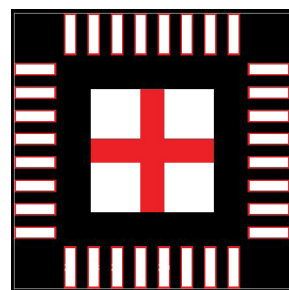# VisualCAM STENCILS

by **WISE** SOFTWARE

VisualCAM STENCILS

VisualCAM Stencils is a dedicated intelligent Stencil/Paste creation tool at an affordable price point. A custom menu and toolbar layout are provided along with all features needed for complete control of your stencil/paste creation, modification, verification and reporting. Automatic detection and conversion of components using Footprint Libraries and Shape Sets, yet flexible enough to handle unusual data, VisualCAM Stencils gives you complete control of your Stencil/Paste generation.

IMPORT FILE TYPES SUPPORTED

VisualCAM Stencils supports many industry standard file types including Gerber, IPC-2581, ODB++, GenCAD, GerbTool, Barco DPF, Pads ASCII, CAM350, HPGL and DXF. Drag and Drop most files right onto the VisualCAM Stencils application for ease of loading your files.

CREATE MASTER FOOTPRINT LIBRARIES

Identifying Footprints is quick and easy. Once identified the footprint is added to the Footprint Library so that you never have to identify the same footprint again. Quickly build up footprint libraries that you use on all your jobs. Maintain a master library and/or save libraries by customer, it's your choice. VisualCAM Stencils allows you to load in multiple libraries with conflict resolution to prevent duplication. Secure your libraries using Password Protection to protect your Footprint Library and Shape Libraries from being changed inadvertently.

FLEXIBLE AUTOMATED COMPONENT FOOTPRINT IDENTIFICATION

- **Footprint Library** - Identifying by Footprint Library is just a click of the button once you have your Footprint Libraries built up. You also have the choice to run Paste Generation during the Identification process for the most efficient processing. Load and Save your libraries and create your own master library you can use on all your jobs.

- **Package Definitions** - Comes with 1350+ pre-defined packages and paste shapes that make identifying components and paste generation easier than ever. Package Definition identification works wonders on 2-Pin parts. You won't believe how fast it will find all the parts in your design. Package definitions also provide automatic detection of common SOIC, SOT, DIP and Quad packages. You can add to the provided package definition file to customize to your own requirements. The "Select Packages" option allows you to run component identification on selected parts only. Package Definitions is a great place to start your identification process and to build up your libraries.

- **Select Footprints** - Selecting Footprints is quick and easy. Just window around pins of a part, click end, and the part is identified, added to the Footprint Library, all like parts are found automatically on both Top and Bottom surfaces and you are informed how many parts were found.

- **Centroid file** - Comes with a centroid file converter. Identifying Parts with a centroid file is an interactive method that aids in the location of the part. Once the location is displayed you select the pins and all parts that match your selection are found automatically.

- **IPC-2581, ODB++, GenCAD and Pads ASCII** files are intelligent files that already have footprints identified on import. Once loaded, assign your Paste Shapes and use Generate Paste Layer and you are done.

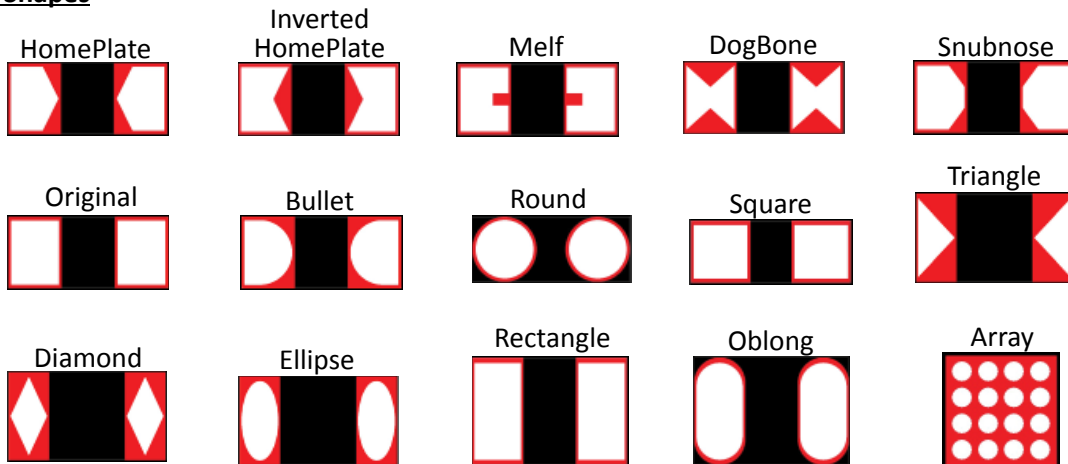### 2-PIN PART IDENTIFICATION USING THE SILKSCREEN LAYER

Use the Silkscreen option during Identification to automatically identify the direction for two pin parts. Some designs have areas where the two pin part orientation is ambiguous. Using the silkscreen helps ensure that your parts are identified correctly.

POWERFUL PASTE SHAPE EDITOR

Complete control of your paste shapes using the Paste Shape Library. Define a shape using one of the standard shapes available. Set size by Area Percentage, Amount or Percent, Increase/Decrease Height/Width, Inset/Protrusion Length, Inset Width, Corner Radius, Reverse Direction, Justify the Replacement Shape to Inner/Outer Edges with Offset, Add Window Pane with control of Gap Size, Count Horizontal or Vertical, Gap Angle and add Diagonal Gaps). Load & Save Shape Sets to use on multiple jobs.
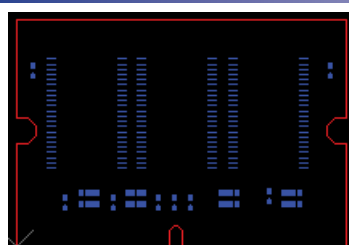
Built in Paste Shapes

HomePlate | Inverted HomePlate | Melf | DogBone | Snubnose

Original | Bullet | Round | Square | Triangle

Diamond | Ellipse | Rectangle | Oblong | Array

MULTIPLE METHODS TO SORT AND WORK WITH YOUR FOOTPRINT LIBRARY

When working with large libraries it is a must to be able to quickly find parts within the Library Editor and be able to view them the way you want. Included are many sorting features to help aid in this process. Sort by Footprint, Device, Date, Newest, Oldest, Name, Show unused, List by Device or Footprint, List Footprints without Shapes assigned. Remove unused Footprints from the Library, Add Device and Delete Footprints.

STENCIL GENERATION

Quickly generate your Paste Layer once you have parts identified. Choose what Shape Set to use, choose Top, Bottom or both to run at the same time. Optionally add unmodified shapes on the paste layer for Footprints without shapes assigned. Optionally choose to update existing paste layer. This option keeps all current paste shapes on the paste layer and only updates the footprints where paste data does not exist on the paste layer. You can choose whether or not you want to work from a Reference Layer.

POWERFUL MACRO DEVELOPER

Automation is the ultimate goal in almost any environment. VisualCAM Stencils comes complete with a full Macro Developer for quick and easy scripting. VisualCAM Stencils offers traditional macro records and playbacks plus full drag-and-drop features that allows anyone to produce high quality macros with ease. The Macro Developer even comes complete with a built-in debugger.

Macros included with VisualCAM Stencil to aid in processing of your stencil design

- **LayerPrepforStencils** (This macro should be run prior to using any of the Stencil tools to clean up your data. Removes Stacked Pads, Converts Drawn Pads to Flashes and Converts Custom Apertures to Intrinsic all in one step)
- **WISE_CenterLayers** (Moves all data on a layer so that its center is at 0,0 origin)
- **Glue_Stencil** (Convert the stencil openings designed for paste into openings designed for glue)
- **WISE_QuickText** (Assist in the automatic mark-up of SMT pad shapes for stencil design communication purposes)
- **QuickPanel** (Quickly panelize your data)

UNDERSIZE AND/OR ADD ROUND CORNERS

Quickly undersize and/or Round Corners of all pads by layer makes editing simple jobs a snap.

QUICK CONVERT

Sometimes it just doesn't make sense to create a Footprint for certain data. With Quick Convert you can Quickly modify a shape by Area Percentage, Amount or Absolute. Add Corner Radius, Window Pane. Select Destination Layer for the modified data and choose whether to delete orignial or keep data. Custom Apertures can also be easily modified with Quick Convert.

ANALYSIS

VisualCAM Stencils Analysis includes Layer Compare, Design Compare, Find Duplicates, Copper Area, Find Non-part Pads, Find Stacked Pads and Pad to Pad Spacing.

INTERACTIVE REPORTS

Use the Interactive Reports to help complete your design with full control and knowledge of your process. With the Library or Paste Layer Report you can now interactively set the shapes and easily see which parts do not have shapes assigned. On the fly Pitch Rule Testing with color coded pass or fail per your Pitch Rules. For documentation print directly from the Layer Report or Library Report and select which information to print out.

Paste Layer Report

DCo...	Shape	X-Size	Y-Size	Pitch	Volume	Area Ratio	Aspect Ratio	Pass	Device
D324	Rectangle	0.007370	0.026570	0.019680	0.000001	0.607165	1.574016	No	Device_123
D597	Rectangle	0.021650	0.010010	0.019690	0.000001	0.684505	2.001969	Yes	RD_SMD16_11
D644	Rectangle	0.021650	0.010010	0.019690	0.000001	0.684505	2.001969	Yes	RD_SMD16_11
D645	Rectangle	0.011050	0.043020	0.019690	0.000002	0.879177	2.210000	Yes	Device_123
D595	Rectangle	0.012950	0.051180	0.025590	0.000003	1.033496	2.590000	Yes	Device_111
D501	Rectangle	0.012990	0.012990	0.031490	0.000001	0.687964	2.598031	Yes	RD_THD96_3
D643	Rectangle	0.012990	0.012990	0.031490	0.000001	0.687964	2.598031	Yes	RD_THD96_3
D759	Rectangle	0.017990	0.053150	0.031490	0.000005	1.344075	3.598031	Yes	RD_SMD40_5
D761	Rectangle	0.017990	0.064960	0.031490	0.000006	1.408846	3.598031	Yes	RD_SMD40_5
D46	Rectangle	0.021650	0.035430	0.037400	0.000004	1.343831	4.330000	Yes	RD_SMD6_10
D46	Rectangle	0.021650	0.035430	0.037400	0.000004	1.343831	4.330000	Yes	RD_SMD5_4
D11	Square	0.017720	0.017720	0.039370	0.000002	0.886004	3.544016	Yes	RD_THD2_3

Layer: 5 Area Ratio Limit: 0.66 Aspect Ratio Limit: 1.50 Thickness: 0.005000

Save... Print Quick Convert... Pitch Table... ☐ Pitch Check: Ignore 2 pin parts Close

EXPORT

First you will want to maintain your VisualCAM Stencils Database for future reference by saving your .vcam file. Then export to one of the many industry standard formats including: Gerber, IPC-2581, ODB++, GenCAD, Barco DPF, DXF, HPGL, PostScript and Bitmap.

FREE VISUALCAM STENCILS DATABASE VIEWER

VisualCAM Stencils comes with an unlimited number of free database viewers. Your customers can now view your design just as you have the database setup. Easily communicate back and forth with users or customers by using the Redline mark-up feature and Email Send feature within VisualCAM Stencils. Get approvals on your stencil design fast and accurate, no more miss-communication. Database viewer users can mark-up and send back comments and or approvals.

Creating Solder Paste Stencils has never been easier or faster...