



VisualCAM 2006 (15.1) Release Highlights (FINAL)

May 7, 2007

New Features of VisualCAM 2006 (15.1)

VISTA™ OPERATING SYSTEM COMPATIBILITY

WISE Software has always been committed to insuring the highest level of compatibility with the Windows™ operating system. For this release we have made the necessary changes to our installation process to ensure that VisualCAM is being placed properly within the Vista™ environment. This includes making sure that all necessary drivers, for components like hardware keys and FlexLM™, have been updated and tested for Vista compatibility.

TEST FIXTURING ENHANCEMENTS

Bare-Board Test Fixturing is a mainstay for almost any PCB manufacturing facility, no matter how big or small they are. As such, it is important that the PCB manufacturer can quickly and accurately produce test information that drives their flying probe or bed-of-nails equipment in the most efficient manor. In this latest VisualCAM 2006 release, WISE Software has improved End-Point Detection to help eliminate unwanted, or redundant, testing of points on a given net. Algorithms have been improved so that, as a net traverses a board and passes through vias to other layers, these points are not inadvertently treated as the end of that net for that particular layer. VisualCAM will continue to track the net to see if it resurfaces elsewhere, thus allowing VisualCAM to continue its tracking and tag the true end point more accurately. Users will also benefit from improvements made during situations where vias are overlapping surface mount pads. Additional care is taken when vias are detected inside of a surface mount pad, to help insure that the surface mount pad is properly tested as an end point. The solder mask layer can now be used as a selection filter during the test point identification process. Using the solder mask layer prevents VisualCAM from choosing a pad as a test point when, in fact, it is covered by mask and the test probe cannot make contact.

Highlights:

- Improved filtering and elimination of unwanted or redundant test points.
- Soldermask may now be used to quickly eliminate inaccessible test points.
- Analysis Tool locates missing test point locations with optional automatic fixing.

BLIND & BURIED VIA IMPROVEMENTS

As design complexity continues to increase, so too does the use of Blind & Buried Vias. This release offers improvements to the handling and association of external netlist information when an IPC-D-356 file is imported for comparison purposes. Users receive a cleaner and more accurate display representation of their Blind & Buried Via points and how they relate to internal layers. As the user cycles through their inner layers, they are shown only the external net points that pertain to those layers. Net points for Blind & Buried Vias are represented with a unique marker that further helps the user to distinguish them from a standard through-hole location. These display and data association improvements help to speed up the troubleshooting process while users are performing a netlist comparison of a Blind & Buried Via design. Identifying problems prior to manufacturing further translates into increased savings to the user by helping to prevent unnecessary scrap during production.

Highlights:

- More accurate and thorough display of Blind & Buried via locations.
- Easier to understand display representation speeds problem identification.

ASSEMBLY ANALYSIS TOOL

Adding to the highly effective and versatile Assembly Reverse Engineering tools included in VisualCAM, the new Assembly Analysis feature provides a flexible method of checking the spacing between devices on the board. Three spacing checks are supported: 1) Pin to Pin; 2) Pin to Outline; and 3) Outline to Outline. For each check the devices that are tested may be all the defined devices or they can be restricted to a subset of the defined devices. Devices are always grouped by type (Surface Mount Devices or Thru-Hole Devices), but in addition the devices may be sorted by their footprint, device, or reference designator. This makes the selection of groups of devices or specific devices to participate in a check simple and straight-forward while enabling the user to rapidly define a complex set of checks to meet their requirements. Additionally, sets of checks can be saved to external files. If the devices to be checked are defined abstractly, i.e. by type or, if the same part library is used, by device or footprint, then these saved sets of checks may be loaded into multiple jobs to facilitate testing. In addition to the three spacing checks a validation check is provided to insure that part instances are correctly formed. The validation check insures pads are present and correctly aligned to each pin and, for thru-hole devices, that pads are on the opposite side and a drill exists for each pin. Checks against the original BOM and/or Centroid lists are also provided to ensure all parts have been created properly.

Highlights:

- Multiple spacing checks including Pin to Pin, Pin to Outline and Outline to Outline.
- Flexible device grouping allows rapid definition of complex sets of checks.
- Check definition sets may be saved externally and shared between jobs.
- Part instance data validation check insures accurate results.