

EBOOK

9 Basic Design Tips for User-Friendly Gantt Charts



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Why these tips?

Despite the intuitive nature of visual scheduling, we understand that this type of more complex business scheduling is not always intuitively understood. Therefore, this Ebook is designed to fill any gaps that may exist in your understanding of how to practically, and esthetically, bolster your Gantt charts. We summarized 9 non elaborative, but important design tips that support you to develop a user-friendly Gantt chart.

Who are we?

We are NETRONIC, “The Gantt Solution Company”. We can show you how interactive Gantt charts bring transparency into production, project and data processing; as well as improve planning and scheduling of resources, jobs and workflows. The Gantt chart has been at our core for decades – resulting in three unique business offers:

1) The Core Gantt controls for software developers

With the Gantt chart controls VARCHART XGantt and VARCHART JGantt, we address software vendors who typically develop industry-specific planning and scheduling solutions using either C#/.NET or Java.

2) The Visual Scheduling Suite for Microsoft Dynamics NAV

With our Gantt chart add-ins Visual Production Scheduler, Visual Jobs Scheduler and Visual Service Scheduler, we enable partners and customers of Microsoft Dynamics NAV to better manage and schedule production orders, jobs, job tasks, resources and service orders. We are a trusted expert throughout the Dynamics NAV community for visual scheduling.

3) Production scheduling applications for SMB end customers

Based on our Gantt know-how, we also develop custom-made scheduling applications for small and mid-sizes end customers who want to improve their short-term production scheduling.

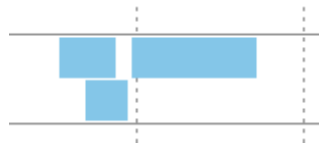
Take a closer look @ www.netronic.com

1. Adaption to Modern UI

As of Windows 8 the Modern UI (formerly [Metro](#)) has an important influence not only on the design of desktop or mobile applications but also on the design of web pages, for instance. The most striking element of Modern UI is the usage of flat, monochrome rectangles (tiles) instead of 3D shapes filled by color gradients.

To translate this design concept to your Gantt chart:

- **Use monochrome rectangles** for bars



- **Don't use frames** for bars. Of course, there are situations in which adding borders to bars could make sense, e.g. if they follow each other closely. In this case do not color them black but **use the bar background color and tone it slightly** so that the layer won't look like a block.



- Labels are **more and more done in white**. If you want to follow this trend, you have to make sure that white ciphers are clearly discernible when choosing the background color. If you prefer black fonts, go for a **dark grey** instead since softened font colors are more comfortable on the eyes.
- Use the same principles for the **timescale** and the **table area**.

2. Bent Layer Edges

If operations are positioned closely behind each other, a **flattened top left corner** will help to discern them. In the picture below the bent corner complements a bar that has a border as well. So the single bars can be more easily recognized.



3. Careful Usage of Hatches

Hatched bars in a Gantt chart create a very turbulent impression and therefore should be **used only very sparingly**. There are, however, cases in which two different pieces of information are to be shown on one surface. The sample below shows a bar, the color of which can't change, in dependency of exceeding a due date because the **layer color also provides important information** and so **using hatching would be ideal**.

Tuesday, January 20, 2015										Wednes		
08	09	10	11	12	13	14	15	16	17	08	09	10
B	B	B	B		F1	F1	F1	F1	F1	F2	F2	F2

4. Unity of Table Header and Timescale

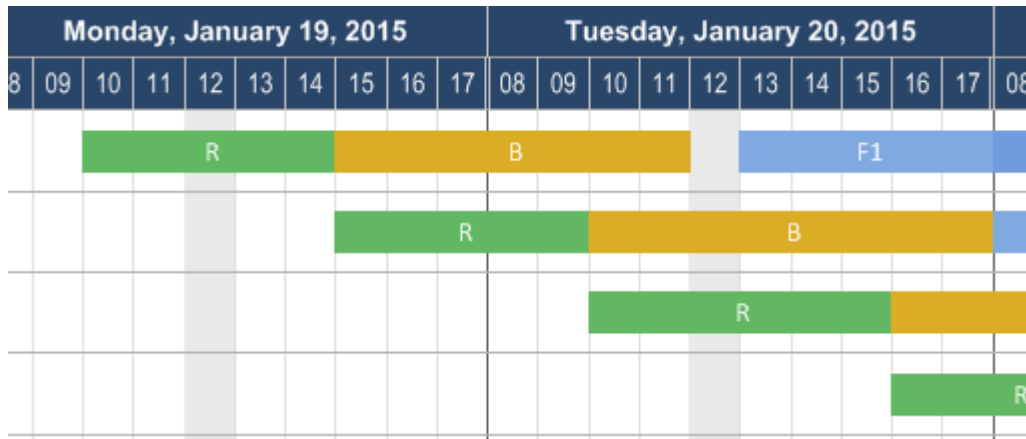
You should design your Gantt chart in such a way that it appears visually unified. One important trick for this is to **merge the table header and timescale**.

At the same time you should not forget to use a pleasantly contrasting color scheme. For instance, you can use dark, quiet colors like grey or blue for the background, and **white for the texts** and timescale ticks.

Work Center Machine Center	Thursday, 01/23/2014				Friday, 01/24/2014			
	06:00	12:00	18:00	00:00	06:00	12:00	18:00	00:00

5. Neutral Background in the Gantt Area

Gantt charts, due to containing a lot of information, pose real challenges for the eye: bars, symbols, visual alerts, grids, date lines, indentations for indicating grouping levels etc. Be sure to choose a neutral **-white – background** for the Gantt area.



6. Color Shades in Groups

In practice, many Gantt charts visualize a grouping structure. For example, operations are grouped by production orders, or tasks are grouped by the resources to which they are assigned. The **visualization of groups benefit from color shades by letting the planner more quickly recognizes subgroups**. "From dark to bright" is the rule. Use a dark background for the top level (often with white font color as well) and for the bottom level white with grey font color. You should also create "angles" in the table area with the help of the color scheme in order to visualize the dimensions and structure of the subgroups.

There's one more advantage to this graded visualization of groups: When scrolling vertically, the user is always able to see which grouping level the visible rows belong to even if there are many subgroups.

Resources		
▲ Project Manager		
▶ Steve Johnson		
▲ Project Engineer		
▲ Alan Jacobson		
J00010	1410	Alan Jacobson
J00010	1410	Alan Jacobson
J00010	1324	Alan Jacobson
J00010	1334	Alan Jacobson
J00010	1334	Alan Jacobson
J00010	1334	Alan Jacobson
J00010	1334	Alan Jacobson
J00010	1334	Alan Jacobson
J00010	1335	Alan Jacobson
J00010	1335	Alan Jacobson

7. Additional Details at the Right Places

Specific information such as start, end, and duration of the visualization bars help to visualize the entire activity, although the **user often requires additional information** from the planning schedule and activities to complete the circle of information. It can often pay off to **consider in which situations, and in which contexts, certain information are relevant to the user.**

Your basic options include:

1. Additional details placed in the bars.
2. Setting up a Tooltip.
3. Expanding the table area.

Keep in mind that these changes are context driven and you will not need to make them everywhere, every time.

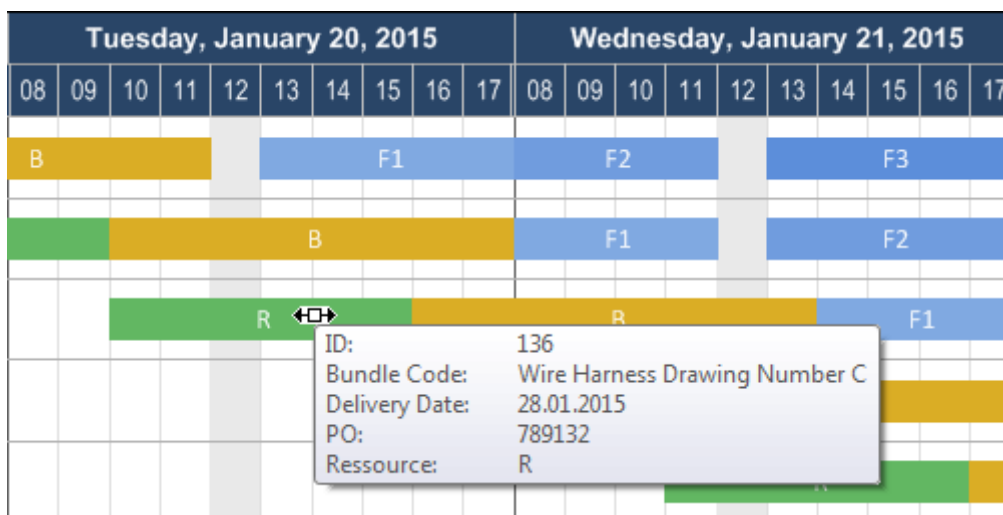
1. Bars

The information which is added is naturally dependent on the situation. When the **details are dependent on time**, for example, the information regarding whether an operation will be delayed or about a task's degree of progress , should be represented in the bar area.

Wednesday, January 21, 2015									
08	09	10	11	12	13	14	15	16	17
F2	F2	F2	F2		F3	F3	F3	F3	F3

2. Tool tip

A Tool-Tip-Text can often be helpful when **complex or comprehensive details** are necessary this special activity.



Format the Tooltip-Text as a table so that it is more easily read.

3. Table

Information which is either of **more general interest**, or independent of the visible time area, should be placed in the table.

Item No	Work Place	Stock	Req. Qty	Miss. Qt	Miss. Qty VP
▷ AU1106137					
▷ AU1107228					
▷ AU1109193					
▲ AU1114698					
▲ 10000					
7321100	G3M15	2.000	96.000	0.000	0.000
7221100	G3M13-SCH	350.000	96.000	96.000	0.000
7421200	G2M13	269.000	96.000	96.000	96.000

8. Choice of Time Scale

Select a time scale solution which is most appropriate to your planning horizon. For example, a project planner, who manages **long-term projects**, will select a time scale showing **months and days**.

January 2016							February 2016											
25	26	27	28	29	30	31	01	02	03	04	05	06	07	08	09	10	11	12

On the other hand, a production planner who is planning his weekly orders, will most likely benefit from a time scale showing **days and hours**, potentially even as granular as to the minute.

Wednesday, February 03, 2016								Thursday, February 04, 2016					
12:00 AM	03:00 AM	06:00 AM	09:00 AM	12:00 PM	03:00 PM	06:00 PM	09:00 PM	12:00 AM	03:00 AM	06:00 AM			

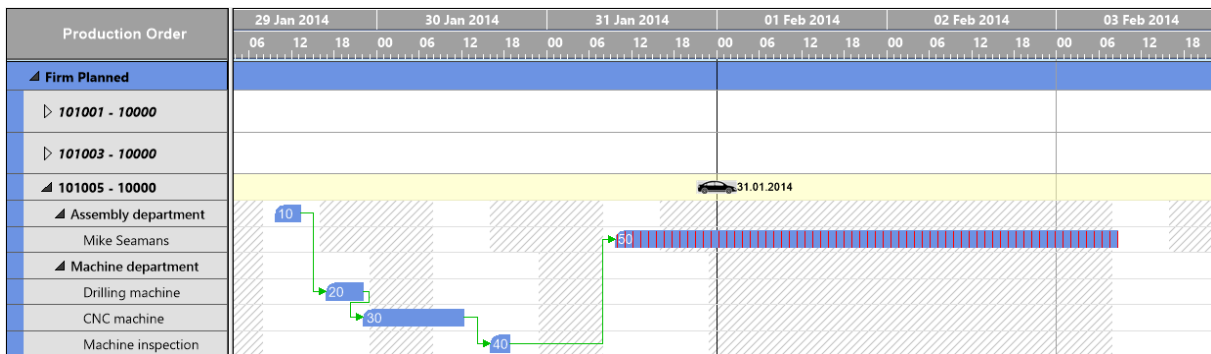
If your planning applications require an expanded time horizon, you will need to **adjust the date formats**, so that they – depending on the solution – will **switch dynamically to small or large unities** (read also our [blog post](#)). Now we can see that it will be possible to have a **continuous in-out zoom** in the planning. You can **limit the dynamics by setting a minimum and maximum solution** to prevent the planner from offering solutions that don't make

sense to the user. For example, a user who plans in days does not require a time scale in seconds.

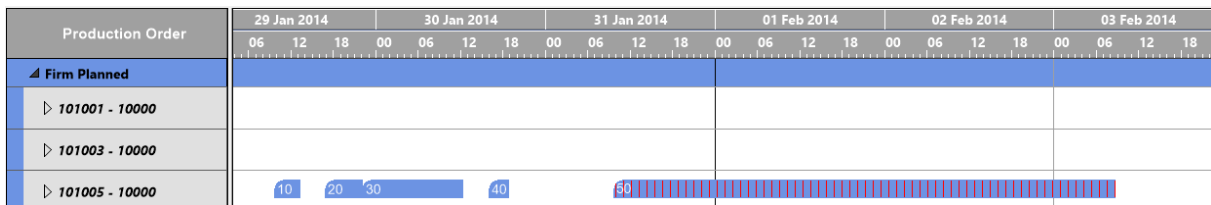
9. Visual Warnings

A delivery is in danger of being delayed, or a capacity is overloaded in a given period: these conflicts are signaled with the help of a visual aid. When developing a Gantt chart, you must not only consider how a visual warning will look, but also where you're going to want it displayed. In general, the affected bar is marked with a red line or the change of its bar color when exceeding the deadline. If many processes are displayed one below the other, it is often helpful, that you also reflect the warning at the top level, or incorporate a field for the warning in the table area.

Example: Warnings indicating that the activity will finish after the required due date...



are also displayed at the topmost level ...



... so that, also in the collapsed view, the planner can recognize that exceeding the due date is imminent.

For more ideas regarding how you can represent warnings please see our Ebook titled, ["Spice up your Gantt chart with intelligent colors."](#)