

# Linechart

Production & Process  
Statistical Charting



**SMS Linechart is designed to report data collected from any source in a graphical user friendly way**

## Linechart Viewer

SMS Linechart displays data from different processes in a standardised interface.

SMS Linechart displays information graphically as line, bar or Pareto graphs with full drill down functionality.

SMS Linechart displays real time line status information.

SMS Linechart has built in standard statistical tools, but is also fully customisable to allow new graphs to be constructed from new machines not yet thought about.

Different machines with different data can be graphed together. This is because of Linechart's unique data collection system.

## Linechart Server

This is installed on a network server. All data collection programs are monitored to ensure data integrity.

Independent data collection tools/programs are used to collect any format file from any data source.

## SMX Database

All data is saved to the SMX database. This allows Linechart to graph the data obtained from multiple sources no matter what the original format was.

Once an SMX file is closed a checksum is applied, the file is locked to guarantee its integrity.

The SMX database file system is also used by other SMS products. It is the platform for the SMS Traceability suite of products.

## System Road Map

SMS Linechart is part of the SMS platform product range, other SMS software is available that will significantly improve your manufacturing process. SMS software packages can be used either in unison or individually.

SMS Linechart has been designed to work with any production process. Because of the modular architecture of the software and the SMX database, data collection points can be added to expand capability without any disruption to the existing system.



LEADING THE WAY WITH LEADING SOLUTIONS

## Data display



Linechart standard graphed data includes:

- Detailed feeder and part wastage
- Machine productivity and efficiency
- Components Per Hour
- Production count
- Quality
- OEE

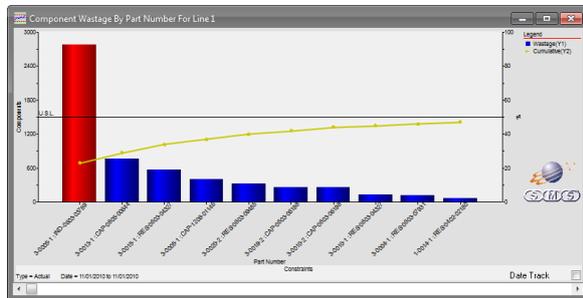
## Drill down process

Users are able to drill down to specific details on each of the available functions; this is achieved using a simple select and click function provided in the chart area.

During the drill down process all of the previous charts will remain open, and may be tiled to allow multiple pane viewing.

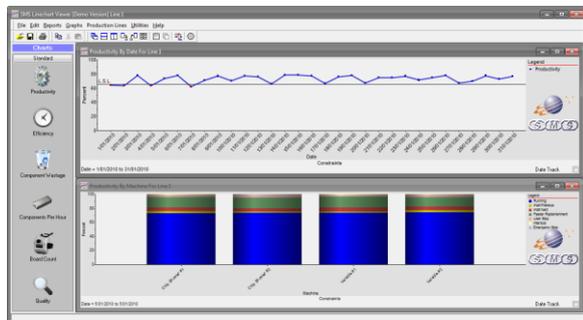
## Pareto chart display

In the chart below, component wastage is displayed in Pareto format, this enables identification of the biggest issues quickly and efficiently.



## Line level information

Line level information is configured as a run chart and the machine level information as a bar chart.

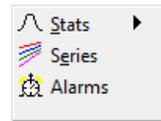


## OEE (Overall Equipment Effectiveness)

Linechart is able to display overall data from any number of graphs to produce an OEE graph. (Data collection systems must be in place for full functionality.)

The normal OEE graph definition is:  
Productivity X Efficiency X Quality

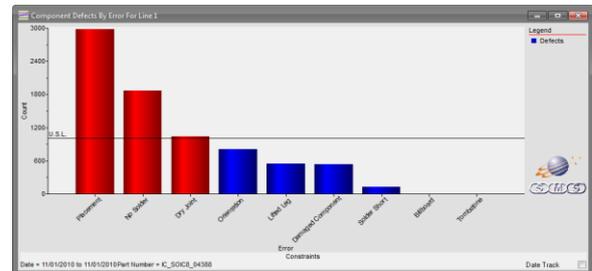
## Built in monitoring and display tools



- Statistics. Mean and standard deviation tools etc.
- Trends. Monitor improvements.
- Spec Limits.
- Alarms. Out of spec data events are triggered automatically.

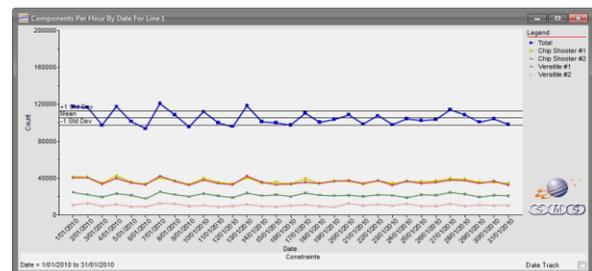
## Quality

Inspection data such as AOI or X-Ray can be graphed down to the lead level or what ever else is available.



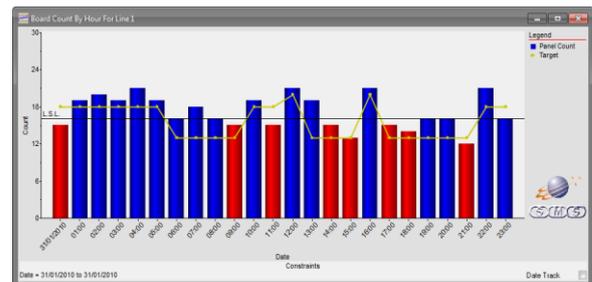
## Components Per Hour

With Linechart you can easily see how the line is performing for the whole line and for each machine.



## Accumulate Production Count

The charts will show the Production Count as it accumulates over time. Actual performance can be measured against set targets.



## Data Export

All charts can be exported to any of the Microsoft Office tools so that they can be included in management reports. Data can also be viewed in table form.

## System Requirements

### Linechart Server Computer

- Pentium or better.
- 4 Gb Ram.
- Network connection
- Windows 2008, 2012, 7, 10

### Linechart Viewer Computers

- Pentium Pentium.
- 4Gb Ram.
- Network Connection
- Windows 7, 8, 10