# The formula

# 7 STEPS TO MAKE YOUR TRIAL A SUCCESS





## **Table of Contents**

### Introduction

What this ebook is about and what you should know

## **The Visual Scheduling Process**

Update - Understand - Schedule - Report - Execute

# > Step 1: Getting Started

Set up your own test account

## > Step 2: Update

Upload your starting data

# > Step 3: Understand

Learning & understanding the basics | Adjust settings

# > Step 4: Schedule

Visual scheduling actions based on a scheduling engine

# > Step 5: Report

Retrieve reports of your new schedule

# > Step 6: Execute

Bring the schedule to real live

# Step 7: Update

Update existing jobs and upload new data



## Introduction

## What this ebook is about and what you should know

If you are reading this ebook, chances are you're either a job shop owner, a small make-to-order or a production scheduling professional who considers making a step away from a "homegrown" scheduling system. This could be Excel, your whiteboard or some other manual work on data that either lives in your head or that you extracted from a very basic "ERP" system.

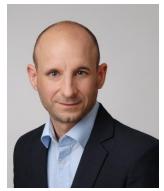
You started to browse for some easy time and resource scheduling solutions and/or spoke to friends or trusted advisors (either in real life or on social media) and somehow you came across **just plan it**.

You looked at the website, clicked a few videos and thought "this could do the job". You signed up for a free trial and received and email encouraging to download this ebook. I am so glad that you did this!

It is **important to know** that the ebook provides the basic knowledge for getting started. It gives a vivid description of the steps needed to be taken to make your **just plan it** trial a success. At the end of most chapters you will find a blue box titled "additional resources" offering links to more detailed information. We highly recommend making use of these resources as well.

The ebook is virtually meant to take your hand and to guide you through the first steps of testing **just plan it**. Once you are done with this guide, you should be really good to go. So: let's get started!

#### About the author of this ebook



Elmar is Managing Director of NETRONIC - The Gantt Solutions Company. He decided to join the company mid of 2015. Since then, he is driven to strengthen the company's solution focus. **just plan it** is his most recent "weapon" in his continued fight against misusing Microsoft Excel as scheduling tool.

You can contact Elmar at elmar.karlowitsch@netronic.com



# **The Visual Scheduling Process**

## Update - Understand - Schedule - Report - Execute

With **just plan it** we aim at enabling SMB manufacturers to achieve easy time and resource scheduling. The Gantt chart based visual scheduling approach empowers the planner to easily manage operational production planning in five phases:

- > Update
- > Understand
- > Schedule
- Report
- > Execute

To keep this introductory ebook as simple as possible, this guideline focusses on testing the PRO package functionality with automatic scheduling. Over and above this document is structured following the visual scheduling circle:



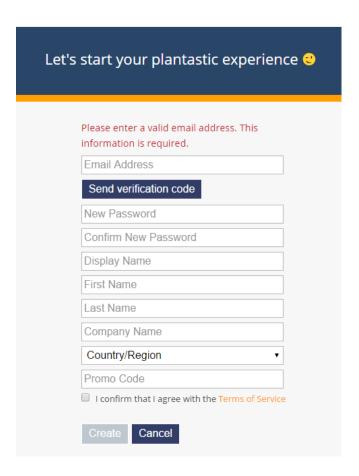


# **Step 1: Getting started**

## Set up your own test account

Before entering the circle of visual scheduling with **just plan it** it is necessary to set up a test account. A free trial provides you with a full version of any package of **just plan it**. Within these 30 days, you enjoy the full experience of the depth and breadth of the **just plan it** software, so you know exactly what you're getting when you become our customer. During the trial phase, all data is persistent. In addition to this, we will also spend some of our own time and efforts helping you to work with your own data and giving you personalized demos.

To start off the **just plan it** 30 days trial just go to <a href="https://app.just-plan-it.com/signup">https://app.just-plan-it.com/signup</a> and proceed as follows:



- Enter your email address into the form and click "send verification code". (This is meant to make sure that it is really you who requests this trial.)
- 2. Keep this page open and switch to your email inbox. You should find a mail with a verification code sent by us (please also have a look in your spam folder just in case).
- 3. Copy the code into the respective field in the form.
- Also type in a password of your choice and your company name.
- 5. Please tick the box to accept our Terms of Service.
- 6. Then click create and we will launch your **just plan it** trial account.

Now you are ready to go!



# Step 2: Update

## Upload your starting data



In general, there are three ways of creating data in or uploading data into just plan it:

- via ERP interface
- via dialog within the software
- > via xlsx-upload

#### **Update via ERP interface**

As you just started to test **just plan it**, an ERP interface won't be a viable alternative. But once you decided to subscribe, it will be the most sufficient way to connect your ERP with **just plan it**. We are experts in realizing interfaces to more or less every ERP system. Look out for some more information in the "additional resources" box.

#### Update via dialog within the software

An easy way of creating and editing new jobs and tasks as well as resources and resource groups is using the respective dialogs within the software. We recommend that you start creating resources via the "Manage Resources" dialog in the "Edit" tab. When creating resources, you also need to specify their calendar, describing the times when your resources work, and when they do not work (e.g. your shift calendars).

You can add jobs via the "+" icon in the Job View or via the "Create and Edit Jobs" dialog that you find in the "Edit" tab as well. When creating a job, you need to give it a name, and can



add additional information such as status (released, ordered, quoted), a customer, a release date (earliest start date for that job) and due date. From the "Create and Edit Jobs" dialog, you can then also add tasks to each job. Tasks are defined by their name, a task number, their duration, a predecessor (if applicable) and either a resource or a resource group. To get a detailed instruction please have a look in our written documentation: The respective links are provided in the "additional resources" box at the end of this chapter.

#### **Upload via Microsoft Excel**

Another easy way to upload starting data into an empty Gantt is via xlsx-upload. For such cases we have designed a standard interface to Microsoft Excel that can be run by an xlsx template. Just download the file here.

This template consists of three tabs: "Resources", "Jobs", and "Tasks". Columns that must be filled with data are indicated by a dark yellow header. Columns marked by a light yellow header contain data that could be loaded in addition.

The tab "Resources" must contain all your different resources which have to have an individual and unique name each (see below, column A). Furthermore, you need to define the resource group each resource belongs to (column B). In the example shown below, Cutting can be done by Machine 1 as well as by Machine 2, while Milling can only be done by Machine 3 and so on. Finally, you have to specify the shifts of each machine for each day of the week (column C-I).

Α	В	С	D	E	F	G	н	1
Resource	Resource Group	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Machine1	Cutting	9:00-16:00	9:00-16:00	9:00-16:00	9:00-16:00	9:00-16:00		
Machine2	Cutting	9:00-16:00	9:00-16:00	9:00-16:00	9:00-16:00	9:00-16:00		
Machine3	Milling	8:00-12:00 13:00-19:00	8:00-12:00 13:00-19:00	8:00-12:00 13:00-19:00	8:00-12:00 13:00-19:00	8:00-12:00 13:00-19:00		
Machine4	Molding	9:00-16:00	9:00-16:00	9:00-16:00	9:00-16:00	9:00-16:00		
Machine5	Molding	9:00-16:00	9:00-16:00	9:00-16:00	9:00-16:00	9:00-16:00		
Machine6	Finishing	7:00-17:00	7:00-17:00	7:00-17:00	7:00-17:00	7:00-17:00		
Machine7	Finishing	7:00-17:00	7:00-17:00	7:00-17:00	7:00-17:00	7:00-17:00		

After completion of the tab "Resources", you can go on with "Jobs". Just list all your jobs you want to upload by giving them an individual name (see below, column A). Furthermore you can provide additional data, such as:

- > Release Date (column C): The release date marks the earliest possible start date. E.g., this can be a delivery date of material you need for production.
- > Due Date (column C): The due date is the date your jobs have to be finished by.
- Job Status (column D): In just plan it we differentiate between "Quoted", "Ordered" and "Released"
- > Customer (column E)
- Note (column F): Here you can insert any additional text or information that might be helpful. This text will be shown in the tool tip when hovering over the job in the Gantt chart.



Α	В	С	D	E	F
Job Name	Release Date	Due Date	Job Status	Customer	Additional Text
Job 1	19.12.2016	22.12.2016	Released	Customer A	dummy text A
Job 2	19.12.2016	22.12.2016	Released	Customer B	dummy text B
Job 3	19.12.2016	22.12.2016	Released	Customer A	dummy text C
Job 4	20.12.2016	22.12.2016	Released	Customer C	dummy text D
Job 5	20.12.2016	23.12.2016	Released	Customer C	dummy text E
Job 6	20.12.2016	23.12.2016	Ordered	Customer B	dummy text F
Job 7	20.12.2016	24.12.2016	Ordered	Customer A	dummy text G
Job 8	20.12.2016	24.12.2016	Quoted	Customer B	dummy text H

Finally you need to define the tasks of your jobs in the tab "Tasks". Every task of one job is defined in an own line. In our example, Job 1 consists of four tasks: Cutting, Milling, Molding and Finishing. To insert the tasks in the correct way, start with the job name (column A). Please take care to use exactly the same name/string as defined in "Jobs".

Then insert a task number (column B) and, if desired also a task name. After that it is important to set the runtime which is the total amount of minutes that the task needs to be worked off. Then insert the resource group that is capable to fulfil the task. Again: Please take care to use exactly the same name/string as defined in "Resources". Additionally, you can also directly assign a special resource (column F). But this means that the task can only be processed on this special resource, even though there might be other resources within the respective resource group.

If you like, you can set a time restriction for a task (column G). This is analog to release date for jobs: Here it means that the respective task must not start earlier than the fixed date. If you have relations between your tasks they need to be defined in column H. Set the predecessors for each task. In our example, we have a straight chain, meaning that task 2 can only start after task 1 has been completed and so on. You also can define "nets": just insert two predecessors (separated by a comma and a blank) for one task. Finally you can also provide additional information for each single task (column I).

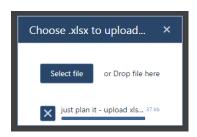
Α	В	С	D	E	F	G	Н	1
		`		•	•	ASAP: do not	Predecessors	•
Job Name	Task No	Task Name	Runtime [min]	Resource Group	Resource	start earlier than	Task No	Additional Text
Job 1	10	Cutting	180	Cutting				dummy text 1
Job 1	20	Milling	252	Milling			10	dummy text 2
Job 1	30	Molding	288	Molding			20	dummy text 3
Job 1	40	Finishing	252	Finishing			30	dummy text 4
Job 2	20	Milling	288	Milling				dummy text 5
Job 2	30	Molding	324	Molding			20	dummy text 6
Job 2	40	Finishing	288	Finishing			30	dummy text 7
Job 3	10	Cutting	216	Cutting				dummy text 8
Job 3	20	Milling	252	Milling			10	dummy text 9
Job 3	40	Finishing	216	Finishing			20	dummy text 10
Job 4	20	Milling	240	Milling				dummy text 11
Job 4	40	Finishing	252	Finishing			20	dummy text 12
Job 5	10	Cutting	180	Cutting				dummy text 13
Job 5	20	Milling	264	Milling			10	dummy text 14
Job 5	30	Molding	324	Molding			20	dummy text 15
Job 5	40	Finishing	288	Finishing			30	dummy text 16



This (almost) is it. Now you just have to save and upload the xlsx-file. To do so, just click on the "Import"-icon within the "Import/Report"-tab in the just plan it software (see below).



Then click "Select file", and choose the template that you filled before or drag and drop the file onto the window (see below). Then the upload automatically starts and your initial data will be visualized in **just plan it**.



- > Learn how to connect **just plan it** with your ERP system. Read more
- > Learn how to create and edit resource groups and resources. Read more
- > Learn how to create and edit jobs. Read more
- > Learn how to create and edit tasks. Read more
- > Template to upload data via Microsoft Excel. **Download here**



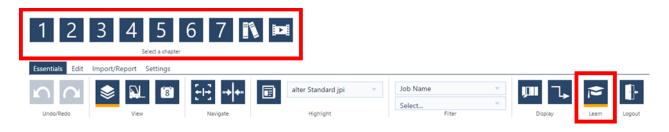
# Step 3: Understand

## Learning & understanding the basics | Adjust settings



#### Learning & understanding the basics

Before giving in to the temptation and just drifting through the software we recommend to invest 5-10 minutes of your time and effectively learn the basics of **just plan it** with our tutorial. To start the tutorial just click the icon with the doctoral cap. Seven new icons for the seven tutorial chapters pop up as well as direct links to our written documentation and video tutorials (see below).

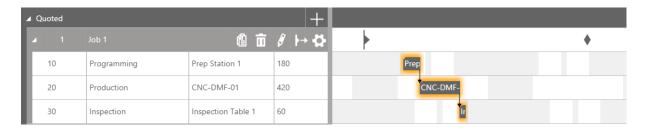


Start off with chapter one and you will be guided through an interactive tour that makes you familiar with the basic features and functionality of **just plan it**. Afterwards you will be familiar with the elements of the Gantt chart and all the visualization options you have to better understand your data.

Basically, when you enter **just plan it**, you see the Job View. It shows you all jobs and tasks sorted by their status: "Released", "Ordered", and "Quoted". Within a category, jobs are sorted in ascending order by their sequence number: the lower the sequence number, the



higher the priority of the job. That means that the most important jobs are shown at the top. Within one job, tasks are sorted in ascending order by their task number (often representing the order in which one task follows the other). Each category is represented by its own color, both in the table area as in the visual schedule: Released jobs are dark blue, ordered jobs are light blue and quoted jobs are grey. You can also see the task structure of a job:

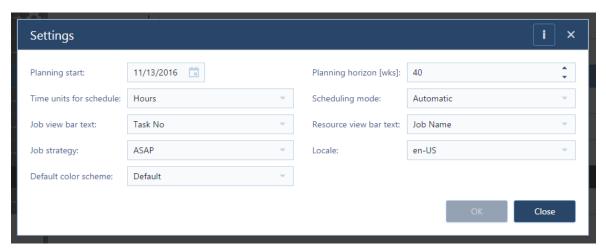


Each grey bar represents a task of this quoted job. The arrows indicate a dependency between these tasks, so that the second tasks only can start when the first task is finished. The symbols in the white job line (at the top of this screenshot) indicate the release date (left symbol) and the due date (right symbol). The due date symbol turns red when the job runs late. The grey and white pattern in the background show the working and non-working times of the resources that work on these three tasks: A grey background stands for non-working time and a white background represents working times. All three views are described in detail in our written documentation and further information can be gained from the "additional content" box at the end of this chapter.

#### **Adjust settings**

Once you understand the basic elements of the **just plan it** software, you will also be able to customize some of the elementary settings to your individual needs. **just plan it** comes with a default of settings that can be accessed by clicking on the wrench symbol icon in the "Settings" tab.







Before testing the software, you should check the following settings for better understanding the impacts:

- > **Planning horizon**: This depends on the average lengths of your jobs. If it tends to be long, extend the horizon acordingly.
- > **Time units for schedule**: The same as above if you normally deal with long lasting jobs, better use "hours" than "minutes" as unit.
- > **Locale**: Specify whether dates are displayed in US English, British English or German format:
  - English US (e.g.: 11/14/2016 03:40 PM | Monday | wk47)
  - English GB (e.g.: 14/11/2016 15:40 | Monday | wk46)
  - German (e.g.: 14.11.2016 15:40 | Montag | KW46)

- > Learn what you see in the Job View. Read more
- > Learn what you see in the Resource View. Read more
- > Learn what you see in the Calendar View. Read more
- > Learn how to adjust the settings. Read more



# **Step 4: Schedule**

## Visual scheduling actions based on a scheduling engine



When uploading your data from Excel to **just plan it**, you might have recognized a huge difference between both products and the data you work with:

- > Excel = simply data
- > just plan it = time and resource oriented schedule with actionable information

That means that as soon as you update data in the software, a "scheduling engine" starts working in the background making sure your data is managed and presented to you in form of an actionable production schedule. Hence, it is important to understand the basic principles of this scheduling engine:

- Each job has a unique sequence number
- > The lower the sequence number, the higher the priority
- > Jobs with highest priority get assigned resources first
- > If you specify a resource group instead of a dedicated resource, the scheduler looks for the resource with the earliest availability in that group
- > No "double bookings" of resources
- Release date as hard restriction, due data as soft restriction
- > Can set task-specific restriction dates ("do not start earlier than")

Please keep in mind that the above is automatically taken care every time you make changes to your data in **just plan it**. Find some links to further reading material on our scheduling engine in the "additional resources" box at the end of this chapter.



Now that you are familiar with the general principles, it is time for some action: In case you want to change the schedule, here are the three most relevant action options that you have:

- Changing the priority of the job
- Adding (or removing capacity)
- > Dragging and dropping a task bar (and hence setting restrictions)

#### Changing the priority of the job

As said earlier, each job has a unique sequence number representing a kind of relative priority of the job: the lower the sequence, the higher the priority. If a job is scheduled to finish late, you can try accelerating it by giving it a lower sequence number. Simply click on the job's sequence number in the left hand table, select a lower number and see the impact on the schedule at one glance. You can learn more about changing the sequence number from the "additional resources" box at the end of this chapter.

#### **Adding capacity**

Of course, another valid strategy to accelerate finishing late jobs is to enhance the capacity. Adding capacity means increasing the working time e.g. by adding a new shift or by prolonging current shifts, thus accelerating things to finish orders in time. You can do this in the "Manage deviations from standard worktimes" dialog which is opened by clicking the corresponding icon in the "Edit" tab. Follow the link in the "additional resources" box to learn more about adding capacity.

#### **Drag & drop actions**

As can be expected from a visual scheduling application, it goes without saying that you can manually move tasks via drag & drop. However, please be aware of the fact that due to the nature of the scheduling engine, any drag & drop change means setting a task-specific restriction.

- > Learn more about the scheduling engine and how the algorithm works. Read more
- > Change the sequence number of a job and make sure that it gets resources earlier (or later if you chose a higher sequence number). Read more
- > Add capacity to accelerate a late job. Read more
- > Set restrictions via drag & drop actions. Read more



# Step 5: Report

## Retrieve reports of your new schedule



After successfully scheduling, the result of the previous phase is a detailed plan of procedures for all your resources within the defined planning horizon. Of course, you will want to create a report on the production schedule, and export the respective data e.g. to hand it over to the people who are responsible executing it. Consequently, the **just plan it** software comes with features to generate and export

- > Reports per resource group or tasks e.g. for your machine operators
- > Overall reports for the executive producer and the management board

Both functions can be found through the "generate reports" dialog which you access by the according icon in the "Import/Report" tab. Just check them out play or learn more details:

- > Learn about the "generate reports" dialog. Read more
- > See the reporting functionality in action via the tutorial videos. View more



# **Step 6: Execute**

## Bring the schedule to real live



Once your employees have useful reports about their schedule, it will be their task to execute the current schedule. The outcome of this execution phase will be the input for a new "update" of the schedule and hence the visual scheduling circle starts again.

In case you'd like to have an ERP-interface to **just plan it** sometimes later, please note that such an interface will come along with some nice benefits for the execution phase. Within the scope of realizing a standard interface you can – amongst other things – facilitate taking over live data of your ERP to **just plan it**, e.g. progress or job and tasks status. Then **just plan it** directly closes the loop of the visual scheduling process.

#### **ADDITIONAL RESOURCES**

Learn how to connect just plan it to your ERP software. Read more



# Step 7: Update

## Update existing jobs and upload new data



As you enter the second loop of the visual scheduling circle it comes to updating again. But contrary to your initial data upload you now should update your existing data first.

So, for your day-to-day work we recommend following the workflow with **just plan it** - especially when it comes to updating and maintaining your data:

- Check which jobs are finished
- > Delete all finished jobs
- Add new jobs either manually, or via Excel or
- Move the red line (planning start) manually to the latest possible date = earliest planned start of all remaining tasks
- Start modifying the rest of your plan

If you follow this routine, you will rapidly notice that it will be more than helpful to see all the finished and started tasks at one glance. For this purpose you have two alternatives:

- > Color as functionality or
- > Work in progress functionality

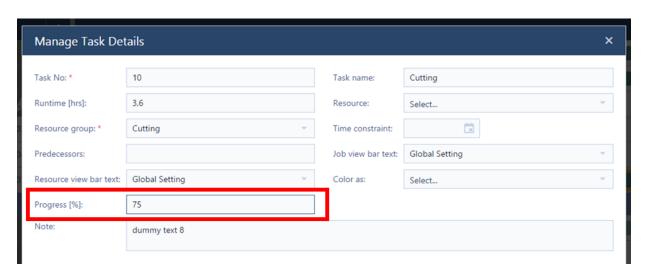
The "color as" functionality allows you to assign certain categories to a task and mark this categories by individual colors. Just select the criterion (such as "started" or "finished") in



the "Manage task details" dialog. The color of the selected bar will then change according to your color scheme.

To notably emphasize: This functionality is not a definition of a task status, which would have an impact on the positioning of the bar – it is "just" a change of the task bar's color to visualize this additional information. That means: If you mark a task as finished it will neither be removed from the schedule nor will it be moved to the left hand side of the time now line (as in theory finished tasks should always have been ended before now). In addition, the coloring action has no impact on the plan start line (as one might be right to assume that once I mark a task as finished, I need to recalculate my schedule based on this new information). This feature just helps you seeing faster what is finished, and what is in progress.

Alternatively you can use the work in "Progress (%)"-field in the Manage Tasks Details Dialog.



Just insert the respective number in the field and the percentage of completion will be shown on the lower edge of the respective tasks in the Gantt chart as well as in the tool tip text of the respective task.



After updateding your existing data you can upload new data and continually pass through the steps of visual scheduling: update – understand – schedule – report – execute – update...



# TAKE 2 MINUTES AND GIVE IT A TRY

just plan it is a software that is made to help machine shops with easy time and resource scheduling. You can try it out with no further obligations.

LET'S TRY IT.

