

**Presentation for DOAG Regional Meeting**

**September 7, 2011:**

**One More Oracle Product:**

***Primavera,***

**A Practitioner's Point of View**

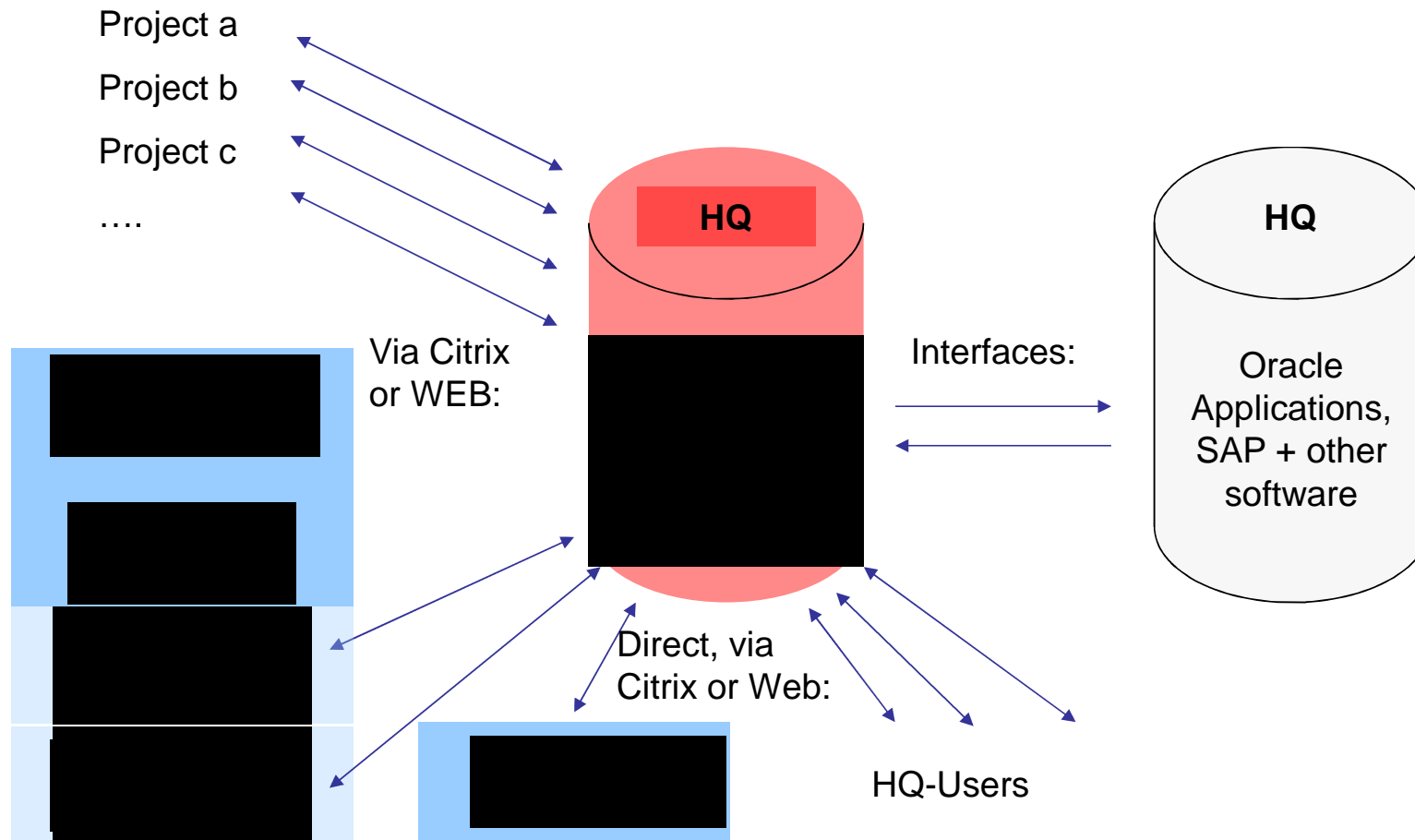
# Dieter Wambach

- **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**

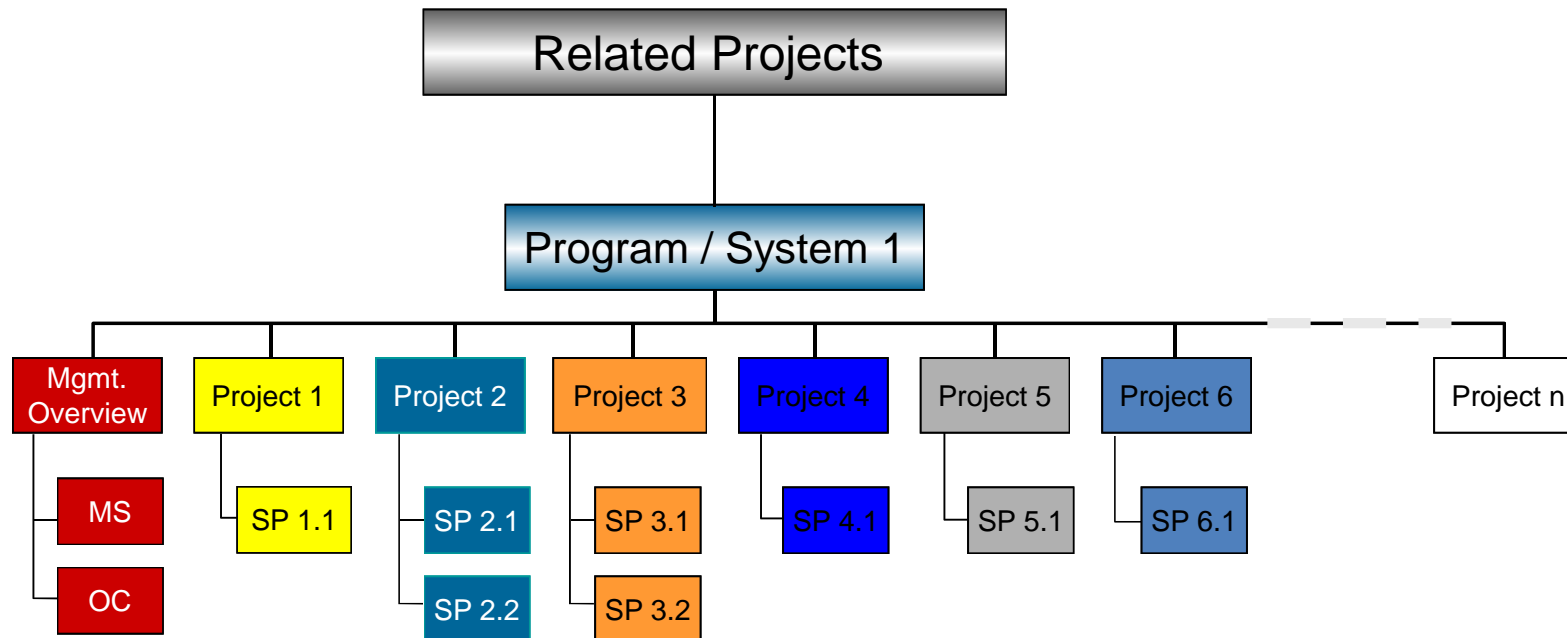
# Primavera, Typical Installation



## 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)

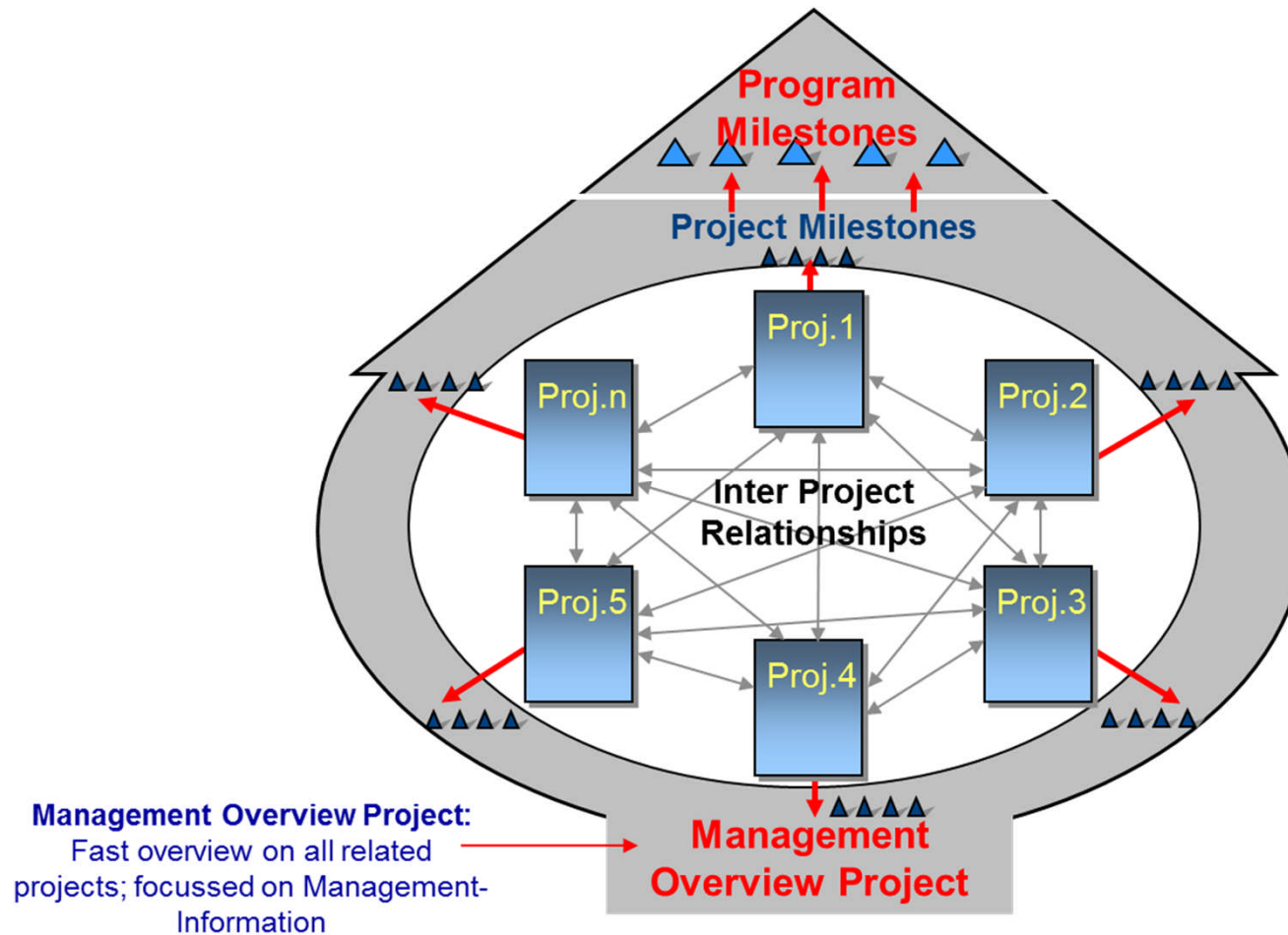


MS = Milestone Plan

OC = Overall Control Plan

SP = Sub Projects

# Primavera Basics: Multi Project Management (2)



From Inteco, [www.inteco.de](http://www.inteco.de)

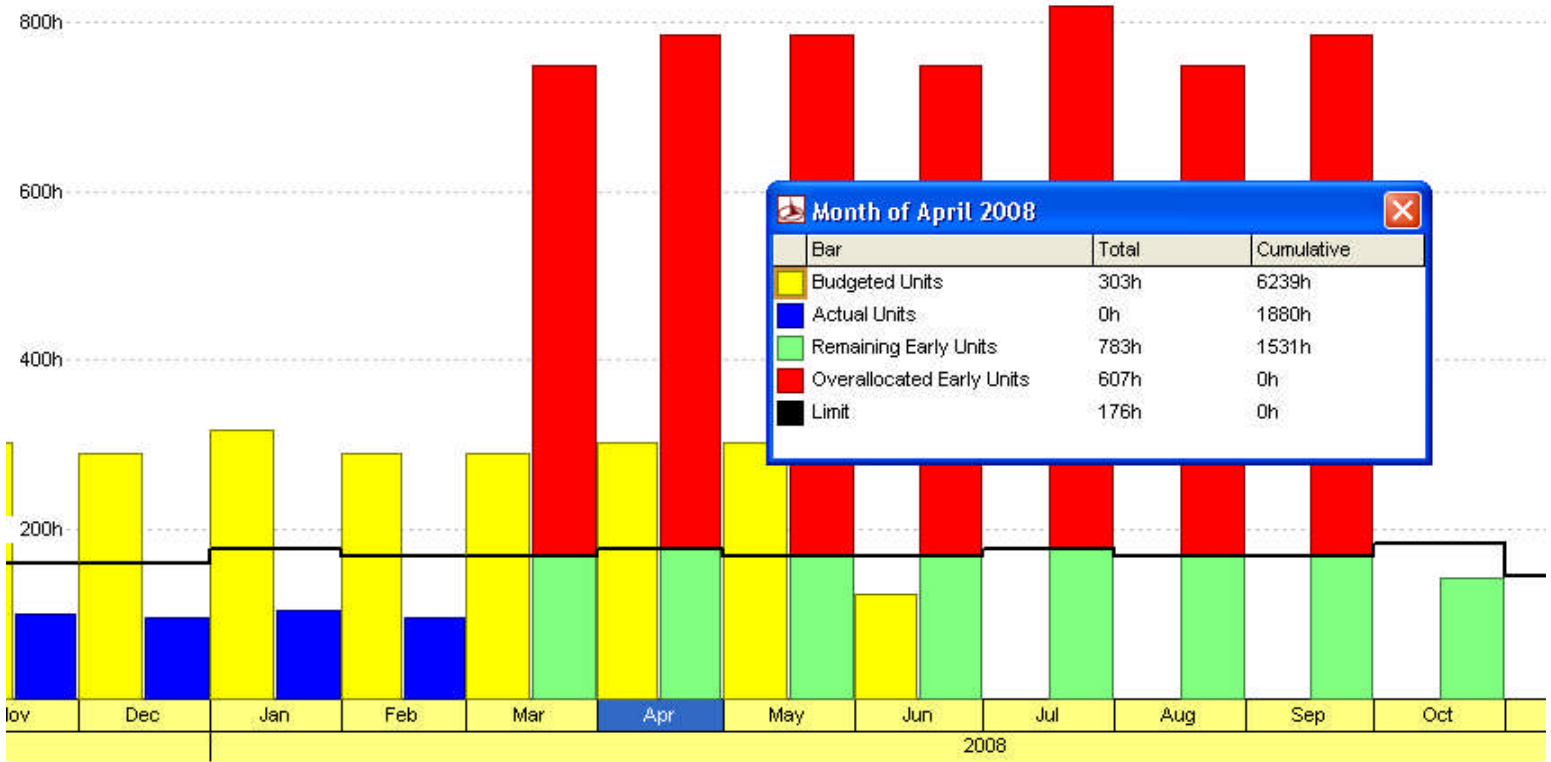
## Resource Usage (Over Allocation) (1)

**„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	
<b>Resource Type</b> <input checked="" type="radio"/> Labor <input type="radio"/> Nonlabor <input type="radio"/> Material Unit of Measure: <input type="text" value="..."/>							<b>Profile</b> 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
<b>Currency and Overtime</b> 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
<b>Defaults for New Activities</b>									
Duration Type	Fixed Duration & Units			Cost Account	...				
Percent Complete Type	Duration			Calendar	Standard 5 Day Workweek				
Activity Type	Task Dependent								
<b>Auto-numbering Defaults</b>									
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
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Activities	Resource Assignments
<p>Default Price / Unit for activities without resource or role Price / Units <input type="text" value="98,00 €h"/></p> <p><input type="checkbox"/> Activity percent complete based on activity steps</p> <p><input checked="" type="checkbox"/> Link Budget and At Completion for not started activities</p> <p><input type="radio"/> Reset Original Duration and Units to Remaining</p> <p><input checked="" type="radio"/> Reset Remaining Duration and Units to Original</p>	<p>When updating Actual Units or Cost</p> <p><input type="radio"/> Add Actual to Remaining</p> <p><input checked="" type="radio"/> Subtract Actual from At Completion</p> <p><input checked="" type="checkbox"/> Recalculate Actual Units and Cost when duration % complete changes</p> <p><input type="checkbox"/> Update units when costs change on resource assignments</p> <p><input checked="" type="checkbox"/> Link Actual and Actual This Period Units and Cost</p>

## Assignment Data (Extract)

General		Status	Resources	Relationships				
<div style="display: flex; align-items: center;"> <span style="font-size: 1em;">▲</span> <span style="font-size: 1em;">▼</span> </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;"> <span style="font-size: 1em;">▲</span> <span style="font-size: 1em;">▼</span> </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

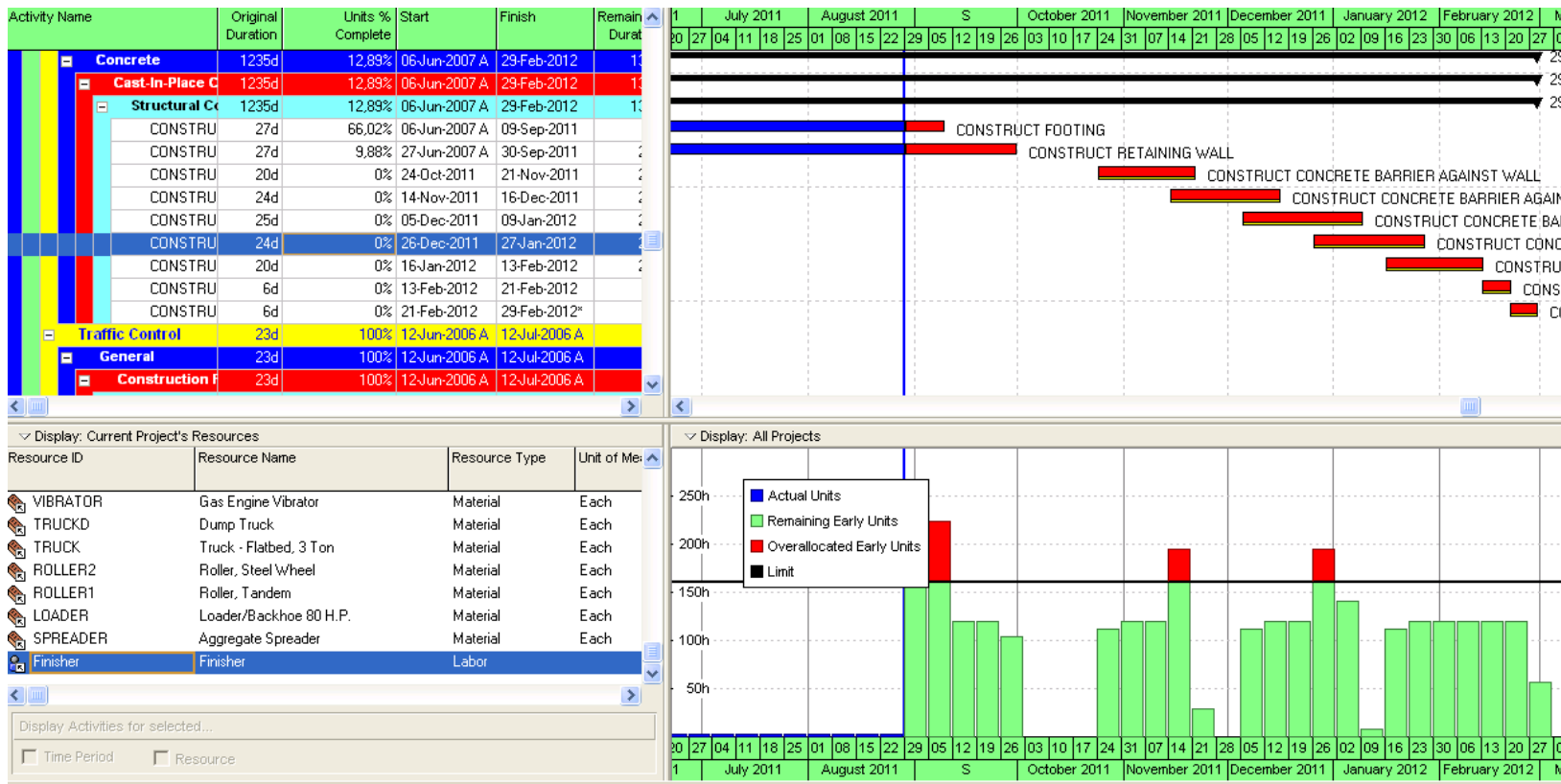
**User Preferences** [X]

Time Units	<b>Resource Assignments</b> 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	
	<b>Assignment Staffing</b> 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

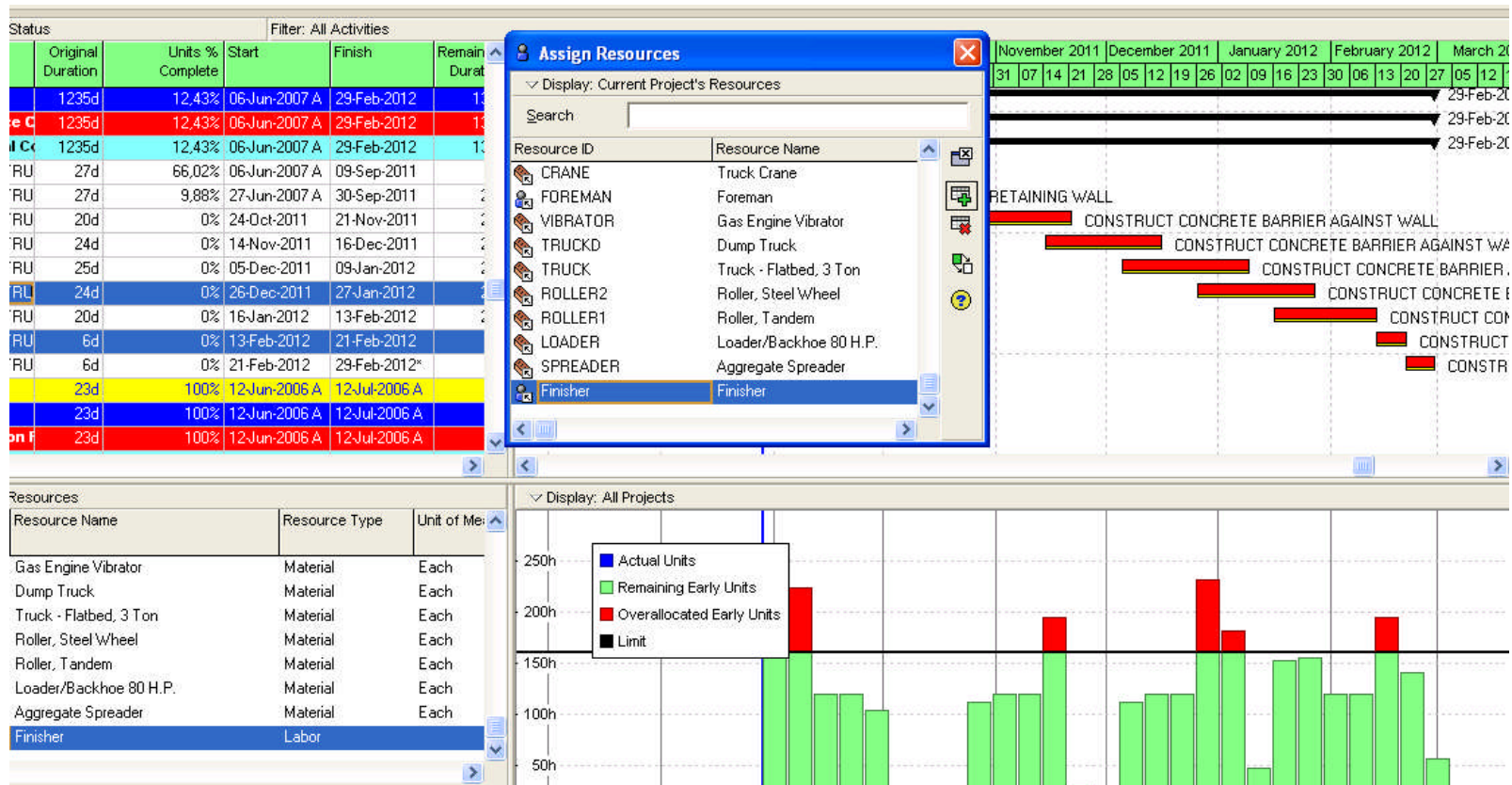
[?] Help [X] Close

- Display the Role Limit based on
- Custom role limit
  - Calculated primary resources' limit

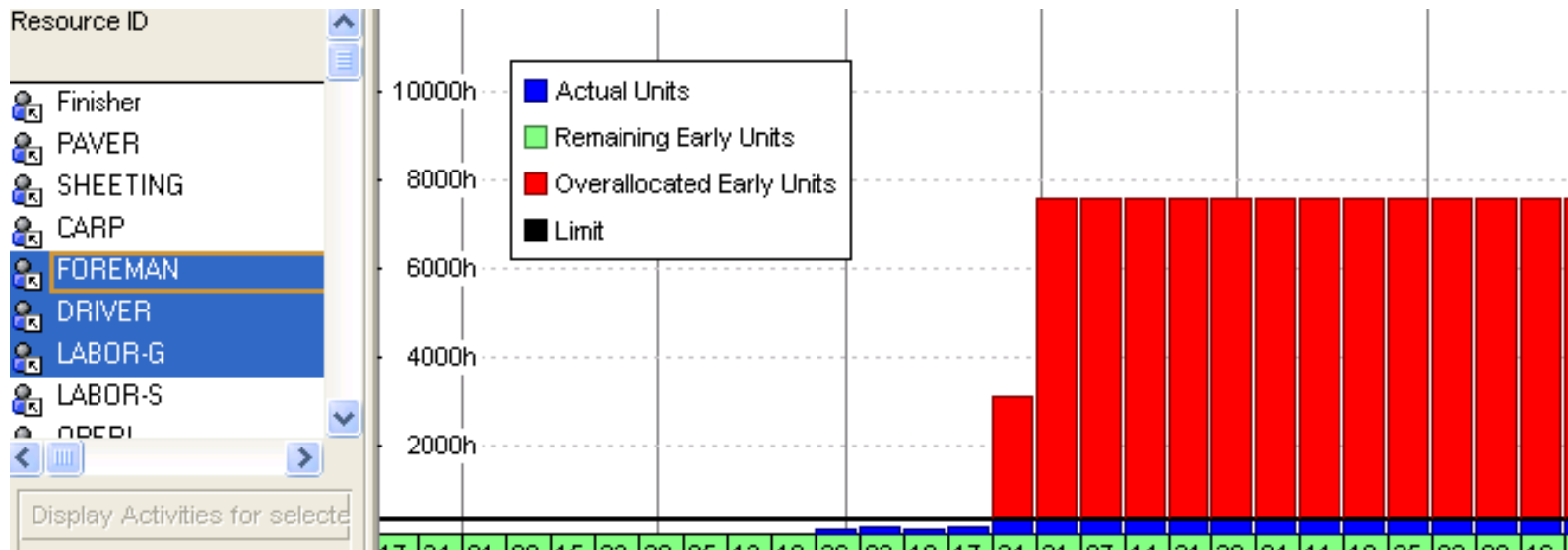
# Primavera Resource Usage Before ...



## ... 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*