OTIF100 USER GUIDE

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Introduction

OTIF100 is a web application that works as SaaS (software as a service), for a subscription fee.

The main objective of OTIF100 is to help you make daily decisions in production by correctly answering the following questions:

1. *Which orders must be released?*

2. *In what sequence should the orders be processed?*

3. *What is the earliest date we can promise to deliver the next order?*

OTIF100 answers this question based on the Theory of Constraints, developed by Dr. Goldratt, whose basis is the method known as DBR (Drum - Buffer - Rope).

OTIF100 implements Dynamic Load Control, which is the latest evolution of DBR as of 2021.

Initial configuration

Production scheduling in a plant requires production orders, and each production order requires specifying a product (indistinctly also called SKU - stock keeping unit).

Each SKU requires a time buffer, which is allocated by families.

Finally, all date calculations must consider working days only.

The initial setup consists of building three files and importing them manually (see tutorials). It is also manual to update these tables.

Family table

Families in OTIF100 are simply groups of products with the same time buffer. The structure is:

- FAM: The family code.

- Buffer: number of production buffer working days.

Table of products

Products have two characteristics: their family and production speed in each CCR:

- External ID: equal to the product code. It is useful to import this file with this column to make it easier to update the data when new SKUs are added or something is changed to a SKU.

- SKU: Product code, which corresponds to the sku_id in production orders.

- Description: useful to identify and to seek products.

- FAM: the code of the corresponding family.

- PPH x: Parts per hour in CCR x, which can be up to six CCRs. It is set to 0 (zero) if it does not pass through the CCR.

Table of NON-working days

For OTIF100 to do the date calculations correctly, we must tell it which days are not working days.

- NWD: is the date of the non-working day.

- Description: a description of why it is not working (e.g. weekend, Christmas, etc.).

Daily operation

Every day you must update the production orders, which can be done manually or with automation via SFTP.

Each time you create a new SKU you must upload the SKU configuration spreadsheet, and this is done BEFORE you upload the production orders.

Note that you do not need to include all SKUs, but it is good practice to keep the SKUs file up to date with all current records.

Step 1 - Decide on order release

See tutorials for more practical details. Here it is sufficient to note that the decision of which orders to release each day will determine the overall productivity of the plant.

Step 2 - Update plant color information

Watch tutorials to learn how the unique and objective color-coded production priority system works.

In order for operators to obey the priority system, they must know the color status of the day. To achieve this, one of these options is suggested:

- Hand out color-coded lists of orders.

- Place color cards on top of orders, or along with documents accompanying orders.

- Post colors on screens within the plant by sharing the site https://otif100.com by logging in as a user.

- Provide user login and password to all operators, so they can view colors on their phones or available tablets.

- Any other means to inform the colors to all operators and supervisors.

Differences between manual and automatic loading

Manual loading

The file for manual upload can be an Excel spreadsheet .XLS (format 97 - 2003) or a .CSV file.

It is not required to have all the columns, only the relevant ones for the upload. You can even import a file with fewer orders, in case you want to include last minute data.

When the orders are finished and must be taken out of the current orders, this operation must be done by the user. It is recommended to do it with the option to mark the orders and "finalize" them, so that they remain in the history. They can also be deleted, but they will not remain in history.

Automatic loading

The file must have all columns with the header names and structure described in the document "OTIF100-SFTP-guide.pdf".

This file must contain ALL current orders. If the file is sent without some orders that were previously uploaded, OTIF100 understands that those orders were finished and automatically marks them as finished.