

CONCERTO MULTI-PROJECT MANAGEMENT SOFTWARE

Background

Originally designed and developed in 1997, Concerto is not only the first multi-project critical chain system, but also the first software designed grounds up for a multi-project environment. Concerto is based on the breakthrough method called Critical Chain Project Management (CCPM) that has allowed hundreds of leading organizations across industries run their projects 20 to 50% faster with same or fewer resources.

CCPM is based on the fact that projects have a lot of uncertainties that make schedules obsolete/ outdated very quickly. Traditional project management creates fixed schedules (start and finish dates) for each tasks that are very difficult to follow. During execution, as the projects encounter uncertainties, these fixed schedules

become obsolete, priority conflicts start occurring all around, departments end up creating their local schedules that are not in sync with each other. As a result, key resources start multi-tasking, departments wait on each other, and managers constantly fire fight. The net impact is projects run late and productivity is low.

The key principles that form the basis of CCPM are:

- Reduce the number of work streams in progress at any given time and concentrate resources on fewer things rather than multi-tasking and spreading thin
- Create flexible schedules with time buffers in key places (at the end of the project and at key integration points)
- During execution, give clear and synchronized priorities to everyone based on buffer consumption to prevent multitasking for individual workers and managers

Concerto software enables an organization to institutionalize these principles. To date, 200+ organizations have used Concerto to manage their project execution, achieving a 20-50% reduction in project times and 20+% increase in organizational productivity (Please see Appendix 1 for results across a variety of industries).

CONCERTO DESCRIPTION

Concerto is enterprise multi-project management software that helps organizations plan and execute projects. It has comprehensive functionality in Single Project Planning, Multi-project Planning (Pipelining), and Multi-Project Execution.

Concerto has the following modules:

Critical Chain Planning client

This windows based client is completely integrated with Microsoft Project. Project managers create the basic project network in Microsoft Project. This client allows project managers to identify the Critical Chain of the project and insert time buffers at the right places. The client also allows the project managers to run several what-if scenarios and arrive at the optimum plan. 5 to 10% of users need this client. Individual project managers create their plans in line with the rules of CCPM and add to the central database over the web.

Pipeline Planning client

This windows client allows the master scheduler to schedule all the projects in the database in line with the overall capacity of the organization. The client helps identify the constraint resources and calculates the due dates of the various projects based on the capacity of the constrained resources. This module prevents the organization from overloading the resources and slowing down the projects. The master scheduler can run various what-if scenarios to create the most optimal pipeline. Typically a handful of users (less than 5) use this module.

Concerto Web client

This Web-based client provides all the day-to-day execution reports (priority reports, project status report, pipeline status report, management dashboard etc). 90+% users in the organization use this web based client.

Concerto Web is used for task management, project management, resource management, and management dashboard functionality.

Task Management

Task management is the process of assigning resources to tasks in priority order, updating the remaining duration of the task on a regular basis while it is in progress and closing the task when it is done. The primary user of task management is a “task manager” who is typically a first line manager like supervisor, team lead, chief etc.

Concerto's patented buffer management algorithm calculates the relative priorities of tasks and enables the task manager to always assign the resources to tasks in priority order rather than spreading them thin. Once a task is started the resources stay on the tasks until it is done. Once a task is completed the resources are then assigned to next task in priority order. The task manager provides regular task update that is used by the algorithm to calculate priorities. First line managers across all departments use the same priority system.

Project Management

Concerto provides early warning signals to projects based on the rate of consumption of buffer relative to the completion of project. Concerto also pin points areas that need to be addressed in order to recover the buffer and complete the projects on time. Concerto also provides a short list of tasks that have issues that need management help.

Resource Management

Concerto has extensive resource management functionality that allows resource managers to manage their resources optimally. For example, it identifies emerging bottlenecks so that they can tackle these overloads in a proactive manner such as reassigning people, adding capacity, adjusting project priorities etc.

Management Dashboard

Concerto Dashboard offers executives and senior stakeholders of project portfolios a complete picture of bill of health on a single page. It provides the buffer status of the various projects in portfolio including drill downs to problem areas. It provides a complete set of metrics such as throughput, cycle times, and on-time delivery. It always shows information on resources bottlenecks, top issues, where the queues are building up etc. There are compliance reports as well that tell the leadership if the basic rules of CCPM are being violated.

Execution Analysis – Optional Functionality

Over a period of time, Concerto identifies the top reasons for buffer consumption and project delays. This allows the organizations to prioritize and focus their continuous improvement efforts on the areas that have maximum impact on performance.

CONCERTO SYSTEM ARCHITECTURE

The Concerto system includes Windows clients and Web clients. The Windows clients are installed on the client machine and accessed from the desktop. The Web-based clients are installed on

the server machine and accessed over the Web using the Web browser. The diagram illustrates the Concerto system architecture:

