

ALPS - The Next Generation

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A new generation of ALPS software widely used for the automation of semiconductor manufacturing processes will be demonstrated in the TOWA/Intercon booth at Semicon WEST in San Jose. Assembly Line Production Supervisor (ALPS) software has been used extensively since 1996 for wafer map data management and equipment integration in the inkless assembly of semiconductors. Building on this solid foundation, the new version of ALPS (3.x) provides a range of material, equipment and features that address the entire advanced packaging assembly line.

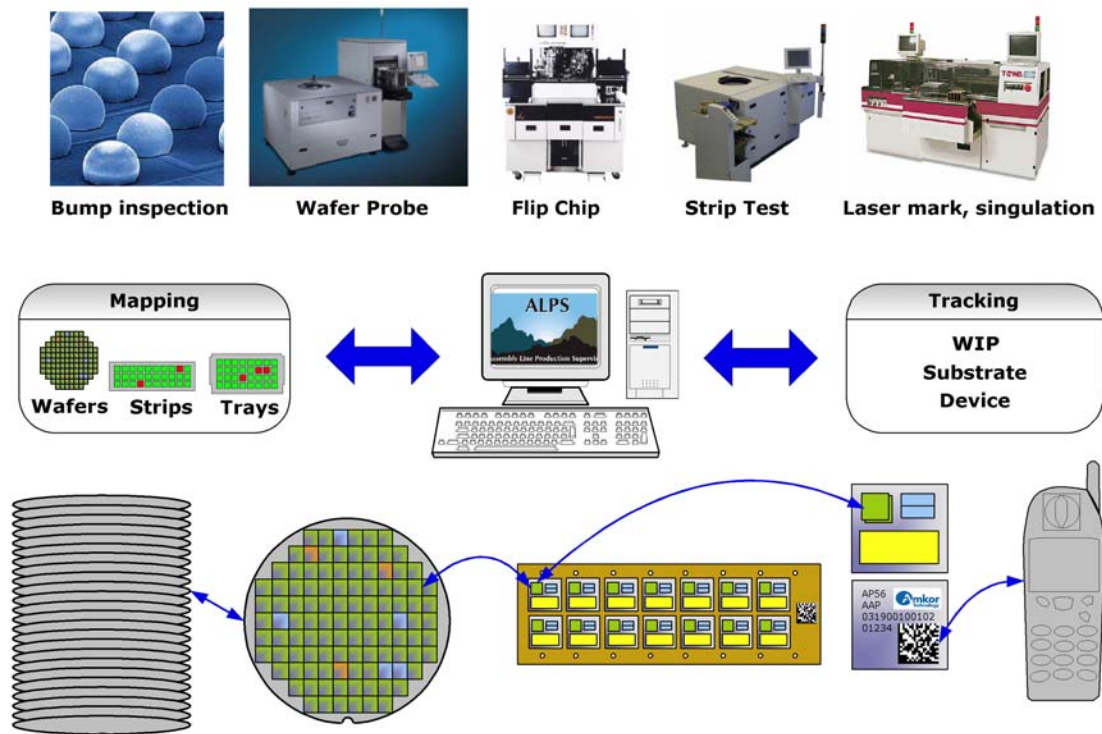


Image Courtesy of KINESYS Software, 2003

Figure 1: The latest version of ALPS integrates equipment to manage complex material flow in the advanced packaging assembly line.

Wafer mapping capability has been extended to include strip and tray maps. Composite devices e.g. stacked devices, multi-chip modules and multi-device wafers can be mapped and visualized. The equipment interface has been extended to allow many different types of equipment such as bump inspection, wafer probe, flip chip, mold, strip test, laser mark and singulation to be connected. Equipment that simultaneously processes several substrates of different types, e.g. wafers and strips, at multiple locations within the equipment can now also be supported.

With additional new features such as improved equipment monitoring and visualization, work in progress (WIP) tracking, substrate tracking, and device tracking, the product is in every sense an “Assembly Line Production Supervisor”.

Existing users will find familiar features for wafer map data management and equipment integration in the new version of ALPS, and will also be able to extend the installation to additional equipment and gain increased visibility into their manufacturing process. Existing users will also be able to accommodate new techniques such as strip test and 2D matrix device marking and tie it all together with the substrate and device tracking features.

Substrate tracking provides the ALPS operator with current and previous locations of all the wafers, strips and trays. Device tracking informs the ALPS operator the exact path of a device from wafer to strip to singulated device. Such traceability helps the manufacturer detect and correct problems in their process. It may also become a stipulated requirement from the final customer to address liability concerns about device failure in the field.

The new version of ALPS is scheduled for Q1 2004. Companies who want to participate in earlier beta testing are requested to contact us on a short notice. **KINESYS Software, Inc., Petaluma, CA.**