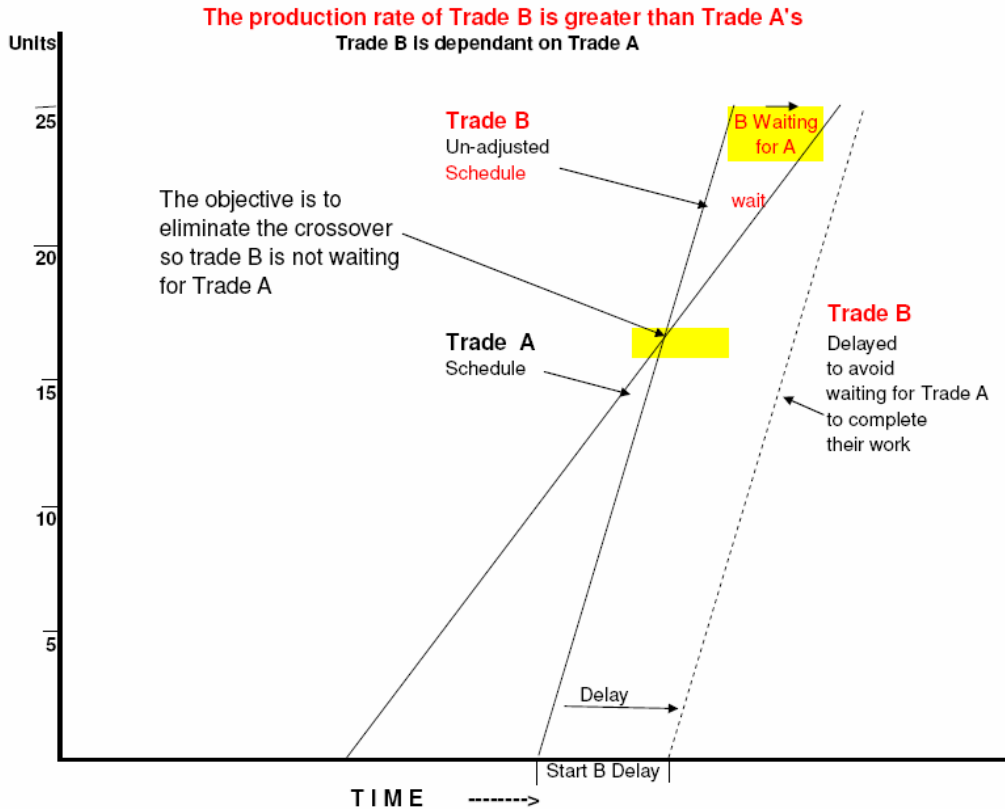
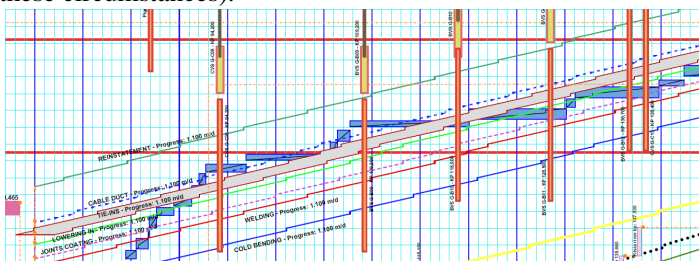


Line of Balance

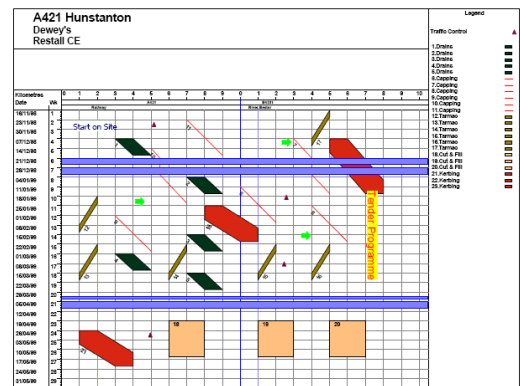
Line of Balance (LOB¹) is a method of showing the repetitive work that may exist in a project as a single line on a graph. Unlike a Bar Chart, which shows the duration of a particular activity, a LOB Chart shows the rate at which the work that makes up all of the activities has to be undertaken to stay on schedule², the relationship of one trade or process to the subsequent trade or process is defined by the space between the lines. If one group is running behind schedule, it will impact on the following group and this is shown by the lines intersecting.



LOB is used on repetitive work such as constructing multiple dwelling units, linear work such as roads and railways (frequently called Time/Location Charts or Chainage Charts in these circumstances).



Section of a pipeline project - TILOS time-location planning software

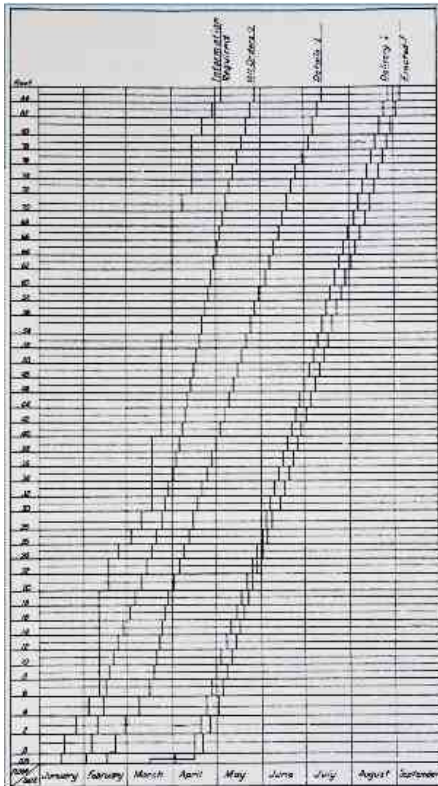


¹ The generic term for this type of chart is 'Elemental Trend Analysis'.

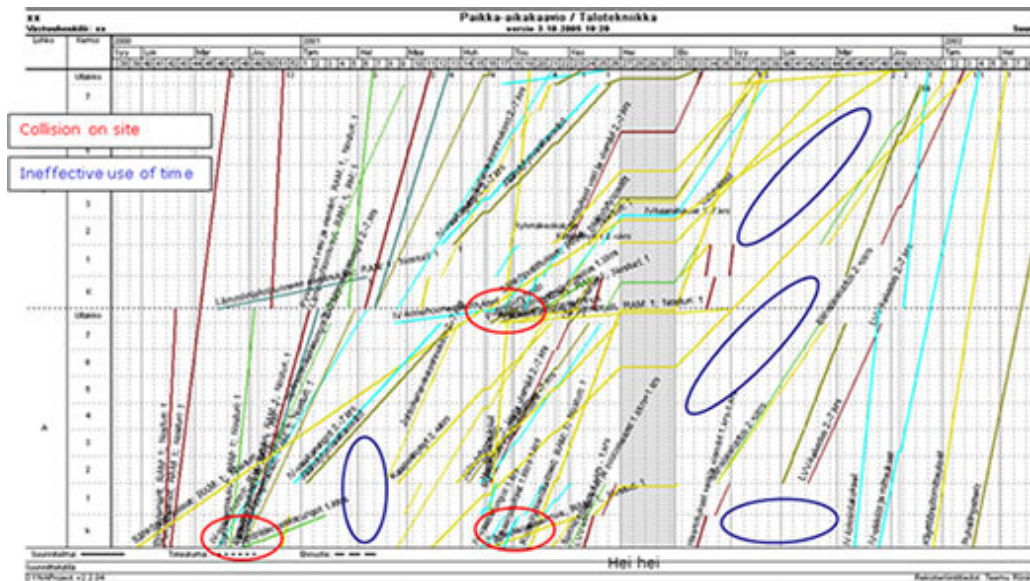
² Multiple-Activity Charts can be used to determine the rate of progress (or cycle times) used in the LOB chart, see: http://www.mosaicprojects.com.au/WhitePapers/WP1025_Multi-Activity_Charts.pdf

Flowline

Early versions of this technique were called ‘Flowline’ the most famous application being the construction of the Empire State Building, the rate of construction peaked at four and a half floors per week.



Location Based Scheduling



The modern version of Flowline is Location Based Scheduling (LBS). The illustration is from the Vico Location-Based Management System. LBS varies from LoB in that the amount of time allocated to each work location varies based on the volume of work required in that location. The objective remains same, synchronising the progress of different work crews to optimise the overall project delivery.

The location-based management system measures the progress of work crews as they flow through a building preserving the crew's productivity rate as they move from location to location. Each line represents one crew as they move through the building. The slope of the line marks their planned productivity rate and dotted lines that they are not operating optimally.

The number of data points needed to build and manage a LBS chart is a small fraction of the number needed to develop a CPM network to the same level of detail.

For more information on scheduling and planning,
visit Mosaic's scheduling home page at:
<http://www.mosaicprojects.com.au/Planning.html>