José González Ayerdi

Description of the problem (E. Taillard, 1989)

Consists of a Job Shop Scheduling Problem in which given a set of machines and a set of jobs, each with a set of operations, these several operations need to be processed on certain machines in a certain order during a certain period of time each.
The objective of the problem is to minimize the *makespan*, that is, the time it takes for all the operations to be completely processed by the machines.

The following constraints must be satisfied:
- All operations' starting times must be posterior to time zero.
- Once an operation processing has started it cannot be interrupted until its completion.
- Consecutive operations of the same job must not overlap and the precedence given for the their processing must be maintained.
- The processing time of an operation must end prior to the starting time of the next operation for two or more operations on the same machine.
- A machine can only process one operation at a time.