

Presentation for DOAG Regional Meeting

September 7, 2011:

One More Oracle Product:

Primavera,

A Practitioner's Point of View

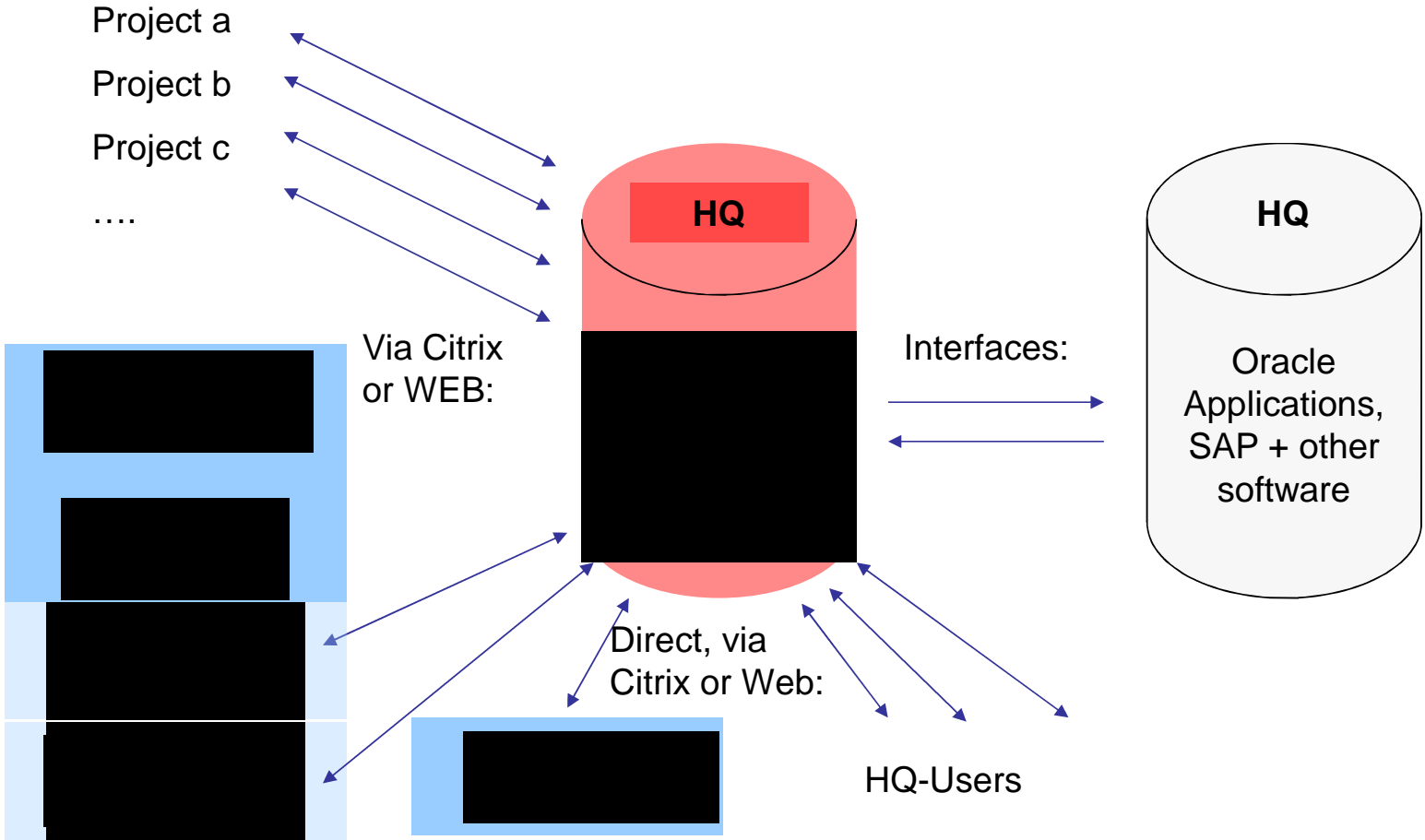
Dieter Wambach

- **Head of Scheduling, Ferrostaal Industrieanlagen**
- **Studies: Business and Mathematics**
- **Experience:**
 - **Systems Analyst, IT Project Manager, Head of IT, Head of Scheduling**
 - **Oracle Admin-Training for 7.3**
 - **Planning for: software development, finance, oil & gas, biofuels, industrial plants, refineries, new product development, etc.**
 - **Standards for project management for different companies**
 - **Trainer for Primavera (P6 and P3; own licence since 1995), project costing, and project management**
 - **Biggest Primavera project I handled: 191,000 activities**
- **Active in PMI, Chapter Frankfurt**

History and Basic Concept of Primavera

- **First issued: 1983, new version P3e: 1999 (current: P6 R8)**
- **First customer in Germany: 1989 (Mannesmann Mobilfunk
→ Create D2-Net for mobile communication)**
- **Scope: (Multi-)Project-Planning & Controls, Costing,
Resource-Planning, Progress-Measurement, KPIs**
- **Basic Concept: One central database, access by all
planners simultaneously to all projects from all locations**
- **Access: Direct, via Citrix, or web-based**
- **Supported databases: Oracle, MS-SQL**
- **State of the Art for: Construction, Administration, IT-
Manufacturers, Finance**

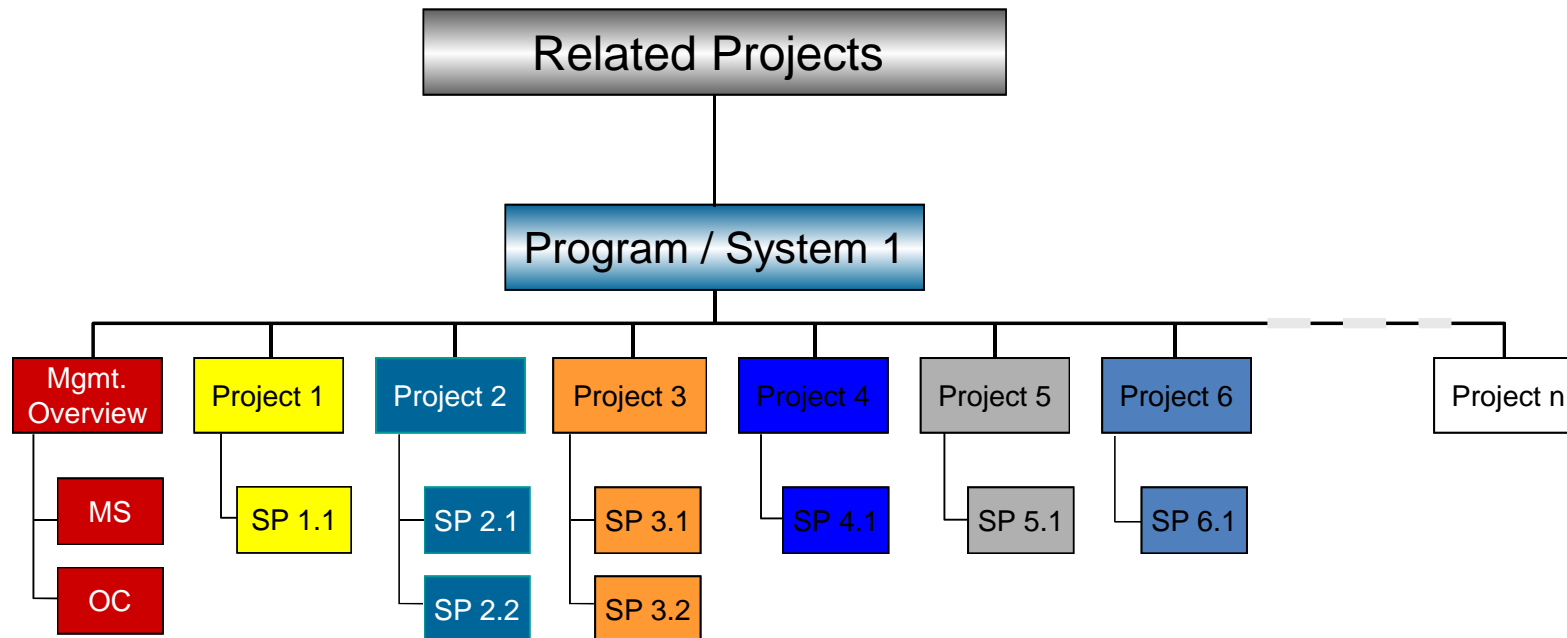
Primavera, Typical Installation



Primavera Basics

- **State of the art for complex projects, e.g. plants**
- **Powerful coding, filters (multi-level, using Boolean Algebra), layouts (per project, per user)**
→ well supported reporting
- **All projects, resources, reports, layouts, ... in one database**
- **Relationships between projects, common calculation if appropriate rights**
- **By design Primavera forces the user to keep standards**
- **GUI: All functions/views work the same way**
- **Scenario planning, project costing, Earned Value, different KPI covered by standard**
- **Percent complete per activity**
- **Sophisticated security options, high level of data security**
- **Scalable, no real limits for data**

Primavera Basics: Multi Project Management (1)

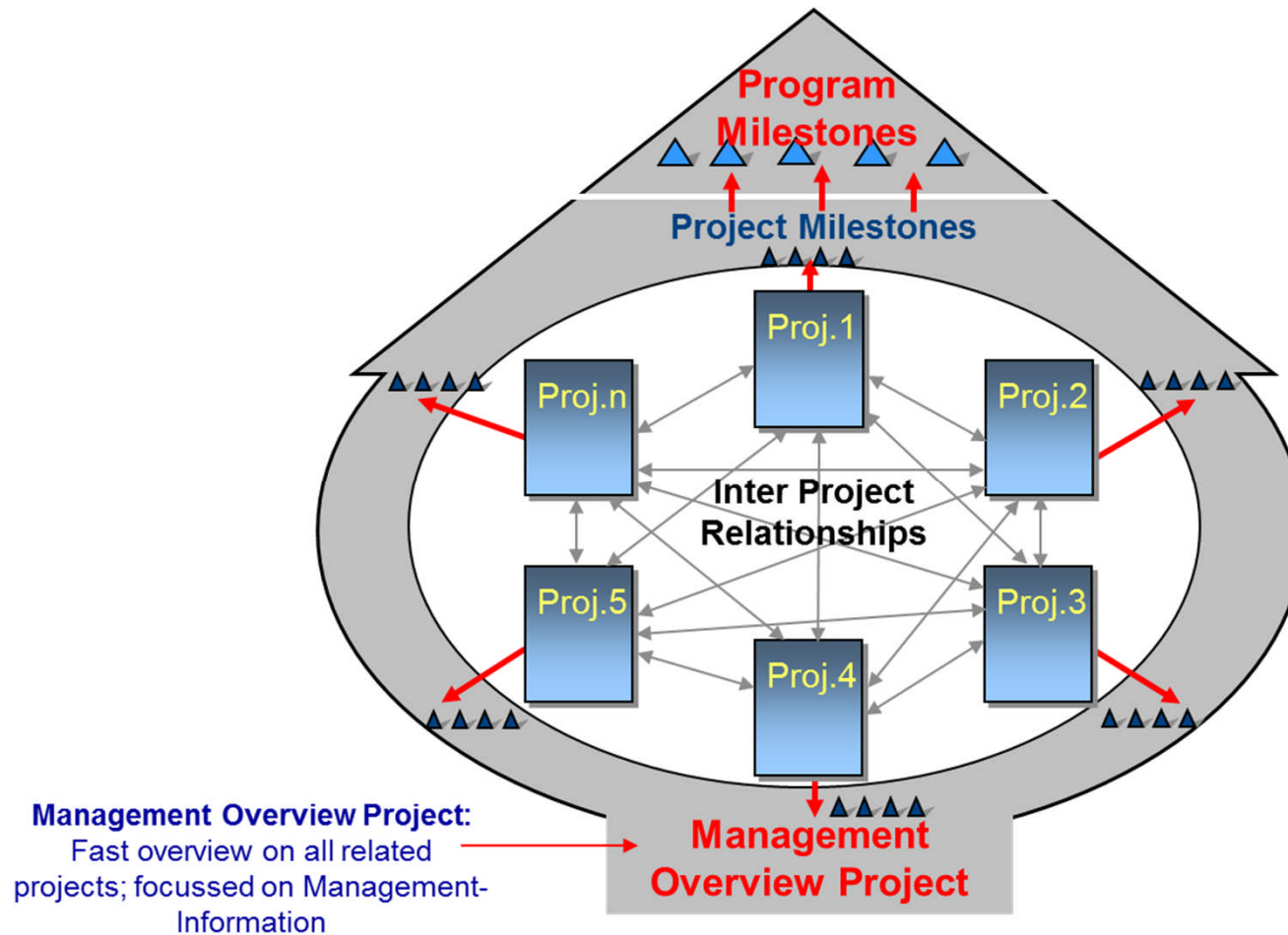


MS = Milestone Plan

OC = Overall Control Plan

SP = Sub Projects

Primavera Basics: Multi Project Management (2)



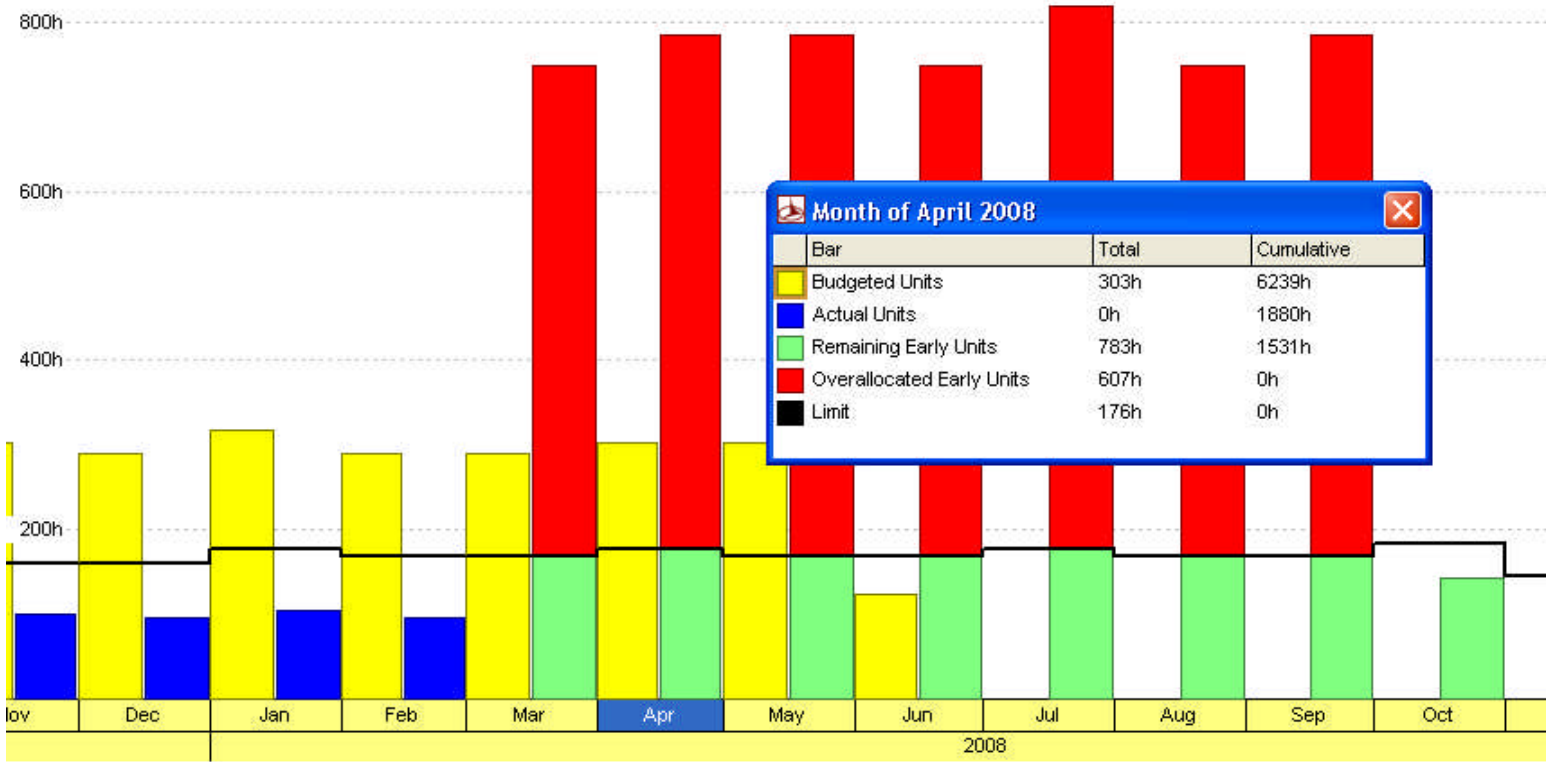
From Inteco, www.inteco.de

Resource Usage (Over Allocation) (1)

„Boss, I need more staff!“

Or ... ?

Resource Usage (Over Allocation) (2)



Resource Planning

Planning: related to time, location, deliveries of

- Persons
- Machines, equipment, material...

Target

- Assign required qualifications to projects when needed
- Level resource usage / Avoid peaks
- Assign resources to projects related to their strategic priority
- Tool for skill management

Basics of Resource Planning

- **Resources:**
 - Labour
 - Non-labour (equipment, machinery)
 - Material
- **Roles (=qualification; labour and non-labour)**
- **Assigned to activities** (“Bucket Planning” in web-tool on WBS level)
- **Budgeted units fixed or depending on planned, actual and %-complete (→EAC)**
- **Parameter settings for:**
 - Resource
 - Project/WBS
 - Activity
 - User

Influence of Activity's Duration Type

Activity duration type	When you change units, this value changes...	When you change the duration, this value changes...	When you change units/time, this value changes...	When you add the first resource, this value changes...	When you add additional resources, this value changes...
Fixed Units/Time	Duration	Units	Duration	Units	Duration
Fixed Duration & Units/Time	Units/Time	Units	Units	Units	Units
Fixed Units	Duration	Units/Time	Duration	Units	Duration
Fixed Duration & Units	Units/Time	Units/Time	Units	Units	Units/Time of each resource

P7 Manual P 277

Resource/Role Master Data (extract)

General	Codes	Details	Units & Prices	Roles	Notes	Progress Reporter
Resource Type <input checked="" type="radio"/> Labor <input type="radio"/> Nonlabor <input type="radio"/> Material Unit of Measure: <input type="text" value="..."/>						Profile Calendar: <input type="text" value="Standard European 5 Day 9,0 H Workweek ..."/> Default Units / Time: <input type="text" value="4h/d"/> <input type="checkbox"/> Auto Compute Actuals <input checked="" type="checkbox"/> Calculate costs from units
Currency and Overtime Currency: <input type="text" value="Euro"/> <input type="checkbox"/> Overtime Allowed Overtime Factor: <input type="text"/>						

Roles:

General	Resources	Prices	Limits
<input checked="" type="checkbox"/> Calculate costs from units			
Rate Type	Price / Unit		
Price / Unit	85,00 €h		
Price / Unit2	54,00 €h		
Price / Unit3			
Price / Unit4			
Price / Unit5			

Project Master Data (Extract) (1)

General	Notebook	Budget Log	Dates	Funding	Codes	Defaults	Resources	Settings	Calculations
Defaults for New Activities									
Duration Type	Fixed Duration & Units			Cost Account	...				
Percent Complete Type	Duration			Calendar	Standard 5 Day Workweek				
Activity Type	Task Dependent								
Auto-numbering Defaults									
Activity ID Prefix	Act	Activity	Element	10					
P1									
<input checked="" type="checkbox"/> Increment Activity ID based on selected activity									

Project Master Data (Extract) (2)

General	Notebook	Budget Log	Dates	Funding	Codes	Defaults	Resources	Settings	Calculations
Activities					Resource Assignments				
Default Price / Unit for activities without resource or role Price / Units					98,00 €h				
<input type="checkbox"/> Activity percent complete based on activity steps					When updating Actual Units or Cost				
<input checked="" type="checkbox"/> Link Budget and At Completion for not started activities					<input type="radio"/> Add Actual to Remaining				
<input type="radio"/> Reset Original Duration and Units to Remaining					<input checked="" type="radio"/> Subtract Actual from At Completion				
<input checked="" type="radio"/> Reset Remaining Duration and Units to Original					<input checked="" type="checkbox"/> Recalculate Actual Units and Cost when duration % complete changes				
					<input type="checkbox"/> Update units when costs change on resource assignments				
					<input checked="" type="checkbox"/> Link Actual and Actual This Period Units and Cost				

Assignment Data (Extract)

General		Status	Resources	Relationships					
<div style="display: flex; align-items: center;"> ▲ ▼ </div>		Activity	C-09208	Paint Exterior		Project	Edison High		
Resource Name	Role	Rate Source	Remaining Units / Time	Price / Unit	Budgeted Units	Actual This Period Units	Actual Units		
Painting Crew	Sitework	Resource	640h/d	0,00 €/h	9600h	0h	9600h		



General		Status	Resources	Relationships					
<div style="display: flex; align-items: center;"> ▲ ▼ </div>		Activity	C-09208	Paint Exterior		Project	Edison High		
Remaining Units	Units/Time	At Completion Units	Start	Finish	Calendar	Curve			
0h	8h/d	9600h	28-Sep-2006 A	14-Oct-2006...	School District 5 Day				

Individual Preferences

User Preferences [X]

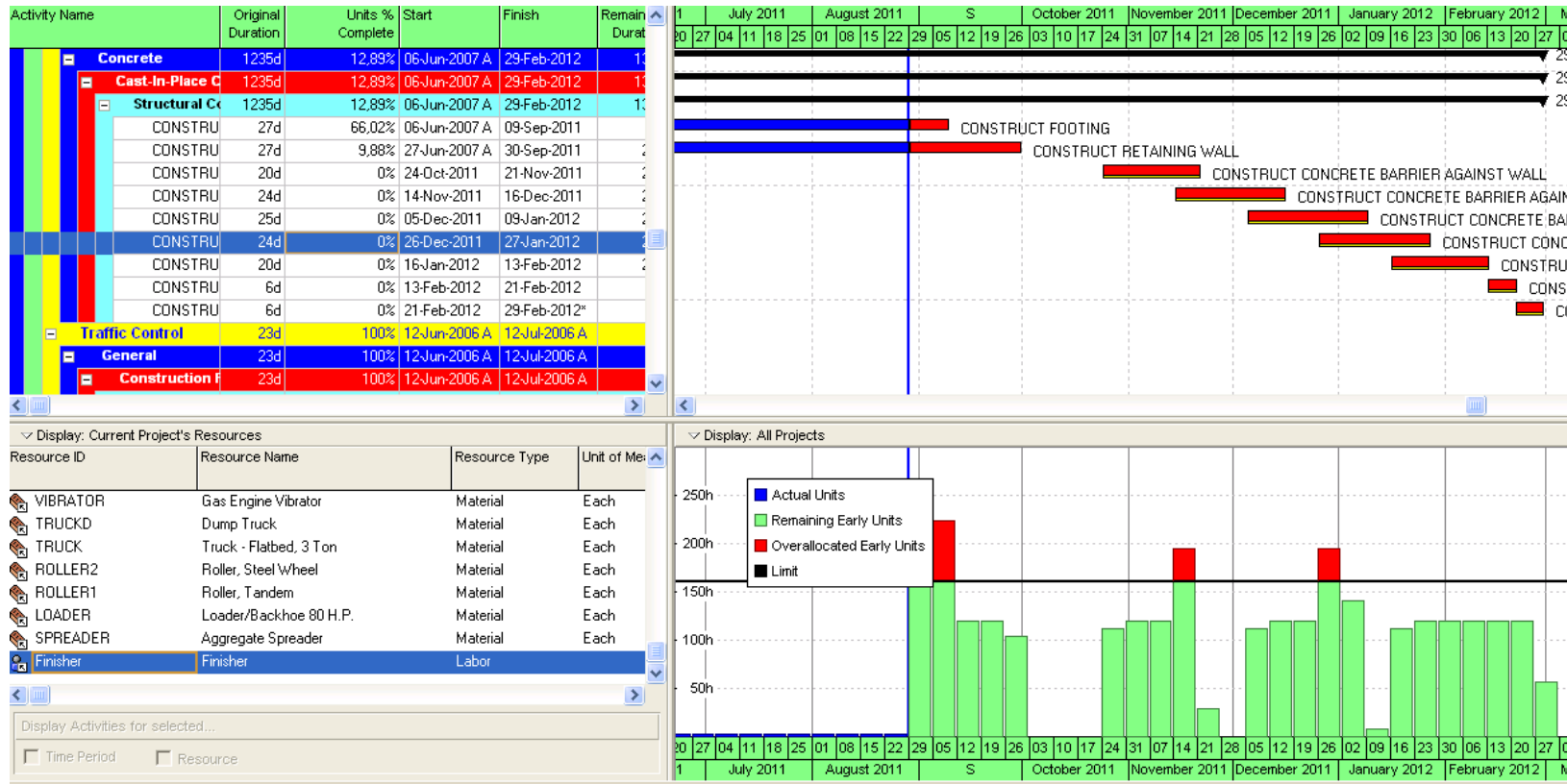
Time Units	Resource Assignments When adding or removing multiple resource assignments on activities: <input checked="" type="radio"/> Preserve the Units, Duration, and Units/Time for existing assignments <input type="radio"/> Recalculate the Units, Duration, and Units/Time for existing assignments based on the activity Duration Type
Dates	
Currency	
E-Mail	
Assistance	
Application	
Password	
Resource Analysis	
Calculations	
Startup Filters	
	Assignment Staffing When assigning a resource to an existing activity assignment: <input type="radio"/> Always use the new resource's Units per Time and Overtime factor <input type="radio"/> Always use current assignment's Units per Time and Overtime factor <input checked="" type="radio"/> Ask me to select each time I assign When a resource and role share an activity assignment: <input type="radio"/> Always use resource's Price per Unit <input type="radio"/> Always use role's Price per Unit <input checked="" type="radio"/> Ask me to select each time I assign

[?] Help [X] Close

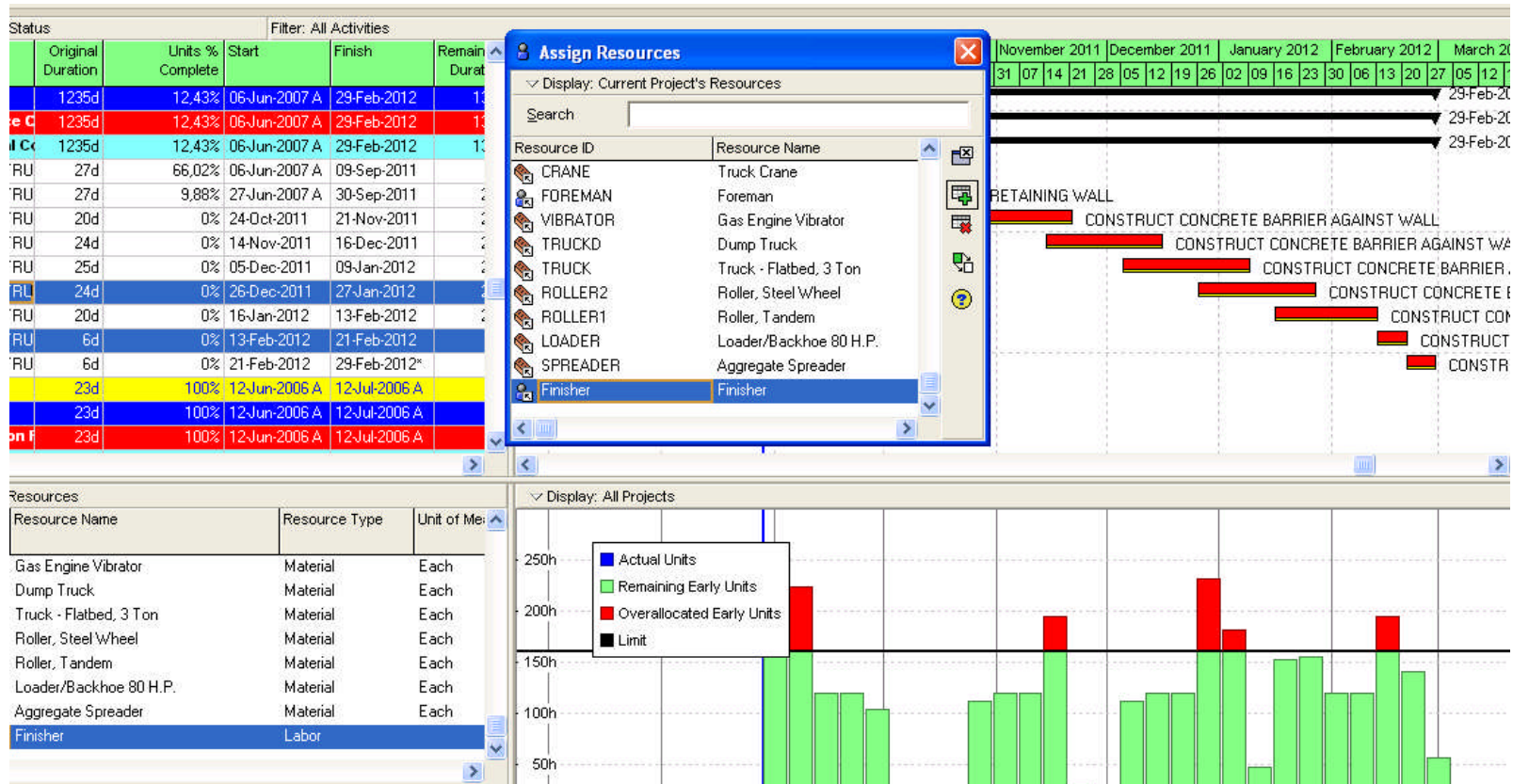
Display the Role Limit based on

- Custom role limit
- Calculated primary resources' limit

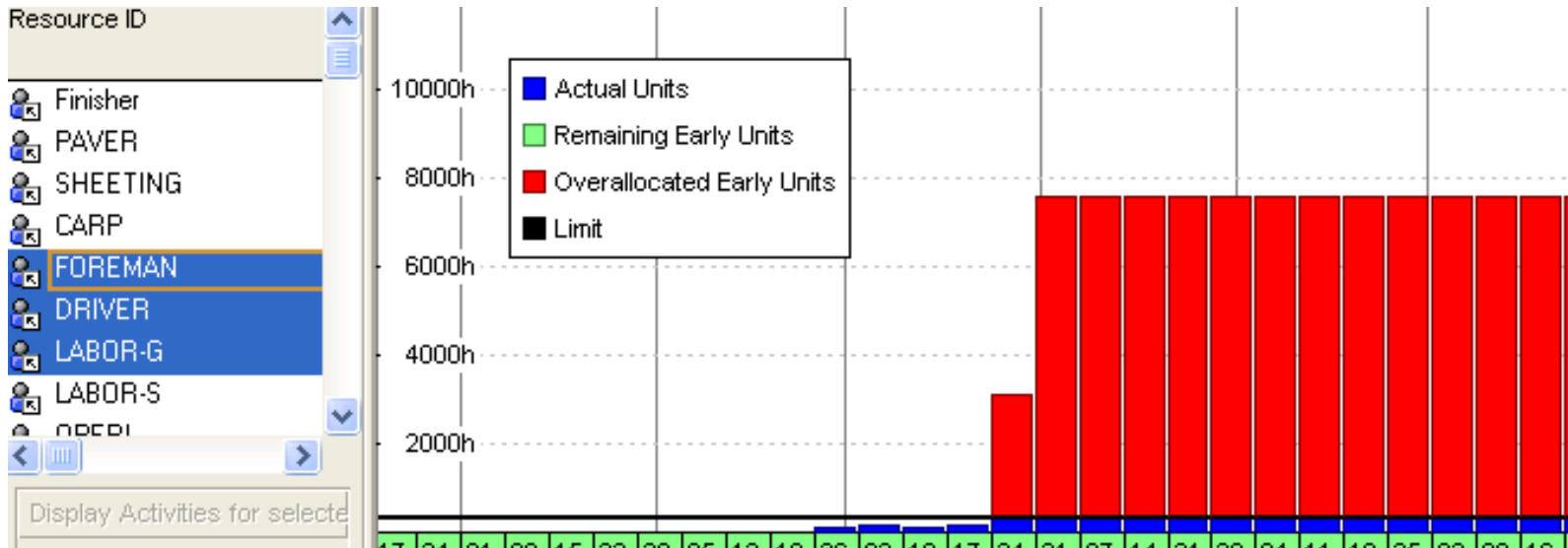
Primavera Resource Usage Before ...



... and After Assignment ("Finisher")



My team is overcharged !



Resource Planning: Why

- Costs for personnel is a major part of project costs
- Restricted availability of skilled personnel
- Many projects simultaneously; use same resources
- Different time frames e.g. start dates and durations
- Focus on projects according to their strategic priority
- Check availability in different locations
- Some resources can only work one project a time, e.g. test equipment

Primavera

Live Presentation

Primavera

Discussion