

## Our Planning and Scheduling Practice

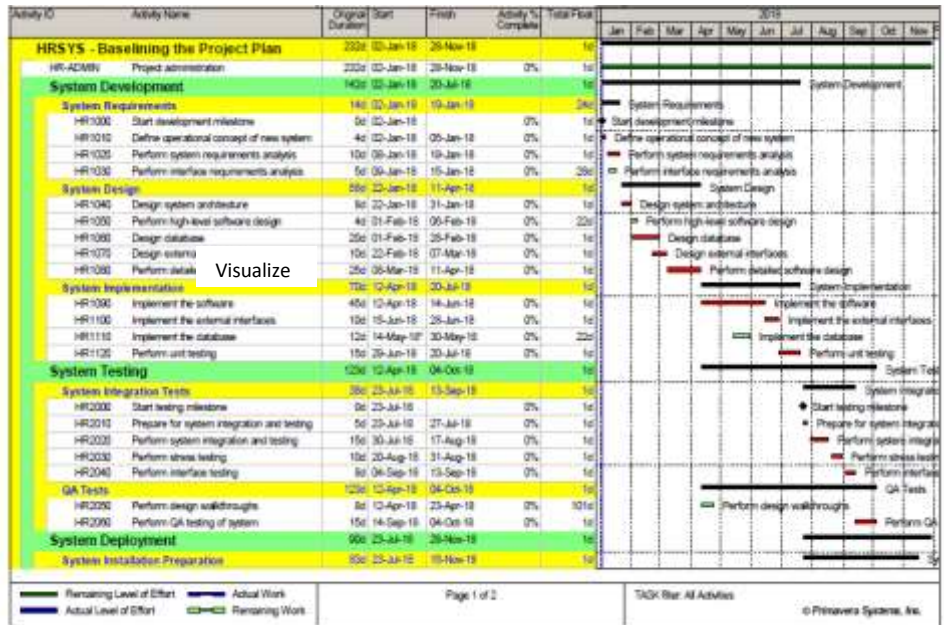
For more than 30 years, the CMCS team has helped project owners, project management firms, consultants, contractors, subcontractors and suppliers in developing their planning and scheduling best practices. No one can offer the extent of products and services that CMCS can offer for those who are serious about having the best when it comes to planning and scheduling their projects.

Our Planning and Scheduling services are not limited to any industry or projects type. CMCS has unmatched experience in Engineering and Construction, Oil and Gas, Energy and Utility, Information Technology and Communication among many others. The CMCS Planning and Scheduling Practice include:

- Developing, maintaining, reviewing and analyzing project schedules
- Schedule delay analysis and associated damage assessment for loss of efficiency, prolongation, acceleration and other losses
- Developing the integrated planning and scheduling practice Standard Operating Procedures (SOP) manual
- Training and assist in the achieving the Planning and Scheduling Professional (PSP and PM-SP) certifications
- Provide the Planning and Scheduling Software Licenses, Hands-On Training, Configuration, Health Check and Extended Technical and Functional Support Services

### Developing and Maintaining the Integrated Project Schedules

Our team has developed integrated project schedules for different type of capital projects including Universities, Hospitals, Buildings, Housing, Refineries, Plants, among many others. Our resource and cost loaded schedules are fully aligned with the project’s Work Breakdown Structure (WBS) and project delivery strategy. The planning and scheduling reports are generated to provide the reporting needs of each project stakeholder. Our team is experienced in using Oracle Primavera P6 and ASTA PowerProject.



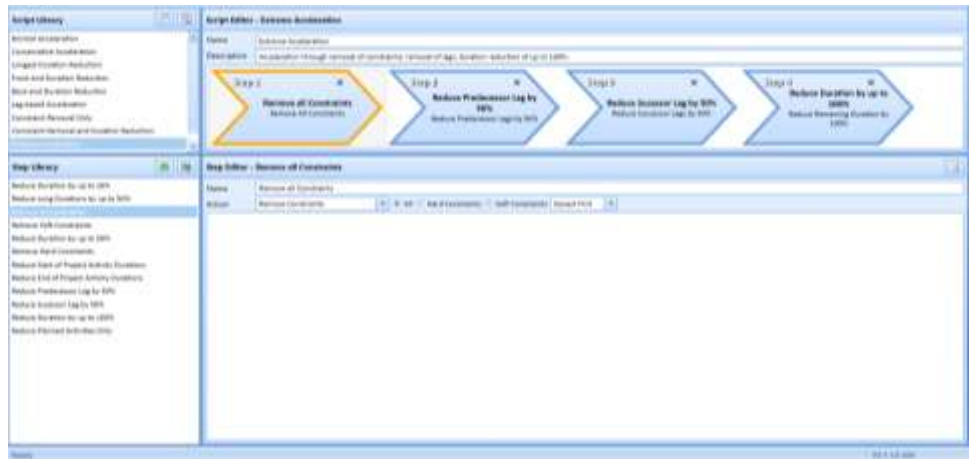
### Reviewing and Analyzing Integrated Project Schedules

Our team has extensive experience in reviewing and analyzing project schedules submitted by third parties. We have developed our own detailed checklists to review the schedule to ensure that the schedule is reasonable and complete and analyze the schedule to ensure that the schedule represents a workable plan considering available managerial and production resources. Our team is experienced in using Deltek Acumen Fuse Project Analytics to provide the metrics for assessing the quality of the project schedule.



**Schedule Delivery Time Optimization**

Our team will work with the client to identify and build possible scenarios to reduce the project execution duration by analyzing the impact of different actions and decisions on the project’s milestone dates. Regardless how practical or common are the identified schedule time optimization ideas, our team will analyze their impact on the project dates. CMCS team is experienced in using Deltek Acumen 360 to build, run and analyze all possible schedule acceleration scenarios.



**Risk Simulation Analysis for Integrated Project Schedules**

Our team will work with the client to assess the impact of identified assumption and risks on the project schedule. The Monte Carlo simulation provides an objective assessment on the confidence level of meeting the project’s milestone dates. Our team will produce a variety of risk analysis reports that will provide the client with an immediate understanding of the most critical risks that could impact the project successful on-time delivery. Our team is experienced in using Oracle Primavera Risk Analysis and Deltek Acumen Risk for the Monte Carlo simulation.



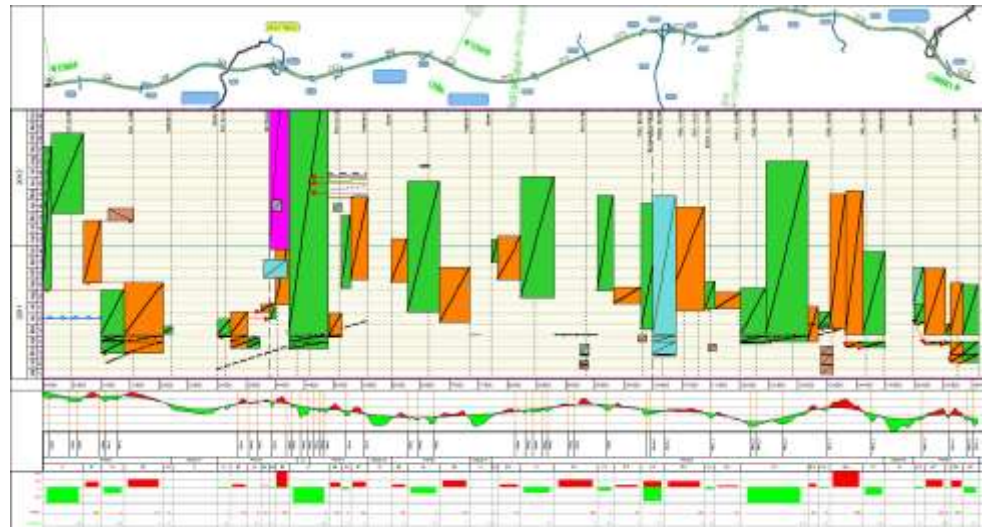
**4D Construction Simulation**

Our team has developed 4D Construction Simulation models by integrating project schedules with 3D and BIM models. The 4D Schedules were crucial for our clients for assessing constructability related issues and conflicting trades. In addition, the 4D Schedules provided a better understanding and reporting of the project performance status. Our team is experienced in using Synchro 4D Construction Simulation for building the 4D Models.



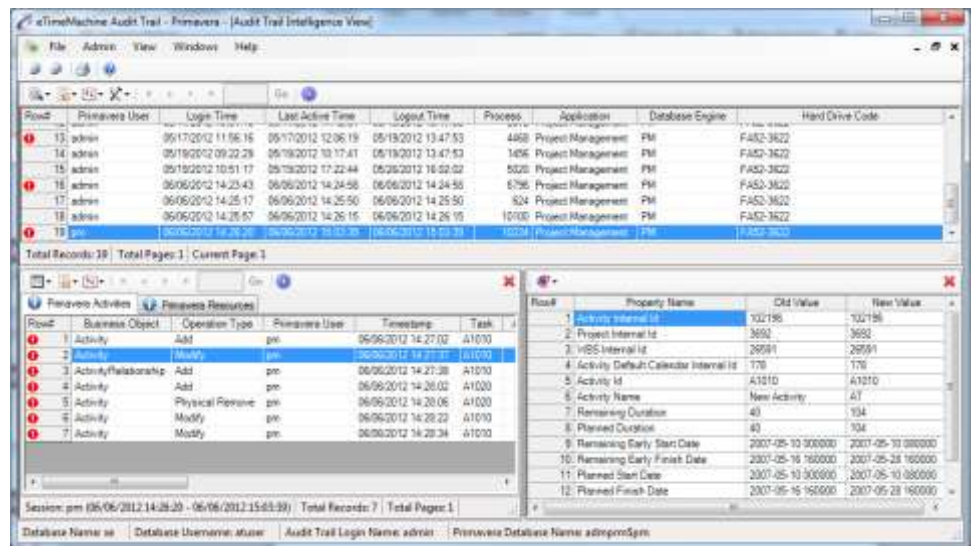
**Developing and Maintaining the Linear Project Schedules**

Metro, Railway, Highway, Pipeline, High-Rise Towers and other type of linear projects require additional planning functions that common planning and scheduling applications cannot offer. Those projects focus on activities productivity rates, buffer between trades, location of work among others. CMCS helped many organizations like Etihad Rail, Dubai Metro, Qatar Rail, Riyadh Metro, Chennai Metro among others in implementing linear scheduling practices. Our team is experienced in using TILOS..



**Maintaining an Audit Trail of Oracle Primavera EPPM P6 Usage**

For organizations with multiple Planning and Scheduling Engineers and Managers accessing the projects database, audit trail of all transactions and system usage becomes a must and not a choice. Audit Trail (AT) keeps track of changes on specified Oracle Primavera business objects, recording previous and new values up to a required level of detail. All of the records are data stamped and are accompanied by user information such as user id, user session, application used at the time the changes were introduced, and so on. Our team will achieve this by using Auditit.



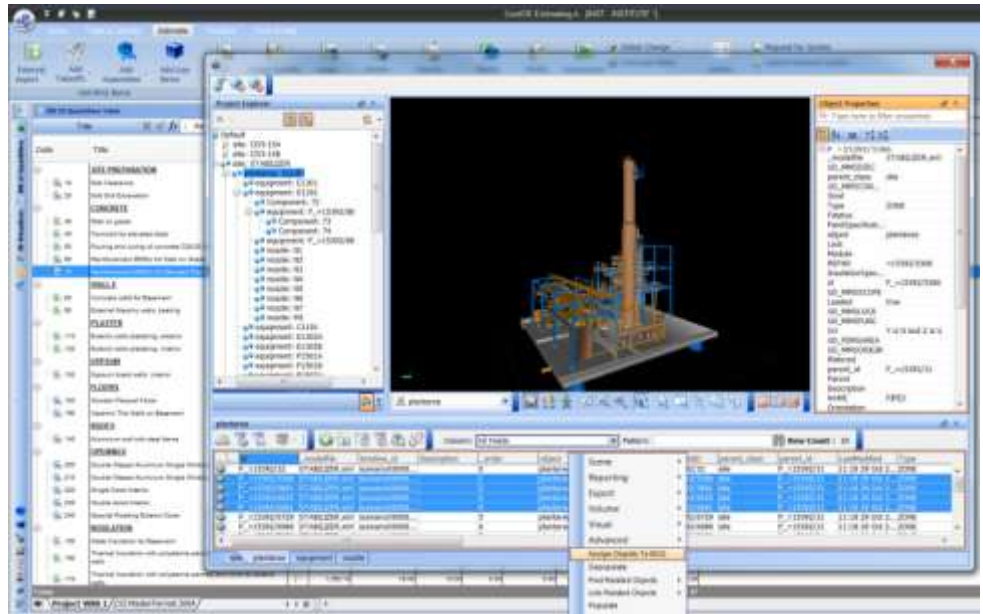
**Capturing Actual Man-Hours**

Organizations who are keen on capturing the actual man-hours spent on executing the project's planned activities need to have a formal timesheet system in place that not only designed to capture actual man-hours but also have a formal workflow for submitting, reviewing and approving those man-hours before they are applied on the project plan activities. This will also need to ability to analyze those captured man-hours. CMCS is experienced in using eTimeMachine which has a built-in integration with Oracle Primavera P6 and MS Project.



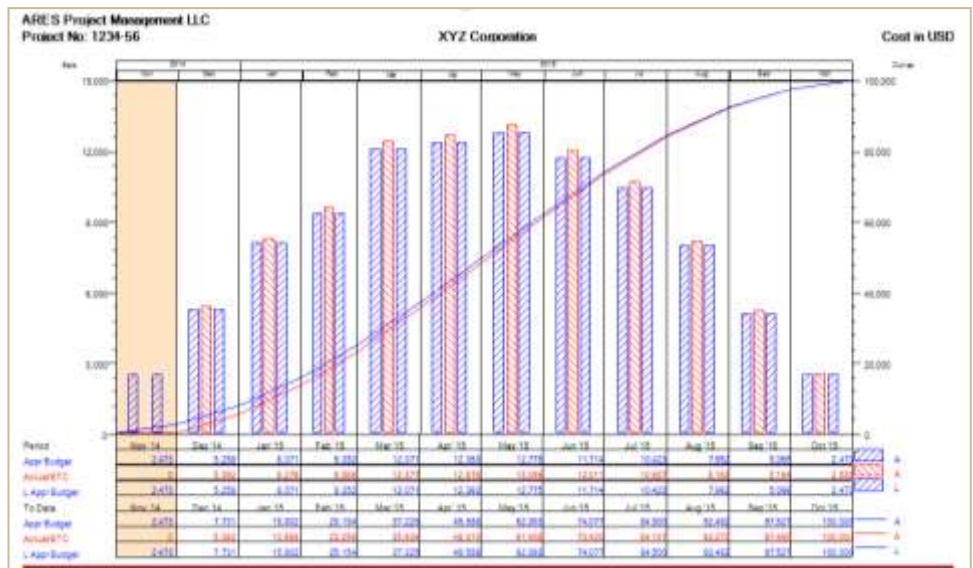
**Integrating Cost Estimating With Integrated Project Schedules**

Our team will help in integrating the project cost estimate with the integrated project schedule. Cost details, man-hours, material quantities and among others will be transferred to their designated project schedule activities to give a better quantification of the level of effort needed to execute the project scope. The cost estimate application can use the same BIM model used for 4D Schedule to produce a 5D Cost Estimate. Our team uses Nomitech CostOS and Hard Dollar cost estimating software which has built-in integration with Oracle Primavera P6 and MS Project.



**Earned Value Analysis**

Our team will help in implementing earned value management system (EVMS) that will integrate the project schedule, project cost estimate and earned value performance measurement system. The EVMS will provide an objective analysis of the project schedule and cost performance as well as in estimating the remaining cost to complete the project's scope. Our team is experienced in using ARES Prism G2 and EcoSys which both have built integration with Oracle Primavera P6, MS Project and Nomitech CostOS.



### Delay Analysis

Our team will help analyzing the delays encountered on the project’s execution following best practices in forensic delays analysis. This will enable you to set liabilities for encountered delays and assess whether these will entitle the contractor to time extension and entitlement of any financial compensation. Our analysis covers areas of loss productivity and acceleration. Our vast knowledge of different types of contract agreements such as FIDIC, NEC3 and others will help your organization understand their own delay related entitlements under these contracts clauses. Our team is experienced in using Oracle Primavera P6, Deltek Acumen Fuse, Synchro 4D and PMWeb to support the delay analysis and presentation of the final analysis report.

**Delay Event Form**

Project Name: Subcontract Path | Record No: 1

Subject: Project Delayed | Date: 1/20/2014

Select Activity Code: Delay Category

Delay Category: Int./Non-Compensable | Delay Cause: [Dropdown]

Effect: [Dropdown] | AC: [Dropdown] | DD: [Dropdown] | [Dropdown]

Select Organization Delay: Extended Field Costs

Extended Field Cost: Material Costs | Home office Overhead: [Dropdown] | Inefficiency Cost Caused By Delays: [Dropdown] | Other Categories of Delay Damages: [Dropdown]

Labour Cost: [Dropdown]

Equipment's Costs: [Dropdown]

Material Costs: Price Escalation

Baseline: Start: 1/1/2014 | Finish: 1/30/2014 | Planned: Start: 1/16/2014 | Finish: 2/12/2014

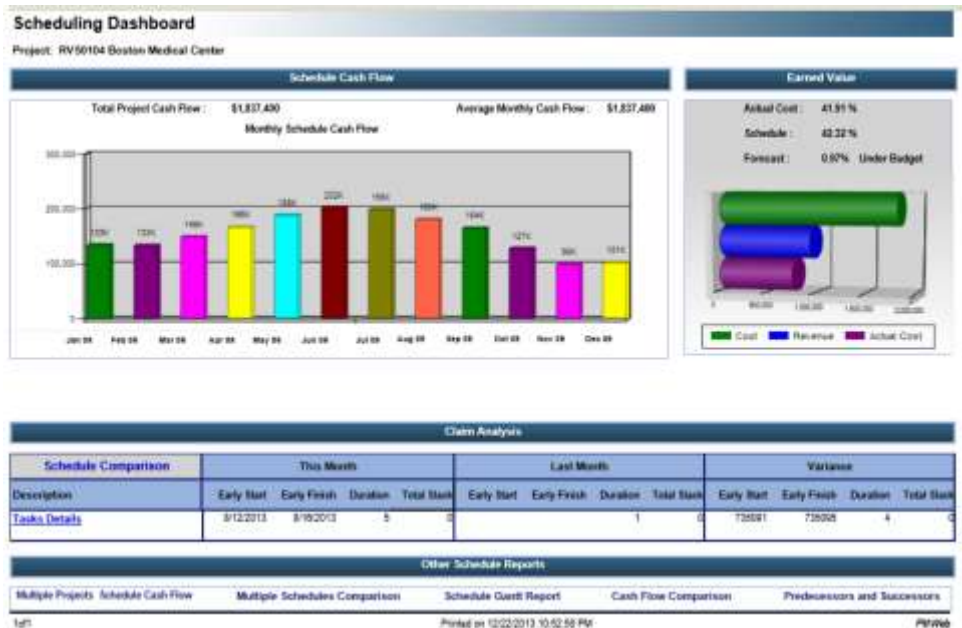
Original Duration: 27 | Planned Duration: 33

Activity Affected: Activity No A1000 | Responsibility: Mr. Juc

Description: Due to late performance of the Activity

### Dashboard Reporting

Our team will help in developing a Planning and Scheduling Dashboard that will capture key project’s schedule performance trends, milestone dates, delays and time extensions status, resources requirements and other information that will provide a single version of the truth when it comes to reporting the quality of the project controls as it relate to planning and scheduling. CMCS team is experienced in using PMWeb Project Management Information System and iDashboards to develop multi-level dashboards.



## About CMCS

CMCS provides fully integrated, 360°, sustainable, quality Project Portfolio Management (PPM) solutions helping clients across all industries to identify, prioritize, and deliver all projects right, the first time.

- **We diagnose existing project management practices** to identify and recommend performance improvements to projects selection and delivery
- **We construct PMOs** to formalize project management best practices, enforce governance and promote transparency for projects selection and delivery
- **We implement PPMIS solutions** to initiate, plan, monitor, control and share a "single version of the truth" of projects' health and performance
- **We cultivate talents** to improve project management team members ability to select and deliver projects successfully
- **We support clients** to implement project management best practices, governance and transparency to ensure successful delivery of their projects
- **We offer state of the art software applications** to capture, analyze, manage and visualize projects BIG DATA.



Over the past 30 years, CMCS has served 2,500+ clients in 40+ countries in the Middle East, Asia, Europe, Africa and the Americas attaining 55+ performance achievement awards. Just in the past ten years, CMCS has completed 3,650+ project assignments and delivered 5,500+ days of project management training courses attended by 14,000+ professionals.

## CMCS Certifications and Specializations

### Professional Project Management Certifications

CMCS is a member of **PMI Consultant Registry** and a Registered Education Provider for Project Management Institute (PMI), Green Project Management (GPM), Knowledge Management Institute (KMI), International Institute of Business Analysis (IIBA) and Association for the Advancement of Cost Engineering (AACE®).



### Oracle Primavera

CMCS' relation with Oracle Primavera is unmatched. Since 1984, CMCS has received 50 awards for their performance including the first and only Primavera Four Million Dollar Club award. CMCS, a **Platinum Oracle Partner**, is a specialized Oracle Primavera EPPM P6 8.2 and PCM 14 partner. CMCS has also achieved Oracle Specialization in Engineering & Construction, Oil & Gas Industries and Public Sector.



### PMWeb Collaborative Project Portfolio Management

CMCS is a **PMWeb Global Partner** where CMCS is responsible for selling licenses, hosting, providing technical support, training and implementing PMWeb for clients in the Middle East and North Africa.



## For Additional Details

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