

# Linecontrol

The Future in  
Surface Mount  
Machine Control



**SMS Linecontrol has been developed to dramatically reduce the time consuming and clumsy method of generating machine programs for the surface mount lines.**

## Overall System Architecture

SMS Linecontrol is much more than a machine programming system. It allows complete control of all the programming functions that are needed for day to day operation of an electronics manufacturing plant

SMS Linecontrol creates balanced tact times and optimised machine programs for maximum performance over a wide range of surface mount equipment.

The unique structure and performance of SMS Linecontrol automates many of the process steps involved in programming optimising and balancing as line, massively reducing downtime and potential operator error.

Once CAD data has been imported into SMS Linecontrol the user can view, edit, test and optimise the placement file prior to sending to the placement machines.

## Optimisation

SMS Linecontrol employs a large range of optimisation engines. This is our main strength area. In most cases we are able to achieve on average a 10% improvement in machine optimisation time from what has previously been experienced.

SMS Line control utilises a range of optimising engines.

- ✓ Turret style machines: Table movement and carriage movement are controlled.
- ✓ Multi head machines: Gang picking and placement sequence are controlled.
- ✓ Multi Robot Systems: Index control, robot balancing and board loading are optimised.

## System Road map

SMS Linecontrol also provides the platform for a range of other SMS software that will significantly improve your SMT manufacturing process. SMS software packages can be used either in unison or individually.



LEADING THE WAY WITH LEADING SOLUTIONS

## Linecontrol

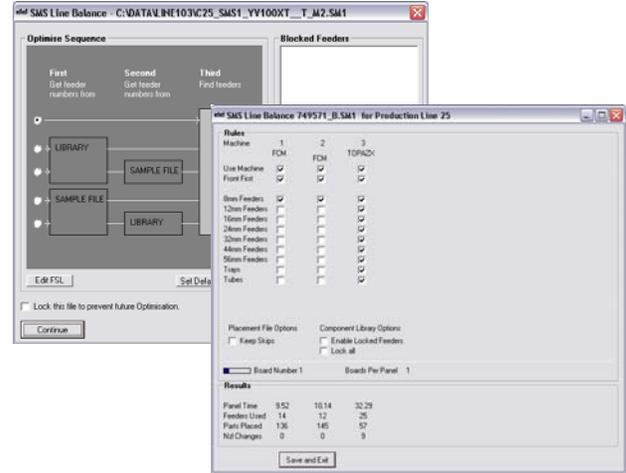
Linecontrol is a machine programming system. When used as part of the Traceability suite it acts as the operating interface between the equipment and the monitoring packages. It achieves this by remaining in communication with the placement machines via RS232 or TCP/IP. It can react to remote commands as they are sent from the machine.



## Formatting Placement File & Line Balancing

The line balancing optimiser will format the placement file to ensure the best possible cycle times across the whole machine line.

Placement files can be grouped together and then balanced, this is used to produce a common feeder set up across the group.

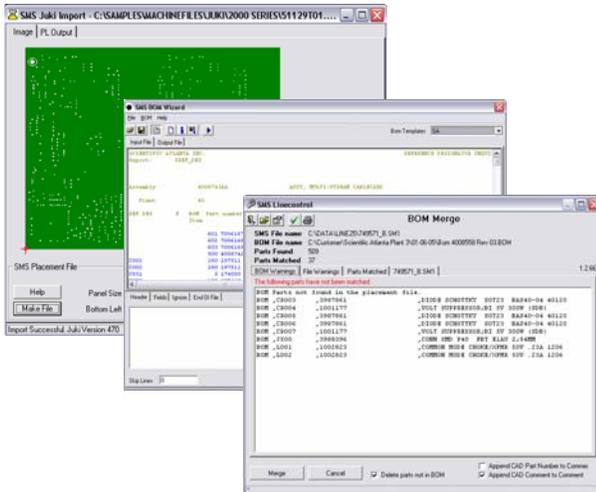


## Importing CAD and BOM data

The user can import a CAD file from the most commonly used packages using one of the standard importers or by using a user configurable importer.

BOM data is imported using the SMS BOM Wizard.

The CAD and BOM files are merged to produce an SMS placement file.



## Other Tools

- ✓ Overlay
- ✓ Feeder Print outs
- ✓ Auto Library Builder
- ✓ Machine Library Editors
- ✓ Custom Report Wizard
- ✓ Feeder GUI
- ✓ Security



## System Requirements

### Computer

- Pentium P400 minimum.
- 64Mb Ram.
- Enough RS232 ports for each of the machines and scanners.
- Windows 95, 98, NT, 2000, XP.

### Performance

- Expected program generation time, CAD to machine, < 2 hrs.
- No limits to the amount of products optimised.
- No limits to the amount of parts in the placement files or associated Libraries.
- Line balancing and optimisation is not affected when machines of different suppliers are matched.