		Create Pin From Label *	Create shape pins from labels
		Create Pin From Coord *	Generate pin placement from a text file with pin name, layer and coordinates information.
		Expand Pin To Shape *	Expand Pin Fig to cover entire shape
		Move pin to PAD Center *	Moves all pins within the pad layer to the Pad center
		Align Distribute Pins *	Move/Align/sort pins (to prBoundary). Can also be used for objects.
		Change Pin Size/Layer *	Change the size or layer of the selected pins
		Rename Pin/Label *	Change bus pin/label names [] {} <>
Placement	Pattern Placer	Cover Pins by Metal Drawing *	Cover Pins by corresponding metal drawing
		Pattern Placer	Create pattern placement by clicking on the place holder array in the GUI. Handle dummy/aboutment/guard ring.

 Label Functions	Quick Label(Pin) *	Create Labels/pins
	Rename Pin/Label	Change bus pin/label names [] {} <>
	Create Inst Label *	Create inst./cell name label on instances
	Create Voltage Label	Create voltage info label on pins
	Mask Label(Letter) *	Create Mask ID Physical labels
 Kits	Calculate Area/perimeter *	Hierarchical area/perimeter calculator
	Simple Net R	Calculate resistance for standard bus
	Fix Offgrid *	Fix off grid shapes
	Sky View *	Overall context view for all instances
	Flip Within BBox *	MX/MY/R180 flip within original BBox
	Swap Bit Lines (vias)	Swap vias/connections between two lines
	Toggle Via CutClass	Change (cycle) Via CutClass(size)
	Full Selection	Partial ->full, Full bus selection
	Select Net Objs	Select objects by layer and net names
	nCopy	copy selected objects "n" times
	Manhattan Edge	Convert all edges(ellipse shapes) to Manhattan Shapes
	Create Spiral	Create Spiral Shapes(inductor)
	Formula Plotter	Creating shapes defined by equations
	Fill Holes	Fill holes with certain area/width
	Layer Generation	Create layers from objects, using Boolean functions
	Cut Out Short *	Cut holes to remove short on a big piece(Power) metal
	Cover Fig/Net	Cover shapes or entire net with specify lpp (or color pattern)
	Grow Shapes	Grow shapes from a reference obj
	Edge Grow	Create wires from selected edges of a shape
	Line Distance *	Measure distances between two lines/edges
	Sync Window View *	Zoom to the same layout location of two synchronized windows
	Sync Schematic View *	Zoom to the same schematic location of two synchronized windows
	Replace Part of Layer	
	Copy From Background View	Copy/Move shapes from the background view
	XOR Background View *	XOR a background view with the current view, displaying differences between the two
	Chop Array	Chop Mosaic cells
	Inductor Pin Checker	Check pins on each net (for inductor layout)
	Create Arc Shapes	Create curved shapes (high voltage application)
	Convert Shapes	Convert shapes between path/polygon/wire

MultiColor Functions (Temporarily Covered by SKILLCAD Base license)		
Module	Featured tools	Description
 MultiColor Functions	Quick Color	Change/assign wire Colors by click or line
	nanoJumper	Create Wire and meanwhile assign color

NanoWire		
Module	Featured tools	Description
 Track Functions	NanoTrack Router	Track Pattern based wire Stitcher
	Transition Connector	Track Pattern based Bus Connector
	View Patterns	Interactively view defined track patterns
	Push Bus to Tracks	Push/snap wires to tracks
	Fill Via By Click	Fill via on a metal overlap according to the via Configuration
	Fill Via By Box (same Net)	Fill via on all metal overlaps within a box area according to the via Configuration

rSolver		
Module	Featured tools	Description
rSolver	rSolver	Point to point resistance extraction.

TwistedBus		
Module	Featured tools	Description
 TwistedBus	Create Twisted Bus	Create Twisted Bus
	vSwap Bus	Create/insert a swap by drawing a line cross two wires