Aurora-CCPM is the world's most powerful enterprise-level multi-project critical chain project management software available. In addition, Aurora-CCPM is easy to use and is designed to interface with current project management and enterprise applications. Aurora-CCPM is designed to work seamlessly in your environment it can be run from the cloud, hosted on an internal cloud, or run as a standalone application. Aurora-CCPM is a combination of Aurora™, Stottler Henke's intelligent planning and scheduling system, with the added power and flexibility of Multi-Project Critical Chain Project Management.

By using sophisticated scheduling software as the underpinnings for Critical Chain reasoning, Aurora-CCPM can be applied to projects encompassing thousands of heavily constrained tasks and requiring hundreds of different kinds of resources. Giving the Critical Chain method such a solid scheduling basis also allows it to more easily handle complex situations such as new tasks being inserted during the actual plan execution, as well as other radical changes during execution.

**What is Critical Chain Project Management?**

Aurora-CCPM was developed because the needs of companies involved in the planning and implementation of complex, large-scale manufacturing, turnaround, maintenance, and other operations were not being met by current Critical Chain solutions. Aurora-CCPM has significantly advanced the state-of-the-art in Theory of Constraints (ToC) Critical Chain Project Management by expanding the theory as articulated by Dr. Eliyahu Goldratt (Eli) to better handle large (multi-thousand) task projects, in addition to other general capabilities. Many of the enhancements have been published by the premier ToC organization, TOCICO. For example, the initial theory of Critical Chain promoted backward scheduling for all applications; this is not always practical or desired. Aurora-CCPM allows for backward scheduling, forward scheduling, or both (mixed-mode) on a task-by-task basis.
BENEFITS OF AUORA-CCPM

- Ability to handle short-duration tasks, and update buffer reports on any timeframe (e.g., once every hour).
- Ability to handle multi-projects of huge size and complexity. The 64-bit version of Aurora has run projects with 150,000 but the theoretical maximum is much larger.)
- Buffer reports can be run as frequently as desired even with the largest models.
- Ability to do carry out forward, backward, and mixed mode scheduling.
- Intelligent scheduling that can determine shorter critical chains.
- Ability to leverage knowledge about resource constrained task placement during execution. Due to execution time differences in how tasks are actually executed, the resources may become available for a task that is shown later but actually could be done now (otherwise, these resources would lie idle). Aurora-CCPM can determine in real time that it is best to complete this task now.
- Ability to take variability of tasks in a chain into account in buffer consumption. That is, if a chain consists of a series of low variability tasks at the beginning and then a few high variability tasks at the end of the chain, standard buffer consumption reports may give an overly optimistic view of the situation.
- Sophisticated constraints beyond human capabilities - ability to handle physical space constraints, including taking into account the creation and elimination of the space during the project; as well as concurrent and non-concurrent constraints.

With 25 years of experience in intelligent scheduling and resource management, Stottler Henke’s Aurora-CCPM is designed to help companies tackle complex situations with ease and carry out operations more efficiently and effectively.

Situations where Aurora provides a competitive edge over other CCPM software systems

- Short-duration situations such as in the medical field.
- Situations where the project is beyond the capacity limits of other software.
- Situations where re-work and the insertion of new tasks take place during execution.
- Situations where forward or mixed mode scheduling is required.
- Situations where customization to algorithms is needed.
- Situations where the client already knows the benefits of improved resource scheduling.

Aurora-CCPM is being utilized by Boeing in the Final Assembly of the B787 Dreamliner and other aircraft. Aurora-CCPM provides Boeing with Critical Chain capabilities not available in other Critical Chain software. Aurora-CCPM prioritizes factory production tasks by balancing resource capacities with manufacturing requirements and constraints via the Critical Chain method of buffer management. The result is a dynamic assembly schedule that adapts to real-time production variability and allows Boeing to execute the plan as efficiently as possible.