

Multi Job Optimizer

Product Information

Further optimization of the manufacturing efficiency can be achieved using multi-programming software to produce the optimum production schedule for manufacture.

Features

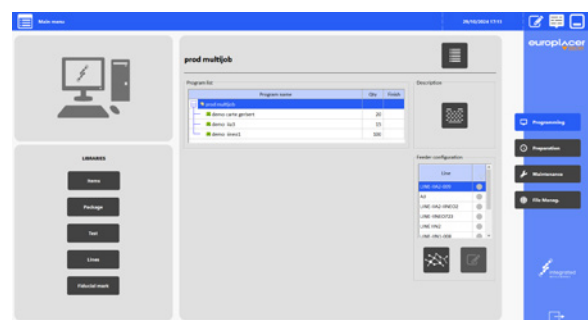
The multi job or multi programming is an option of the machine software ii-RC, it is accessible via a license (E173414).

The standard version of ii-RC, without Multi Job Optimizer, allows optimizing the cycle time and feeder location of one program, on a machine or on a line made of at least two machines. This is called line balancing.

Multi-programming is the creation of a group of several programs, typically more than two, called **Production**. The aim is to optimize these programs in accordance with the quantity of boards to be produced and the order of execution of the programs, while minimizing the movement of the feeders between each program.

The difference between **multi-programming** and **line balancing** is that multi-programming allows optimizing a **GROUP** of programs instead of only one program, as in line balancing.

Creation of a Production



The software user selects **create a new production** from the available program list page.

The window **production description** opens, allowing the user to group several programs to be optimized within the same production. The number of boards to be produced for each program is entered in the quantity column.

The system will then optimize the jobs based on throughput and changeover time, providing an accurate time estimate that can be used for job quotations.

Main Screen

Before optimization:

Boards	Operations	Total time
	1336	1 h 42 minutes
10	320	16 min 25
	+ 33 → 2 - 2	18 minutes
10	520	25 min 30
	+ 1 → 2 - 33	17 min 30
10	496	25 min 25

Total Production time:
1 h 42 min.

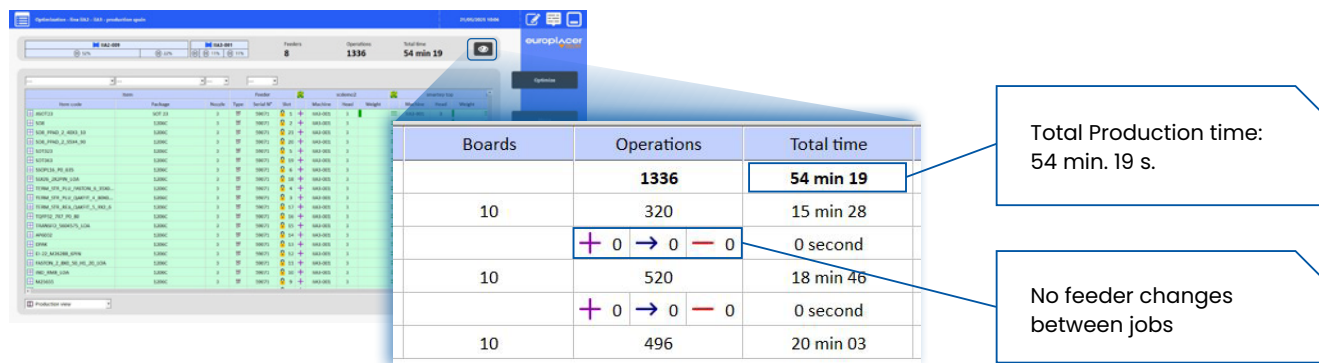
Feeder changes
between job A and job B:

- ▶ 33 added
- ▶ 2 moved
- ▶ 2 removed

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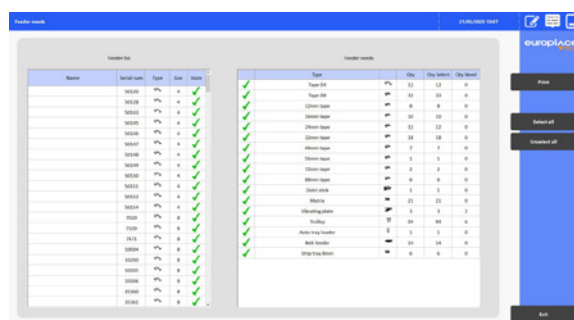
After optimization:



Optimization Parameters



A cursor allows the optimizer to be more beneficial for feeder changes (common loading plan) or head balancing (get fastest throughput).



The system optimizes according to the available feeder stock.

The user can decide if certain feeders cannot be used for this production, for example, if they are already booked for another job.

Feeders can also be locked manually on specific machine zones, for example, to reserve them for a recurring job that needs to remain on the machine.

Start Configuration

The optimizer can start in three different modes:

- ▶ **Free:** Feeders of the first job can be placed anywhere on the machines.
- ▶ **From a program:** The loading plan of a selected job will be used as the starting point.
- ▶ **From a line configuration:** The current line loading plan (after auto-configuration) will be used to start the optimization.