

EBOOK

9 Key Features of an Industry- Proof Java Control for B2B Gantt Charts



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What to Look Out For in a Gantt Chart

Gantt controls reduce the developing effort and hence are mainly used when it comes to developing complex B2B planning and scheduling applications. Although the general concept of a Gantt chart is fairly simple, developing “industry-proof” Gantt chart functionality bears a relevant amount of complexity and sophistication. Hence, when evaluating various Gantt chart controls, developers should not only look for the obvious aspects of the Gantt chart. Questions like ease-of-use, scalability with ever growing user requirements, flexibility, calendar management etc. should get taken into account.

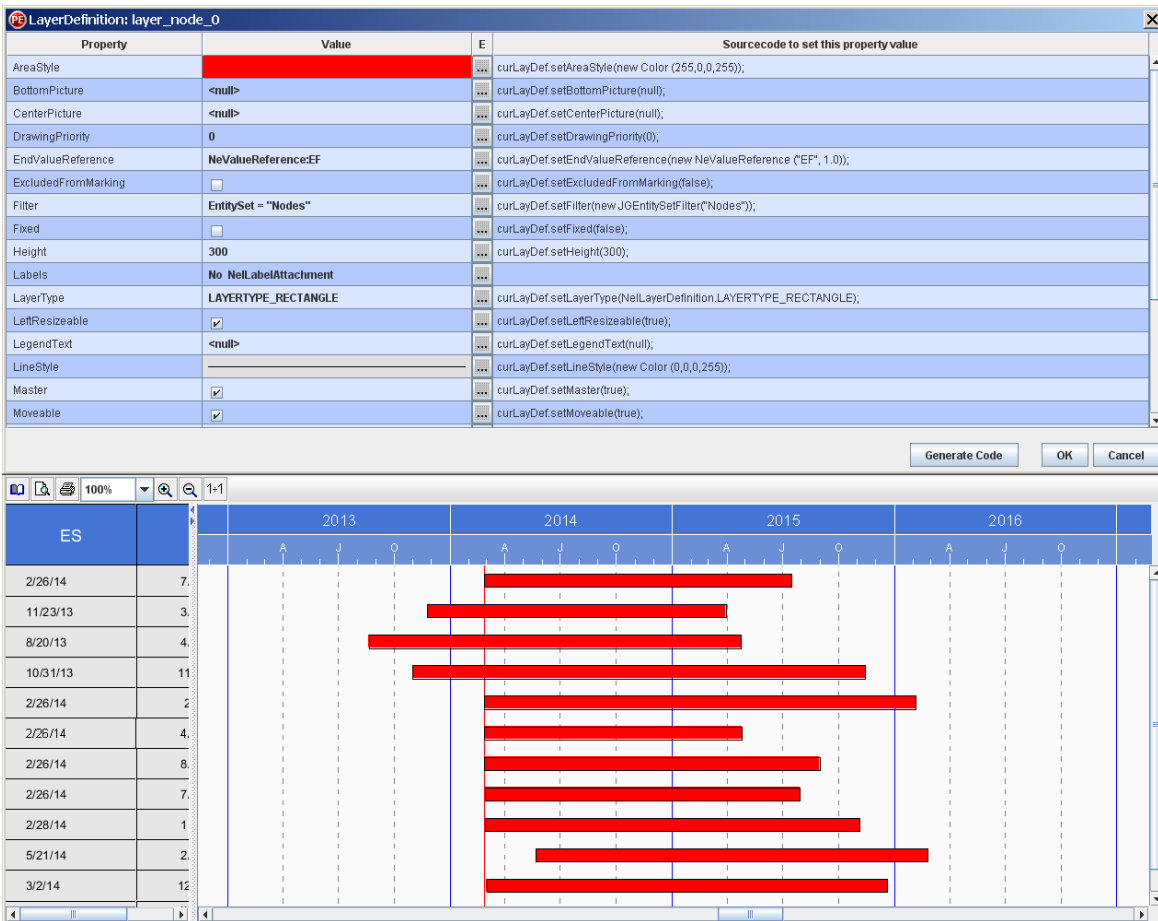
Why This Ebook?

The purpose of this eBook is to provide Java developers who work on a scheduling application with insight into some key features of an industry-proof Java Gantt chart control. We have gained these insights from working with globally leading software vendors for the past 25 years, and from helping these organizations to enrich various planning and scheduling applications.

Although a Gantt chart is a visual tool, these features may not be visually appealing. However, making a control visually attractive is the job of the UI designer. Our job as a Java Gantt chart control developer is to provide you with powerful features that support you in creating industry-ready B2B applications. We put these kinds of features into the focus of our Gantt chart control VARCHART JGantt, and also into the focus of this eBook.

1. Intuitive Handling of the Control for Rapid Gantt Development

The functionality of a Gantt chart can often be defined precisely, while on the other hand its visual realization is only vaguely determined: Which color and form do the bars have, which calendar grids suit best and so on. So a lot of time is spent by testing how the Gantt chart can be realized in a visually meaningful way. VARCHART JGantt comes with a Property Editor, letting the developer test the Gantt settings by a “quasi-preview”. Only if he is satisfied with the results, he will translate the settings into an application. The following example illustrates testing the effects of bar colors on the chart. The preview and the clear arrangement of the functions by the Property Editor make the Gantt control an intuitive-to-use tool and reduce the development time.



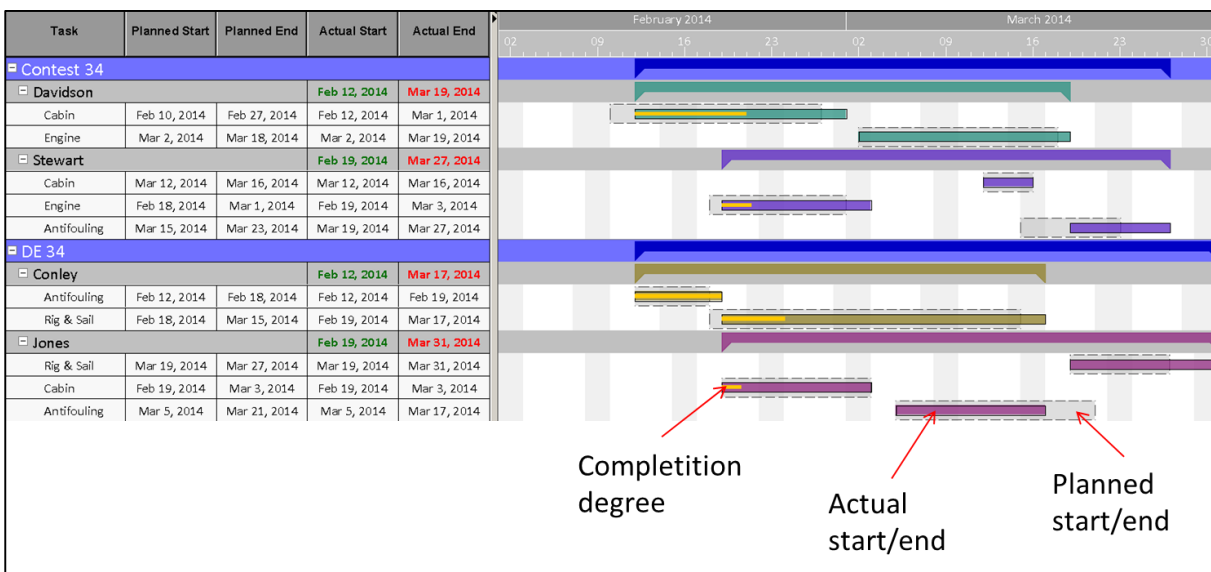
2. Powerful Layout Functions for the Table Area

The table of a Gantt chart is an important information source for the planner as it visualizes, e.g., hierarchies with the help of tree views. Table fields are used to display relevant information such as start/end date, degree of completion, missed delivery dates by flag symbols and much more. However, the more fields and hierarchy levels are displayed in a table, the harder it will become for the user to grasp all information details at once. Flexible field definitions are hence essential for the Java Gantt application. Coloring, font types and flexible field attributes as are offered by VARCHART JGantt, allow to create a clear-cut overview even in the table area. The following example shows different hierarchy levels being optically separated by different colors. The group line is completed by two-colored fields to indicate actual start/end dates.

Task	Planned Start	Planned End	Actual Start	Actual End
<div style="background-color: #4a7ebb; color: white; padding: 2px;"> ▣ Contest 34 </div>				
<div style="background-color: #cccccc; padding: 2px;"> ▣ Davidson </div>			Feb 12, 2014	Mar 19, 2014
Cabin	Feb 10, 2014	Feb 27, 2014	Feb 12, 2014	Mar 1, 2014
Engine	Mar 2, 2014	Mar 18, 2014	Mar 2, 2014	Mar 19, 2014
<div style="background-color: #cccccc; padding: 2px;"> ▣ Stewart </div>			Feb 19, 2014	Mar 27, 2014
Cabin	Mar 12, 2014	Mar 16, 2014	Mar 12, 2014	Mar 16, 2014
Engine	Feb 18, 2014	Mar 1, 2014	Feb 19, 2014	Mar 3, 2014
Antifouling	Mar 15, 2014	Mar 23, 2014	Mar 19, 2014	Mar 27, 2014

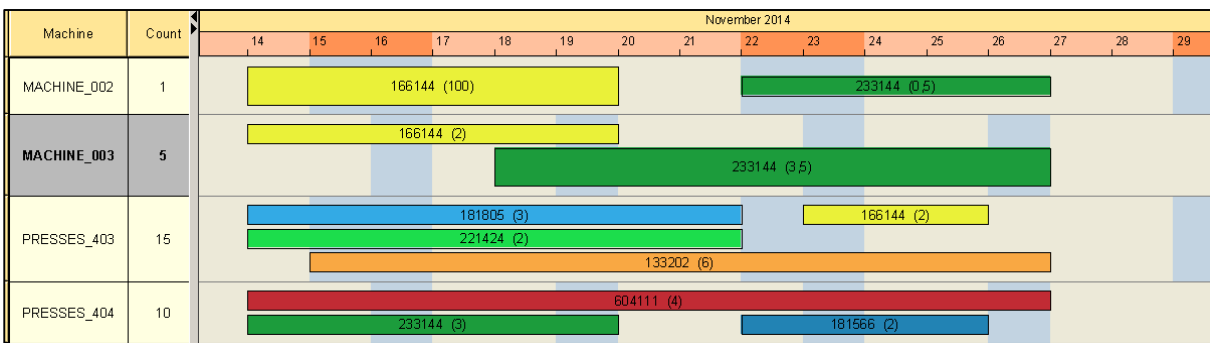
3. Bar Definition with Great Flexibility

The bars of the Gantt graph are the eye-catchers of the Java chart. The more flexible bars can be defined in terms of colors, forms, height, labelling etc., the more truly relevant information can be passed from application developer to planner by means of bars. Our customers appreciate the nearly unlimited ways of designing bars in VARCHART JGantt. The example shows three combined bars. An activity's degree of completion is illustrated by a pre-set color as bar in the bar. A higher bar in the background illustrates the comparison between planned and real data.



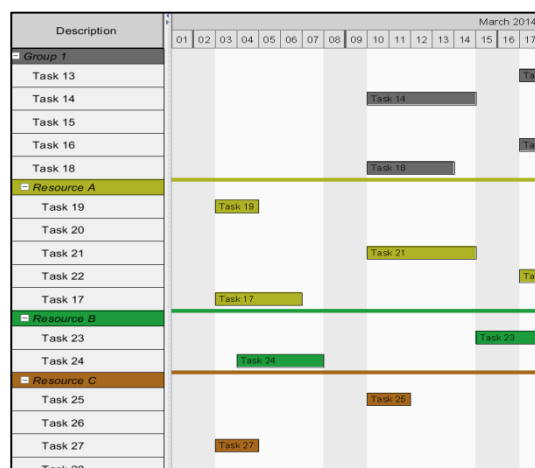
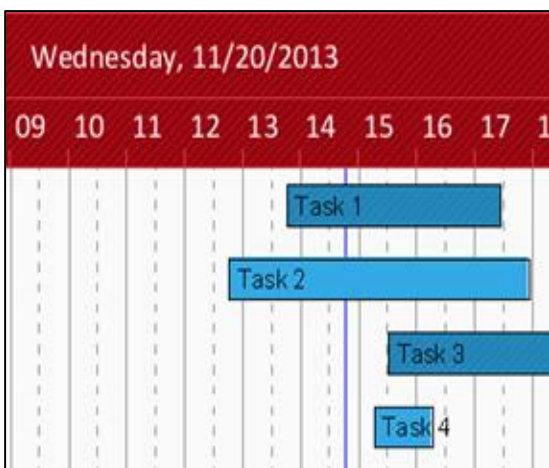
4. Individual Calendars for Different Groups

Planners often use different calendars. Machines, for instance, may work in different shifts or service intervals. Java Gantt controls should hence be able to take into account different work free periods in the Gantt application. In the example, calendars are assigned to certain groups. Machine 002 and presses 403 are shut down from Saturday to Sunday; machine 003 and presses 404 on Sundays and Wednesdays.



5. Structured Display of Grids by Line Definition

Lines should not be underestimated as structural aid in the Gantt chart. Different time intervals can be better discerned if they are indicated by different vertical lines. Horizontal lines of different colors make groups stand out from one another. So it's essential for a Java Gantt control to allow lots of flexible line settings.



6. Time Scale with Flexible Resolution

Expanding and reducing the timescale let planners modify their planning point of view. If they, for instance, not only want to know what the machine load will be in an hour, throughout the day or tomorrow but also in two weeks. A timescale that can combine short-term and long-term planning has to have a particularly flexible resolution since it has to switch seamlessly from e.g. a monthly resolution to a daily or even an hourly one when zooming in an activity. The timescale of VARCHART JGantt can modify its resolution from centuries to milliseconds continuously.

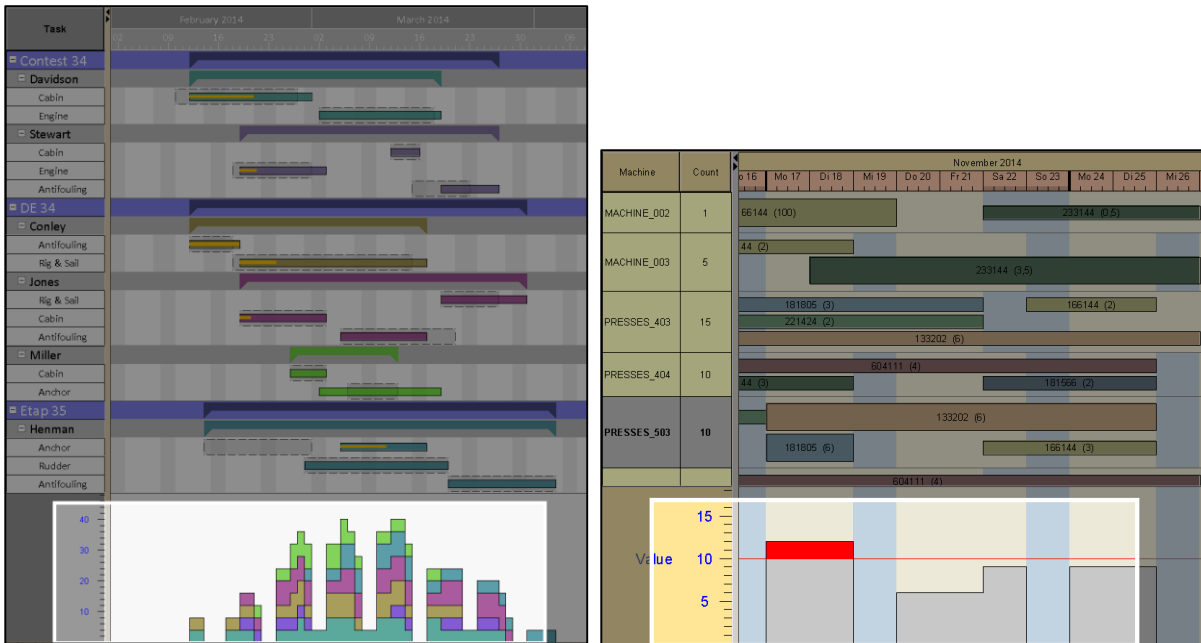
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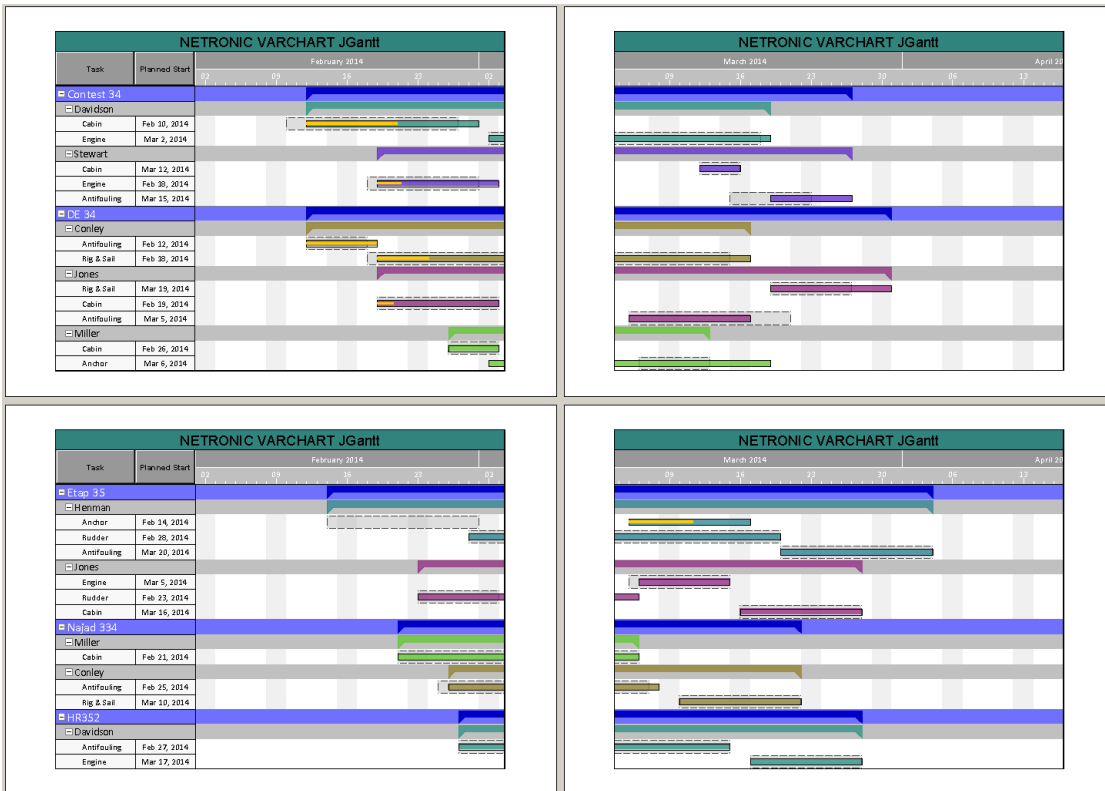
7. Histograms Complement the Gantt Chart

Every planning aims at a consistent capacity load. Free capacities are as uneconomic as bottlenecks. Since it is the ideal way of visualizing resource capacities, a histogram is an important feature of a Java Gantt control. The histogram module of VARCHART JGantt allows the visualization of stacked curves as well as of single ones.



8. Don't Forget the Printing

Even nowadays, many users of the planning applications still want to print their plans. Overviews for meetings are needed on paper, work schedules are handed out to staff members or a great weekly rota is to be hanged-up in the factory workshop.



9. Gantt Below Gantt – if One Gantt is Not Enough

Find below a typical example of two Gantt charts positioned one below the other: The first Gantt visualizes orders that are not assigned, the second one shows machines and their planned orders. So the planner recognizes the free capacities of the machines and only has to drag and drop the not-assigned orders to the machines. The technology behind this is anything but simple. You have to be able to synchronously scroll both Gantts horizontally.

